ON PUBLIC HEALTH AND MEDICAL CARE SYSTEMS: CHALLENGES AND OPTIONS

Collected Blogs and Briefs

Patricio V Marquez
“Medicine is a social science, and politics is nothing more than medicine on a large scale.”
-Rudolf Virchow
1821 - 1902

“The principles of faith are, in fact, complementary with the principles of science.”
-Francis S. Collins
Director of the U.S. National Institutes of Health and Leader of the Human Genome Project the revealed the DNA Sequence

“No medicine cures what happiness cannot.”
-Gabriel García Márquez
1982 Nobel Prize in Literature-winning Colombian author
1927-2014

“Salud para todos, sí es posible! (Yes, Health for All is Possible!)”
-Miguel A. Marquez
1934-2014

Para Lani.....siempre!
ACKNOWLEDGMENTS

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Patricio V. Marquez, Lead Public Health Specialist, HNP GP, and Coordinator of the World Bank Group Global Tobacco Control Program, and the World Bank Group Global Mental Health Initiative, is the lead author of most of the blogs, OpEd, and briefs, and was responsible for putting together this collection.

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1. A Triple Burden of Disease and Injuries
Despite health-promotion and disease-prevention efforts, we are all at risk of catastrophic health events, which can strike at any moment, in the form of a traffic injury, a newly discovered tumor, a brain hemorrhage, or another sudden affliction affecting us or someone we love. When such events occur, we may abruptly face life-and-death situations that teach us first-hand the critical importance of timely access to medical care.

A recent event of this kind nearly ended the life of my wife, Lani. This experience has shown me with utmost clarity the value of universal health coverage—a familiar phrase in health policy, but whose meaning for me has now become intensely personal.
For our family, when affliction struck, being covered by a comprehensive health insurance plan through my work gave us rapid entry to the medical system. Yet we know well that our privileged situation differs from the reality faced by large segments of the global population. Too many people have limited or no access to quality medical services when they face similar crises, due to weak health care organization, financing, and delivery mechanisms. The randomness of disease and injury, and the enormous financial costs often associated with their treatment, can spell both medical and financial catastrophe—especially when care can only be obtained by out-of-pocket payments. This makes effective financial protection and health service coverage a moral and social imperative. This must be codified as a legal right or mandate to guarantee access to health care as a social good available to all on equal terms.

We’ve also learned that, while financial protection matters, equally important is the organization of the health care system along a care continuum. On the night of Lani’s emergency, we saw the life-saving capacity of an integrated system in action. As soon as he noticed his mother’s condition, our younger son Alejandro had the presence of mind to call 911, the nationwide emergency response number in the United States. Within seconds, he reached a command center that dispatched a well-equipped ambulance. As paramedics implemented practiced protocols, the ambulance sped her to the emergency room of the local community hospital, where she benefited from care coordination involving nurses, technicians, and physicians supported by imaging technology and medicines. In that community hospital, ER teams are equipped to stabilize patients, establish diagnoses, and define comprehensive response plans, including referral to specialized centers via an emergency medical service helicopter. This combination of resources is crucial to take advantage of emergency medicine’s “golden hour”: the short period following severe acute injury, during which there is the highest likelihood that prompt treatment will prevent death.

At the tertiary care hospital where my wife was admitted, we experienced the top level of the care continuum. It became clear to me that the quality and effectiveness of care at the neurosurgical critical care unit largely depended on the knowledge and skills of health personnel. In our case, this included specialized physicians, who coordinated the process, as well as the indispensable cadre of nurses and technicians, who worked around the clock at bedside. Available technology and medicines are important supportive tools, but the capacity of the medical and nursing team to use them following evidence-based guidance is essential for proper diagnosis, treatment, monitoring, and ongoing evaluation of patients.

Among other lessons, this means that medical and nursing education cannot remain static—it needs to continuously change in accordance with evolving evidence-based medical knowledge and the introduction of new technologies, drugs, and procedures. Continuing education serves as the conduit for channeling new knowledge and technological development to constantly improve medical practice.
During Lani’s hospital stay, I also observed with amazement the critical role now played by electronic medical record (EMR) systems in helping coordinate the flow of patients’ medical, administrative, and financial information among health care facilities, hospital units, and health insurance agencies, all now virtually interconnected. We experienced in a direct, personal way the remarkable progress that EMRs embody. These systems enhance clinical decision-making and coordination, help reduce medical errors, facilitate performance measurement, and enable continuity of care as patients move across the health system.

A related feature that has also consistently drawn my attention is the hospital’s emphasis on patient safety. This begins with correctly identifying patients (e.g., using at least two identifiers, such as name and date of birth) to make sure that each patient receives the correct medicine and treatment. The safety focus also encompasses attention to effective communication among caregivers (e.g., reporting critical test and diagnostic results within a defined timeframe); proper labeling of medications, syringes, and other essential supplies; management of clinical alarm systems to alert caregivers to potential problems; and measures to reduce the risk of health care-associated infections, particularly ensuring that all medical staff wash their hands between patient visits. In my wife’s case, great value was placed on systematic efforts to reduce the risk of falls, which account for a significant portion of injuries in hospitalized patients.

Both at the hospital and the brain injury rehabilitation center where Lani was transferred as an inpatient, the open and respectful interaction between the provider teams and our family has been invaluable in my wife’s care and rehabilitation. Including medical and nursing staff, together with occupational, speech, and physical therapists, care teams have furnished complete information about Lani’s treatment and rehabilitation plan, and kept us informed about the evolution of her condition. This has helped address our questions and minimize anxiety and fear. Providers have patiently educated us about different aspects of the care process, explained patients’ and family members’ rights, and even clarified mundane health insurance benefit provisions. Since, for Lani, care and rehabilitation will not end upon discharge from the facility, we are also relying on our daily discussions with providers to learn how best to care for Lani once she moves home, and her rehabilitation shifts to the ambulatory setting.

I am ever more grateful to my other two kids who, along with Alejandro, have been bulwarks of support over the past eight weeks: Carlos, the oldest, Laura, the youngest, and my daughter in law, Heather. Together, we’ve been on a long, mentally and physically taxing journey through the health system. On that road, I’ve witnessed first-hand the promise of science and new technologies to revolutionize medical care. New discoveries are enabling Lani to recover cognitive capacity and steadily improve her physical function and mobility. They are helping her refine the skills she’ll need to independently perform daily activities at home, at work, and in the community—all this within an astonishingly short time after a brain hemorrhage. At the
same time, I have become a deep believer of the complementarity of science and spirituality, and the empowering force derived from the daily support provided by my two sons and daughter and the rest of our family network. Indeed, the combination of clinical excellence, deep religious faith, and family solidarity are helping us manage this family ordeal with hope rooted in our commitment to each other. We shall overcome!

Authors

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Kofi Annan, the former Secretary-General of the United Nations, observed that knowledge is power and information is liberating. Indeed, the collection, analysis and dissemination of data and information should not be seen only as an instrument of scientific inquiry but more importantly, as a critical tool for guiding the formulation and implementation of policies to address complex problems in society.

Last week at George Washington University in Washington, D.C., we had the opportunity to participate in the presentation of the findings of the Institute of Health Metrics and Evaluation's (IHME) Global Burden of Diseases, Injuries, and Risk Factors Study 2015 [1] (GBD). Published as part of a dedicated issue of The Lancet, the GBD provides a picture of population health dynamics across the world over the last 25 years. The evidence generated by the GBD on the basis of comparable health estimates by year, age, and sex for 249 causes from 195 countries and territories, represents an important “global public good” as it informs current and future health policy discussions around the world.

What are some of the key findings of the GBD 2015?

- Globally, life expectancy at birth has increased significantly from 61.7 years in 1980 to 71.8 years in 2015. It is particularly noteworthy that several countries in sub-Saharan Africa had large gains in life expectancy after years of high loss of life due to HIV/AIDS. These gains largely reflect increased access to diagnosis and treatment. Violence and conflict, however, contributed to rising mortality and stagnation and decline in life expectancy in some regions, such as the Middle East. This phenomenon was clearly observed in Syria, where male life expectancy dropped by 11.3 years to 62.5 years over the 2005-2015 period.

- Over the 1990-2015 period, the world as a whole has been undergoing a health transition (Fig. 1 below). Whereas total deaths and age-standardized death rates due to communicable (e.g., HIV/AIDS, malaria), maternal, neonatal, and nutritional conditions significantly declined, marked increases were recorded in total deaths and age-standardized death rates from non-communicable diseases (NCD). Vascular disease, cancers, and chronic respiratory diseases are the leading causes of NCD deaths; the relative importance of Alzheimer’s disease and other dementias as a cause of death increased as well, reflecting the aging of the population. Age-standardized death rates from injuries declined, although interpersonal violence and armed conflicts claimed a higher number of lives in 2015.
Non-fatal outcomes of disease and injury detract from the ability of the world’s population to live in full health. As populations grow and increase in average age, the total burden of disability is rising quickly. As a result, the number of people living with sequelae of diseases and injuries is increasing. Between 2005-2015, NCDs account for 18 of the leading 20 causes of age-standardized years lived with disability (YLDs). GBD also confirms the large contribution of mental and substance use disorders to global disability, which raises the importance of achieving mental health parity in the provision of health and social services.

In terms of environmental, behavioral, occupational, and metabolic risk factors and their attributable burden of disease, the GBD illustrates a health risk transition across the world. Attributable disability-adjusted life years declined for environmental risks such as unsafe water, sanitation, and hygiene, as well as household air pollution, micronutrient deficiencies, childhood undernutrition. These trends, which experienced a significant decline as countries develop, are driving the notable reduction in the relative importance of infectious diseases as leading causes of ill health and death. By contrast, some health risk factors are growing worse as countries develop contributing to the rising burden of NCDs. Globally, the leading risk factors are high systolic blood pressure, smoking, high blood sugar level, and high body-mass index. In some regions, alcohol and drug use as well as exposure to occupational risks and air pollution are also important risks.

Overall, the findings of GBD 2015 convey some good news, but they also point to emerging challenges as well as opportunities for action. In moving the global health agenda forward, an important message from the GBD that we should keep in mind is that development drives, but does not determine, the health status.
of the population. As observed worldwide, more developed countries tend to be healthier than less developed ones, but countries are much healthier than expected given their level of development, such as Ethiopia, China, Cuba, and Spain.

For those engaged in policy dialogue, program design and implementation at the global, regional and country levels, the above message implies that the effective use of the wealth of data and information from GBD demands that we assess and try to understand the particular drivers of the observed trends in specific contexts. In doing so, we must keep in mind that a close relationship exists in cause, course, and outcome between communicable diseases, maternal, perinatal, and nutritional conditions, and NCDs—they are part of the same biological continuum. This reflects common underlying social conditions, such as poverty and unhealthy environments, and commonalities across disease groups in causation, co-morbidity, and care needs. Frequently, both communicable diseases and NCDs, or a combination of risk factors, co-exist in the same individual, and one can increase the risk or impact of the other, as happens for example with diabetes and tuberculosis. Similarly, factors like maternal health, the intra-uterine environment, and low birthweight can have long-term consequences for developing NCDs.

This inescapable reality reinforces the need for integrated approaches at the country level that address functions (prevention, treatment, and care) rather than disease categories. And given the multisectoral nature of health conditions, actions that reach beyond the health system, such as fiscal and regulatory policies, have to be essential components of an effective arsenal of interventions to improve health conditions globally.
How does Africa fare? Findings from the Global Burden of Disease Study

The Global Burden of Disease Study 2010 (GBD 2010), a systematic effort to assess the global distribution and causes of major diseases, injuries, and health risk factors, was launched last week in London.

And a special issue of The Lancet has published its results (http://www.thelancet.com/themed/global-burden-of-disease).

What are some of the main findings for Africa that can be drawn from the GBD 2010?

- Since 1990, the largest gains in life expectancy worldwide occurred in sub-Saharan African countries, especially in Angola, Ethiopia, Niger and Rwanda, where life expectancy increased by 12-15 years for men and women. Overall, male life expectancy increased from 48.8 in 1990 to 53.2 years in 2010 in central sub-Saharan Africa, 50.9 to 59.4 years in eastern sub-Saharan Africa, and 53.0 to 57.9 years in western sub-Saharan Africa. Among women, life expectancy during the same period increased from 54.3 to 58.5 years in central sub-Saharan Africa, 54.9 to 62.6 years in eastern sub-Saharan Africa, and 56.5 to 57.9 years in western sub-Saharan Africa. In the case of southern sub-Saharan Africa, largely due to the heavy toll imposed by HIV/AIDS, life expectancy declined from 60.6 to 55.7 years among males, and from 67.7 to 60.6 years among females.

- The declines in mortality rates in Africa that are summed up in life expectancy at birth were largely the result of scaled up and effective programs to control HIV/AIDS (e.g., increased coverage with antiretroviral drug therapy) and prevent childhood diseases (e.g., interventions to control malaria, such as insecticide-treated bednets and artemisinin-combination therapies).

- All four sub-Saharan African regions have had at least a 10% decline in adult mortality from 2004 to 2010.

- Deaths among children under five years declined in 25 countries in west, east, and southern sub-Saharan Africa. As noted in a recent blog by Gabriel Demombynes and Ritva Reinikka (http://blogs.worldbank.org/africacan/africas-success-story-infant-mortality-down), this is a tremendous success story in Sub-Saharan Africa that needs to be recognized. But, as more children survive to adulthood and the mean age of death increases, policy makers need to place greater attention on the prevention of young adult deaths (aged 15-49 years).

- While substantial progress was achieved in Africa in reducing years of life lost due to premature mortality (YLLs) from communicable, maternal, neonatal, and nutritional causes, these conditions still account for three out of four premature deaths. At the same time, as shown in table below, deaths from non-communicable diseases such as cerebrovascular diseases and road traffic injuries have emerged as leading causes of years of life lost. The latter fact is clear evidence of the double burden of communicable and non-communicable disease that now characterizes the health profile in sub-Saharan Africa.
In 2010, nine of ten countries with the lowest male healthy life expectancy (HALE) and eight of ten countries with the lowest female HALE were in sub-Saharan Africa. This in large measure reflects the impact of the HIV/AIDS epidemic that erased years of life expectancy at the population level. Besides age-specific mortality, HALE also captures the impact of living with illness and disabilities, and highlights their growing importance for health and social protection systems.

In terms of non-fatal health outcomes from diseases and injuries, the leading causes of years lived with disability (YLDs) in sub-Saharan Africa are neglected tropical diseases (schistosomiasis, onchocerciasis, African trypanosomiasis, and hookworm), HIV/AIDS, tuberculosis, malaria, and anemia (particularly caused by tropical diseases and iron-deficiency anemia). Mental health conditions such as depressive and anxiety disorders, as well as alcohol abuse in some countries, are also leading causes of YLDs in this region.

Although the share of disease burden in central, eastern, and western sub-Saharan Africa attributable to childhood underweight, household air pollution from solid fuels, and non-exclusive and discontinued breastfeeding have fallen substantially, these three risk factors continued in 2010 to be the leading causes of disease burden. However, as differing from other subregions in Africa, for the southern sub-Saharan Africa region, alcohol abuse is now the leading risk factor, followed by high blood pressure and high body-mass index, signaling a shift from risk factors for communicable to non-communicable diseases and injuries. Alcohol abuse not only increases the risk of road traffic injuries and other injuries, but also of tuberculosis, which cause a large proportion of disease and injury burden. Tobacco smoking, including second-hand smoke, is also a leading risk factor for disease in sub-Saharan Africa.

Overall, the findings of GBD 2010 convey some good news for sub-Saharan Africa, but they also point to emerging challenges in the region, particularly arising from the double burden of communicable and non-communicable diseases, preventable road traffic injuries, and related risk factors at both population and health system levels. And, as noted by Lancet editor Richard Horton, the global health community, including governments, research institutions and international agencies, need to make a major commitment in the years ahead to “improve the measurement of health” by strengthening civil registration and vital statistics systems as a development priority building upon the “energy and momentum” generated by GBD 2010.

As we learn more from the “data-rich framework” offered by GBD 2010 to better understand the changing disease, injury and health risk profile in Africa, it would be important to also keep in mind World Bank President Jim Yong Kim’s observation that the value of this study “lies not only in the data but the critical discussions it makes possible” at country and regional levels for policy making and practice.
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Source: Adapted by author using GBD 2010 data. Causes are ordered according to global ranks for causes.
It is safe to argue that the issue of income and wealth inequality is nowadays at the center of political debate across the world. Leading intellectuals such as Thomas Piketty in his seminal work, “Capital in the Twenty-First Century,” and Joseph Stiglitz in “The Price of Inequality” have rigorously analyzed the evolution of this social phenomenon and argued that increased inequality and lack of opportunity are creating divided societies that are endangering the future of nations.

Those working in public health have for years documented and discussed how low and decreasing incomes, decline in standards of living, and lack of or limited access health care and other essential services contribute to inequalities in health, manifested in a widening gap in life expectancy between the rich and the poor.
While the relationship between income and life expectancy is now well established, recent studies on the United States population yield new evidence that helps enhance our understanding of the characteristics of this phenomenon and provide insights for policy action.

A Brookings Institution report, “Later Retirement, Inequality in Old Age, and the Growing Gap in Longevity between Rich and Poor,” has documented how increased earnings inequality over the last three decades, especially among men, has resulted in a concentration of longevity gains among the well-educated and those at the top of the income distribution.

The findings call into question policy proposals that advocate increasing the retirement age in line with increases in average life expectancy, as they may have large unintended distributional consequences (i.e. those in the top income brackets can expect to claim and enjoy for a longer period of time the benefits from Social Security and Medicare programs than those men and women in the bottom of the income distribution that tend to delay their retirement and have more physically demanding occupations or die prematurely).

A study in the Journal of the American Medical Association, “The Association between Income and Life Expectancy in the United States 2001-2014,” also demonstrated that in the United States between 2001 and 2014, higher income was associated with greater longevity. Data from the study provided evidence of relationships between life expectancy and socioeconomic factors such as differences in access to medical care, environmental differences, adverse effects of inequality, and labor market conditions.

A key finding in the study is that most of the variation in life expectancy across geographical areas was observed to be related to differences in health behaviors, including smoking, obesity, and physical activity, and local area characteristics, such as existence of public policies that promote health — smoking bans and higher taxation rates for cigarettes, or greater funding for public services.

It should not surprise us that the above studies demonstrate anew that the way people live is directly related to their consequent risk of illness and premature death. The question for all of us is, what can be done to address the socioeconomic disparities in health and alter the pattern of increasing differential mortality?

For one, effective government policies are needed at the macro level since they affect wealth dynamics in a society. In particular, the enactment of progressive tax reform to mobilize domestic revenues for public investment and other public needs should be a priority policy goal, alongside efficient allocation and utilization of those resources. And, if we accept the fact that besides job loss, economic trauma among individuals and families is caused by ill health, premature mortality, and disability, the mobilization of additional domestic resources should be linked to supporting the progressive realization of universal health coverage (UHC).

Achieving UHC involves implementation of population-based strategies and interventions to deal with health risk factors at the societal level, such as tobacco taxation and bans on smoking in public places; measure to control alcohol and substance abuse; and road safety measures. It also means facilitating access to timely medical care and protecting the population from the impoverishing impact of high out-of-pocket expenditures in case of illness.

Additionally, improvements are needed in the design of public pension plans to prevent inequality among the aged due to changes in retirement patterns and differential rates of mortality, and ensure redistribution of wealth across population groups. The growing concentration of longevity and better health status among those at the top of the wealth and income pyramid in a society should not be our destiny.
Rather, let’s accept, as Stiglitz advises us, that our vision should be of a “society where the gap between the have and the have-nots has been narrowed, where there is a sense of shared destiny, a common commitment to opportunity and fairness … where we take seriously the Universal Declaration of Human Rights [7], which emphasizes the importance of not only civil rights but of economic rights.”

And, I would add, the vision needs to include health rights for all as well.
2. Emerging and Reemerging Infectious Diseases and the Antimicrobial Resistance Threat
The clock is ticking: attaining the HIV/TB MDG targets in the former Soviet Union countries

SUBMITTED BY PATRICIO V. MARQUEZ ON SUN, 10/09/2011

Some countries of the former Soviet Union, the so-called CIS countries, are facing difficult challenges to achieve the HIV/tuberculosis-related Millennium Development Goal (MDG 6) by 2015. The continuing growth of new HIV cases, insufficient access to prevention services and treatment for people living with HIV, combined with the severity of region’s tuberculosis (TB) epidemic (particularly multi-drug resistant TB) are major challenges.

On October 10-12, 2011, the Russian government, along with UNAIDS, the Global Fund, and the World Bank, is hosting in Moscow a high-level forum to discuss these challenges and ways to reach MDG 6 in the CIS. (Click here for a video, a presentation, and more from the forum.) Unless concerted action is taken, sustained political commitment mobilized, new public/private and civil society partnerships established, and a sharp improvement in the effectiveness of HIV and TB programs realized, MDG 6 risks not being achieved. So, what to do?

International experience suggests that CIS countries must target prevention efforts to people who inject drugs, sex workers and their clients, and men who have sex with men, as well as prisoners and migrants who lack or have limited access to needed services. The priority focus on these vulnerable groups is critical to better align resource allocation in accordance to the nature and characteristics of the dual HIV/TB epidemics.

This calls for a major rethinking of strategies that have criminalized risky behaviors and driven the HIV epidemic underground. Scientific evidence clearly supports needle exchange and substitution therapies as part of broader social support and health programs as the most cost-effective strategies to arrest the spread of HIV among intravenous drug users—a risky behavior that is driving the epidemic in the CIS countries.

A concerted focus on bridging the gap between HIV treatment need and access is essential. This would require lowering the cost of diagnostic tests and anti-retroviral drugs, so that the promise of universal access to HIV treatment can be met for the infected population in need. The full-scale implementation of the Stop TB Strategy also needs priority attention, particularly to deal with the escalation of multi-drug resistant TB—ten of the 14 most affected countries in the world are in Europe and Central Asia.

Strengthening the CIS health systems to increase efficiency and effectiveness of prevention and treatment is critical as they are mutually complementary and reinforcing. The World Bank-funded Russia TB and AIDS Control Project, implemented by the Russian government with technical support from WHO over 2004-09, is a good example of this. It supported the modernization of the public health laboratory network and health surveillance systems, and improved knowledge and skills of health personnel in both the prison and civilian health systems across the country as critical investments for scaling up diagnosis and treatment (http://go.worldbank.org/15TL3FROX0).

Controlling blood transfusion-transmitted communicable diseases such as HIV, and Hepatitis B and C is still a major public health issue in Central Asia, as documented in a World Bank report done with
the U.S. Centers for Disease Prevention and Control and WHO. This merits utmost attention as part of health system strengthening efforts.

There is high hope that the Moscow Forum will catalyze a reinvigorated response. The challenge and options in the CIS countries are clear, and the time for MDG 6-related action is now, since tomorrow will not wait.
As we honor World AIDS Day 2014, perhaps it is time to pause and take stock of the gains achieved over the last three decades by the extraordinary social movement that emerged across the globe to confront HIV.

While denial and stigma still lurk at the fringes, widespread progress has been made in the fight against the AIDS epidemic. Although today there are more than 35 million people living with HIV, UNAIDS data show that by June 2014, some 13.6 million people in need had access to antiretroviral therapy (ARV), a huge step towards ensuring that 15 million people have access by 2015.

This undoubtedly has contributed to the 35% reduction in AIDS-related deaths observed since their peak in 2005 and to quality-of-life improvements among HIV-infected people. Deaths due to tuberculosis, the leading cause of death among people living with HIV, have also fallen by 33% since 2004, and new HIV infections have dropped by 38% since 2001.

Although some people continue to argue that the unprecedented attention and funding for HIV have created a major imbalance in the global health agenda by reinforcing a “vertical program” orientation, we should remember that in previous decades, the reality of weak and under-resourced health systems in most of the world and limited access to basic health services for the majority of the population were common phenomena before the AIDS response.
This reality has been made evident again with great clarity by the current Ebola outbreak in West Africa.

Significant investment in health systems in low- and middle-income countries have been made over the last decade, for scaling up HIV prevention and clinical care as well as for integrated care approaches for tuberculosis and HIV. Given this, I think it is good to ask how we could advance universal health coverage, leveraging the resources, experience and models of existing HIV and AIDS prevention and treatment programs to manage other chronic health conditions.

As discussed in recent papers (HIV and Noncommunicable Disease Comorbidities in the Era of Antiretroviral Therapy: A Vital Agenda for Research in Low- and Middle-Income Country Settings [1], HIV, Tuberculosis, and Non-communicable Diseases: What Is Known About the Costs, Effects, and Cost-effectiveness of Integrated Care? [2]), this is an important point to keep in mind since HIV-infected individuals are now not only living longer as a result of the expansion of antiretroviral therapy programs, but are also developing chronic, non-communicable diseases (NCDs), such as cardiovascular diseases and cancer, due to a mix of chronic immune activation, medication side effects, co-infections, and the aging process itself.

Botswana, one of the countries hardest hit by HIV, and a leader in the AIDS response in Southern Africa, offers a good example of how governments could leverage HIV and AIDS services and programs to integrate and add NCD prevention and treatment into existing services and programs to integrate and expand access to services for other priority health conditions.

Faced with resource limitations that have hindered the expansion of cytology laboratory-based screening for cervical cancer--one of the leading causes of premature death among women, particularly those who are HIV-positive—the government of Botswana started to introduce at AIDS clinics in 2013, lower-cost but equally effective “see and treat” screening procedures, along with cryotherapy to destroy abnormal tissue in the cervix by freezing it.

This approach will help overcome the current limited laboratory screening capacity for cervical cancer which results in a significant number of patients diagnosed with advanced or terminal stage disease. Since the high incidence of cervical cancer in Botswana is linked to a sexually transmitted infection caused by the human papilloma virus, the targeted use of HIV prevention interventions -- such as the promotion of safe sex, use of condoms, avoiding harmful use of alcohol, and male circumcision -- are also likely to help prevent cervical cancer, along with HPV vaccination for school-age girls. Such vaccinations began to be rolled out in 2013 as part of the country’s Expanded Program for Immunizations.

Additional investments are being made to improve cervical cancer data collection in health facilities as part of the development of an electronic health information system being rolled out across Botswana, as well as to support the establishment of a national cancer registry.

These system-wide measures show that it is possible to continue supporting investments and activities to achieve the ambitious goal of ending the AIDS epidemic, while building integrated health services delivery platforms to cover a wide array of diseases with similar prevention and care needs, including palliative care. This approach will also help capitalize on existing resources and capabilities, facilitate task-shifting among personnel and the use of common procurement and supply lines for getting essential drugs and other materials to health facilities, and introduce and scale up the use of new technologies, such as mobile phones and integrated health information systems.

Linking health spending decisions to adoption of clinical guidelines for service provision would further encourage coordination of care and improve the quality of services.
The important catalytic role that the HIV and AIDS response has played in the development of a robust global health agenda and increased funding for health programs over the last decade needs to be acknowledged. But it should also be recognized that supporting the development and strengthening of health systems in the future under the universal health coverage agenda -- including stronger primary health care networks, integrated chronic care services delivery and community-based interventions that focus on the person as a whole rather than on disease categories -- will facilitate opportune access to quality health services for all.

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AIDS 2012: Science and the future of AIDS

SUBMITTED BY PATRICIO V. MARQUEZ ON WED, 07/25/2012

Amid political statements and declarations of commitment, several sessions at the ongoing International AIDS Conference 2012 have shined a bright light on the future of the pandemic and the global response.

In one session, Dr. Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases (NIAID) at the U.S. National Institutes of Health, gave a keynote address, “Ending the HIV/AIDS Pandemic: From Scientific Advances to Public Health Implementation.”

According to Dr. Fauci, who has been at the forefront of the fight against HIV/AIDS since the discovery of the virus in the early 1980s, the scientific developments in the last three decades that have helped understand, treat and prevent HIV infection bode well for the promise of a world free of AIDS. He noted that the robust arsenal of nearly 30 antiretroviral drugs and scientifically proven interventions now available to treat and prevent HIV infection and improve people’s health and longevity, offer an unprecedented opportunity in the years ahead. However, he was clear in cautioning that this will not be accomplished without sustained global commitment and effort. This means that the international community cannot retreat in the face of the current economic slowdown, but rather build upon those advances, adjusting, adapting and strengthening the response on the basis of accumulated experience and lessons learned from across the world.

If we heed Dr. Fauci’s advice, it should be clear to all of us that while we need international funding from current and new donors to sustain the global effort, developing country governments also can and should step in and prioritize funding and investments to contribute to the fight against HIV/AIDS and for other health priorities. While some people argue that the unprecedented funding
for AIDS in the last decades has created imbalances in the global health agenda, we should also remember that in previous decades the underfunding and underdevelopment of health systems in most of the world, and the resulting lack of or limited access to basic health services for the majority of the population, was a common phenomenon that came before the AIDS response.

Besides funding, the achievements in the fight against AIDS have made it clear that well run, efficient health systems matter not only to scale up voluntary HIV testing and counseling, but to ensure the continuity of care—including treatment initiation and adherence, clinical monitoring of patients’ responses, and management of co-morbidities and other diseases. And the importance of prevention, including treatment as prevention, voluntary medical male circumcision, education and counseling about HIV risks and behavior change, condom use, harm reduction interventions for injecting drug users, and drug and alcohol treatment, are more pressing than ever in the absence of a vaccine or a cure, as resources are not infinite.

In spite of many challenges that remain, including stigma and discrimination of vulnerable populations, Dr. Fauci reminded us to be hopeful because the accumulated experience in different countries indicates that global scale-up of existing and scientific evidence-based interventions could dramatically change the trajectory of the HIV/AIDS pandemic by reducing new infections and ultimately lead to the end of AIDS.
HIV/AIDS: Reflecting on the Caribbean’s call to action and other turning points

SUBMITTED BY PATRICIO V. MARQUEZ ON TUE, 07/24/2012

Now that the XIX International AIDS Conference is in full swing this week in Washington, DC, it’s worth reflecting not only on past achievements but on future challenges. As recounted by Dr. Peter Piot, the former executive director of UNAIDS, in his recently published memoir, No Time to Lose, after overcoming many obstacles and naysayers, the UN system, with its many organizations and agencies, working together with governments, civil society and religious organizations, groups representing people living with AIDS, and eventually the pharmaceutical industry, came together this past decade to redefine existing HIV/AIDS prevention and treatment paradigms.

There have been landmark political events as well, such as the UN Security Council Session held in January 2000 that for the first time focused on AIDS as a global health challenge, and the UN Special Session on AIDS held in June 2001, which paved the way for establishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria and the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR).

Not only was the power of scientific and technological developments leveraged to confront the global epidemic, but an unprecedented commitment of funds helped scale up the international response.

In the early 2000s, I was blessed to be working in the Caribbean, at a time when the region became a trailblazer in the fight against HIV/AIDS. Beginning with a meeting at the World Bank in June 2000, Caribbean finance ministers and officials from international organizations placed the disease and its threat in a sobering context. This was followed up by a gathering in Barbados later that year where the international community, heeding Prime Minister Owen Arthur’s call—“We do not have a choice in the matter—we must act now”—pledged millions of dollars to support a regional response.

With the establishment of the Pan Caribbean Partnership Against HIV/AIDS (PANCAP) in 2001, spearheaded by Dr. Denzil Douglas, the Prime Minister of St. Kitts and Nevis, and CARICOM, the regional political umbrella organization, an international best practice began to evolve as a unique example of collective action to strengthen the regional response to AIDS. The Bank contribution to that effort was framed within the US$150 million multi-country program that funded for the first time globally, beginning in Barbados in 2001, anti-retroviral drug (ARV) treatment, along with related health system strengthening investments and intersectoral prevention efforts.

While the implementation of the global HIV/AIDS response was hindered in some cases by political inertia, misuse of funds, stigma and discrimination, and organizational and service delivery bottlenecks, much was achieved this past decade across the world. More importantly, millions of lives were saved, and an HIV-positive diagnosis stopped being seen as a death sentence.
As more and more HIV-infected people now benefit from access to treatment, putting some coffin-makers out of business as told in a recent story about Lesotho published by the New York Times, HIV/AIDS is fast becoming a chronic condition that requires long-term care.

In the current era of fiscal deficits and constrained aid funding, and with the emergence of non-communicable diseases as a growing global health challenge, a major rethinking is required at the international level on how health services are organized, funded and delivered to meet the changing needs of the population. This calls for integration and resource-sharing under universal health coverage initiatives; leveraging resources, experience and models of existing programs to place greater emphasis on primary health care and community-based interventions that serve any health condition; and adopting sustainable schemes to fund the effort at the country level and offer protection to the population from the impoverishing effect of ill health. As the response to the AIDS epidemic clearly demonstrated, knowledge generation and sharing across the world, and its adaptation to local conditions, is paramount to advance the global health agenda in the future.
The first case of HIV/AIDS was detected in Barbados in 1984. At that time, HIV/AIDS was viewed more as a consequence of risky personal behavior by men who have sex with men than as a public health issue that affects the general population. Since then the number of reported HIV cases has risen continuously particularly among 15-49 year olds and the most economically active group, 25-49 year olds. Today, prevalence among adults in Barbados is conservatively estimated at over 3%. But people who test positive are estimated to represent only one-fifth of the infected population.

Barbados has a window of opportunity to prevent the spread of HIV/AIDS, as its Government is now publicly committed to vigorous action. A National Commission on HIV/AIDS (NACHA) was established in the Prime Minister’s Office in 2001 with a mandate to implement a broad program to limit further spread of the epidemic into the general population, by preventing HIV infection among vulnerable and high-risk groups, without stigmatizing them, and treating infected persons.

The Caribbean Multi-Country HIV/AIDS Program

In June 2001, the Barbados HIV/AIDS Prevention and Control project was the first approved under the US$155 million Multi-Country HIV/AIDS Prevention and Control Adaptable Program Loan (APL) for the Caribbean. The APL offers individual countries separate loans and/or credits and grants for their national HIV/AIDS Prevention and Control projects. A PHRD Grant from the Government of Japan at the end of 2000 supported the preparation of country projects in the Dominican Republic (total project cost US$30 million; approved June 2001); Jamaica (total project cost US$20 million; approved in 2002), Grenada (total project cost US$7 million, approved in 2002), St. Kitts and Nevis (total project cost US$4 million, approved in 2003), and Trinidad and Tobago (total project cost US$25 million, approved in 2003). All of these projects are currently under implementation. In addition, project preparation is underway in Guyana (to be financed through a 100% grant), St. Lucia (25% grant), St. Vincent and the Grenadines (25% grant) for approval in FY04, along with an US$8 million Regional HIV/AIDS IDA Grant to support regional institutions and foster horizontal cooperation and sharing of experiences among countries.

The development of the APL began with the report “HIV/AIDS in the Caribbean: Issues and Options,” (World Bank, June 2000, “red cover” published March 2001). This report provided an overview of the HIV/AIDS epidemic in the Caribbean and the challenges and opportunities in addressing it. It compared country responses to the epidemic, and discussed options for addressing the crisis, highlighting strategies for donor coordination and cooperation, including the World Bank’s proposal to finance a multi-country program. The report was presented to Prime Ministers, Finance Ministers, and other key
decision-makers from member countries at the Caribbean Group on Cooperation in Economic Development (CGCED) meeting, June 12-16, 2000. Participants, including senior representatives of other bilateral development partners and international organizations, agreed to assign the highest priority levels in the blood, enabling people living with AIDS to live healthier, longer lives.

Project interventions include: (i) communication and advocacy to increase government commitment, attention and funding related to HIV/AIDS and to raise awareness, knowledge and understanding among the population about HIV/AIDS; (ii) scaling up of intervention activities at the national and community levels; (iii) scaling up of treatment, care and support at the national and community levels; (iv) research and national surveillance; and (v) capacity building.

**Achievements**

The Project, implemented through the National HIV/AIDS Commission, has built working partnerships with sector ministries, trade union representatives, business leaders, and persons living with AIDS.

Substantial progress has been made toward the stated goal of reducing HIV/AIDS mortality by 50% by 2004. The basic physical and institutional infrastructure for scaling up HIV/AIDS treatment and care is in place. The Government is committed to universal and free provision of antiretroviral therapy for all citizens living with AIDS who require treatment, and has allocated the required funds.

A dedicated care and support out-patient facility, the Ladymeade Reference Unit, opened in early 2002 and staff for Ladymeade have been trained and deployed. Services include voluntary HIV counseling and testing, family counseling, antiretroviral therapy (HAART), medication adherence counseling, medical diagnosis, assessment and monitoring, state-of-the-art laboratory service including CD4 and Viral Load testing, and pharmacy services for storage, monitoring, and dispensing treatment. A Clinical Psychologist and Senior Counselor provide psychological interventions and staff training. Community involvement is emphasized and community nurses follow-up non-attendee patients and defaulters.

The procurement process for increased quantities of ARV drugs

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**Box 1**

“AIDS in the Caribbean has reached a watershed moment.”

*Dr Peter Piot, Executive Director, Joint United Nations Programme on HIV/AIDS (UNAIDS), 2001*

“Without decisive action, the epidemic and its impact will cause untold harm for decades ahead. Combating the epidemic in the region also requires focusing on the dignity of people already infected and living with HIV/AIDS, including improving their access to good quality, humane care and treatment.”

*Former Director General of the Pan American Health Organization (PAHO/WHO), Sir George Alleyne, 2001*

“Millions of dollars that we now devote to care and treatment, especially behind the active anti-retroviral therapy programme, will be of no consequence unless there is a dramatic and drastic change in personal behavior, especially among members of society who are most at risk.”

*Barbados Prime Minister Owen Arthur, Second National Consultation on HIV/AIDS, 10/10/03*

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to dealing with HIV/AIDS in the region. Prime Minister Arthur of Barbados thereafter became a “champion” of the regional initiative.

**Barbados leads the way**

Although Barbados graduated from the World Bank in 1993, the World Bank Team obtained approval from the Board of Directors to include Barbados in the APL loan as an exceptional case. This was justified on several grounds: Barbados is one of the countries in the region most severely affected by HIV/AIDS; it plays a strong regional leadership role and provides a center for technical expertise and health infrastructure; there would be transferable development lessons; and the funding would provide public goods and positive externalities.

In 2001, Barbados became the first country to receive World Bank funding for a multi-sectoral HIV/AIDS Prevention and Control Project that includes scaling-up of antiretroviral drug therapy (ARV), a cocktail of drugs that decreases HIV levels in the blood, enabling people living with AIDS to live healthier, longer lives.
has been clearly established at the Barbados Drug Service. Evidence-based Treatment Guidelines developed by WHO are in use, and have proven easy to comply with; adherence to the standard three drug regimes has been very good.

Expanded laboratory services, including Elisa testing, CD4, CD8, and viral load estimations have been essential for offering and monitoring treatment. The Government of Barbados gave this priority, since adequate monitoring allows earlier detection of virological and treatment failure.

A computerized HIV/AIDS case management, monitoring, evaluation, and surveillance system has been established, that captures real-time comprehensive information on patient treatment, care and social support of person living with HIV/AIDS (PLWHA). It also collates comprehensive surveillance data, including risk factor and transmission details for all persons tested for HIV whether positive or negative. It will be expanded to polyclinics to capture data on sexually transmitted infections (STIs).

### Outcomes

The number of AIDS patients being followed has grown to 520, including 260 patients on HAART. Available data on patient adherence to treatment regimes and clinical outcomes (comparing May 2001-April 2002 before Ladymead Center opened, with 12 months of unit operations May 2002-April 2003) indicate:

- 85 percent of patients achieved an adherence rate greater than 95 percent of treatment regime recommendations,
- 69 percent achieved virologic success,
- baseline socio-demographic data are not correlated with adherence or virologic success,
- mean Karnofsky scores increased 5.8 (-20 to 90),
- AIDS patients showed a median CD4 rise over 10 cells/mm³, increasing their health status and decreasing the risk of getting sick or dying from an opportunistic infection.
- Hospital admissions for treatment of opportunistic infections among HIV+ patients decreased by 442 percent from 316 to 183.
- total hospital days fell by 59.4 percent, and average length of stay fell 30 percent,
- outpatient visits rose 228 percent from 4,727 visits per year to 10,782,
- inpatient cost post-HAART fell 41% (with an average length of stay of 27.8 days, inpatient costs for AIDS are over four times higher than for general medical care),
- AIDS related events fell overall,
- deaths of clinic-registered patients fell by 56 percent overall,
- mother-to-child transmission fell six-fold, maintaining levels of less than 6 percent transmission over five years.

Also:

- the number of patients attending the clinic increased 56 percent and uptake of the various services has been significant,
- patient satisfaction is high and increasing. For example, 90% of more than 1,000 people living with HIV/AIDS rated the quality of medical care received as excellent or very good (HIV/AIDS Social Services Utilization Study; two-year survey using structured interviews and focus groups, of needs, health status and experiences of PLWHA).

### Multi-sector activities

The Project has helped to institutionalize a multisectoral approach to HIV/AIDS. For example, led by Prime Minister Arthur, the National HIV/AIDS Commission has organized two annual National Consultations on HIV/AIDS. The 2003 Consultation theme was “The Expanded Response to HIV/AIDS: Get Involved!” It brought Ministers of Government and their core HIV/AIDS implementation groups together with strategic partners from international and private and community organizations: PAHO, UNAIDS Caribbean, CDC, UNICEF, UNDP, CAREC, Barbados Employers’ Confederation, Congress of Trade Unions and Staff Associations of Barbados, AIDS Society of Barbados, Barbados Family Planning Association, PAREDOS, Men’s Educational Support Association, National Organization of Women, CARE Barbados, Artists Against AIDS Barbados, National Cultural Foundation, Small Business Association, Barbados Chamber of Commerce and Industry, representatives from 19 HIV/AIDS Community committees, Barbados Registered Nurses’ Association, members of the
The Barbados HIV/AIDS Commission has led national campaigns to dispel the myth that people with AIDS can be identified on sight, and to encourage condom use. These have been well received by the general public, and survey results demonstrate their impact. The Ministry of Health has directed a condom social marketing campaign, and over the past 6 months, condom distributors have noted a significant increase in male condom sales. Recently the Ministry began promoting female condoms as part of the Commission’s “Speak Sister” campaign, focusing on women’s vulnerability to HIV/AIDS. The Ministry of Tourism and other units have also conducted successful IEC programs, assessed through surveys. The Ministry of Education, Youth Affairs and Sports has sensitized one-third of teaching staff about HIV transmission and prevention measures. The Commission’s abstinence program was launched in primary schools, with UNICEF funding.

Sharing experiences

The Barbados National HIV/AIDS Commission is now providing technical assistance to other Caribbean National AIDS Programs (NAP), via peer-to-peer technical exchanges. For example, the Barbados NAP hosted a three-day study tour in August, 2003, comprising on-site visits to observe Barbados’ treatment and care capacity; visits and discussions with key actors such as local health clinics, community organizations and other service delivery providers; structured discussions on key topics; and development of individual action plans to implement lessons learned upon return. Officers from NAPs of The Bahamas, Suriname, Dominica, Dominican Republic, Jamaica, Trinidad and Tobago, and Grenada have benefited from Barbados’ assistance.

Lessons Learned

The Barbados program provides evidence of the beneficial impact of ART on morbidity and mortality from HIV infection, as has been reported in Europe, United States and Canada. ART effectively restores the immune system, reducing opportunistic infections and greatly improving patient management, costs, quality and length of life. ART has made it increasingly possible to consider HIV infection as a manageable chronic disease. Best practice is still evolving, so the inclusion of ART in the Barbados project, though initially controversial, provides important lessons for others. Barbados was suitable as a pilot because of its small size, good fiscal management (making ART financially sustainable), and superior procurement and financial management capacity.

Major difficulties, such as low compliance and drug resistance, have not arisen because ART was backed by well established infrastructure supported under the project: laboratory facilities and equipment, timely drug supply, adequately trained staff for diagnosis and treatment, and adequate patient follow up in their communities and in hospital.

In summary, the results in Barbados indicate that ART drugs significantly improve survival, treatment adherence is high, reducing the risk of HIV-drug resistance, and that the expanded program generated considerable client satisfaction and increased health-seeking behavior. Barbados is a model for enhanced HIV/AIDS treatment and care in developing countries.

Moving Forward

Decriminalization of homosexuality and prostitution will soon be placed “on the front burner”, if Attorney-General Mia Mottley has her way. She is determined to remove the “cancer of discrimination” that prevents “highly at risk” people from benefiting from HIV/AIDS prevention.

About the Authors

Patricio V. Marquez is a Lead Health Specialist in the World Bank’s Latin America and Caribbean Region and Team Leader for the Multi-Country HIV/AIDS Prevention and Control Program in the Caribbean.

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DOMINICAN REPUBLIC
HIV/AIDS PREVENTION AND CONTROL PROJECT
INITIAL RESULTS

Patricio V. Marquez and Luis Emilio Montalvo

Background

The Dominican Republic has 120,000 persons living with AIDS (PLWAs), 9 times the total number of reported cases. About 20,000 people have died from AIDS in the last decade. HIV/AIDS is the leading cause of death among women of reproductive age. Prevalence is highest (5% of adults) among low-income groups that include many Haitian immigrants living in rural communities and working in sugar cane plantations. Prevalence among female commercial sex workers is about 8%, reaching 12% in some cities. Tuberculosis (TB) is the largest opportunistic infection for PLWAs. PAHO estimates that over 100 persons per 100,000 are infected with TB, versus 2.6 per 100,000 in Barbados and 4.9 per 100,000 in Jamaica. The 5,320 reported cases in the Dominican Republic are among the highest in the Latin America and Caribbean region. Heterosexual intercourse accounts for 81 percent of HIV cases in 15-44-year olds. The 4,000 women who had prenatal checkups and tested positive for HIV/AIDS are likely to give birth to 1,300 infected children unless transmission is prevented. Underlying problems include high rates of Sexually Transmitted Infections (STIs) and high birth rates among adolescent girls and young women, and active migration between cities and the countryside, and from Haiti. Also, the Dominican Republic is a major tourist destination.

If the cost of treating patients remains constant, hospital costs will increase from US$4.8 million to US $7.4 million in 2005 (1998 US dollars). Adding anti-retroviral therapy could increase treatment costs to US$ 52.6 million in 2005, 18.2 percent of the health care budget (assuming that prices remain around US$ 1,000 per patient per year).

The Government’s Approach

The Government’s response to the HIV/AIDS epidemic incorporates the following elements:

- Creating a political high-level institution by Presidential Decree—the Presidential Commission for HIV/AIDS (COPRESIDA) — reporting directly to the President and responsible for coordinating the fight against the epidemic. COPRESIDA comprises public, private, and community-based organizations.
- Dealing with HIV/AIDS from multiple perspectives—economic, social, and cultural, involving different sectors and actors through partnerships with government, private, and civil society organizations, including PLWAs.
- Innovating as the epidemic changes, strengthening and expanding successful strategies, including HIV/AIDS voluntary counseling and testing, controlling STIs, re-
ducing mother to child transmission (MTCT), and providing care and treatment for HIV infected persons who require treatment according to established guidelines.

- Focusing on the most cost-effective interventions, typically targeting the most vulnerable populations groups.

Before the project became effective, the Government had:

- promulgated Law 5593 (1995) dealing with HIV/AIDS (the only country in the region to do so);
- adopted a 2000-2004 National Strategic Plan for HIV/AIDS;
- launched HIV/AIDS and STI information, education and communication (IEC) campaigns targeted to vulnerable groups and the general population, which reduced frequency of casual sex and sex with multiple partners among young people and increased condom use;
- increased coverage of screened blood from 80 to 95 percent in 1999.

The Project

To support and strengthen implementation of the National Plan, the Dominican Republic HIV/AIDS Prevention and Control Project (total cost US$30 million) was launched in February 2002 under the World Bank-financed US$155 million Multi-Country HIV/AIDS Prevention and Control Program for the Caribbean Region. Implementation partners include: the Global Fund for HIV/AIDS, Tuberculosis and Malaria, USAID, the Clinton Foundation, PAHO/WHO, UNDP, and Partners for Health.

Initial Results of activities financed in the three project components

1: Prevention/promotion activities to reduce HIV/AIDS transmission including IEC activities and condom social marketing emphasizing vulnerable groups.

A multi-sectoral approach is ensured by participation agreements with 25 entities: 13 government ministries, 2 religious groups, 4 civil society organizations, 3 private sector groups, and 4 military and police agencies. There are already tangible results from programs implemented with six ministries, as follows:

The Labor Ministry has begun an HIV/AIDS in the Workplace Initiative (with the U.S. Labor Department) to reduce stigma and discrimination and protect human rights of PLWAs and their families, by sensitizing and training businesses and providing legal assistance to PLWAs.

The Ministry of Youth Affairs provided information, more than 20,000 condoms and instructions on their use to 7,000 young athletes, other national delegation members, and spectators at the 2003 Pan-American Games in Santo Domingo.

The Science and Technology Ministry completed “knowledge, attitudes and practices” (KAP) surveys involving 75% of university students and 85% of teachers, and trained 90% of university teachers in HIV/AIDS prevention and control.

The Ministry of Women Affairs trained community leaders and women from Provincial Women Affairs Departments on HIV prevention.

The Tourism Ministry supported establishment of a joint venture between COPRESIDA and the National Hotel and Restaurant Association (ASONAHORES), following the experience with the Punta Cana Hotel Complex, whose implementation is progressing well.

The Sex Education Program (Programa Afectivo Sexual) in the Education Ministry has introduced important changes in primary and secondary school curricula and produced high quality educational materials for teachers and students, including a manual designed by a team of sexologists, psychologists and HIV/AIDS/STI experts. The program, an example for other countries, is being implemented in 55 percent of public secondary schools: 253,361 students attend twice weekly classes under the Program; 5,713 (54%) of public secondary school teachers have been trained on HIV/AIDS/STI prevention.

Special Population Groups

Baseline KAP surveys of commercial sex workers (CSW), men who have sex with men (MSM), Haitian immigrants living in bateyes (areas around sugar cane plantations), and prisoners will provide key information for designing interventions to target these groups.
HIV/AIDS/STI prevention and care in the bateyes began with the Sugar State Council (CEA), responsible for most bateyes in the country. A civil society organization (CASCO) was hired to concentrate efforts in the bateyes. In March 2004 COPRESIDA and CASA VICCINI (the main private sector sugar industry whose territory includes 23 bateyes) signed an agreement.

**Prevention of HIV Mother to Child Transmission:** This program began in 1999 as a pilot in only two maternity facilities, lacking funds and political will. Since 2002, project support has extended it country-wide in all public hospitals providing maternity services and 83 percent of health centers and municipal facilities, covering about 157,000 (78%) of the estimated 200,000 pregnant women in the country each year. In 2003, 78,118 women—half of all pregnant women receiving care in public health facilities—were tested for HIV using rapid diagnostic tests; about 1,700 or 2 percent tested HIV+. Eighty four percent of the infected women and their children received the antiretroviral Nevirapine at delivery (an important achievement compared to sharp falls in Nevirapine coverage in many other countries’ programs). The other 16 percent went untreated because they arrived at the facility at the moment of delivery, drugs were unavailable, or they lacked proper registration.

**Condom Social Marketing:** Most of 2 million condoms purchased in 2003 were distributed. A study on use and access to condoms in Santo Domingo motels/hotels shows increased use of condoms among clients, from 18% in 1990 to 36 percent in 2003. A mass media campaign distributed 100,000 flyers (with condoms), 5,000 posters, 50 billboards (for urban passenger buses) and dozens of caps and t-shirts. A TV campaign oriented to young people aims to convince them to use condoms even with a “pareja de confianza” (partner of trust).

**Strengthening tuberculosis (TB) prevention and control** is part of the national response to AIDS. TB is among the top killers of PLWA, and a public health threat. Approximately 12 percent of reported AIDS cases in the Dominican Republic have fallen ill with TB, and 5 percent of TB patients have identified HIV infection. Co-morbidity is probably higher because TB patients are not systematically tested for HIV and TB screening is not routine among HIV-positive persons. USAID is supporting representative surveys of HIV among TB patients and of drug resistance. In the mid-1990s, the Dominican Republic reported the highest rates of multi-drug resistant disease among countries in the Americas surveyed.

A 2004 work plan for TB control and TB/HIV linked interventions supports expansion of the DOTS strategy in five provinces—La Altagracia, Barahona, Hato Mayor, Santiago and El Seybo, with a total population of over 2.4 million; and piloting adapted TB/HIV coordinated screening, prevention and care interventions for evaluation and subsequent national scale up.

**A pilot HIV/AIDS Prevention and Control Project in Tourist Areas,** the first initiative involving the private sector (the Punta Cana Group), aims to reduce the stigma of HIV/AIDS in the tourist industry, especially in the Bavaro and Punta Cana resort (whose 400 hotel rooms, luxury homes, golf course, and commercial airport attracted 1.2 million (mostly American and European) tourists in 2002). Some key prevention activities are:

- educational materials and IEC campaigns on HIV/AIDS prevention and condom use for workers and their families, including activities in Creóle for illiterate and migrant Haitian workers.
- Education and prevention workshops for school professors, Parent/Teacher Associations, secondary students and Women Associations.
- With NGO support, a “100% Condom Use” program targeted to commercial sex workers.
- Workshops on developing HIV/AIDS Policies for top level managers and business professionals in the tourist sector.

**2: Diagnosis, basic care and support of individuals affected by HIV/AIDS** to reduce disability and death due to HIV/AIDS, reduce the reservoir of HIV/AIDS, and mitigate suffering of children orphaned by AIDS.

**The HAART Treatment Program** is underway. Treatment sites have been selected; a private laboratory contracted for CD4 and Viral Load Testing while waiting for equipment for
Before 2002, HIV counseling services were available at only 14 sites in the Dominican Republic. In 2002-2003A, coordinated, collaborative efforts by Fundación Genesis (a local NGO), SESPAS/DIGECITSS and COPRESIDA, supported by USAID and the project, established 100 Voluntary Counseling and Testing services in public and private sites throughout the country (63 in public hospitals, 17 in private centers and 20 in NGOs) and trained 361 counselors in basic pre- and post-test counseling.

To standardize counseling services, “National Norms for HIV/AIDS Counseling” and a “Counselor Training Guide” for counselors who will offer support services and follow-up to PLWHA were developed.


Consultants have been contracted to implement HIV/AIDS surveillance using second-generation protocols including behavioral and biological surveys of high-risk groups. Geographic mapping of vulnerable groups (youth, CSW, MSM) was done in Puerto Plata, and sentinel seroprevalence surveys are underway.

Monitoring and Impact Evaluation: Criteria, indicators and methods have been streamlined within a coherent framework.

Harmonization among main donor agencies: The Global Fund, USAID, Clinton Foundation, PAHO/WHO, UNDP, UNAIDS and World Bank have a strong commitment to join efforts, share information, accept a single evaluation report instead of separate reports, and follow a Ten Year National Strategic Plan to be finalized in May 2004. A meeting in February 2004 helped define coordination and cofinancing arrangements.

Future Challenges

- Further develop the relationship between the private and public sector on HIV/AIDS activities, including cofinancing arrangements to ensure long-term sustainability of the national effort.
- Donor harmonization will require follow-up activities to further strengthen collaboration, avoid duplication, and reduce unnecessary administrative burden on the local teams.
- Strengthen collaboration among countries in the region to share their lessons learned regarding HIV/AIDS activities.

*************

Bank in Partnership to Provide Low-Cost AIDS Drugs

April 6, 2004—The Bank, in partnership with the Global Fund to Fight AIDS, Tuberculosis and Malaria, UNICEF and the Clinton Foundation, today announced agreements that will make it possible for developing countries to purchase high-quality AIDS medicines at the lowest available prices. In many cases the medicines and diagnostics would cost fifty percent less than their current prices.

The agreements will pave the way for countries supported by the Global Fund, the Bank and UNICEF to gain access to drug and diagnostic prices negotiated by the Clinton Foundation.

“We regard AIDS as being the single most important issue at the moment in Africa because of the devastating effect that it has had throughout the Continent, and it is not something that is deferrable to discussions of economic or other issues,” President Jim Wolfensohn said of today’s announcement. “The emerging epidemic in Asia, Europe and Central Asia and the Caribbean is also a tremendous concern. This initiative will help to get treatment to those most in need - the world’s poorest people. The Bank is pleased to be a partner in the program and fully supports it.”

About the Authors

Patricio V. Marquez is a Lead Health Specialist in the World Bank’s Latin America and Caribbean Region and Team Leader for the Multi-Country HIV/AIDS Prevention and Control Program in the Caribbean. Luis Emilio Montalvo is the Director, Dominican Republic Presidential Commission for HIV/AIDS (COPRESIDA).

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Fighting HIV/AIDS in the Caribbean

Patricio Marquez

In the Caribbean, HIV/AIDS has become the major cause of death among men under the age of 45 (see Figure 1). Official figures show more than 360,000 people living with AIDS, but estimates place the number at over 500,000 due to underreporting. More than 80,000 children have been orphaned by the epidemic, and the infection rate is estimated to have reached 12 percent in some urban areas, spreading in many countries from high-risk groups to the general population.

The Caribbean Regional Strategic Plan of Action for HIV/AIDS, developed by the member governments of the Caribbean Community (CARICOM) and the Dominican Republic, is backed by the World Bank and other international organizations such as PAHO/WHO, UNAIDS, CAREC, USAID, and the University of the West Indies, among others. It will support national programs based on the countries' own needs. While the general population will benefit from a reduction in the rate of new infections, the program will particularly benefit high-risk groups and the 300,000-500,000 people living with HIV/AIDS, by increasing their care quality and coverage. The program (see Table 1, on back page) will focus its support on a participatory approach to facilitate government work in partnership with patients, community groups, religious organizations, NGOs, health professionals and the private sector.

Figure 1 - Caribbean HIV/AIDS Prevalence Rates

<table>
<thead>
<tr>
<th>Country</th>
<th>Prevalence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinidad and Tobago</td>
<td>0.94%</td>
</tr>
<tr>
<td>Suriname</td>
<td>1.17%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>0.99%</td>
</tr>
<tr>
<td>Haiti</td>
<td>5.17%</td>
</tr>
<tr>
<td>Guyana</td>
<td>2.13%</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1.89%</td>
</tr>
<tr>
<td>Belize</td>
<td>1.89%</td>
</tr>
<tr>
<td>Barbados</td>
<td>2.89%</td>
</tr>
<tr>
<td>Bahamas</td>
<td>3.77%</td>
</tr>
</tbody>
</table>

The five-year program includes:

- Communications campaigns to raise awareness of AIDS as a multi-sector development issue, not only a health concern and to provide information and education on the disease.

Criteria for Country Participation in the Plan of Action

- An approved National HIV/AIDS Strategy and Program;
- Readiness of national leadership (including a structured project management unit);
- Programming for multi-sector implementation;
- The use of sustainable business arrangements;
- Defined institutional arrangements for monitoring and evaluation.
• Scaling up prevention activities, at the national and community levels, aimed at shifting away from high-risk behaviors, promoting condom use, voluntary testing and counseling for vulnerable groups programs to reduce mother-to-child transmissions of HIV, and improved screening of blood transfusions;

• Strengthening care of people living with HIV/AIDS by improving treatment, including sexually-transmitted infections (STIs) and opportunistic infections such as tuberculosis, improving the availability and access to essential drugs;

• Support research and surveillance, including surveys of epidemiology, knowledge, behavior, and better monitoring of the epidemic;

• Capacity building to improve program coordination and resource management.

The Dominican Republic

The $25 million loan to support HIV/AIDS prevention and control in the Dominican Republic will scale-up programs and activities targeting high-risk groups, expand awareness among the general population, and strengthen institutional capacity to ensure that the effort is effective. In partnership with the pharmaceutical industry, the project will also help expand the coverage of the mother-to-child prevention program.

The HIV prevalence rate among the adult population in the Dominican Republic is estimated at 2-3 percent, suggesting that this disease now threatens to become a widespread epidemic. Therefore the project’s main objectives are:

• Reduce by 50 percent the rate of reported HIV cases

• Increase the number of people using condoms from 30 to 50 percent;

• Decrease HIV-prevalence among women of child-bearing age attending prenatal care services to less than one percent by 2004;

• Increase by 40 percent the number of orphaned children receiving care and support.

Barbados

Although most Bank assistance focuses on prevention, some loans also support improvement in treatment and care for people living with HIV/AIDS. Barbados for example is the first country to receive Bank assistance (US$15.1 million) to finance the use of antiretrovirals - a cocktail of drugs that decreases HIV levels in the blood, enabling carriers to live healthier and longer lives.

It is estimated that the 2,415 documented cases of HIV-positive persons in Barbados is only one fifth of the infected population, as the infection rates continue to increase among the economically productive age group of 25-49 year olds. Therefore, the project aims to:

• Reduce reported cases from 1.5 percent to 1 percent of positive HIV tests per year by 2006;

• Increase condom users to 60 percent of the population age 15 or older;

• Reduce mother-to-child HIV transmission to 12 percent or less;

• Increase voluntary testing and counseling by 50 percent;

• Treat 80 percent of AIDS patients with antiretrovirals;

• Improve quality and coverage of clinical treatment and care through the public health system and improved community/home care;

• Increase the life expectancy of AIDS patients by three or more years.

Jamaica

Using a multisectoral approach, the project (US$15 million) would assist the Government of Jamaica (GOJ) in (a) curbing the spread of the HIV epidemic by scaling up preventive programs targeted to high-risk groups, and expanding awareness about HIV/AIDS among the general population; (b) improving treatment, care and support; and (c) strengthening Jamaica’s multisectoral capacity to respond to the epidemic.

• Ante-Natal Clinic (ANC) prevalence rate to be held below 2 percent and among young army recruits less than 1 percent

• A decrease among commercial sex workers from 20 to 10 percent in Montego Bay and 10 to 7 percent in Kingston

• 25 percent reduction of syphilis prevalence rate in ANC attendees aged 15-24

• Delay median age at first sex by at least 0.5 years

• 25 percent reduction in the proportion of men/women who report having sex with a non-regular partner
• Increase in proportion of men/women age 15-49 reporting using a condom in their last sexual intercourse with a non-regular partner.

• Increase the life expectancy of AIDS patients by three or more years.

• Increase from 75 to 85 percent of the proportion of commercial sex workers reporting condom use with their last clients.

• 100% of all district health facilities to have at least one trained counselor providing specialized HIV/AIDS counseling.

Grenada

Project activities (US$6 million) target the whole population, with particular emphasis on high-risk groups such as HIV/AIDS-infected pregnant women, children born from HIV/AIDS infected mothers, adolescents, sex workers, MSM, uniformed personnel, and hotel and tourism workers. About 35% of the population lives in St. George (the capital), and the remainder can be reached within 15 minutes to one hour by road. This population distribution in a small country makes less difficult to reach target groups. The activities selected for project support have been grouped into four components: (i) promotion and behavior change; (ii) prevention and control; (iii) access to treatment and care; and (iv) institutional development, management and surveillance.

• In 5 years, reduce reported HIV/AIDS cases by 50%, and reduce mortality and morbidity attributed to HIV/AIDS, by 40%;

• Improve the quality of life for People Living With AIDSs (PLWAs);

• Consolidate sustainable organizational and institutional framework for managing HIV/AIDS.

Lessons Learned

1 There needs to be a clear demonstration that government, at the highest level, is committed to the issue and ready to provide leadership. This means that the government is committed to discussing the epidemic openly, accepting that a problem exists and that the means of transmission are known. The government should also indicate its willingness to strive to reduce the stigma and discrimination associated with HIV infection.

2 There has to be a clear recognition that reversing the HIV/AIDS epidemic is ultimately an issue of behavior change and that strategic partners (community leaders, youth leaders, peers, etc.) have to be involved in the planning and implementation process. Government, therefore has to indicate its willingness to collaborate with NGOs, CBOs other line ministries and the private sector in program design and implementation.

3 The response to the epidemic must include care and support. There are known and relatively inexpensive means to improve the quality and life expectancy of persons who are HIV positive. Providing care and support to them would convey to the public that HIV is a health problem rather than a moral one. Providing care would require that the health system and health workers begin to manage the disease rather than the death of reprehensible people. The inclusion of care and support in the response to HIV/AIDS are thus expected to contribute to diminish the stigma and discrimination.

4 Prevention must remain at the core of the response: this is most cost-effective way of managing the epidemic. Among possible prevention interventions, behavior change among high risk groups is key. Even though the epidemic is now generalized in Jamaica, those in high risk groups are still more likely to contract and spread HIV to others. Prevention among those at higher risk prevents many more infections in the general population indirectly.

5 Sufficient emphasis has to be placed on strengthening the HIV/AIDS/STI surveillance system as a tool for effective program monitoring and evaluation. The surveillance system must give policymakers timely information on the direction of the epidemic, as well as knowledge of the behaviors that continue driving the epidemic.

6 Strategies for dealing with the epidemic are bound to change as new information becomes available. Implementation procedures must therefore favor flexibility, learning and innovation, and responsiveness to opportunities and demand.

Next Steps

With the Jamaica loan becoming effective in June 2002, the multi-country program is moving forward to its goal of encompassing all Caribbean nations by mid-2003. The project in Grenada was negotiated at the end of May 2002, and is expected to be approved by June 2002. Projects in Dominica, Guyana, and St. Kitts and Nevis are currently under preparation; a project in Trinidad and Tobago was identified in early May 2002 and preparation has begun; St. Vincent and the Grenadines and St. Lucia have expressed interest. An important aspect of future work will be to identify grant sources for Haiti and regional-level activities.

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### Table 1 - Caribbean Regional Strategic Plan of Action for HIV/AIDS 1999-2004

<table>
<thead>
<tr>
<th>Priority Areas for Action</th>
<th>Strategic Actions</th>
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<tbody>
<tr>
<td><strong>Advocacy, Policy Development and Legislation</strong></td>
<td>Promote human rights and non-discrimination</td>
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<td></td>
<td>Target leadership in critical sectors</td>
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<td></td>
<td>HIV/AIDS and health reform</td>
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<td></td>
<td>Conduct research on impacts</td>
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<td></td>
<td>Conduct vaccine trials</td>
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<tr>
<td><strong>Care and Support for People Living with HIV/AIDS (PLWHA)</strong></td>
<td>Conduct situational analysis on access and quality of case</td>
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<td></td>
<td>Develop regional standards of care</td>
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<td></td>
<td>Extend counseling and diagnostic facilities</td>
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<td></td>
<td>Extend networks of persons living with HIV/AIDS and support them</td>
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<tr>
<td><strong>Prevention of HIV Transmission Among Young People</strong></td>
<td>Support the implementation of the Health and Family Life Education (HFLE) initiative</td>
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<td></td>
<td>Integrate into adolescent programs, including reproductive health programs</td>
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<td></td>
<td>Condom promotion</td>
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<tr>
<td></td>
<td>Research and innovation in methodology</td>
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<tr>
<td></td>
<td>Peer counseling</td>
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<tr>
<td></td>
<td>Sexual health education for youth in and out of school</td>
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<tr>
<td><strong>Prevention of HIV Transmission Among Vulnerable Populations</strong></td>
<td>Support development of regional networks</td>
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<td></td>
<td>Support research and development to define best practices</td>
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<td></td>
<td>Support implementation of UNDCP plan of action</td>
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<td></td>
<td>Integrate HIV/AIDS prevention and care into prison health care programs</td>
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<td></td>
<td>Targeted information, education and communication (IEC) programs</td>
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<td></td>
<td>Conduct situational analyses</td>
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<td></td>
<td>Include HIV/AIDS issues in tourism and health initiatives</td>
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<td></td>
<td>Develop regional policy and operational guidelines</td>
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<td></td>
<td>Identify and support field training sites/models</td>
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<tr>
<td><strong>Prevention of Mother-to-Child HIV Transmission</strong></td>
<td>Target women for IEC programs</td>
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<tr>
<td></td>
<td>Negotiate with pharmaceutical companies for access to antiretroviral drugs for prevention of mother-to-child HIV transmission</td>
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<td>Close collaboration with UNICEF for program development and implementation</td>
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<td><strong>Strengthening Regional and National Response Capabilities</strong></td>
<td>Network with regional agencies and NGOs</td>
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<td>Support capacity building in key agencies</td>
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<td>Upgrade HIV/AIDS surveillance</td>
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<td>Develop a comprehensive IEC strategy and program</td>
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<td>Develop research agenda and promote implementation</td>
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<td>Promote technical cooperation among countries</td>
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<td>Target the private sector</td>
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<td>Strengthen monitoring and evaluation capacity</td>
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### About the Author

1 - Patricio Marquez is a Lead Health Specialist in the Human Development Department of the Latin America and the Caribbean Region of the World Bank.

### Notes

2 - This program is supported through a US$155.0 million Multi-Country HIV/AIDS Prevention and Control Adaptable Program Lending (APL) for the Caribbean Region approved by the World Bank’s Board of Directors on June 28, 2001

### More on this Topic

See “Health, Nutrition and Population” under http://www.worldbank.org/lac and...
http://www.worldbank.org/AIDS

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“en_breve@worldbank.org”
Crying wolf? Contagion is a real threat!

SUBMITTED BY PATRICIO V. MARQUEZ ON MON, 09/26/2011

If you accept my 5 cents of wisdom, you should rush to see the new movie “Contagion.” It is a well done, spooky public health mystery, with great acting. Why you may ask? Simply because it is a timely reminder about the public health risks but also the potential benefits of a globalized world.

Watching the movie brought back vivid memories of passionate discussions we had in the fall of 2005 when we—a Europe and Central Asia and East Asia and the Pacific agriculture and public health team—prepared in a few days what became the $500 million Global Program for Avian Influenza and Human Pandemic Preparedness and Response. Some colleagues argued with merit that we were “crying wolf” and that it was going to be a waste of precious resources. Our counter argument was “this is a wonderful opportunity to shine a light and revamp health surveillance systems, basic public health laboratory networks, and update the epidemiological intelligence capacity as these basic public health services and functions usually tend to be the most deteriorated, underfunded, and often underdeveloped, elements of a health system.” Ditto in the veterinary sector.

The movie clearly portrays the interconnection of the animal and human health dimensions of communicable diseases, and how in the new phase of globalization—large-scale movements of people, goods, and services, and shortened geographical distances due to the dramatic growth and improvement of air transportation—the rapid spread of viruses and bacteria is a clear and present danger. The movie also shows that to be vigilant and to be able to mount a rapid and effective response, both locally and globally, countries need to have well-developed, adequately staffed and funded public health agencies such as the U.S. Centers for Disease Control and Prevention (a big role in the movie) to serve as the “intelligence centers” that guide multisectoral responses by collecting, analyzing, and disseminating data and information for decision-making, communicating, and educating the general population, and sharing evidence across countries.

And, as the movie also shows, strong public health infrastructures and networks are needed to galvanize the power of evidence and scientific knowledge to come up with tools (e.g., vaccines or drugs) to control the spread of infectious pathogens that cause disease. In doing so, the movie brings to the fore with great cinematic eloquence one of the main benefits of globalization: the sharing of knowledge and expertise to deal collectively with common public health threats that do not need passports to move with impunity across national borders and cause havoc.

In retrospect, while the avian influenza and human pandemic of the mid-2000s did not become another global disaster as the 1918-1919 Spanish flu pandemic that caused millions of deaths worldwide, it alerted us, just as the movie does, that strong public health structures and essential functions are critical to help member countries build resilience and respond to crises in an ever more interconnected and integrated global village.
Here we go again! In the last couple of weeks there has been a lot of media buzz about the outbreak of H7N9, a new deadly bird flu virus in China, centered in Shanghai and surrounding provinces and now reported in Beijing. This outbreak follows the global panic and economic and travel disruptions caused by the severe acute respiratory syndrome, or SARS, in 2003 and the H5N1 avian influenza outbreak in 2006.

Compared to previous episodes, according to *The Economist*, this time the government response in China has been “far swifter and more open.” Does this mean that across the world governments have adopted policies and made the necessary investments to develop and strengthen essential public health infrastructures to respond effectively to this type of public health crisis?

I would say the answer in many countries is “no.” Disease surveillance systems, public health laboratory networks, and epidemiological intelligence capacity, which are critical for understanding how infectious diseases spread and mounting an effective response, continue to be the most deteriorated, underfunded, and often underdeveloped, components of the health systems.

So what can countries do to be ready to deal with the spread of viruses such as H7N9 and outbreaks of infectious diseases that transcend national borders and swiftly move across continents, making governments, businesses and the population jittery?
Country experiences show that a coordinated effort is needed to identify the strengths and weaknesses in veterinary and public health systems, and develop interventions to sustain good practices and bridge gaps to tackle the animal and human health dimensions of infectious diseases such as bird flu.

Building strong bridges between systems, institutions and professions is critical to promoting effective prevention and response to contagious diseases arising at the animal-human and ecosystems interface. Such an approach is strongly advocated in a recent World Bank Public Health Policy Note, *Connecting Sectors and Systems for Health Results*, and is key to addressing the “diseases of today and tomorrow,” to paraphrase Dr. Jim Yong Kim.

This implies, as countries such as Argentina and Brazil have done with the support of the Pan American Health Organization and the World Bank, that governments need to prioritize the adoption of policies and target investments to develop and maintain institutional capacity at the national and local levels to perform essential public health functions.

Such functions include: 1) monitoring, evaluation, and analysis of population health status; 2) surveillance, research, and control of the risks and threats to public health; 3) health promotion; 4) social participation in health; 5) development of policies and managerial capabilities to support public health efforts; 6) public health regulation and enforcement capacity; 7) evaluation and promotion of equitable access to necessary health services; 8) human resources development and training in public health; and 9) reduction of the impact of emergencies and disasters on health.

The lessons of history clearly demonstrate the importance for countries of having well-developed public health systems (the latter not to be confused, as is often the case, with medical care services delivered in clinics and hospitals run by Ministries of Health or other public entities).

Just as the spread of “pestilences” in the Latin American and Caribbean colonies during the early 16th century was facilitated by maritime trade and required first quarantine systems, new laws and regulations, sanitation campaigns in the major port cities, and eventually the creation of ministries and departments of health to administer the public health functions to control the spread of diseases that disrupted trade (e.g., yellow fever) and agricultural production (e.g., hookworm disease, malaria), in the 21st century, newly emerged and re-emerging infectious diseases threaten the entire global community and require similar systemic efforts.

I would argue, then, that efforts to address the systemic deficiency of public health systems and to build the institutional capacity for performing essential public functions should be a priority component of any global health initiative for the post-2015 period. After all, the prevention and
control of infectious disease epidemics that extract a heavy human, economic and social toll are a "global public good" that merits priority support from national governments and the international community, including the World Bank.

Follow the World Bank health team on twitter: @worldbankhealth
A couple months ago while stationed in Ghana, I was approached by colleagues and friends with questions on how to prevent contagion from the deadly Ebola virus. Their concern was stoked by reports in media outlets about the rising number of confirmed cases and deaths in neighboring countries.

The alarm was justified. The current outbreak of Ebola in West Africa is the deadliest since it was first identified in 1976 in what was then Zaire (now the Democratic Republic of Congo) by Dr. Peter Piot, who later went on to lead the global fight against HIV, and others. The cumulative number of cases attributed to Ebola in Guinea, Liberia and Sierra Leone now stands at 982, including 539 deaths.

As described by Dr. Piot in his autobiography, *No Time to Lose*, and more recently in *The Financial Times*, the virus, which is assumed to circulate in bats, infects people through contact with blood or infected droplets. Once in humans, the transmission between people results from contaminated injections, contact with blood and body fluids, sex, and possibly from mother to child. About one week after infection, the patient develops severe fever, diarrhea and vomiting, starts to bleed and is affected by clots in the body’s blood vessels, which lead to generalized organ failure, shock and death. The case fatality is staggeringly high: 90% in Zaire and 60% in West Africa.

While an uncontrolled outbreak of Ebola is frightening, in principle, as advised by Dr. Piot, it should be easy to contain if health workers and health facilities adopt simple, inexpensive and effective strategies that include the use of gloves, hand-washing, safe injection practices, isolation of patients, safe and rapid removal of corpses of those killed by Ebola, tracing of contacts, and follow-up
observation of at-risk populations. Social mobilization and risk communication activities that focus on “at-risk groups” (e.g., people who consume bat meat, or who frequently travel across borders) and “at-risk behaviors and actions” (e.g., preparation/consumption of “bush meat”, treating the sick, or handling corpses of infected patients), help increase knowledge about causes, symptoms and modes of prevention among the population.

We should be mindful, however, that outbreaks of Ebola and other dangerous viruses such as the Middle East Respiratory Syndrome (MERS) in Saudi Arabia, are an ever-present danger in our interconnected world. The risk of animal-to-human transmission of lurking viruses will continue to be nurtured by close contact of people with wildlife, which is facilitated nowadays by the rapid spread of human settlements, aggressive mineral extraction practices, environmental degradation, the globalization of trade and services, mobility of people across borders, and poor, inadequate, and dysfunctional health systems in many countries.

The universal health coverage agenda offers countries and the international community a “window of opportunity” to move from ad hoc, short-term responses to the development of robust public health systems and service delivery platforms. Adopting ‘One Health’ approaches is also essential—that is, collaborative efforts between public health, veterinary and environmental services. This would facilitate the sharing of information, and enable holistic analysis of risks and joint responses to prevent and control outbreaks of diseases of animal origin, such as Ebola. In doing so, countries would also be complying with WHO’s International Health Regulations that require governments to notify WHO of disease outbreaks.

As international experience shows, strong national leadership is critical to make progress in this area. And, sustained domestic funding, coupled by regional funding arrangements such as the one proposed by the Economic Community of West African States (ECOWAS) at the recent Presidential Summit to establish a Regional Pool Fund for Ebola, are necessary complements to political commitment. International support, both technical and financial, is justified as it would contribute to reduce the global risk of the spread of viruses at their source.

As recently described by Laurie Garrett of the Council of Foreign Relations, the Ebola virus in West Africa should be tackled the same way it was done in 1976: with soap, clean water, protective gear, safe medical practices, and quarantine; technology and vaccines are of no use. Also community engagement and involvement, effective contact tracing, cross-border collaboration and effective coordination would be critical. But, I would add that in pursuing a broader development agenda to end poverty and enhance shared prosperity over the medium term, countries and the international community have the responsibility to act on the recognition that environmental factors can impact human health and support the development of sustainable ‘One Health’ platforms to deal with the emergence of new viruses or the reemergence of known pathogens that risk affecting all of us across the world.

*Follow the World Bank health team on Twitter: [@worldbankhealth](https://twitter.com/worldbankhealth)*
Antimicrobial Resistance: A new global public health “ticking bomb”?

SUBMITTED BY PATRICIO V. MARQUEZ ON MON, 07/28/2014

As the saying goes, in a crisis, we need to be aware of the danger, but also recognize the opportunity. So, while the global media is nowadays full of dispatches about the deadly Ebola outbreak in West Africa, perhaps is time to pause and think about another public health risk that has the potential to wreak similar havoc in our globalized world. This risk is antimicrobial resistance (AMR), which is resistant to drugs to treat infections caused by microbes (e.g., TB), parasites (e.g., malaria), viruses (e.g., HIV) and fungi (e.g. Candida). AMR is a natural phenomenon, but human action, such as the inappropriate use of antimicrobial drugs in health care and breeding of crops and animals, inadequate sanitary conditions, inappropriate food handling (e.g., food not properly stored), and poor infection prevention and control practices in health facilities, contribute to the emergence and spread of AMR.

Should we worry? The answer is a resounding YES. The social and economic consequences of AMR are enormous, and they are poised to escalate to ominous levels in the coming years. The U.S. Centers for Disease Control and Prevention (CDC) estimates that in the United States alone, antibiotic resistance annually causes more than 2 million illnesses and 23,000 deaths, and that each year, nearly 2 million people acquire an infection while in a hospital, resulting in 90,000 deaths.

Data from the World Health Organization (WHO) show that, in 2012, there were 450,000 new cases of multidrug-resistant tuberculosis (MDR-TB) and that extensively drug-resistant tuberculosis (XDR-TB) has been identified already in 92 countries.
Similarly, resistance to earlier generation antimalarial drugs is widespread in most malaria-endemic countries. Antibiotic resistance can also be found in bacteria, which causes common infections (e.g., urinary tract infections, pneumonia), and highly resistant bacteria such as MRSA, which contributes to a high percentage of hospital-acquired infections.

Resistance to antiviral drugs to deal with influenza outbreaks is continuously emerging, and HIV drug resistance is strongly associated with failure to achieve suppression of viral replication, and hence with increased risk for disease progression.

While the wider societal impact and economic cost of AMR must be assessed, it should be obvious to us that if nothing is done, AMR has the potential to increase the risk of poor health outcomes and death among patients because it will severely hamper our ability to treat common infectious and viral diseases. This, in turn, can lead to increased spending or waste of limited health care resources, undermining the financial sustainability of health systems and country strategies to expand health care coverage.

If not controlled, AMR also threatens the viability of global health programs to reduce the burden of malaria, TB, HIV or other infectious and viral diseases, as well as to expand universal health coverage.

What can be done? Given the interconnection of multiple factors and actions associated with AMR, comprehensive and coordinated action is required to prevent and minimize its spread. Actions need to involve patients, health care providers, pharmacists (in some countries or regions, they are the de facto prescribers of the drugs that are sold and consumed by patients), policymakers and program managers, as well as researchers and the medical industry, for the development of new diagnostic and treatment tools. And, as in the case of efforts to prevent and minimize the spread of infectious diseases of animal origin, collaboration between public health, veterinary and environmental services is vital.

WHO’s recent global report on surveillance of antimicrobial resistance provides a broad framework to guide action at the national and international levels. Effective implementation of strategies to combat AMR will require commitment at the highest political level to comprehensive and funded national plans, with accountability and civil society engagement. It also requires action to: (i) strengthen surveillance and laboratory capacity for the systematic collection, analysis, reporting and utilization of health-related data for policymaking; (ii) assure uninterrupted access to essential medicines of validated quality; (iii) regulate and promote rational use of medicines in both patient care and animal husbandry; (iv) reduce use of antimicrobials in food-producing animals; (v) enhance infection prevention and control measures in health facilities; and (vi) innovate and conduct research and development for new medicines and other tools to control infections, as part of public and private partnerships.

In the health sector, attention to AMR could help overcome the relative neglect of health care processes by making quality improvement approaches an integral and permanent part of health services delivery.
In the same way as uncontrolled outbreaks of infectious diseases of animal origin can spread with impunity across national boundaries, causing social and economic havoc, AMR can negatively impact rich and poor countries alike, because patients who remain infectious for a longer period of time pose an increased risk of spreading drug-resistant microorganisms to others. As such, AMR should be seen as another global health security threat that requires a concerted, multisectoral effort by governments and international organizations, including the World Bank Group, to assist countries in developing resilient institutional arrangements to reduce vulnerability across countries by operationalizing the WHO’s framework for action.

If we aspire to a better present and future for humanity, we must act now with decisive action to prevent and mitigate AMR. Otherwise, we run the risk of slipping back into an era when a simple cut finger could cause a life-threatening infection or kill otherwise healthy people because available drugs and treatments are rendered ineffective.

Follow the World Bank health team on Twitter: @worldbankhealth
An ominous future: common infections can kill us
SUBMITTED BY PATRICIO V. MARQUEZ ON TUE, 09/27/2016
CO-AUTHORS: ALBERT FIGUERAS

While recent health crises, such as the deadly Ebola outbreak in West Africa, have caused much human and economic devastation in the affected countries and tested the resolve of the international community, the past hundred years have witnessed dramatic improvements in human health not seen in previous centuries when life was in most cases “poor, nasty, brutish and short” as Thomas Hobbes, the English philosopher, observed in the 17th Century.
A quick glance at the main causes of death over time makes this crystal clear. While infectious diseases such as tuberculosis, pneumonia and diarrhea, which were major killers in the first part of the 20th Century, have experienced a rapid decline, non-communicable chronic diseases --- heart disease, cancer, diabetes, and others, now account for nearly two out of every three deaths worldwide. The dramatic reduction in mortality due to infectious diseases was achieved by advances in scientific and medical knowledge that improved our understanding of how contagion of infectious disease occurred and the application of that knowledge through basic public health practices, sanitation and hygiene, and investments in safe water. The discovery and introduction of medicines that kill microbes in the early 1930s, beginning with sulfa drugs and penicillin, revolutionized medical care and contributed to further health improvements.

In spite of the health benefits brought by penicillin, Sir Alexander Fleming, who isolated the penicillin fungus, warned in his 1945 Nobel Laureate speech that the widespread use of antimicrobials (AMs) for curing diseases risked making bacteria resistant to these new medicines. Indeed, he foresaw the looming AMR crisis facing the world today, observing that "...the time may come when penicillin can be bought by anyone in the shops. Then there is the danger that the ignorant man may easily underdose himself and by exposing his microbes to non-lethal quantities of the drug make them resistant."

While AMR is the natural self-defense mechanism of microbes against attacks that threaten their survival, such as from antibiotics, we humans have done our part in aggravating this condition and its impact. Indeed, one of the most important causes of AMR is inappropriate use of antibiotics in the health system.

As a contribution to a new World Bank report on AMRs launched during the United Nations General Assembly last week, our team conducted a systematic review of the literature and prepared case studies in six low- and middle income countries (Botswana, Croatia, Georgia, Ghana, Nicaragua, and Peru) to provide a cross-country "snapshot" of factors that contribute to AMR. The analysis focused on the market offer and consumption of antibiotics in the public health system, use of antibiotics in health facilities, availability of antibiotics without prescription in pharmacies (via a self-referred patient that simulated having an urinary tract infection), as well as characteristics of multidrug-resistant tuberculosis and hospital-acquired infections that are usually produced by multi-resistant microbes.

The findings highlight the need for multifaceted action to prevent failures along the therapeutic chain which increase the risk of AMR, including:

- **Systematic reviews of the type and number of antibiotics available in the market for use in countries.** This information is of critical importance for helping develop policy measures to control irrational use of antibiotics; for example, use of fixed-dose antibiotics that include two or more active pharmaceutical ingredients combined in a single dosage form, but without any clear therapeutic advantage over individual ingredients available separately. Also, having this knowledge in low-and middle income countries could help reduce the use of antibiotics already withdrawn from the market in high-income countries due to safety and inefficacy risks, and of redundant brand name drugs with the same antimicrobial, which only confuses prescribers and patients.
• **Formulation, adaptation and incentivized use of treatment norms and hospital protocols to guide appropriate prescription and utilization of antibiotics in the health system.** The use of guidance based on scientific and clinical evidence is critical to develop a “cautious prescription and use culture” of antibiotics and other drugs.

• **Education campaigns about the risks associated with the misuse of antibiotics.** These are important for raising awareness of the problem among health professionals, patients and the general population.

• **Enactment and enforcement of regulatory measures to monitor and control the procurement of antibiotics without a prescription in pharmacies.** This is common practice in low- and middle-income countries, which needs to be strictly regulated and enforced to prevent the indiscriminate use of antibiotics and the risk of AMR.

• **Infection prevention and control measures at health facilities.** As we saw during the Ebola outbreak, these measures are of critical importance to reduce hospital-acquired infections (HAI), including those caused by drug-resistant pathogens.

• **Measures to support patient compliance with treatment regimens.** Since the emergence of numerous cases of drug-resistant pathogens can be traced to poor adherence to the recommendations made by physicians or pharmacists, ensuring treatment compliance is important for controlling MDR. This is of particular importance in the case of conditions such as tuberculosis (TB) to prevent the onset of MDR-TB and Extensively drug-resistant tuberculosis (XDR-TB), which require extensive, high-cost, treatment for up to two years.

In moving forward, we have to be clear that in the same way as uncontrolled outbreaks of infectious diseases of animal origin can spread with impunity across national boundaries, AMR can negatively impact rich and poor countries alike, because patients who remain infectious for a longer period of time pose an increased risk of spreading drug-resistant microorganisms to others. A concerted global effort, with clear goals and targets, needs therefore to be implemented at the country level by governments and international organizations, including the World Bank Group, to avoid returning to a time when simple infections can kill us.
As we close the chapter on 2014, which is likely to be remembered in history as the “year of Ebola,” it is worth drawing some initial lessons for the future.

While the epidemic in West Africa is still evolving, despite progress made over the last few months, this global health crisis has made evident at a very high human, social, and economic cost the imperative of investing and sustaining disease surveillance systems as a priority “global public health good.”

Let’s be clear: globalization is not going to wither away, as it has been part of human history for millennia. Rather, we are and will continue to live in an increasingly interconnected world. While there are multiple benefits from globalization, there are also public health risks that are associated with demographic and economic pressures on ecosystems that facilitate the transmission of new pathogens from animals to humans. These zoonotic diseases account for 70% of emerging infectious diseases.

As we have seen recently with Ebola, an infectious disease of animal origin, and before with SARS and Avian Influenza, viruses jump and spread across borders without passports, wreaking havoc in their wake among
unsuspecting populations, countries, and continents. This situation is becoming more challenging as the increased movement of goods, services, and people across the world facilitates the rapid spread of infectious diseases.

Perhaps one of the best antidotes for countries to be ready to detect early, identify rapidly, and respond effectively to future outbreaks like Ebola, is to learn from this and past health crises across the world and to adapt the lessons of what has worked well and not so well. Indeed, tapping into a vast global knowledge repository to help build resilient health systems should be seen as one of the great benefits of globalization that cannot be overlooked or simply wasted.

While the 2005 International Health Regulations (IHR) that came into effect in 2007 mandate that countries use existing national structures and resources to develop and maintain capacity for disease surveillance, reporting, notification, verification, response and collaboration activities, evidence from efforts to establish and expand regional disease surveillance networks -- such as those in the Mekong Basin, East Africa, Southeastern Europe, Southern Africa, or the Asian Partnership -- demonstrates that cooperative arrangements among neighboring countries can control cross-border disease outbreaks at their source and improve health outcomes.

As documented in the summary article* of a special issue of the Emerging Health Threats Journal**, the establishment of regional disease surveillance networks can add value by:

- Complementing global and country disease surveillance systems, particularly by helping address the lack of or limited surveillance capacity in countries, their limited diagnostic capabilities, and disincentives to reporting due to fear of economic consequences.
- Harnessing network power, not only to implement the IHR by upgrading national surveillance systems and supporting standardization of definitions, detection, and reporting, but more importantly by prioritizing building trust-based relationships that facilitate informal reporting and sharing of sensitive information, and enabling cross-border collaboration and the strengthening of national technical capacity.
- Helping national institutions adapt to changing conditions and needs associated with infectious disease spread, which require multinational, multi-sectoral, and multi-disciplinary solutions.
- Establishing networks that foster local leadership and action and collaboration among national public health institutions and research and training centers.

As Ebola-affected countries in West Africa and the international community continue to strengthen the response to the epidemic to achieve the goal of zero Ebola cases, perhaps the establishment of a West Africa-wide regional disease surveillance network should be high on the priority “to do” list for the medium term, to bring together not only the affected countries but also neighboring countries, since infectious diseases do not respect national borders.

Moreover, working in accordance with “One Health” principles, the region will be in a better position to detect early, prevent, respond, and mitigate the impact of outbreaks of infectious diseases, both new and endemic, by linking public health, veterinary and environmental services, as well as to deal with anti-microbial resistance.

For a regional disease surveillance initiative to succeed and be sustainable over time, two critical ingredients are required (i) active leadership, engagement, and funding support of national governments and international agencies, coupled with continuity in the participation of individuals and institutions to gradually establish a basis of shared knowledge, trusted communication, and experience; and (ii) the ability to leverage and build upon existing governance structures and initiatives, and connect national public health institutions, training, and research centers in the region.

As the saying goes, a crisis poses challenges but also offers opportunities to learn and evolve. All of us in the global health community have an obligation not only to learn from the current Ebola crisis and what has worked elsewhere but to avoid, paraphrasing the Harvard philosopher George Santayana, being condemned to face unprepared similar crises in the future.
3. Growing Relative Importance of Noncommunicable Diseases
The cat is out of the bag: UN summit on NCDs

Submitted by Patricio V. Marquez On Wed, 09/21/2011

As a World Bank staff member, I feel privileged to have participated in two landmark global public health events.

In June 2001 at a UN General Assembly Special Session, world leaders collectively acknowledged—for the first time—that a concerted global response was needed to arrest the HIV/AIDS pandemic. This led to the establishment of the Global Fund[1] and bilateral initiatives such as PEPFAR[2], which helped fund a scaled-up response to HIV/AIDS[3], as well as to malaria and tuberculosis. The net result for the most part has been impressive: a dramatic expansion in access to treatment that has saved millions of lives, a significant reduction in the vertical transmission of HIV (mother to child), technological progress resulting in cheaper, more effective treatments, and better knowledge about HIV transmission to guide prevention efforts—while highlighting the need to revamp health systems[4] to make the effort sustainable.

I’m in New York this week at the UN Summit on Non Communicable Diseases (NCDs), where more than 30 heads of state, 100 ministers, international agencies, and civil society organizations are discussing a pressing global health issue: NCDs[5]. This is a policy nod in the right direction, as NCDs have been largely ignored in development circles even though they cause two-thirds of all deaths in the world (most of them prematurely) and long-lasting ill health and disability, and due to NCDs’ chronic nature, increase the risk of impoverishing millions of people who lack or have limited access to health systems.

In spite of the high expectations for the Summit, there is a sober realization that we are living in a different world than in 2001. Because the severity of the economic slowdown and fiscal deficits—particularly in the developed world—may constrain international assistance in the upcoming years, there is a growing understanding that countries will need “to do more with less” and that they “cannot treat their way out of the NCD challenge” as stressed in a World Bank report[6] launched prior to the Summit.

So, I am optimistic that the post-Summit will bring forward some sound and effective approaches to deal with NCDs. The last ten years of global public health history offer multiple lessons to guide the response, particularly to avoid the false dichotomies of communicable versus non-communicable diseases, prevention versus treatment, and vertical programs versus health systems—they are mutually reinforcing. And, the World Bank, as a multisectoral institution, is well-positioned to assist countries in adapting (I would like to stress adapting and not adopting.) those lessons to their respective institutional and cultural realities—particularly in dealing with some of the social determinants of behaviors (e.g., smoking) and biological risks (e.g., obesity, hypertension due to poor diets high in trans fats, saturated fats, salt, and sugary drinks) that are associated with the onset of NCDs, as well as to strengthen the health services centered around a strong primary care system and universal health financing arrangements.
Three years have elapsed since world leaders adopted the Political Declaration on Non-Communicable Diseases (NCDs) at the United Nations General Assembly (UNGA) in New York. In doing so, they committed to develop national plans to prevent and control NCDs, along with targets to monitor the progress achieved.

Last week, a similar high-level meeting took place at the UNGA to assess efforts made since 2011 to implement those commitments. So what is the score card?

The progress achieved thus far appears to be mixed. Indeed, as the World Health Organization (WHO) Director General, Dr. Margaret Chan, stressed in her opening remarks at the meeting, “I see no lack of commitment. I see a lack of capacity to act, especially in the developing world”.

She backed up this observation with both information about efforts made by governments to move this agenda forward and recent data from a 2014 country profiles report prepared by WHO that shows the current high and increasing global mortality from NCDs. It is estimated that 38 million people die each year from NCDs, mainly from cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes, and that over 14 million deaths from NCDs occur between the ages of 30 and 70, of which 85% are in developing countries.
The unfortunate fact behind this situation is that these premature deaths are largely preventable if simple, cost-effective and affordable interventions to reduce biological and behavioral risk factors for NCDs are implemented. Health systems should be retooled and strengthened to respond effectively to this challenge, taking into account evidence from accumulated knowledge and experience across the world, and recent scientific and technological developments.

Given the many political declarations and government commitments, what is hindering a scaled up and sustainable response to the NCDs (and I would add road traffic injuries) challenge?

As NCDs and road traffic injuries overtake communicable diseases as the leading causes of mortality and morbidity in most of the world, Dr. Chan advocates for a major shift from the prevailing biological, clinical and curative-oriented paradigms that have governed the way societies organize and fund health systems, to one that stresses health promotion and disease prevention. This new model would focus on social determinants of health and changing behaviors; move from short-term management of acute episodes of ill health to long-term management of chronic health conditions, with their complications and comorbidities; and be driven by concerted action involving multiple sectors, business partners, and community actors.

The above shift is inescapable. As Dr. Chan noted, while health systems bear the brunt of NCDs (and road traffic injuries), they have little control over their causes. Indeed, as she said, “The health and medical professions can plead for strong tobacco and alcohol legislation, more exercise, and healthier diets. We can treat the diseases and issue the bills, but we cannot re-engineer social environments to promote healthy lifestyles.”

Therefore, it should be clear to all of us working in the health sector that an effective, government-led, multisectoral effort needs to be advocated, launched, supported, strengthened and operationalized to deal with NCDs (and road traffic injuries) as we move through the second decade of the 21st century.

When reading Dr. Chan’s remarks, I was struck by the revolutionary tone and wisdom in her words. They vividly brought back to me lessons and inspiration from my student days, when I read the work of 19th century public health pioneers such as Rudolph Virchow, one of the founders of social medicine, and John Snow, one of the fathers of modern epidemiology. The more recent writings of a generation of social medicine practitioners in Latin America and the Caribbean further stress that successful health promotion and disease prevention depends upon a population-based strategy that tackles the social and environmental causes of ill health, premature mortality, and disability, and not only individual risk factors and the clinical manifestation of disease -- symptoms and signs observed by physicians or felt by the patient.

Those of us who work in health and across many other sectors at the World Bank Group, as well as in coordination with WHO and other international agencies, now have an unprecedented opportunity to help countries design and introduce coherent, evidence-based, multisectoral policies and actions to push forward the strategy of health promotion and disease prevention to deal with NCDs (and road traffic injuries). In doing so, World Bank Group teams can become major contributors to the improvement of the health status and the well-being of populations, and hence to end poverty and reduce inequalities, across the world in years to come.

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[1] Rudolph Virchow
[3] Follow the World Bank health team on Twitter: @worldbankhealth
A couple weeks ago, I had the opportunity to participate in the launching of The Lancet’s fourth series on non-communicable disease (NCDs) and development. This was a well-attended event chaired by the Dean of the London School of Hygiene and Tropical Medicine, Prof. Peter Piot.

It was clear by the presentations and discussion that there is a growing consensus at the international level on the need to identify mechanisms for global action to tackle NCDs. Indeed, as noted in a statement of support sent on behalf of U.K. Prime Minister David Cameron, “NCDs affect the poorest people most as prevention, detection and treatment services are often out of reach. Our focus on health in developing countries is to support improvement in the provision of accessible and good quality, basic health services for the poor so that countries can identify and address their own health priorities including NCDs.”

The aim of the new series is to contribute to discussions on setting a clear path for countrywide implementation of NCD plans in the post-Millennium Development Goal (MDG) era, toward a unified goal of ‘25 by 25’—reducing NCD mortality worldwide by 2025. The series builds on previous Lancet Series (2010, 2007, 2005), and on the high-level United Nations NCD meeting convened in New York in September 2011.

The papers in the series cover a range of points of view, addressing: 1) the importance of embedding NCDs into post-2015 MDG strategy, essential if the ‘25 by 25’ target is to be achieved; 2) NCD countrywide/ step-wise approaches
including planning, implementation, accountability, and the importance of a National NCD Commission to monitor progress; 3) reducing health inequalities; 4) addressing the negative effects of 'unhealthy food and drink commodities'; and 5) the importance of scaling up access to vital medicines, including wider availability of affordable generic drugs.

Perhaps one of the key contributions of the new series to the ongoing discussion on “what to do” to effectively tackle NCDs is an article on how to improve responsiveness of health systems to NCDs while avoiding the false dichotomy of controlling communicable and non-communicable disease separately. Indeed, the Lancet article by Atun et al makes a strong case and provides examples on how the significant HIV and TB investments made over the last decade to strengthen health systems in developing countries offer opportunities to integrate NCD prevention and control with HIV and other programs.

As I’ve argued elsewhere in relation to the situation in Africa, the double burden of communicable and non-communicable disease challenges policymakers and service providers to adopt/adapt innovative approaches that use existing resources to make health systems more effective in dealing with the growing reality of individuals afflicted by multiple chronic conditions and complex symptoms. Let’s not forget, for example, that the scaling up of antiretroviral drug treatment has made HIV/AIDS a manageable chronic condition or that the comorbidity of TB and diabetes in the same individual can worsen outcomes for both diseases.

As we move into the post-2015 development agenda, building upon accumulated scientific evidence and country experiences, it is imperative that rather than concentrating on specific diseases, future global health efforts be centered around building institutions and systems that offer both more equitable access to quality services to address the health needs of the population, and financial protection in cases of premature death, ill health and disability.

This rethinking of goals and approaches is doable if we do not lose sight that the end result should be the improvement of health conditions that impede human development. Indeed, as Helen Clark, United Nations Development Programme Administrator, eloquently stated in the keynote address at the launch of The Lancet series, “NCDs, and the illnesses and suffering associated with them, stand in the way of people’s aspirations, freedoms, and capabilities to lead lives they value – that is, they stand in the way of realizing the core objective of human development.”

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FEATURE STORY

WORLD BANK REPORT

Toward a Healthy and Harmonious Life in China: Stemming the Rising Tide of Non-Communicable Diseases

This report was prepared over December 2010–April 2011 by a World Bank team comprising: Shiyong Wang (East Asia and Pacific Region, EASHD), Patricio Marquez (Europe and Central Asia Region, ECSHD), and John Langenbrunner (EASHD).


July 26, 2011
Based on current trends, the Chinese can expect to live only 66 “healthy years”, ten years less than in some leading G-20 countries.

Non-communicable chronic diseases (NCDs) are the leading cause of death in China, accounting for close to 70 percent of the disease burden and over 80 percent of the 10.3 million deaths caused by all diseases annually. The four leading NCDs in China are cardiovascular diseases (CVDs), diabetes, cancer and chronic obstructive pulmonary diseases (COPDs).

NCD mortality in China is higher than in other leading G-20 countries: for stroke it is four to six times higher than in Japan, the United States and France, and for COPD mortality is about 30 times as high as in Japan.

From 2010 to 2030, the total years lost due to NCD morbidity and mortality are expected to increase significantly. Population aging could compound the NCD burden by at least 40 percent by 2030 if effective measures are not taken to prevent and control NCDs and promote healthy aging.

NCDs, if not controlled effectively, will not only exacerbate the expected labor force shortages but also compromise the quality of human capital, because more than 50 percent of the NCD burden currently falls on the economically active population (people aged 15–64).

A reduced ratio of workers to dependents with poor health would increase the odds of a future economic slowdown and present significant social challenges.
A substantial, avoidable economic burden is associated with NCDs. For example, estimates for China done for the report indicate that the economic benefit of reducing CVD mortality by 1 percent per year over a 30-year period (2010–2040) could generate an economic value equivalent to 68 percent of China’s real GDP in 2010, or more than US$ 10.7 trillion.

Over 50 percent of the NCD burden is preventable by modifying health and biological risk factors. Tobacco use; harmful alcohol use; poor diet, particularly high consumption of fast foods rich in fat and salt and sugar-rich soft drinks; and physical inactivity are the main risk factors.
Dying Too Young in the Russian Federation


December 5, 2005

Appeared in Russian in Vedomosti, a Russian-language business daily published in Moscow, previously a joint venture between Dow Jones, the Financial Times and the publishers of The Moscow Times

If the most productive members of Russian society – working age men and women – continue to die too young from heart disease, cancer, car accidents, and alcohol poisoning the toll on the economic and social well being of the country could be enormous. Indeed, since the late 1990s, chronic illnesses are estimated to have contributed to an annual loss of 5.6% of per capita income per year, clearly representing a drain on household incomes in Russia.

In 2003, cardiovascular diseases, cancer, and injuries accounted for 78 percent of deaths and 15.2 million lost years of potential life among the working-age population. This can be broken down further to 10.3 million lost life-years among men and 4.9 million among women.

The mortality rates from these conditions in Russia are three and five times, respectively, those in the European Union (see graph). For every 100,000 population, Russia suffered 605 deaths from non-communicable diseases in 2002, while the EU experienced only 206. The same population size experienced 281 deaths from injuries in Russia, while the European Union experienced 58.

Traffic injuries include crashes involving motor vehicles, pedestrians, or cyclists. At 20.6 deaths per 100,000 population, Russia’s traffic mortality rate is higher than that of other former Soviet states and nearly double that of other G-8 countries, with rates at 11.

Source: WHO European Health for All Database.
Life expectancy in Russia, at 66 years for men and women combined, is 12 years less than life expectancy in the United States; 8 years less than Poland; and five years less than in China. President Vladimir Putin, in his 2005 State of the Nation Address, attributed this discrepancy to “the high death rate of the working-age population”.

Examining life expectancy further, one sees that Russian men are particularly at risk: they live 16 years less on average than men in Western Europe and 14 years less than Russian women. If current rates of ill health and disability continue, the healthy life expectancy of Russian males will fall to 53 years.

Compounding this is a decline in Russia’s population, fueled by low fertility and high mortality. This drop – from 149 million people in 1992 to approximately 143 million as of 2003 -- is unprecedented among industrialized nations. Despite a rise in prosperity in recent years, demographic and health trends remain alarming. Estimates suggest that Russia’s population today would be 17 million higher if mortality rates had followed the patterns experienced by the 15 longstanding members of the EU since the 1960s. This figure is comparable to the country’s total lives lost in World War II.

The future well-being of the country depends on large cohorts of healthy and skilled young and middle-aged adults. If this situation is not remedied, the Russian labor pool will shrink even further, the destabilization of families will intensify, and regional disparities will grow, posing risks to national security if its vast territory is depopulated.

Citizens should not despair of this grim picture, since solutions are at hand. People in the prime of their lives could look forward to a longer, healthier future if adult health and prevention programs with proven effectiveness are scaled up and rolled out across the Russian Federation, as other countries have done.

Over the past decade, the country has shown its willingness to change the health system to achieve better performance and outcomes, undertaking a review of its health financing and the relationships among citizens, service providers, and financiers and initiating health care reforms in many regions. In particular, there are signs of increasing commitment to control non-communicable diseases and injuries, the leading causes of death, illness and disability.

Particularly promising is Russia’s Countrywide Integrated Non-communicable Disease Intervention Program, or “CINDI” experience, already working in 18 regions1 and with four new regions ready to join. CINDI is managed by the National Center for Preventive Medicine under the Ministry of Health and Social Development (MOHSD). CINDI supports the reduction of smoking, unhealthy diets, alcohol abuse, and physical inactivity. It supports preventive efforts by health professionals and shares experiences and information with other countries through the involvement of the World Health Organization (WHO). One success has been a Quit & Win smoking cessation program covering 28 million people.

Another example is the Chuvash Republic, a leading region in terms of promoting healthy living. Regional, local, and municipal officials are promoting a “Chuvash—Healthy Region” initiative that invested over 200 million rubles in 2002 and 2003 alone on physical exercise and health promotion programs, better health insurance systems, mandatory medical check-ups at the workplace, and an expansion of general doctor’s offices in rural areas. Specialized preventive health schools, such as “Asthma School,” “Hypertension School,” and “Diabetes School” are also being organized.

In the Tula Oblast -- thanks to efforts initiated in 1998 by the Central Public Health Research Institute of the MOHSD, the regional health authority, WHO, and USAID -- a 70 percent success rate was achieved

1 The CINDI regions are Chelyabinsk, Electrostal, Krasnodar, Kostomuksha, Mirnyi, Novosibirsk, Orenburg, Pitkyaranta, Rostov on Don, Pontonnaya, Tomsk, Tver, Biisk, Ufa, Murmansk, Verknyyaya, Salda, and Vologda.
in controlling high blood pressure, which translated into net savings for overall high blood pressure care costs of 23 percent.

Successful interventions carried out so far must be scaled up and replicated in other regions to achieve long-term health improvements. Broad inter-sectoral efforts to promote healthy lifestyles are needed. Regional health services should be strengthened so that they can play an effective role in chronic disease prevention and management. Improved road safety and emergency medical services are also critically important. Advancing these reforms will require the development of policies, strategies and capacity-building at the federal level and the adoption of innovative financial instruments such as “health promotion grants” to support regional efforts.

Involvement of the private sector must not be overlooked. The poor health of employees has a short-term impact on the bottom line of every company, not to mention a longer-term impact on the prospects for profitable growth.

The World Bank and other international partners are eager to partner with Russia’s public policy officials, health professionals, company managers, and community groups to make this happen, since health is the key to future prosperity.

So put out your cigarettes, control your alcohol intake, lace up your sneakers for a long walk, visit your doctor for regular check-ups, and look forward to a long life.

This opinion piece is based on a new report, “Dying Too Young: Addressing Mortality and Ill Health Due to Non-Communicable Diseases and Injuries in the Russian Federation” (the full report could be downloaded at: http://documents.worldbank.org/curated/en/867131468094164661/Main-report

A summary article “Adult Health In The Russian Federation: More Than Just A Health Problem” by Patricio Marquez, Marc Suhrcke, Martin McKee, and Lorenzo Rocco, published in Health Affairs could be downloaded at: https://www.healthaffairs.org/doi/full/10.1377/hlthaff.26.4.1040
Если самые продуктивные члены российского общества – мужчины и женщины трудоспособного возраста – и дальше будут преждевременно умирать от сердечно-сосудистых и онкологических
заболеваний, автомобильных аварий и алкогольных отравлений, экономическому и социальному благосостоянию страны будет нанесен огромный урон. С конца 1990-х гг. хронические заболевания, по некоторым оценкам, приводят к ежегодной потере 5,6% среднедушевого дохода.

В 2003 г. на долю сердечно-сосудистых заболеваний, рака и травм пришлось 78% общего числа смертных случаев, что привело к потере 15,2 млн лет “потенциально возможной жизни” – жизни, не прожитой трудоспособным населением. Далее эту цифру можно разбить на 10,3 млн лет, потерянных мужчинами, и 4,9 млн лет – женщинами.

Опасно для жизни

В России показатели смертности в три и пять раз выше, чем в Евросоюзе (см. график). В 2002 г. от неинфекционных заболеваний в России умерло 605 человек на каждые 100 000 жителей, а в ЕС – всего 206. Кроме того, в России от травм в пересчете на такую же численность населения скончался 281 человек, тогда как в Европейском союзе – 58.

Травмы, полученные на дорогах страны, – это результат аварий на транспортных средствах, среди пешеходов и велосипедистов. Уровень смертности на российских дорогах – 20,6 случая на 100 000 жителей. Это выше, чем в какой-либо другой стране на постсоветском пространстве, и почти вдвое больше, чем в странах “восьмерки”, где этот показатель равен примерно 11.

Средняя ожидаемая продолжительность жизни населения в России – 66 лет, что на 12 лет меньше, чем в США, на восемь меньше, чем в Польше, и на пять, чем в Китае. В 2005 г. президент Владимир Путин в своем послании Федеральному собранию объяснил эту разницу в показателях “высокой смертностью трудоспособного населения”.

Продолжая анализировать среднюю ожидаемую продолжительность жизни в стране, нетрудно убедиться в том, что особому риску подвержены мужчины: они живут в среднем на 16 лет меньше, чем мужчины в Западной Европе, и на 14 лет меньше, чем российские женщины. При сохранении нынешнего уровня заболеваемости и инвалидности средняя ожидаемая продолжительность здоровой жизни у российских мужчин снизится до 53 лет.

Положение усугубляется сокращением численности населения России вследствие низкой рождаемости и высокого уровня смертности. Сокращение численности населения со 149 млн человек в 1992 г. до около 143 млн в 2003 г. – это беспрецедентный спад среди промышленно развитых стран. Несмотря на рост благосостояния в последние годы, развитие тенденций в области демографии и состояния здоровья населения остается тревожным. Экономические расчеты показывают, что сегодня численность населения страны могла бы быть на 17 млн человек больше, если бы динамика показателей смертности в России с 1960-х гг. шла бы по тому же пути, что и в 15 странах ЕС, являющихся ее самыми давними членами.

Будущее благосостояние страны зависит от наличия большого числа здоровых и квалифицированных людей молодого и среднего возраста. Если не исправить сложившуюся ситуацию, трудовые ресурсы России продолжат сокращаться. Убыль населения огромной страны – это еще и риск для ее национальной безопасности.
Не отчаиваться

Картина получается мрачная, но отчаиваться не нужно, поскольку решения проблемы уже существуют. Если, как это уже сделано в других странах, расширить и развернуть по всей стране доказавшие свою эффективность медицинские и профилактические программы для взрослых, то люди смогут рассчитывать на более продолжительное и здоровое будущее.

За последнее десятилетие Россия проявила готовность реформировать систему здравоохранения с тем, чтобы улучшить ее функционирование и получаемые результаты, пересмотрев организацию ее финансирования, отношения между гражданами, поставщиками услуг и коммерческими структурами и начав реформы медицинского обслуживания в многих регионах. В частности, налицо признаки приверженности борьбе с неинфекционными заболеваниями и травмами – главными причинами смертности, болезней и инвалидности среди населения.

Особенно перспективен опыт российской Программы комплексной профилактики неинфекционных заболеваний (CINDI), действующей уже в 18 регионах, к которым готовы присоединиться еще четыре региона. Программой CINDI руководит Государственный научно-исследовательский центр профилактической медицины Министерства здравоохранения и социального развития. CINDI поддерживает программы по борьбе с курением, несбалансированным питанием, алкоголизмом и гиподинамнией. Она также поддерживает профилактические мероприятия, проводимые работниками системы здравоохранения, и обеспечивает обмен опытом и информацией по линии Всемирной организации здравоохранения с другими странами мира. В частности, была успешно реализована программа “Брось и выиграй”, охватившая 28 млн человек.

Еще одним примером служит Чувашская Республика – ведущий регион в части поощрения здорового образа жизни. Региональные, местные и муниципальные власти в республике внедряют инициативу “Чувашия – здоровый регион”. В рамках данной инициативы только в 2002 и 2003 гг. было выделено свыше 200 млн руб. на реализацию программ по физической культуре и укреплению здоровья, совершенствованию систем медицинского страхования, проведению обязательных медосмотров на рабочих местах, а также на расширение сети врачей общей практики на селе.

В Тульской области благодаря усилиям, начатым в 1998 г. Центральным научно-исследовательским институтом Минздрава, региональным управлением здравоохранения, ВОЗ и АМР США, в 70% случаев был достигнут положительный результат в борьбе с высоким кровяным давлением у пациентов, что привело к сокращению на 23% общего числа расходов на борьбу с высоким давлением.

Чтобы результаты были долгосрочными, успешно реализуемые программы необходимо расширить и распространять в других регионах. Чрезвычайно важны широкие межведомственные мероприятия по внедрению здорового образа жизни и укреплению региональных органов здравоохранения, которые должны играть более эффективную роль в профилактике и лечении хронических заболеваний. Для продвижения реформ в данной области потребуется разработать концепцию, выработать стратегию, а также внедрить такие инновационные финансовые инструменты, как гранты на укрепление здоровья в поддержку мероприятий на региональном уровне. Особенно важно подключить частный сектор. Слабое здоровье сотрудников оказывает краткосрочное
воздействие на состояние дел компаний, не говоря уже о долгосрочном эффекте на перспективы благоприятного роста. В среднем из-за заболеваний в России теряется до 10 рабочих дней из расчета на одного работника, что в год составляет потери в размере около 1,4% ВВП.

Если эффективные стратегии и программы в России будут реализованы, то существенных улучшений можно достичь уже через несколько лет, а не десятилетий. Благодаря снижению смертности мужчин, вызванной сердечно-сосудистыми заболеваниями, ожидаемая продолжительность жизни может вырасти почти на пять лет. Кроме того, если бы уровень смертности взрослого населения к 2025 г. удалось постепенно снизить до уровня стран ЕС, то экономическая отдача составила бы от 4% до 29% ВВП.

Всемирный банк и другие международные организации готовы сотрудничать с российскими властями, работниками здравоохранения и общественными организациями для обеспечения изменений в данной сфере, поскольку здоровье населения – основа процветания любой нации.

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Co-authored with Jill Farrington

The 2011 UN Summit on Non-communicable Diseases (NCDs) elevated the importance of NCDs as a pressing global health challenge. While this recognition was long overdue, are we at risk of establishing a new vertical program, in direct competition for scarce funding with existing communicable diseases control programs and health system strengthening initiatives?

If we pay close attention to available evidence, that should not be the case. The health situation in sub-Saharan Africa nicely illustrates this point, as we have learned from an extensive review of the literature.

While the focus in this region has been on communicable diseases and maternal, perinatal and nutritional causes of morbidity and mortality, less attention has been paid to the extent to which these conditions contribute to the growing NCD burden and to potential common intervention strategies. Indeed the biggest increase in NCD deaths globally in the next decade is expected in Africa, where they are likely to become the leading cause of death by 2030.

The same underlying social conditions, such as poverty and insanitary environments, are associated with the onset of both communicable and non-communicable diseases, and there are close relationships between these disease groups in terms of causation, co-morbidity, and care.

Frequently, both communicable diseases and NCDs co-exist in the same individual, and one can increase the risk or impact of the other. Some infections cause or are related to NCDs; for example cervical cancer, a leading killer of women in Africa, is caused by the human papilloma virus. Treatment of communicable diseases can also increase NCD risk: Antiretroviral drug therapy for HIV is saving lives, but as the HIV-infected population ages, cardiovascular disease prevalence and mortality increase significantly as shown in recent research (Tseng, ZH et al. 2012). NCDs or their risk factors can also increase the risk of infection; for example, smoking and diabetes each increase the risk of tuberculosis, and co-morbidity of tuberculosis and diabetes can worsen outcomes for both diseases.

Many maternal illnesses and behaviors affect children, including tobacco use, anemia, and over- and under-nutrition. Gestational diabetes is a strong predictor of future illness, both of the mother, who may develop diabetes and cardiovascular diseases later in life, and the child, who also becomes at risk. Poor maternal nutrition before
and during pregnancy together with smoking tobacco during pregnancy contribute to poor intrauterine growth, resulting in low birth weight which in turn predisposes to NCD risk later in life. Thus, the current poverty of much of sub-Saharan Africa may result in an epidemic of cardiovascular diseases in middle age for those who survive. The problem is compounded by HIV/AIDS: for example, low birth weight and malnutrition are more frequent in HIV-infected children.

The potential risks of setting up yet another vertical program in resource-constrained countries such as those in Africa need to be acknowledged and overcome, with integration and resource-sharing where feasible in the health system.

For example, at the primary care level, maternal and child health programs could include combined interventions to alleviate malnutrition and reduce smoking in pregnant women, increase the uptake of breastfeeding, monitor birth weight, promote healthy nutrition in families, identify and manage hypertension and diabetes in pregnancy, and promote smoke-free homes.

Collaboration with reproductive and sexual health programs could promote the use of condoms and safe sex practices and raise awareness of early signs and symptoms of breast and cervical cancer.

The scope of immunization programs could be expanded to include not only vaccine-preventable diseases among children but also improved access to HPV vaccines to prevent cervical cancer and Hepatitis B vaccination to prevent liver cancer. Models already exist for collaboration with tuberculosis control programs to benefit patients with non-infectious respiratory symptoms in primary care facilities, such as asthma and chronic obstructive pulmonary disease. Screening for hypertension and elevated blood sugar levels can be administered among people diagnosed with HIV infection.

Much illness and inefficient resource use can be avoided in sub-Saharan Africa – diseases and disabilities are frequently preventable – but comprehensive and systematic approaches need to be applied which build on existing resources and experience and capitalize on the inter-linkages between communicable diseases, NCDs, maternal and child health, and socio-economic development.

Although the largest share of costs of disease are borne by the individual concerned, Governments could play a catalytic role in tackling the main NCD risk factors as part of an integrated health agenda, since (i) there are substantial societal costs resulting from second-hand smoke and alcohol-induced injuries and fatalities; (ii) people are not always fully aware of the health (and other) consequences of unhealthy lifestyle choices such as smoking, alcohol abuse, physical inactivity, and poor diet; they may also be misled by information provided by the food, alcohol, and tobacco industries; and (iii) children and adolescents (and even adults) tend not to take into account the future consequences of their current choices, irrespective of whether they are informed about them.
Let me start with a disclaimer: I am overweight. My kids and my wife keep telling me that I need to be mindful of what and how much I eat and be more disciplined with my exercise regime. Why do people like me have to listen and heed this advice?

The reason is simple. As was recently noted on the occasion of the World Diabetes Day, the overweight-obesity-diabetes continuum is an exploding health threat that urgently needs to take the public spotlight. Data from the International Diabetes Federation (IDF) and the World Health Organization (WHO) paint a picture of a silent, undiagnosed, and uncontrolled diabetes epidemic that has spread across the world and that increases the incidence of a variety of health conditions and the likelihood of an early death.

Indeed, the numbers are sobering. Diabetes, particularly Type 2 diabetes that accounts for 90% of cases globally and which is largely the result of excess body weight and physical inactivity, already affects 400 million people in 2014, particularly those between 40 and 59 years of age. And more than 21 million live births were affected by diabetes during pregnancy adding to the burden.

Diabetes results in more than 5 million deaths annually and incurred almost US$612 billion in health-related expenditures in 2014 alone. This is not only a problem of the rich -- or the rich world-- as commonly assumed; about 80% of people with diabetes live in low- and middle-income countries.

We should be clear that this public health problem is not going away, but rather stands to grow more challenging in the years ahead as it is rooted in ongoing societal changes. Rapid urbanization is one such change, particularly in the developing world, where internal migration to megacities is altering the spatial distribution of the population and changing traditional diets and lifestyles. The aging of the population is another contributor, as it results in the natural deterioration of multiple organ systems which contributes to the onset of diabetes.
China exemplifies both of these phenomena. While rising incomes, an improved food supply, and a variety of food products have contributed to significant reduction in malnutrition and improved health status in China over the past 20 years, decreased physical activity in cities and skyrocketing consumption of processed foods, fast food, and sugar-rich soft drinks, have led to a significant increase in prevalence of overweight and obesity, particularly among adolescents. As a result, the prevalence of diabetes increased from less than 1% recent in the 1980s, to about 10% in the late 2000s. Now China has the greatest number of diabetics in the world--96.3 million--followed by India’s 66.8 million, and the U.S., with 25.8 million.

Countries in other regions are also experiencing this public health challenge. South Africa, Ghana, Gabon, Cape Verde, and Senegal have already relatively high levels of obesity/overweight, low levels of underweight in women, and high intakes of energy and fat. In the Middle East and North Africa, 1 in 10 adults has diabetes. In South and Central America, the number of people with diabetes are estimated to increase by 60% by 2035 if current trends continue.

In Southeast Asia, almost half of people with diabetes are undiagnosed. Diabetes prevalence among adults in the Pacific Islands is among the highest in the world; 47% in American Samoa compared with 13% in mainland U.S. Prevalence ranges from 14% to 44% elsewhere in the region.

What to do? Prevention plays a big part, since the majority of the costs related to diabetes are spent on treating complications, which can affect the heart, eyes, kidneys, and feet. These complications can be prevented through information, education, and communication activities to raise public awareness about the health risks from obesity and high sugar intake; adoption of regulatory and fiscal measures from labelling foods to taxation; public and private sector policies to nudge increased physical activity (e.g., reimbursements by companies for the cost of fitness center memberships of their employees); and early diagnosis and proper management of diabetes as part of accessible and affordable integrated care services.

While available and new treatments could help improve the life of diabetes patients, the top priority must be prevention. A good example of what to do is offered by Mexico, a country that has the highest prevalence of obese and overweight individuals among the world’s most populous countries—with 7 out 10 adults considered overweight or obese and an estimated 70,000 diabetes-related deaths in 2014.

The government of Mexico, with the support of international partners such as the Bloomberg Foundation, is not only leading public awareness-raising efforts about the negative effects of obesity, the leading factor of type 2 diabetes, and disseminating the findings of research on the economic and health impact of soda taxation, but more importantly is implementing a 10% tax on sugar-sweetened beverages and an 8% tax on junk food. Mexico’s Congress enacted these taxes in November 2013 to increase the price of these products and reduce consumption.
If these preventive measures are adopted and sustained over the medium term, IDF assessments indicate that more than 70% of type 2 diabetes cases can be prevented or delayed—equivalent to up to 150 million cases by 2035. But, as shown by Mexico’s pioneering effort, reaching this outcome will require concerted, multisectoral policies and actions by the government as a whole and not only by Ministries of Health.

If no serious prevention efforts are mounted, the growing tide of obesity and diabetes will overwhelm health systems and make diabetes treatment unaffordable, particularly for millions of poor people across the world.
Cervical Cancer Undermines Gender Equality in Africa

The 2012 World Development Report (WDR) “Gender Equality and Development” found that, while many disadvantages faced by women and girls have shrunk thanks to development, major gaps remain. A significant gap is the excess female mortality in many low- and middle income countries, especially in childhood and during reproductive years. Cervical cancer—a preventable condition that usually results from a viral infection by the human papillomavirus (HPV) that is generally sexually transmitted—is one of the leading causes of premature death and ill health among women in sub-Saharan Africa. As the figure shows, the Eastern, Western and Southern African regions have the highest incidence rates of cervical cancer in the world. Rates exceed 50 per 100,000 populations and age-standardized mortality exceeds 40 per 100,000 populations.

This situation is due to minimal cervical cancer screening services in the continent, resulting in a significant number of patients diagnosed with advanced-stage disease. In Eastern and Southern Africa, it is compounded by the high prevalence of HIV (HIV-positive women are 4-5 times more likely to develop cervical cancer).

Figure: World Age-Standardized Incidence and Mortality Rates per 100,000 Population, Females, World Regions

Given this large burden on African women, why is not much being done to address it? There are multiple reasons. Among 20 countries reporting cervical cancer screening activities in 2009 in Africa as a whole, only 11 had ongoing country programs, and of 49 projects initiated, only six were funded by the domestic government (SALC 2012).

This service delivery failure results in most cases from limited health system capacity to conduct widespread cytology-screening through microscopic examination of cellular specimen, accurate diagnosis of pre-cancerous lesions, and appropriate referral and treatment. This care pathway, which is common in developed countries, is work-intensive and expensive as it usually requires multiple visits, screening at regular intervals, modern laboratory infrastructure, and specialized personnel.

Taking into account the health system limitations in Africa, we would like to argue that reducing excess female mortality due to cervical cancer in this continent, particularly among HIV-infected women, is feasible through lower cost but equally effective “see and treat” cervical cancer screening procedures adopted and integrated into existing service delivery platforms - such as maternal and child health programs or HIV/AIDS prevention and control programs. Botswana and Zambia are already starting to use this cost-effective alternative to confront cervical cancer.

A demonstration program in Botswana illustrates the point. As documented in a recent study by Doreen Ramogola-Masire and colleagues (J Acquir Immune Def Syndr, Vol. 59:3, March 2012), faced with resource limitations that hindered the expansion of cytology-based screening, the “see and treat” approach was introduced using a visual inspection acetic acid (VIA) procedure and enhance digital imaging (EDI), as well as cryotherapy to destroy abnormal tissue in the cervix by freezing it, for cervical cancer prevention among HIV-positive women at a community-based clinic in Gaborone. Between 2009-2011, slightly over 11% of women screened were found to have low-grade lesions; 61% had a normal examination result; and 27.3% were referred for further evaluation and treatment.

In Zambia, the implementation of the ‘see-and-treat’ approach linked to HIV care has also shown that it enhances the impact of the HIV/AIDS program by preventing cervical cancer in women living longer on antiretroviral therapy (ART) and who had never been screened (Mulindi H. Mwanahamuntu et al, AIDS. 2009 March 27; 23(6): N1–N5).

These results indicate that the low-cost “see and treat” cervical cancer prevention alternative is a feasible and efficient one, especially for reaching women living in distant and/or underserved regions of the countries with limited access to cytology-based screening services.

The results also show that this alternative has a significant impact on the early identification and treatment of precancerous and invasive cancerous lesions in HIV-infected women.

On the basis of the demonstrated feasibility and efficiency of the ‘see-and-treat’ cervical cancer prevention services linked to HIV, the Botswana Ministry of Health has decided to scale up the intervention by including 5 additional regions across the country. Scale-up of the see-and-treat intervention is also underway in Zambia.

Since all women are potentially at risk of developing cervical cancer, and as the expanded coverage of ART for HIV-infected women reduces the risk of premature death due to AIDS and extends their life expectancy, innovative approaches as the ones being rolled out in Botswana and Zambia may be
harbingers for the type of “smart” policies and that are needed to reduce gender inequalities in health.

As the Hon. Dipuo Peters, South Africa’s Minister of Energy, pointed out during the launch of the 2012 WDR in Johannesburg, the reduction of preventable causes of excess female mortality such as cervical cancer will contribute to turning the tide against the feminization of poverty and toward enabling women to lead lives of sustainable economic advancement and self-reliance.
Chile:
The Adult Health Policy Challenge

A World Bank Country Study:

This study was prepared by Patricio Marquez', Public Health Specialist, Human Resources Division, Department III, Latin America and Caribbean Vice Presidency. It is based on World Bank missions led by Evangeline Javier that visited Chile in 1992 and 1993, in conjunction with the preparation, appraisal, and supervision of the World Bank-supported Technical Assistance and Hospital Rehabilitation Project (TAHRP) and the Health Sector Reform Project (HSRP). The study was prepared in the Human Resources Division of the former Country Department IV (now Country Department I) in the Latin America and Caribbean Vice Presidency. The Chilean Ministry of Health supported the preparation of this study at all stages, providing leadership and invaluable insights.

May 1995

Summary

In many developing countries, social and economic transformations of the last several decades have contributed to the emergence of a new set of health priorities.' While the prevalence of infectious and parasitic diseases has diminished sharply or, as in the case of smallpox, been eradicated, there has been an increase in the relative importance of noncommunicable diseases and injuries, which is related mainly to the aging of the population due to the decline in fertility and increase in life expectancy, as well as rapid urbanization and industrialization, changes in life styles, and improved access to, use of, and effectiveness of health care. As a result, non-communicable diseases and injuries are now the leading causes of death in these countries, particularly among the adult age group (15-59 years) and the elderly (age 60 and older).3 Differences in the natural history of non-communicable diseases (long periods of sickness and disability) and infectious and parasitic diseases (mostly acute episodes of short duration) have also implied an increase in the relative importance of morbidity and disability stemming primarily from cardiovascular disease, cancer, chronic obstructive pulmonary disease, diabetes, mental illness, and injuries. In general, noncommunicable diseases and injuries affect low and high socioeconomic groups alike and impose two types of costs on society: they affect an individual's productivity and income generating potential, and they increase consumption of high-cost health care services. In many developing countries, however, risk factors for non-communicable diseases and injuries are often more prevalent and disease rates are generally higher among the poor.
Chile is a good example of a country that has experienced profound demographic and epidemiological changes in recent decades. As a consequence, non-communicable diseases and injuries are already posing and will continue to pose in the coming decades difficult problems for the health system. Responding effectively to these problems requires a clear understanding of recent and future demographic and epidemiological changes, their possible implications, and possible options for the Chilean health system as the country moves into the 21st Century. Following Worl Bank country studies on the epidemiological transition in Brazil4 and China5, the primary objective of this study is to analyze the demographic, epidemiological, financial, and institutional aspects of the health transition in Chile and discuss alternative actions for addressing them.


2. In general, non-communicable diseases are characterized by a long latency period, prolonged clinical course, and debilitating manifestations.


4. Bringing Mental Health Out of the Shadows
We recently participated in an event held in Lima by Peru’s Ministry of Health and the Cayetano Heredia Peruvian University for the launching of a new report (http://documents.worldbank.org/curated/en/407921523031016762/pdf/125036-WP-PUBLIC-P159620-add-series-WBGMentalHealthPeruFINALWeb.pdf) that assesses the initial results at the municipal level of the mental health services reform in the country.
Compelling evidence showing that the community-based initiatives to improve mental health care in Peru are helping close a major access gap that exists in most countries was shared.

So, what are the main pillars of the Peruvian mental health reform process and its initial impact?

**Knowledge of the health problem and service coverage.** A critical element for the formulation of policy and organizational reform in any health system is to have a well-documented understanding of the nature and characteristics of the burden of disease and service coverage gaps. In Peru, burden of disease epidemiological assessments documented that each year, one in five Peruvians is affected by a mental disorder, one in ten women in a partnership or union is subject to physical or sexual violence by a partner, and one in ten children has a mental disorder. When combining mortality and morbidity estimates, mental health and substance use disorders are found to be the leading cause of years of life lost and years lived with disability in the country. Of all chronic diseases in Peru, mental health problems also account for the greatest economic costs, far outstripping cardiovascular diseases, cancer, or diabetes. Mental and substance use disorders are highest among the poor and marginalized, and those victims of violence, further reducing their economic productivity and slowing the country’s progress towards inclusive social wellbeing and prosperity.

As in most countries, the provision of mental health care has remained largely concentrated in psychiatric hospitals. This model of care, that often serves as “warehouses for the mentally ill”, is associated with large, persistent care gaps. In 2012, before the introduction of mental health care reforms, just 12 percent of Peruvians estimated to need mental health services received them.


**Paradigm change in the organization and delivery of services.** The network of **community mental health centers (CSMCs)**, as established by Law 29880, is the most important component of Peru’s mental health care reform, bringing service provision out of psychiatric hospitals into local settings, where providers engage patients, families and communities as active partners. Since 2015, 131 CSMCs have been established and are in operation; by 2021, the Ministry of Health expects to expand the network to include 281 centers nationwide ([https://elcomercio.pe/peru/2021-habra-281-centros-salud-mental-comunitaria-pais-noticia-616194](https://elcomercio.pe/peru/2021-habra-281-centros-salud-mental-comunitaria-pais-noticia-616194)), and 30 units to address the needs of children who are victims of violence. Staffed by inter-disciplinary teams of clinical and social workers, the centers provide specialized
ambulatory services to children and adolescents; adults and the elderly; and persons with substance use disorders. By providing training and in-service mentoring to general primary health care providers, specialized mental health teams at the CSMCs also support the integration of mental health care services into primary care. By 2018, 524 general health facilities are estimated to have trained personnel to deal with mental health conditions; the Ministry of Health target is to increase the number of general health facilities with trained personnel to 1124.

Complementing the services provided by the CSMC, 50 protected halfway houses ("hogares protegidos") have been established to provide temporary residential services to people with serious mental disorders who have been discharged from hospitals and have weak family support systems, and to women who are victims of domestic violence. The Ministry of Health target by 2021 is to have in operation 170 protected halfway houses. The halfway house uses a model of residential care that respects residents’ human rights and places minimal restrictions on their personal freedoms, thus facilitating their reintegration into the community. At the same time, while they enjoy considerable autonomy, residents are carefully monitored and mentored by staff present in the facility around the clock.

In addition to first-level facilities like CSMCs and halfway houses, the operation of the community-based mental health care network in Peru includes an important role for general hospitals at the local level. Following WHO norms, short-term inpatient wards have been established in 32 general hospitals in the country, to provide 24-hour medical care and supervision for patients with acute mental disorders, in the same way that these facilities manage acute physical health conditions. By 2021, the target of the Ministry of Health is to have mental health wards in 62 hospitals.

In parallel with the expansion of the community-based mental health services model, the process of reforming and in some cases the closing of specialized psychiatric hospitals has begun in different regions of the country in accordance with the deinstitutionalization process and to reallocate budget to support the expansion of community-based mental health care.

Innovative health financing model. The inclusion of mental health services as part of the benefits package offered under Peru’s Integrated Health Insurance scheme (SIS) was a crucial step towards the achievement of mental health parity in the health system. This measure, which was complemented by the development of a revised reimbursement fee schedule to cover the cost of services provision at community mental health facilities and specialized psychiatric hospitals, spurred the significant growth in the provision of mental health services. It also helped reduce patients’ out-of-pocket payments for mental health services from 94 percent in 2013 to 32 percent in 2016. Also, a 10-year results-based budget program, approved by the Ministry of Economy and Finance in 2014 exclusively for mental healthcare reform, is helping its implementation and scalability. Similar to the SIS, the
Peruvian Ministry of Economy and Finance assigns budgets based on the attainment of predetermined indicators, known as *Presupuesto por Resultado (PpR)* or pay-for-performance.

**Gradual but significant coverage expansion.** According to Ministry of Health data, coverage of mental health services has gradually increased in Peru over the past decade, from a low 9.9 percent of people who require care to 26 percent in 2018. As shown in Figure 1, the total number of cases attended for different mental health and substance use disorders accelerated after the 2013 reform reaching more than 1 million cases in 2018. By 2021, the Ministry of Health target is to increase coverage to 64 percent of the population in need or about 3.2 million people. Also, evidence from the Carabayllo district, shows that the community-based mental health services is a good value for money alternative to institutionalized care. The average unit cost per outpatient consultations at specialized mental health hospitals was estimated at about US$59, while the cost for standard outpatient consultations at a CSMC is US$12.

**Figure 1: Number of cases treated for mental and substance use disorders, including violence-related cases, 2009-2018, Peru**
The way forward. The Peruvian experience clearly shows that the global fight to transform mental health, can be won. While significant policy and institutional cultural challenges remain, we left Lima convinced that the progress achieved thus far in Peru, serves to demonstrate that a combination of political will, a paradigm shift in the way services are organized and delivered, domestic resources mobilization and innovative allocation modalities that incentivize the reform process, and active involvement of local governments, affected people, families, and communities, are the indispensable factors to help countries achieve mental health parity.
Nowadays there is an awakening of interest in the international community to understand mental illness in its different manifestations and societal impact, and to identify ways to effectively deal with these often misunderstood, neglected and stigmatized conditions.

This is not a new phenomenon. Throughout history, mental illness has been the subject of different interpretations and approaches to treatment. In his seminal book, "Madness and Civilization: A History of Insanity in the Age of Reason," French philosopher Michel Foucault examined the changing meaning of "madness" in different epochs and described how, in the mid-17th century, with the adoption of a conceptual distinction between rational and irrational behavior, those deemed "mad" began to be separated from society by confining them, along with other outcasts, in newly created institutions all over Europe.

Irrational behavior was seen as "moral error," with individuals having freely chosen "unreason." The "treatment" regimes of these new institutions were programs of punishment and reward aimed at causing these persons to reverse their "choice."

At the end of the 18th century, with the creation of asylums – places devoted solely to the confinement of the "mad" for the protection of society— "madness" became a mental illness to be studied and cured under the supervision of medical doctors at an institutional setting.
Unfortunately, in the second decade of the 21st century, not much has changed in many countries regarding how society views and deals with mental illness. As noted in the World Health Organization (WHO)’s “Mental Health Action Plan 2013-2020,” homelessness and inappropriate incarceration are far more common for people with mental disorders than for the general population, and this tends to exacerbate their marginalization and vulnerability.

The time has come to accept that mental health is an integral part of health and societal well-being, particularly given the growing relative importance of mental and substance use disorders which are heavily influenced by socio-economic, biological and environmental factors, and which, as such, deserve sustained multisectoral action.

The 2010 Global Burden of Disease study showed that mental and substance use disorders – including depression, anxiety, schizophrenia, and drug and alcohol abuse – are already the fifth-leading cause of overall disease burden, accounting for 7.4% of total years lost due to illness, disability and early death.

Since mental health issues cause the most disability in ages 9 through 29, they exert a strong negative effect on human capital development and productivity in a society. At the same time, more than 20% of adults aged 60 and over suffer from a mental or neurological disorder, a problem that stands to grow in magnitude with the aging of the global population. Mental disorders tend to be more acute and often unattended in post-conflict countries where vast segments of the population have lived through long periods of armed conflict and ethnic confrontations. Many have been the subject of harassment, sexual abuse and rape, incarceration, and torture.

WHO’s "Mental Health Action Plan 2013-2020" highlights a number of evidence-based, intersectoral strategies and interventions to promote, protect and restore mental health, beyond the institutionalization approaches of the past that often confined people to oblivion. These include government-led policies, investments, and programmatic actions, coupled with the active participation of private sector businesses and civil society to create living conditions and environments that support mental health and allow people to adopt and maintain healthy lifestyles.

These interventions span the life cycle and include early childhood interventions, such as pre-school psychosocial, health and nutrition activities that target disadvantaged populations; socio-economic empowerment of women to help overcome gender inequality; and social support for elderly to alleviate the consequences of dementia.

The Action Plan also recommends mental health interventions in the workplace, including support to help overcome stress caused by work-family imbalances and substance abuse disorders; violence prevention programs, including domestic violence; fiscal and regulatory measures such as taxation of alcoholic beverages and restriction of their availability and marketing; social protection for the poor; anti-discrimination laws and campaigns; and promotion of the rights, opportunities and care of individuals with mental disorders.

The global movement toward universal health coverage by 2030, advocated by World Bank President Dr. Jim Kim and WHO Director-General Dr. Margaret Chan during the 2014 IMF/World Bank Spring Meetings, will also be catalytic to effectively implement mental health care and treatment policies and programs as part of comprehensive and integrated efforts to facilitate access to quality medical and social care services.

UHC efforts can help to address community-level needs of persons with defined mental disorders and offer financial protection by covering mental health and substance use disorder services, including medicines, under health insurance and other risk-pooling arrangements. This was recently implemented in the United States under the Affordable Care Act, and is proposed in Ghana under Mental Health Act 846.
The World Bank, as a multisectoral institution, has a major role to play in supporting national and international agencies to implement the WHO Mental Health Action Plan approved by governments at the 2013 World Health Assembly.

In particular, Bank support could be critical to help adapt the Action Plan to specific national circumstances and to offer “entry points” to advance healthy population initiatives during the preparation of country partnership strategies, conduct needs assessments, and in the design of policies, programs and projects in different sectors.

In moving forward with a broad social agenda to address mental health needs, we need to be guided by Thomas Jefferson’s wise words: “Happiness is not being pained in body or troubled in mind.”

Follow the World Bank health team on Twitter: @worldbankhealth [3]
This year's International Day of Persons with Disabilities [1], observed December 3, takes as its theme: "Inclusion matters: Access and Empowerment for People of all Abilities." Under this umbrella, the U.N. and other international agencies urge inclusion of persons with “invisible disabilities” in society and in development efforts.

This call is long overdue; persons with mental and psychosocial disabilities represent a significant proportion of the world’s population with special needs. The World Health Organization (WHO) estimates that millions of people have mental disorders, and that one in four people globally will experience a mental disorder in their lifetime. Moreover, almost one million people die each year due to suicide, which is the third leading cause of death among young people. According to several recent reports, suicide has surpassed maternal mortality as the leading cause of death among girls aged 15-19 years globally.
Aside from facing entrenched stigma and discrimination – and physical and sexual abuse in homes, hospitals, prisons, or as homeless people -- persons affected by mental disorders are excluded from social, economic and political activities.

When I was a student in the early 1980s working at St. Elizabeths Hospital in Washington, D.C., I had the opportunity to witness first-hand the plight of those “excluded and marginalized” from society due to mental disorders. At that time, one of the programs run by the hospital, which opened in 1855 as the first psychiatric hospital in the United States, provided care for mentally handicapped refugees and immigrants—both those admitted due to acute need for psychiatric care and those adjudicated to be criminally insane. Here, I helped deal with the “extreme of behaviors” experienced by “catatonic” patients who were confined to locked wards and monitored around-the-clock by security guards.

These patients included those who were not able to speak, move or respond, or appeared to be in a daze; and those that were overexcited or hyperactive, mimicking sounds or movements around them. I also experienced the joy of seeing some of these patients recuperate as a result of drug therapy and psychosocial support that helped manage their symptoms and start a process of supervised re-integration into the community. This often meant being discharged to a “halfway” house—a residence for persons after release from institutionalization for mental disorders.

We need to be clear, however, and accept the reality that ill mental health is not only limited to persons with severe mental disorders confined to psychiatric hospitals. Ill mental health is a widespread but often “invisible” phenomenon. Many of us or our parents, partners, sons and daughters, have felt a sense of loss or detachment from families, friends and regular routines. We also have experienced nervousness and anxiety about changes in our personal and professional lives, as well as real or imagined fears and worries that have distracted, confused and agitated us.

While these episodes tend to be transitory for most of us, some of these conditions force us to take frequent breaks from our work, or we need time off or a leave of absence because we are stressed and depressed, or because the medication that we are taking to alleviate a disorder makes it difficult to get up early in the morning or concentrate at work. And on occasion, because of these disorders, some fall into alcoholism and drug use, further aggravating “fear attacks” or sense of alienation from loved ones and daily routines.

And, apart from personal consequences, the social and economic costs of ill mental health are staggeringly high, measured in terms of potential labor supply losses, high rates of unemployment, disability costs, high rates of absenteeism and reduced productivity at work.

This year’s observance of the International Day of Persons with Disabilities offers a good opportunity to shine a light on some of the myths surrounding mental illness, particularly at the workplace where we tend to spend most of our waking hours. Indeed, a recent OECD report [2] provides evidence that most people with mental disorders are in work and many more want to work.

It is estimated that the employment rate of people with a mental disorder is around 55-70%, or 10-15 percentage points lower than for people without a mental disorder, on average across the OECD-member countries. Many more people with a mental disorder want to work but cannot find a job; as a result, they are typically twice as likely to be unemployed as people with no such disorder.

In moving forward the disability-inclusive development agenda, including the gradual realization of universal health coverage, we need to start paying particular attention to common mental disorders of workers, the unemployed, and their families, and not only on the provision of services for people with a severe mental disorder. This would require, as suggested by the OECD report, dedicated effort to integrate health, employment and social services, moving away from silo-thinking and developing strong coordination and integration of policies and services.
Action is also needed to inform, train and empower actors outside the traditional mental health sphere, such as school authorities, managers, general practitioners, and in particular public employment services caseworkers, to facilitate labor market re-integration of people with mental health disorders, given the frequent unawareness and non-disclosure of mental disorders. Strengthened data collection and monitoring systems are critical to guide policy decisions and programmatic action on the basis of evidence and better understanding of the different characteristics and outcomes of ill mental health.

It is time to open our eyes to make this “invisible disability” visible! We at the World Bank Group, in partnership with other organizations, can contribute to advancing the mental health agenda globally on the basis of cross-cutting and multidisciplinary approaches that build social resilience.

In doing so, paraphrasing Judith Rodin, President of The Rockefeller Foundation, individuals, communities, organizations and systems will have the capacity to assist affected and vulnerable populations to bounce back from the shock and disruption of ill mental health and offer them opportunities to reintegrate, participate and contribute to community life.

Follow the World Bank health team on Twitter: @WBG_Health
At times, many of us have felt a sense of loss or detachment from our families, friends and regular routines. We also have experienced nervousness and anxiety about changes in our personal and professional lives, as well as real or imagined fears and worries that have distracted, confused and agitated us.

While these episodes tend to be transitory for most of us, since they are a normal part of human life, for millions of people across the world, frequent and severe bouts of depression and anxiety are a debilitating daily burden that interfere with family, career, and social responsibilities. They can lead to alcohol or drug abuse or other self-destructive behaviors, which increase a sense of isolation and magnify feelings of sadness, loss, anger or frustration. Sometimes, death by suicide is an unfortunate outcome.

These mental disorders can also be triggered when massive social dislocations occur—driven by economic crises, such as the financial crisis of 2008; civil conflicts in places like Central America, Africa and Asia; epidemics, such as Ebola in Guinea, Liberia and Sierra Leone; or earthquakes, such as the recent one in Nepal. Even after economic growth returns and unemployment drops, after peace settlements are reached, after we eventually reach zero Ebola cases, after the dead are mourned, and
after the rebuilding of countries gets under way, there is long-term damage left behind in the social fabric of affected communities and mental well-being of individuals.

The social costs of mental and substance use disorders -- including depression, anxiety, schizophrenia, and drug and alcohol abuse--are enormous. They are the fifth-leading cause of overall global disease burden, accounting for 7.4% of total years lost [1] due to disability and early death. And estimates from a World Economic Forum study [2] show that the lost economic output due to the cumulative global impact of mental disorders will top $16 trillion, or more than 1% of the global GDP, over the next 20 years.

Are countries prepared to deal with this often “invisible” and often-ignored malady? The simple answer is: no.

In the second decade of the 21st century, not much has changed in many countries regarding how society views and deals with mental illness. Despite its enormous social burden, mental disorders continue to be driven into the shadows by the ever-present reality of stigma, prejudice, fear of disclosing an affliction because a job may be lost, social standing ruined, or simply because health and social support services at the community level are not available or are out of reach for the afflicted and their families.

And some countries are still using 17th century tactics to “protect society”: confining and abandoning the “mad” in asylums or psychiatric hospitals, often for life, which compound the negative impact of mental illnesses on these individuals and on society as a whole.

In spite of these challenges, there is a growing impatience across the world to begin a new era in which mental health moves from the periphery to the center of the global health agenda and into the larger development context. Knowledge exists to guide this effort: As highlighted in WHO’s Mental Health Action Plan 2013-2020 [3], approved by member states, there are evidence-based, intersectoral strategies and interventions to promote, protect and restore mental health, beyond the institutionalization approaches of the past. Properly implemented, these interventions represent “best buys” for any society, with massive returns in terms of health and economic gains.

If we are going to fully embrace and support the progressive realization of universal health coverage [4], we must work to ensure that prevention, treatment and care services for mental health disorders at the community level, along with psychosocial support mechanisms, are integral parts of accessible service delivery platforms and covered under financial protection arrangements. We must also advocate for and identify “entry points” across sectors to help tackle the social and economic factors that contribute to the onset and perpetuation of mental health disorders.

We, as part of an international, multi-institutional, working group, coordinated by the distinguished Harvard University professor, Arthur Kleinman, have begun to discuss ways to jump start society-wide efforts to address the mental health challenge. To this end, World Bank Group President Jim Yong Kim and Margaret Chan, the Director-General of the World Health Organization, will co-host a major event on mental health in Spring 2016.

As we move forward with this task, we will be guided by the belief that the agonies of mental health problems that distort people’s lives, family bonds and communities, and that impose a heavy economic and social burden, can be dealt with effectively if there is political commitment, broad social engagement, and international support to make mental health an integral part of health and societal well-being across the globe.

Roberto Iunes, Senior Health Economist, World Bank Group, and Melanie Mayhew, Communications Officer, World Bank Group, also contributed to this post.
This year's World Health Day carries a particular significance for me and for many others. The theme, "Depression: Let's Talk," shines a light upon a problem that oftentimes remains hidden in a dark corner of our minds, trapping us in a painful agony of sadness, loss of interest, and fear.

While I have been blessed with good physical health, at different points in my life, I have succumbed many times to a sense of loss and detachment that has made me feel weak and incapable of facing the day, the week, or much less the future. These episodes often appeared in periods of transition, such as moving from high school to university, or times when I was separated from family, or when I experienced the loss of my father while living alone in Africa. With a telephone call, or later in life, when I was able to connect using Skype or FaceTime, I managed to reach out to loved ones, share the anguish that I felt at the
On World Health Day, why I'm choosing to talk about depression

moment, and little by little, with words of reassurance that everything was going to be all right and that things will get better the next day, I was able to step out of those invisible walls that were encircling me, casting a heavy shadow. These feelings prevented me from appreciating the recharging feeling of a good walk or from marveling at the rebirth of trees and the multitude of colors that appear in the early Spring.

Let me confess: those periods were and are difficult to face. They are not easy to handle. When I listened to “This Depression”, a song by Bruce Springsteen, I not only learned about his long struggle with depression, but I concluded that the lyrics of the song describe with great clarity familiar feelings:

“Baby, I've been down
But never this down
I've been lost
But never this lost
This is my confession
I need your heart
In this depression
I need your heart
Baby, I've been low
But never this low
I've had my faith shaken
But never hopeless”

You may ask, why I am trying to exorcise my mental demons in a public blog? The answer is simple. All of us who have faced this very tangible reality know well that it is not something that people like to talk about because it is uncomfortable or because most people do not know what it’s like to experience these conditions. Unlike the manifestation of physical diseases, a depressed mood, loss of interest and enjoyment, poor concentration, constant anxiety, and reduced energy are typically not visible to others. As a result, the easy path for the affected is to retreat, to close up, to hide the anguish of not feeling well because we do not want to be embarrassed to be seen as weak or perceived as falling apart.

While melancholy and sadness are conveyed with dignified clarity by the guitar riffs of blues masters like the legendary B. B. King, or starkly portrayed in the paintings of Pablo Picasso’s “blue period”, for many of us, feeling down, sad, or anxious represent transitory moments that can be managed with some effort and the help of loved ones and friends, or if required, with professional advice or some form of therapy. Unfortunately, for those without access to health services or social support, severe depression and anxiety often translates into a life of misery, compounded by alcoholism and drug dependency, living with the terror of being discovered, fearing unemployment or loss of family—a situation that puts them at the margins of society and that could tragically end in suicide.

Indeed, as documented in a recent report by the World Health Organization (WHO), depressive and anxiety disorders are highly common across countries, impacting the mood or feelings of affected persons, with debilitating symptoms that range in severity (from mild to severe) and duration (from months to years) and that extract a terribly high social toll. These disorders, which are diagnosable health conditions, are distinct from feelings of sadness, stress, or fear that anyone can experience from time to time in their lives. Globally, over 300 million people are estimated to suffer from depression, equivalent to 4.3% of the world’s population. More than 80% of this non-fatal disease burden occurred in low- and middle-income countries.

None of us is immune to these conditions, as they can and do affect people of all ages, from all walks of life. However, the risk of becoming afflicted by severe depression and anxiety is increased by poverty, unemployment, death of loved ones, a relationship break-up, physical illness, conflict, forcible displacement, refugee status, social dislocation, and crime and violence.
On this World Health Day, we will do well in expressing our compassion and understanding for those affected by these mental maladies that harm the health, functioning, and well-being of people. In the pursuit of universal health coverage and the sustainable development goals, we cannot forget that the achievement of mental health parity in health care and social services provision should be a fundamental measure of effective health and social policy, planning, organization, and financial protection arrangements for people in need across the world.
Why are mental disorders and substance use disorders treated so much differently than other health conditions? This is just one of the many questions that the World Bank Group, World Health Organization and other international partners will pose at their upcoming event -- Out of the Shadows: Making Mental Health a Global Development Priority -- on April 13th-14th, as part of the 2016 WBG/IMF Spring Meetings.

If mental health disorders are conditions of the brain, why do we treat these conditions so differently than heart conditions or cancer? And in doing so, do we realize that this approach ignores all of the evidence that shows us that mental illness is a major disability burden worldwide? If untreated, mental disorders can negatively affect management of common co-occurring diseases, such as tuberculosis and HIV, diabetes, hypertension, cardiovascular disease, and cancer.

For all of these reasons and many more, the WBG-WHO are aiming to put the mental health agenda where it belongs -- at the center of global health and development priorities and remove all disparities.

In his sobering and deeply touching memoir, A Common Struggle, former U.S. Congressman Patrick J. Kennedy, shares his personal struggle with mental disorders and substance abuse and unpacks some of the issues surrounding mental health.
In the United States, as well as in countries such as Chile, Colombia and Ghana, where they are trying to push for equality for mental illnesses and addiction treatment, a common barrier to overcome is preexisting conditions clauses that deny health insurance coverage. And even if this hurdle is overcome, explained Congressman Kennedy, who will deliver a keynote at the event, the next big issue is to determine what is covered, funded, and enforced at the provider level. And this leads to a whole host of additional questions, such as:

- Would coverage be offered for common mental illnesses such as depression and anxiety disorders, or just for severe mental illnesses such as schizophrenia, bipolar disorder, and disabling clinical depression?
- Would addictions be covered?
- How to select the menu of evidence-based treatments to be offered by service providers at different levels of care, as is commonly done for other health conditions at the community level and on ambulatory clinics, local hospitals or specialized treatment centers?
- We know that services for mental disorders depend heavily on adequate number of trained health personnel; how do we bridge the gap in their availability?
- How about drugs, are they going to be brand name or equally effective generics? Who decides and on what basis?
- Would there be a mandate for all public and private insurance plans to cover mental health?
- And how are these services going to be funded and reimbursed, particularly not to perpetuate medical discrimination in the subtle way of high deductibles, copayments, and lifetime limitations in coverage under health insurance arrangements?
- What strategies can be used to integrate mental health care as part of services delivery platforms that focus on the patient as a whole rather than an aggregation of separate diseases?
- And even if all these policy and service delivery changes are adopted, would affected persons who need mental healthcare and their families defy the stigma of being seen as “mental ill” and get services and adhere to prescribed medication and psychotherapies?
- What can be done to create facilitating workplace environments that help affected people overcome fear of losing a job or health insurance coverage if one were to disclose a mental health affliction and seek mental healthcare when needed?

At the same time that we pose these questions that have both political and financial implications, we also need to explore other “entry points” across sectors to bring mental health out of a centuries-old shadow—from school-based interventions, wellness and health in the workplace programs, initiatives to address the physical and mental health needs of displaced populations, refugees, and persons living in post-conflict, post-natural disasters, epidemics and post-epidemic (e.g., Ebola in West Africa) situations. To that end, we need to build upon social protection and employment initiatives that facilitate the reintegration of affected persons back into their communities as valuable members of society. Hence, by accepting that mental health is a development challenge, we need to pursue different cross-cutting and multidisciplinary approaches, and funding streams.

We already have the evidence-based medical treatments and support therapies that can help alleviate the silent suffering for so many. Political will and commitment to sustainable funding, improved and scaled up service provision as a right of the population is required. And besides the human toll, let’s not forget that the social cost of inaction is staggeringly high as measured in terms of broken families, less cohesive and inclusive communities, labor supply losses, high rates of unemployment among mentally-ill persons, disability costs, absenteeism and reduced productivity at work from unattended depression and anxiety disorders.

Let’s remain optimistic that recent attention and interest on this issue will lead to increased commitments to implementing a global, multisectoral effort to scale up mental health services in primary care and community settings.
Mental Health in Prisons: How to Overcome the Punishment Paradigm?

Submitted by Patricio V. Marquez On Thu, 09/27/2018

Early this year, I was part of a panel at The Kennedy Forum’s Fourth Annual Meeting on mental health[^1]. This year’s meeting focused on the theme, “Bending Towards Justice: A Summit for Mental Health Equity” to address the question Dr. Martin Luther King Jr. posed fifty years ago – ‘where do we go from here?’.

I was deeply touched by statements and testimonies from people from all walks of life, but what impressed me the most was the discussion about the “veil of oblivion” surrounding the dire conditions of mentally ill people in jails and prisons.

A 2016 report by the University of London[^2] estimated that worldwide more than 10.3 million people are held in penal institutions at any given time and more than 30 million people pass through prisons each year. Country data show that as many as half the people in jails and prisons have a mental disorder. For example, as shown in Alisa Roth's gripping new book “Insane[^3]”, although the overall number of people behind bars in the United States has decreased in recent years, the proportion of prisoners with mental illness has continued to go up. Data in the book indicate that in Michigan about 50% of people in county jails have a mental illness, and nearly 25% in state prisons do. The mental health crisis is more pronounced among women prisoners: one study by the US Bureau of Justice Statistics found that 75% of women incarcerated in jails and prisons had a mental illness, as compared to just over 60% of men.

As observed by Roth, jails and prisons have become de facto “warehouses for the mentally ill”, who tend to be among the most disadvantaged members of society. Moreover, when the mentally ill end up in the criminal justice system, they tend to fare worse than others and are susceptible to medical neglect and abuse, since ultimately the mission of jails and prisons is punishment, not medical care. And not all the effects occur inside the criminal justice system; many people with mental illness cycle back and forth between jail or prison and living in the community, and have an elevated risk of all-cause mortality, including suicide, both while in in custody and soon after release.

This situation, eloquently argued by one of my fellow panelists at the Kennedy Forum, Mark Holden, senior vice president and general counsel for Koch Industries, shows that the way criminal justice system deals with mental illness is profoundly broken, leading not only to tremendous anguish and suffering among mentally ill people locked away behind bars, but to high rates of recidivism once prisoners go back into the community, compounding social and economic costs of untreated mental illness and substance-use disorders.

What to do?
A critical challenge faced in most countries is to overcome the “punishment paradigm” often found in penal systems by focusing on addressing the mental health needs of prisoners and bringing about their recovery. This requires a concerted effort to overcome the criminalization of mental illness by offering comprehensive physical and mental health services during incarceration and to support transition to community life after prisoners are released. Effective service pathways include screening for mental illness and substance-use disorders to ensure case identification at reception and at other critical times; prison-based care and treatment services; referral to specialized facilities for prisoners with serious mental illness; and release planning to ensure continuity of care across health care and social services providers to reduce recidivism post release. If this is done, in combination with education, skills development, and social support, the penal environment will offer true recovery opportunities for the incarcerated.

A recent article in the Financial Times describes other innovative approaches being implemented with good results. These are “judge-led therapy programs”, which offer non-violent offenders with substance use disorders the opportunity to avoid jail, by agreeing to intensive mentoring and support. A good example of such programs is the one spearheaded by Steve Leifman, a Florida judge, that follows a simple premise: when a person with a mental illness or a substance use disorder is arrested for a non-violent misdemeanor, he or she can be steered toward treatment rather than criminal court. The vast majority opt for treatment, where they are connected with housing and other services. Recidivism is low, patients get the support they need, and the prison system saves significant funds.

Countries will do well by adopting prison system reforms, that include effective mental health treatment, care, and rehabilitation programs that focus on the whole person – body, brain, and spirit. If this is done, individual lives could be improved and freed from discrimination and stigma and with the opportunity to overcome health challenges and realize second chances in pursuit of a fulfilling life; families reunited; jobs gained; dignity regained; and overall society wellbeing enhanced by addressing the needs of the mentally ill and those with substance use disorders. A glimmer of hope? Yes, but one that is possible if political commitment and public and private efforts push forward this agenda as a moral imperative in society.
Armed conflict and violence disrupt social support structures and exposes civilian populations to high levels of stress. The 2015 Global Burden of Disease study found a positive association between conflict and depression and anxiety disorders. While most of those exposed to emergencies suffer some form of psychological distress, accumulated evidence shows that 15-20% of crisis-affected populations develop mild-to-moderate mental disorders such as depression, anxiety, and post-traumatic stress disorders (PTSD). And, 3-4% develop severe mental disorders, such as psychosis or debilitating depression and anxiety, which affect their ability to function and survive. If not effectively addressed, the long-term mental health and psychosocial well-being of the exposed population may be affected.
Mental health services in situations of conflict, fragility and violence: What to do?

In conflict or post-conflict situations like those currently faced in the Middle East, in some African countries, among refugees flowing into European Union countries, or the 7 million internally displaced population after 52 years of conflict in Colombia, one of the priorities is to develop programs to protect and improve people’s mental health and psychosocial well-being. In these situations, much-needed mental health care can be incorporated as part of humanitarian and development responses. Since affected populations are at an increased risk of mental disorders and psychological distress, inaction can severely overwhelm the local capacity to respond, particularly in settings where social networks and roles have been altered, and the health and social services infrastructure was already weak or rendered dysfunctional by crisis situations.

Is there a robust body of evidence to make the case for integrating mental health services in crisis response and addressing common skepticism at national and international levels? The simple answer is yes. Organizations such as the World Health Organization (WHO), the United Nations Refugee Agency (UNHCR), Partners in Health (PIH), International Medical Corps (IMC), Grand Challenges Canada, and the Mental Health Innovations Network have accumulated vast amounts of evidence about what to do in conflict and post-conflict settings. The 2016 Disease Control and Priorities report on Mental, Neurological, and Substance Use Disorders, which draws on the knowledge of institutions and experts from around the world, also provides a “gold standard” assessment and evidence on burden, interventions, policies and platforms, and economic evaluation.

The evidence is clear. Effective scaled-up responses to improve the mental health and psychosocial wellbeing of conflict-affected populations require careful adaptation to specific contexts of multi-layered systems of services and supports (e.g., provision of basic needs and essential services such as food, shelter, water, sanitation, and basic health care; action to strengthen community and family supports; emotional and practical support through individual, family or group interventions; and community-based primary care health systems). This allows a focus on affected individuals as a whole, addressing both their physical and mental health needs, while reducing the risk of stigma and discrimination among families and communities. This is important since mental disorders are highly co-morbid with other priority conditions (e.g., maternal and child health conditions, HIV/AIDS, and non-communicable diseases such as cancer and diabetes).

To inform the design of context-specific interventions in emergency settings, the mapping of the problem is of paramount importance, including assessment of mental health and psychosocial information about the affected population, covering both those with disorders induced by the crisis, and those with preexisting disorders. Such assessments can also clarify what is the current availability of mental health services in affected settings.

As illustrated by PIH experience in countries such as Haiti, Rwanda, Peru, and Liberia, many effective, evidence-based interventions are available and can be grouped into an essential package of interventions along a mental health value chain at community and facility levels, that includes prevention (e.g., community stigma reduction); case finding (e.g., psychological assessment, diagnosis); treatment (e.g., counselling, psychosocial interventions such as cognitive behavioral therapy, and treatment with essential medicines such as antidepressant and antipsychotic medications); follow-up (e.g., monitoring of symptoms); and reintegration (e.g., social and economic interventions).
Are these interventions cost-effective? A WHO-led study prepared for the WBG/WHO global mental health event at the 2016 WBG/IMF Spring Meetings showed that the estimated cost of treatment interventions at the community level for moderate to severe cases of depression, including basic psychosocial treatment for mild cases and either basic or more intensive psychosocial treatment plus antidepressant drug for moderate to severe cases, is quite low: the average annual cost during 15 years of scaled-up investment is $0.08 per person in low-income countries, $0.34 in lower middle-income countries, $1.12 in upper middle-income countries, and $3.89 in high-income countries. Per person costs for treatment of anxiety disorders are nearly half that of depression. In terms of the economic returns on investment, benefit-to-cost ratios for scaled-up depression treatment across country income groupings were in the range of 2.3 to 2.6. For anxiety disorders, the ratios were slightly higher, with a range 2.7–3.0.

We have to be clear that the provision of mental health and psychosocial support services at the community level cannot be seen only as a vertical or free-standing intervention offered in a health facility. Rather, it needs to be part of broad integrated platforms—population, community and health care—that provide basic services and security, promote community and family support through participatory approaches, and strengthen coping mechanisms not only to improve people’s daily functioning and wellbeing, and protect the most vulnerable (e.g., women and children, adolescents, elderly, and those with severe mental illness) from further adversity, but also to empower the affected people to take charge of their lives as valuable members of society.

If this is done, as Toluwalola Kasali observed, we will be helping the affected people regain “the ability to dream, desire and work for a future, one very different from their present circumstances.”
Invisible wounds: Mental health among displaced people and refugees

Submitted by Patricio V. Marquez On Tue, 10/11/2016
The plight of forcibly displaced people, who are fleeing conflict and violence, is best summed up by the lyrics of the plaintive 1970 classic by Argentine troubadour Facundo Cabral: "No soy de aquí ni soy de allá"("I'm not from here nor there").

Those lyrics convey both the sense of uprootedness felt by those displaced from their native lands and habitual routines, and the feeling of “otherness,” emotional detachment, and powerlessness when relocated to foreign surroundings and societies, which in some cases, are unwelcoming to outsiders.

While not a new historical phenomenon, the current crisis of forced displacement is posing serious humanitarian and development challenges across the world which we cannot ignore given their scale and complexity. As documented in a recent World Bank report, “Forcibly Displaced: Toward a Development Approach Supporting Refugees, the Internally Displaced, and Their Hosts,” about 65 million people, or one percent of the world’s population, live in forced displacement and extreme poverty. As differing from economic migrants that move in search of better opportunities and those affected by natural disasters, the forcibly displaced, both refugees and asylum-seekers (about 24 million people), and internally displaced persons (about 41 million people), are fleeing conflict and violence. And let’s not forget that host communities are also affected by economic and social disruptions caused by inflows of displaced people.

As advocated in the report, reducing vulnerabilities of the forcibly displaced during a crisis and helping rebuild their lives in the medium term, while mitigating the impact on host communities, can be managed by the international community. It requires adequate effort and effective collective action to support economic activity, job creation, and social cohesion, as well as to strengthen and expand health and education services, and housing and environmental services.
When designing these programs, we have to be conscious that displaced people not only have lost much of their assets and risk the depletion of human and social capital, but also have experienced traumatic events, including witnessing the killing of loved ones, family separation, abandonment of children and the elderly, and being subjected to torture, rape, and other forms of violence that leave deep and lasting mental scars. Unlike physical wounds and losses, conditions such as post-traumatic stress disorders, depression and anxiety, and traumatic brain injuries, which affect mood, thoughts, and behavior, are often “invisible” to the eye or simply persist unrecognized, unacknowledged, or ignored in humanitarian and development assistance programs, undermining efforts to help rebuild and sustain the lives of displaced populations.

What can we do? As was advocated at the global mental health event organized by the World Bank Group and World Health Organization at the 2016 WBG/IMF Spring Meetings, a collaborative response is required to tackle mental health as a development challenge. Such a response would involve multidisciplinary approaches that integrate health services at the community level, in schools, and in the workplace to explicitly address the mental health and psychosocial needs, including alcohol and other drug use problems, of displaced people and host communities. It would also include innovative social protection and employment schemes that facilitate the reintegration of affected persons into social and economic activities, such as done under Canada’s RISE Asset Development, which provides seed capital and lends at low-interest rates to people with a history of mental health and addiction challenges.
It is time to stop treating mental and substance use disorders differently than other health conditions. After all, these are disorders of the brain, an equally important organ in the human body as the heart, liver, or the lungs. In moving forward, a firm commitment is needed from national and international actors to champion mental health parity in the provision of health and social services, as part of dedicated development support and assistance programs. We must help displaced people and refugees overcome their vulnerabilities, build mental resilience, and take full advantage of poverty reduction programs, economic opportunities, and legal protection, particularly to deal with widespread stigma and discrimination.

I am optimistic that recent attention to this issue will lead to increased commitments, funding, and implementation of required multi-sectoral action to address the needs of displaced people and refugees. In doing so, let’s not forget the words of António Guterres, recently nominated to serve as secretary general of the United Nations, who observed, that “while every refugee’s story is different and their anguish personal, they all share a common thread of uncommon courage – the courage not only to survive, but to persevere and rebuild their shattered lives.”
Mental Health Parity is Critical for Achieving Universal Health Coverage in Ukraine

Submitted by Patricio V. Marquez On Wed, 12/20/2017
co-authors: Feng Zhao

A new report on mental health in Ukraine [1] offers a sobering picture of the often-ignored disease burden of mental disorders, which undermine human capital development and total wealth accumulation in a country. The World Bank Group estimates show that unaccounted “intangible capital” such as human capital, constitutes the largest share of wealth in virtually all countries, more than produced capital and natural resources.

The report is based on a comprehensive mental health assessment carried out in three regions (Lviv, Poltava, Zaporizhia). Evidence suggests that one-third of the Ukrainian population experiences at least one mental disorder in their lifetime, which is significantly higher than the global average. Alcohol use disorder (AUD) is more common among men, while anxiety and depression are more common among women.
Poor mental health is also tightly interconnected with poverty, unemployment, high out-of-pocket payments for medical care, and feelings of insecurity, compounded by the effects of the ongoing military conflict in the Eastern part of the country. Internally displaced populations (IDPs), older persons, and those living in conflict areas are especially vulnerable.

Yet, most people (up to 75%) with common mental disorders and AUDs have limited access to adequate mental health services in Ukraine. Stigma, prejudice, and fear of public recognition as being diagnosed with mental illness may result in job loss, and ruined social standing, further compound this problem.

The Way Forward

The report calls for integrating mental health as part of the ongoing health system reform program in Ukraine, seeking to create acceptance that mental disorders should not be treated differently than other chronic health conditions, such as cerebrovascular diseases or cancer. Nor, in fact, are they separable: if untreated, mental disorders can negatively affect management of such co-occurring diseases as tuberculosis, HIV, diabetes, hypertension, cardiovascular disease, and cancer.

This would require that reform efforts be prioritized to focus on strengthening coordination and leadership for mental health involving different actors at central and regional levels, civil society, private enterprise, and international organizations, and build on accumulated evidence to expand ongoing programs in selected regions.

The burden of mental illness in Ukraine is exacerbated by the lack of access to diagnose, misdiagnosis, and inappropriate treatment of ill mental health. Improving the delivery of psychosocial support and treatment would require the strengthening of referral pathways among different formal and informal service providers in the health and social systems, to foster communication, information sharing, education and training, and multidisciplinary teamwork. Mental health services must be decentralized from hospital-based care toward outpatient care and community-based services, including integration with primary health care. At the same time, these efforts would need to scrupulously protect patient confidentiality, given widespread stigma and discrimination.

Financing for mental health services must also be strengthened, as only 2.5% of the total health sector budget is dedicated to mental health care, and the majority (89%) of this funding goes toward psychiatric hospitals. One innovative way to do so is by raising the excise taxes on cigarettes and alcoholic beverages, which can expand the fiscal space to fund these programs while reducing health risks associated with tobacco- and alcohol-related diseases.

Although there has been a strong focus on trauma and post traumatic disorders (PTSD) in the context of the military conflict in eastern Ukraine, it is important to consider the much higher burden of depression and AUDs at the national level. While it is important to tailor mental health services to different groups (e.g., older persons, veterans), it is also crucial that services be accessible to all segments of the population. This would require a dedicated effort to build the capacity of human resources by education, certification programs, primary care provider outreach and education, strengthening the role of social workers, other community providers, including religious leaders.

As most of the working population spends a large proportion of their time at work, the findings of the report are also relevant for structuring wellness programs in the workplace, to raise awareness about physical and mental health risks and to offer programs under benefit plans that guide and incentivize individuals to develop healthier behaviors. In turn, these programs can have a positive multiplier effect, as employees integrate health and well-being into their daily routines. Lastly, the report stresses the importance of raising awareness of and providing information to the public about mental health problems and service providers, supporting the development of consumer-led mental health advocacy groups, and strengthening the engagement of persons recovering from mental illness and their family members.
The social costs of mental illness are terribly high in any society. Recent research shows that mental illness is a better predictor of misery than poverty is, while the costs of effective treatments are surprisingly low. If effective action is taken in Ukraine to address the unmet mental health needs of the population, significant positive social and economic returns will be generated. The report estimates that over 4.7 million years of healthy lives can be restored by the year 2030 with scaled-up treatment for selected mental disorders in Ukraine. The economic value of restored productivity over this period amounts to more than US$800 million for depression and US$350 million for anxiety disorders, which means that for every US$1 invested in scaled-up treatment of common mental disorders in Ukraine, there will be US$2 in restored productivity and added economic value.

If countries are serious about achieving Universal Health Coverage (UHC) by 2030, priority support is needed for integrating mental health services into existing health and social support service platforms. Engaging firms and enterprises, civil society, religious organizations, and affected people and their families in this effort will help to directly confront stigma and discrimination. Each incremental step taken forward at the regional and local levels toward improving access to timely and effective mental health services will make a difference in Ukraine—to affected persons, their families, at the work place, and for society at large. And it will contribute to build health capital, and hence human capital, to increase the total wealth of the country.
The launching of the iPhones 8 and X and the advent of genomic-based precision medicine for disease treatment and prevention, are new reminders that technological innovation is fueling momentous change in our daily lives. Indeed, as Professor Klaus Schwab, the chairman of the World Economic Forum describes, the physical, digital and biological trends underpinning what he calls the fourth industrial revolution, are unleashing changes “unlike anything humankind has experienced before.”

In the face of rapid and disruptive economic and social change, what can be done to build social resilience, keeping people at the center of the development process?

One way to address this question is to heed the advice of Prof. Schwab and promote as a shared value proposition, the notion that organizations and businesses have in their role as employers a great responsibility to nurture employee
resilience. A healthy workforce is after all vital to a country’s competitiveness, productivity, and wellbeing. The latter is easily grasped when one considers that poor health and well-being costs the UK economy up to US$75 billion a year in lost productivity due to a combination of absenteeism, employees not being at work, and presentism.

But let’s be clear. The reduction of health risks for physical conditions needs to be complemented with action to prevent and address mental ill health, an often-ignored reality in the workplace. Mental ill health is a condition of the brain that should not be treated differently than other chronic health conditions, such as heart disease or cancer. Nor, in fact, are they truly separable: If untreated, mental illnesses can negatively affect management of such co-occurring diseases as tuberculosis and HIV, diabetes, hypertension, cardiovascular disease, and cancer.

Workplace wellness programs: good for employers and employees

As most of the working population spend a majority of their time at work, the workplace provides a unique but often ignored opportunity to raise awareness about physical and mental health risks and to offer programs under benefit plans that guide and incentivize individuals to develop healthier behaviors. In turn, these programs can have a positive multiplier effect, as employees integrate health and well-being into the daily routines of families and communities. Workplace wellness programs include in general screening activities that use self-administered questionnaires on health-related behaviors (e.g., physical activity, use of seat belts when driving), risk factors (e.g., tobacco use), and psychological conditions (e.g., stress, anxiety and depression), as well as clinical screenings to collect biometric data—e.g., height, weight, blood pressure, and blood glucose. The data from these assessments help identify health risks and interventions to promote lifestyle changes. As part the programs, guidance and incentives are offered to employees to participate in primary prevention activities to modify risk factors for chronic disease (lifestyle management) and secondary prevention activities for dealing with manifest chronic conditions (disease management). Other common health promotion activities include on-site flu vaccination and counseling support.

The business case for supporting these programs is sound: Employers expect that wellness programs will improve employee health and well-being and lower medical costs, especially with the growing burden of chronic conditions such as cardiovascular disease, cancer, diabetes, and mental ill-health. Also, these programs can help to attract and retain talented workers, increase productivity, and reduce absenteeism.

There is growing evidence on the significant impact of these programs. In the United States alone, wellness programs are now a US$6 billion industry, with more than half of firms with at least 50 employees offering these programs. Results of a 2013 national survey conducted by the Rand Corporation showed that meaningful improvement among program participants in exercise frequency, smoking cessation, and weight control over a four-year period. The study also found that participation in a wellness program over five years is associated with a trend toward lower health care costs. The return-on-investment is noteworthy when comparing the ratio of reductions in health care costs (e.g., keeping people healthy and out of hospital) to program costs: wellness programs generated a return of $1.50 for every $1 invested and a return of $3.80 for every $1 spent on disease management.

A study done by the World Economic Forum, covering 25 firms with 2 million employees in 125 countries around the world, also shows that firms that champion workplace wellness are reaping significant benefits measured in terms of increased productivity, reduced cost of employee healthcare, and increased employee engagement that lead to reduced turnover.

Where wellness programs often fall short

While physical health-related metrics are promising, tackling mental illness in the workplace is lagging. This is a major challenge that needs to be addressed head on given the enormous burden of mental ill health at home and the workplace, aggravated by widespread stigma and discrimination of affected people. In the UK, for example, about 40 percent of the workforce’s sickness absence, was due to stress, depression, or anxiety – an average of 23 days per affected person- in 2013-2014.
Helping address mental ill health risks in the workplace could contribute to generate significant benefits for workers and firms alike. A study prepared for the 2016 World Bank Group-World Health Organization Global Health Conference estimated that the returns on this investment in a country can be substantial as measured by a favorable benefit-to-cost ratio, ranging between 2.3-3.0 to 1 when economic benefits only are considered and 3.3-5.7 to 1 when social returns are also included.

**Moving forward**

Properly implemented, wellness programs in the workplace are a “good buy” for any organization and business, with significant returns in terms of health and economic gains. These programs can also contribute to accelerate the progressive realization of universal health coverage by engaging and leveraging resources and know-how from organizations and businesses for the benefit of workers and families alike.

Nurturing the development of healthy work environments that promote the physical and mental well-being of employees is not only the right thing to do, but it’s a smart economic decision to improve productivity and competitiveness of firms, both crucial to help national economies combat poverty and achieve sustainable development.
In 2016, a lot of effort was placed on shining the light on mental health as a neglected issue in the global health and development agendas. The flagship event organized by the World Bank Group (WBG) and the World Health Organization (WHO) during the Spring Meetings of the WBG/IMF held in Washington D.C. was an important step to galvanize attention and commitment to change this situation.

There are countries, such as Canada, that show that well-designed frameworks, built upon broad consultations involving local, regional, and national groups, agencies, governments, and vulnerable population groups such as
Indigenous peoples and people with lived experience, and that enjoy the highest level of political commitment, can serve as good roadmaps for advancing the mental health agenda over the medium term.


A key aspect of the Canadian mental health strategy is its humanistic orientation. It positions people living with mental health problems and illnesses and their families as the drivers of change in mental health. It also recognizes that success depends on the commitment of governments to set policies and fund services, as well as of other actors to regulate, accredit, monitor, and deliver services.

The framework for action is structured around four pillars that are geared to improve the mental health and well-being of people in Canada and the services they need:

- **Leadership and funding:** the mobilization of commitment and support from the highest political level is critical to better resource the mental health response and increase the capacity to deliver quality, evidence-based, and integrated services and better meet the needs of diverse population groups. While funding is important, it is emphasized that leaders need to focus on achieving parity between physical and mental health care, better integrating mental health and physical health, and fostering collaboration across the health, social, education, and justice sectors.

- **Promotion and prevention:** given the multisectoral nature of mental health problems and illnesses, upstream efforts are needed, placing more emphasis on holistic prevention strategies, promotion of mental wellness, increased awareness and education about positive mental health across the lifespan, and a more refined focus on the social determinants of health in a culturally competent and safe manner. Promotion and prevention must be complemented with efforts to uphold human rights, social inclusion, and eliminate stigma and discrimination.

- **Access and services:** making timely access to evidence-based, integrated, person-centered, holistic, high-quality mental health services across the continuum of care should be a priority. People with lived experience and their caregivers must be engaged at all service points and in the policy development process to truly improve the availability and quality of mental health services.

- **Data and research:** aside from developing benchmarks and ongoing evaluation of system performance, as well as the translation of evidence-based mental health knowledge into policy and practice, this pillar includes support for comprehensive, innovative, interdisciplinary research and evaluation on mental health problems and illnesses and mental health programs and treatments; facilitating the involvement of people living with mental illnesses in research; improving data collection systems and population-level monitoring to collect comprehensive information on mental health, wellness, illness, service access, and wait times and ensure that publicly-funded data is available to researchers and policy makers.

These pillars are in line with WHO’s Mental Health Action Plan 2013-2020, adopted by the World Health Assembly, consisting of all ministers of health, including of Canada.

Canada has also established itself as a leader on global mental health. Many Canadian agencies have been collaborating with international and national partners. For example, since 2012, Grand Challenges Canada (GCC) has invested more than 35 million Canadian dollars to fund over 70 innovative mental health projects in more than 28 low-and middle-income countries. These innovations have led to tens of thousands people receiving mental health care; GCC funded grants have the potential to improve thousands of additional by 2030. GCC has also supported the establishment of Mental Health Innovation Network, which shares information and knowledge for decision making to innovators, researchers, civil society and policy makers.
By defining a broad, multi-stakeholder, social compact to support mental health promotion and mental illness prevention and treatment, Canada’s mental health strategy and the framework for action show the importance of alternative “distributive social ethics” or “moral values” in developing public policies. That is, the well-articulated, socially inclusive goals and participatory mechanisms of the strategy illustrate that broad social goals are the basic parameters that ultimately guide and shape policy and institutional decisions concerning the most appropriate and contextually relevant organizational forms, financing arrangements, and service delivery mechanisms. The strategy also clearly distinguishes the intermediate goals (improved access, quality, efficiency, and fairness) from the ultimate goals of integrated mental health and social systems (improved social and mental and physical health conditions, financial protection, and user satisfaction with the services received), avoiding the risk of confusing the means and ends of policy action.

While recognizing that heterogeneous social, economic, and cultural country contexts preclude the mechanical adoption of other countries’ experiences, the transnational sharing of knowledge and adaptation of relevant aspects of those international experiences to specific country realities is one of the benefits of living in an interconnected globalized world. If inclusive mental health policy, programs, and services are going to thrive across the world to improve health outcomes for people with mental health problems and illnesses and their families, we will do well in recognizing that more than technical processes, their realization will depend, as Canada’s experience shows, on social and political decisions as to what kind of society a country wants to have. Canada’s contributions at the international level, also set an example for other countries to contribute to global mental health.
Many of us have vivid memories of the joy and excitement of young adulthood, but this can also be a time of stress, apprehension and fear of the unknown. For many young people, this unease can lead to acute anxiety, severe depression or substance use disorders, if not recognized and managed.
On World Mental Health Day: A call to invest in interventions for young people

Young people living in environments where they face death and suffering daily, such as in West Africa during the Ebola epidemic of 2014-2015, in post-tsunami or earthquake-affected areas, or in countries experiencing extended conflict and violence, are particularly vulnerable to mental distress and illness.

This year’s World Mental Health Day, on Oct. 10, recognizes this critical time in life with the theme "Young People and Mental Health in a Changing World." Many changes occur during adolescence and the early years of adulthood, but they are not always acknowledged or treated.

The recent flurry of activity on global mental health, including the Global Ministerial Mental Health Summit hosted by the U.K. Government on Oct. 9-10, 2018, has been promising for addressing some of these concerns. However, there’s still much to be done.

According to the Institute for Health Metrics and Evaluation (IHME), mental and substance use disorders account for 18.9% of years lived with disability (YLDs) worldwide. While effective prevention interventions and treatments exist, the scale of untreated mental conditions affecting young people and adults in communities (as well as in prisons) is severe and widespread globally. Worldwide, it is estimated that 10–20% of adolescents experience mental health conditions, yet these remain underdiagnosed and undertreated. Among the population as a whole, around 80% of people with severe mental disorders in low- and middle-income countries and 40% in high income countries receive no treatment. The inaction to adopt and sustain scaled up efforts to make mental health care accessible for those in need, as an integrated part of health systems and other social support programs, contributes to challenges that affect society at a very high economic cost: school dropouts; alcohol and drug addiction; isolation and homelessness; increased likelihood of being arrested for a crime; and self-harm.

Confronting the health and development challenge of mental health conditions will require additional funding to bridge resource gaps and address low availability and quality of treatment. Indeed, while 7.4% of the global burden of disease, only 2% of national health budgets is devoted to mental health programs. However, rather than advocating for another “silo” approach, focused on funding for individual health conditions, multi-sectoral funding must be leveraged to scale up mental health interventions, while also promoting efforts to reduce duplication and inefficiencies as well as stigma and discrimination.

As highlighted at various global health events held at the World Bank Group (WBG) since 2016, it is possible to accomplish this. Governments, in accordance with the Addis Ababa Financing for Development Action Agenda, have the responsibility to mobilize additional domestic resources to help achieve mental health parity, as part of the progressive realization of universal health coverage. One way to do this is to increase tax rates on tobacco, alcohol and sugary drinks, which can not only provide a source of additional revenue, but also help generate public health benefits by reducing the risk of noncommunicable diseases.

Cooperation across sectors also will provide an opportunity for multilateral finance institutions such as the WBG, bilateral agencies and philanthropies to use existing service platforms to support the scaling up of mental health prevention and treatment. For example, to address the critical, but often overlooked, association between maternal depression and childhood stunting, support could be provided as part of integrated maternal and child health interventions under platforms such as the Global Financing Facility in support of Every Woman, Every Child (GFF). Investment in other areas, including education and social protection, could be utilized to respond to the unique needs of youth and other vulnerable groups, using initiatives such as the WBG’s Human Capital Project. This is an important consideration as the different dimensions of human capital complement each other, starting at an early age; e.g., proper nutrition and stimulation, in-utero and in early childhood, have shown to improve people’s physical and mental well-being, and contribute to development of cognitive and socioemotional skill.
Similarly, integrating mental health into wellness programs in the workplace can help leverage funding from firms and enterprises as a sound investment resulting in significant benefits for workers, their families and employers, improving productivity and competitiveness. Multi-sector programs used for the reintegration of displaced populations and refugees in post-conflict and post-disaster societies, such as those funded under the WBG's IDA and IBRD windows, could help mainstream and scale up mental health interventions and related social services among these vulnerable and at-risk populations. Microcredit schemes, such as Rise Asset Development in Canada, which provides low-interest small business loans, training and mentorship to entrepreneurs with a history of mental health or addiction challenges (including former prisoners), could be supported to facilitate the reintegration of those with mental health conditions back into the community.

Dedicated accounts, such as the International Finance Facility for Immunization (IFFIm), are another example of an innovative approach that could be used to mobilize additional funding to scale up global mental health services. This facility, which was established in 2006 to rapidly accelerate the availability and predictability of financing for immunization programs, uses long-term pledges from donor governments to issue “vaccine bonds” in capital markets, thereby making substantial funding immediately available for these programs.

These various approaches should be explored and utilized, since improving lives by addressing mental health conditions is a moral obligation for all those concerned with sustainable development. As was noted by Canada’s Minister of Health, Ginette Petitpas Taylor, during the 2018 WBG-IMF Spring Meetings: “Almost no one in society is left untouched by mental illness. Directly or indirectly, sometimes without even knowing it, mental illness affects nearly everyone at some point in their lives.” It is time, therefore, to deliver results, including for our young people.
5. Intersectoral Action for Health
Time to put “health” into universal health coverage

While on a walk with my younger son over the holidays, we got into a good discussion about the future of health care. After taking a class on health economics this past semester, he wanted to share his perspective about the need to “do something” to deal with the high cost of medical services that are pricing people out of health care in many countries.

Contrary to arguments used to justify the need for expanding access to services without putting patients at risk of impoverishment when they have to pay out-of-pocket for services rendered, even when they have health insurance, I was pleasantly surprised by his prescription. He said: we need to focus on "keeping people well" rather than only “treating the sick.”

As a public health professional, I could not agree more.

In 2015, we saw significant movement toward the goal of universal health coverage, culminating in a high-level meeting last month in Tokyo at which global leaders highlighted the need to accelerate progress toward affordability of care and access to basic services.
To achieve these objectives, and to ensure the financial sustainability of health systems, which can be severely undermined by the uncontrolled rise of health care costs, it is important that the push toward UHC include efforts to change lifestyle choices that contribute to chronic disease.

To be clear: this is not only a predicament affecting developed countries. Given the growing relative importance of non-communicable diseases and injuries across the world, developing countries are also starting to face this unavoidable dilemma but without the resource base, health systems or coverage levels of developed countries.

Are disease and injury prevention then the "cure" for this global challenge? In large measure this may be the case. However, this course of action requires a fundamental rethinking of how to best keep people healthy and out of the hospital.

For starters, there has to be a widespread realization among policymakers, employers, health insurers, service providers, and the population at large, that the lion's share of health care expenditures goes for treating diseases and injuries that could be "prevented". This, however, would require priority attention for supporting population-wide efforts to tackle social and behavioral determinants of ill health and premature mortality, such as policy measures to curb tobacco use, second hand smoke, alcohol and substance abuse, obesity and Type-2 diabetes, road traffic injuries, and in some countries, gun violence.

Besides regular collection and dissemination of data on the nature and characteristics of health risks and associated conditions needed to guide policy formulation and implementation, including funding allocations, active involvement of different stakeholders is required to advance this public health agenda.

Taxation and regulatory measures, as well as "institutional nudges" such as offering healthier lunch options in the staff cafeteria, can help influence behavior change and reduce the social acceptability of health risks. High taxes on tobacco that make cigarettes unaffordable, for example, coupled with smoke-free public spaces and bans on advertising, have been shown to reduce consumption and prevent addiction among youth. Community-based nutrition and physical activity programs have also proved to be effective in helping control obesity and the onset of diabetes. Strict enforcement of laws against drunk driving has contributed to a significant reduction of road fatalities across the world.

Insurance arrangements and health care organization and payment innovations are increasingly used in different countries to advance this public health agenda as well. For example, insurance companies, by charging lower premiums for those who quit smoking, lose weight, and pass screening tests for artery-clogging cholesterol, high blood pressure, and high sugar levels, provide an incentive for individuals and families to assume responsibility for their health.

Health care reforms that promote care coordination among hospitals, physicians, nurses, therapists and home care providers in accordance with evidence-based care protocols and that reimburse services using annual or capitated fees for members of an assigned population, are used to promote collaborative structures centered on ambulatory, community-based, primary care services. These arrangements have the potential to reduce costly emergency room visits and inpatient services through early detection and treatment of chronic diseases and by keeping people healthy and out of the hospital.

There are also generic drugs to treat most of these conditions as a secondary prevention measure. Statins, for example, are prescribed to reduce cholesterol and lower the risk of heart attacks and strokes. But measures to keep people on medication adherence need to be adopted to reduce the risk of disease progression or the development of multi-drug resistant conditions, including facilitating access to low-cost generic drugs, since the high cost of drugs that control chronic diseases may be a disincentive to use them.
The use of smartphones and specialized apps can help keep people healthy, via text message reminders about medication schedules; keep track of lab results and vital signs; and monitor progress in achieving personal health goals.

Many employers are offering on-site clinics as part of workplace health or wellness programs to help workers access health promotion counseling to encourage exercise and diet regimens, and to provide secondary prevention services such as flu vaccination, screening for high blood pressure and blood sugar levels, and psychosocial support for anxiety and depressive disorders and alcohol and substance abuse. In the United States, for example, it is estimated that one-third of firms that have 5,000 or more employees now have such clinics.

As we start the New Year, it is time to make the case for giving more attention to health promotion and disease prevention as part of scaling up of universal health coverage. Let’s make our goal healthy people and not simply more health services. The realization of this goal, however, has to be a shared social responsibility!

Follow the World Bank health team on Twitter: @WBG_Health [2]
Is Violence a Public Health Problem?

Submitted by Patricio V. Marquez On Wed, 04/08/2015

Reading Nobel Laureate Gabriel Garcia Marquez’s masterpiece “One Hundred Years of Solitude,” one is confronted with an unsettling reality: In the mythical town of Macondo, violence is an accepted mechanism used by successive generations to deal with individual and social conflicts. It also inflicts enduring pain on the town’s people long after disputes are settled with blood.

While “magic realism” is at the core of Garcia Marquez’s novel, let’s not forget that its depiction of violence and its after-effects was shaped by real historical events in Latin America—events that continue today to illustrate the inexorable reality of violence and its negative impact on families and communities everywhere.

Since violence in its many forms—interpersonal, self-directed and collective—often leads to physical and mental impairment, disability, and premature death, it should be seen as a major public health issue that requires sound epidemiological assessment of its causes, as well as multisectoral policies and strategies, including public health interventions. Let me make the case.

The relative importance of violence as a public health issue is clearly illustrated by the results of the 2013 Global Burden of Disease Study, which shows that interpersonal violence and self-harm are among the top 25 causes of
global years of life lost. And a recent report by the World Health Organization (WHO) estimated that about 500,000 deaths occurred worldwide in 2012 as a result of homicide alone.

Interpersonal violence, which is violence that occurs between family members, intimate partners, friends, acquaintances and strangers, and includes child maltreatment, youth violence, intimate partner violence, sexual violence, and elder abuse, is particularly endemic in Latin America and the Caribbean, where it is ranked among the top five causes of years of life lost in 15 countries of the region.

Indeed, WHO data indicate that low- and middle-income countries in the Americas have the highest estimated rate of homicide in the world (28.5 per 100,000 population), followed by the Africa region (10.9 per 100,000 population).

By contrast, the rate in high-income countries has declined over the 2000-2012 period to a low of 3.8 per 100,000 population.

In some of countries in Latin America, the problem is severe: young adults in El Salvador have the highest probability of death from interpersonal violence in the world, and people in Central America, more than any other region, are most at risk of being killed violently.

Key risk factors for interpersonal violence are strongly associated with weak governance, poor rule of law, cultural, social and gender norms, limited educational and employment opportunities, and social inequality. Also, ease of access to weapons and alcohol abuse and drug use contribute to multiple types of violence.

In turn, non-fatal physical, sexual and psychological abuse contribute to lifelong ill health and premature death due to diseases such as heart disease, stroke, cancer and HIV/AIDS that result from unhealthy behaviors (smoking, alcohol and drug misuse, and unsafe sex) that victims of violence often adopt to cope.

In spite of the severity of the problem, the WHO report indicates that lack or limited data on homicides from civil or vital registration sources is common in a vast array of surveyed countries, hindering the design, implementation and monitoring of prevention efforts.

Besides calling for strengthened data collection to better understand the true extent of the problem, the report also advocates for enhanced governmental action to address key risk factors for violence through cross-sectoral policies and institutional measures. These could include improving the enforcement of existing laws to deter crime and violence and making medical, social, and legal services available to identify, refer, protect and support victims of violence.

Good practices serve to illustrate that interpersonal violence and negative social consequences can be prevented and mitigated if the roots of the problem are known.

One such practice can be found in Cali, Colombia. By investigating and collecting data and information, the Cali municipal government, with the support of a university center, the police and the judicial system, determined that most homicides occurred on weekends, holidays, and Friday nights coinciding with payday; that about 30% of the victims were intoxicated; and that 80% of all the victims were killed by firearms.

Guided by this knowledge, the city established Desepaz, a violence prevention program, to address the key risk factors for homicide—alcohol and firearms—by adopting measures such as limiting the hours that alcohol could be sold on weekdays and weekends, and gun bans in the city.

Building upon the Cali experience, the municipal government of Bogota, Colombia’s capital, adopted similar measures which contributed to reducing the homicide rate from 80 per 100,000 population in 1993 to 16 in 2012. Other countries in Latin America and the Caribbean are also starting now to standardize and share data on crime and violence under an Inter-American Development Bank-supported initiative to tackle these phenomena.
While violence prevention is a complex challenge, given its broad social determinants, Colombia’s experience shows that effective solutions are possible.

Political commitment and coordinated multisectoral action should be informed by systematic collection and utilization of data and information. If this is not done, countries are destined to live perhaps not “100 years in solitude” but to be fragile and vulnerable. Their development prospects may well continue to be undermined by high human capital and economic losses, as well as by the erosion of social capital due to fear among the population that perhaps the next victim of violence will be a loved one.

Follow the World Bank health team on Twitter: @WBG_Health [1]
The media have been reporting these days that the U.S. economy continues to grow, and more people are being hired each month, bringing the unemployment rate down to 5.6%—a level not seen since the late 1990s. Unfortunately, in some parts of the world, the negative impact of the 2008 Great Recession continues to be felt. Among some European Union countries, the share of the unemployed remains at unprecedented high levels, particularly among young adults. In Spain and Greece, for example, the unemployment rate is about 25%.

As discussed in a recent paper [1] by researchers from the Urban Institute, being out of work for six months or more is associated with lower well-being among the unemployed, their families, and their communities. While tax and social transfer programs can help mitigate the consequences of long-term unemployment, a decline in family income due to a worker’s lack of earnings directly reduces the quantity and quality of goods and services the worker’s family can purchase, and exacerbates stress as well. The erosion in the tax base used to fund essential public services, such as health care, can negatively affect individuals and families by constraining access to these services when needed.
So, the question for those of us working in the health sector is how unemployment and its duration, as well as its consequences, affects individuals’ health behaviors and health outcomes, and what can be done to ameliorate them?

The authors of a longitudinal study [2] just published by the National Bureau of Economic Research (NBER), which tracked the same people over two recessions in the United States, including the Great Recession of 2008, caution against broad generalizations about the consequence of job loss on individual health behaviors. That is because, they argue, behaviors vary differently in the face of resource constraints, stress level due to job loss, and expectations regarding prolonged duration of job loss.

In terms of the effect of unemployment on physical activity (energy expenditure), food consumption (energy intake), and the effect on body weight (as measured by body mass index or BMI), the study found that both energy intake and expenditure decline after a job loss, leaving BMI unchanged or slightly higher (mostly among previously obese individuals). The study also found that among females, job loss is associated with an increase in the probability of being a current smoker, consistent with a decline in smoking cessation or a relapse into smoking among former smokers due to stress. Among males, the study found no significant effect on smoking, although, similar to females, there is a reduction in cigarettes consumed among heavy smokers.

Since physical activity can be health-promoting, the paper concludes that even though unemployment is only weakly associated with weight gain, lower total physical activity which reflects high job losses in manual labor (e.g., housing construction) and spending more time on sedentary activities (e.g., watching TV, surfing the internet), may have adverse effects on health. Also, unemployed people are more likely to delay routine health care visits or taking medication because of income constraints or because they have lost their health insurance.

In terms of change in the association between macroeconomic conditions and overall mortality, another NBER study [3] found effects for specific causes of death, rather than changes in the composition of total mortality across causes. For example, the lack of a significant effect of unemployment on changes in healthy behaviors is consistent with evidence that cardiovascular disease deaths have not changed dramatically over time, while road traffic fatalities tend to decrease during economic downturns because reduced income due to unemployment is associated with a decrease in miles driven in a car.

A negative correlation is found over time for cancer fatalities and some external sources of death (particularly those due to accidental poisoning). The study concluded that the changing effect of macroeconomic conditions on cancer deaths may partially reflect the availability of financial resources or health insurance coverage, which can be used to obtain high-cost, specialized treatments.

An increase in observed deaths as a result of accidental poisoning may occur due to increased stress or depression related to job loss during economic downturns. This, in turn, is associated with the use of prescribed or illicitly obtained medications that carry risks of fatal overdoses. Additional evidence presented in a BMJ article [4] shows that, after the 2008 economic crisis, rates of suicide increased in a group of European and American countries studied, particularly among men and in countries with higher levels of job loss.

Given the cyclical nature of economic activity, perhaps those of us in the health sector working as part of cross-sectoral teams need to place particular attention on understanding more clearly the underlying mechanisms through which losing a job impacts health behaviors and conditions, both during and after economic downturns and in situations of long-term unemployment. This type of knowledge is essential for developing evidence-based policies and programs to ameliorate the consequences of job loss, particularly
Is Unemployment Bad for Your Health?

among those who are most vulnerable to economic and health shocks, and ensure that they are protected and supported throughout and after the crisis.

Follow the World Bank health team on Twitter: @WBG_Health [2].
It is common to hear officials from countries and international agencies talk about the multiple challenges that impede intersectoral work for health. The concern is valid: while ministries of health and related institutions are organized and funded to improve the “health” of the population, other ministries do not have such a mandate. In most cases, this has led to a certain paralysis characterized by lofty aspirations in the health sector about the potential benefits of intersectoral action, but with little collaboration and action involving other sectors.

Should we accept the status quo or proactively find entry points to engage other sectors in advancing the global health agenda?

In this context, it was gratifying to see high-level officials from ministries of finance, trade, health, and customs from 14 Southern African countries gather together at an African regional forum on tobacco control held earlier this month in Gaborone,
Botswana, organized by the World Bank and the Bloomberg Philanthropies, with support from the Gates Foundation and the World Health Organization.

The forum proved to be a good example of an effective entry point to begin sensitizing non health officials on the importance of adopting government-wide policies to prevent and control the negative health impact of tobacco consumption in a society.

Experts spoke on the nature of the tobacco challenge, explaining how tobacco taxation might be used to achieve public health goals. Discussion also centered on illicit trade and how it might be overcome to prevent it from undermining the effectiveness of high excise taxes on tobacco products that make them less affordable, drawing on international perspectives from a range of countries--Brazil, China, India, Kenya, South Africa, the United Kingdom and the United States.

Representatives from various countries emphasized that in resource-poor countries (e.g., Malawi, Zimbabwe) where tobacco cultivation is part of the farming system of large number of smallholder producers and is the only cash crop, there is need to support agricultural diversification to help farmers move away from tobacco dependence.

It was evident that sharing knowledge and country experiences is key to dispelling myths and misconceptions in favor of evidence, establishing common understanding across sectors about the social and economic determinants that influence health, and identifying interventions to open doors for intersectoral collaboration.

Also, the opportunity for peer-to-peer learning, and both Kenya’s and Mauritius’s willingness to share their expertise in tobacco control with other countries, showed that cooperation between African countries, along with international assistance, could help carry intersectoral work forward.

I left Gaborone convinced that reaching out to other sectors is not only possible but actually critical if we are going to advance the global health agenda. Perhaps now that the forum has helped establish an intersectoral connection, international partners could support the Southern African countries as they develop multisectoral policies and actions to overcome the many hurdles they face in implementing effective tobacco control measures.

In doing so, we should not forget the eloquent words of the Minister of Health of Botswana, the Hon. Rev. Dr. John Seakgosin, who advised us to keep in mind that “tobacco causes sickness, pain, grief and misery, and that its impact is impossible to measure in only monetary terms.”
Circumcision and smoking bans: Can policies nudge people toward healthy behaviors?

Submitted by Patricio V. Marquez On Mon, 05/21/2012

[1]

The scaling up of voluntary medical male circumcision, particularly in high HIV prevalence settings, is a highly cost-effective intervention to fight the epidemic—randomized controlled trials have found a 60% protective effect against HIV for men who became circumcised.

But, the supply of this medical service is just one part of the picture. Without active involvement from individuals and communities to deal with social and cultural factors that influence service acceptability, the demand for this common surgical procedure will be low.

Indeed, on a recent visit to Botswana, a country with high HIV prevalence and low levels of male circumcision, my World Bank colleagues and I had a good discussion with the National HIV/AIDS Commission about ways to address the low uptake of voluntary, safe male circumcision services in spite of a well-funded program by the government. It was obvious to all that if the demand for, and uptake of, this service were not strengthened through creative mechanisms that foster acceptance, ownership, and active participation of individuals and community organizations, the program would not help control the spread of HIV through increased funding of facilities, equipment, and staff alone.

So, what do we need to do to ensure that need, demand, utilization, and supply of services are fully aligned to improve health conditions?

The good news is that evidence from different countries can be used for designing effective policies to empower people to make informed decisions and do what’s in their best interests.
In *Poor Economics* [2], a wonderful new book by Abhijit Banerjee and Esther Duflo of MIT, the authors present evidence on how firmly held beliefs by the poor, who often lack critical information (e.g., how HIV is transmitted or prevented), contribute to decisions and behaviors that put them at risk of or contribute to the spread of communicable diseases.

But the authors also argue that information alone will not do the trick. What’s needed are those “policy nudges,” such as free services or rewards as done under conditional cash transfer programs (e.g, *Bolsa Familia* in Brazil, *Oportunidades* in Mexico), which encourage people to demand and utilize preventive and treatment services (e.g., prenatal care and institutional deliveries, taking pills over the course of treatment to prevent the onset of multi-drug resistant TB).

Similarly, as we agreed with the Ministers of Health of Angola and Namibia during my visit to the region, there is also ample evidence from across the globe that shows that fiscal measures (e.g., higher excise taxes for tobacco), regulatory measures (e.g., smoking bans in public places to prevent the negative effects of secondhand smoke), or measures by the police (e.g., enforcement to deter drunk driving) are critical tools in the public health arsenal that lead to lower rates of lung cancer, heart attacks, road traffic deaths, as well as reduced use of related high-cost treatment and trauma care services.

As more countries pursue the goal of universal health coverage, which is high on the global health agenda, we need to focus not only on how to expand financial protection and access to needed services, but also to rethink how public policy is structured and geared to “nudge” people to improved health-related decision making and actions, and to regulate social and environmental factors that contribute to ill health, premature mortality and disability.
I was excited to read early this week a news dispatch about London’s ambitious bike plan. In announcing this plan, Mayor Boris Johnson outlined his vision of making cycling a part of everyday life by saying, “I want it to be something you feel comfortable doing in your ordinary clothes, something you hardly think about. I want more women cycling, older people cycling, more black and minority ethnic Londoners cycling.” To this end, he committed to spend $1.4 billion over 10 years to build bike paths, create bike parking lots, and re-engineer road intersections for bikes, on top of the bike-sharing system that was established in 2010. Similarly, New York City, during Mayor Michael Bloomberg’s tenure since 2002, has become as recently described by the New York Times, “a cycling haven, with sprawling lanes across each borough and a bike-share program set to begin this spring”. And in Mexico City, one of the world’s biggest cities which is car-saturated, Mayor Marcelo Ebrard began “Sunday morning rides”—known as “Muevete en Bici”—in the mid-2000s, shutting major throughways to auto traffic and giving the right of way to tens of thousands of cyclists. This measure was complemented in 2010 by the city’s Ecobici program, which offers active subscribers unlimited access to bicycles at different stations for a modest yearly fee.

You may ask why a public health type like me is so excited about bicycles and the introduction of cycle paths as integral parts of the urban transport network? After all, we are not talking about brand new health centers or hospitals that have been inaugurated in these cities!

The answer is simple. The redesign of the urban space to facilitate cyclists and pedestrian mobility by rolling out new cycling networks and improving pedestrian walkways as done in London, New York City, and Mexico City, could help reduce negative car-related environmental and health impacts.

Let me explain. In addition to the growing toll of road traffic injuries and fatalities, traffic congestion and related greenhouse gas emissions contribute not only to climate change and extreme weather events, but also to long-term health problems. These include chronic respiratory diseases caused by air pollution, and psychosocial and mental health problems caused by traffic noise, congestion, and car driver stress.
Every Sunday morning, some of Mexico City's busiest thoroughfares are closed to vehicle traffic to give way to bicycles.

In contrast, safe walking and commuting by bike, facilitated by better traffic planning and management, and engineering measures that improve road design by clearly separating pedestrians and cyclists from motorized vehicles, could generate significant health benefits by reducing health risks associated with sedentary lifestyles while making cyclists and pedestrians safer. Indeed, regular and adequate levels of physical activity in adults lower the risk of hypertension, coronary heart disease, stroke, diabetes, breast and colon cancer, depression and the risk of falls; improve bone and functional health; and are a key determinant of energy expenditure, and thus fundamental to energy balance and weight control. As documented by the World Health Organization (WHO), lack of physical activity (not to be confused with exercise which is a subcategory of physical activity that is planned, structured, repetitive, and purposeful) is already the fourth leading risk factor for global mortality, accounting for 6 percent of deaths globally.

As rising incomes in developing countries lead to more cars, traffic congestion, and air and noise pollution, perhaps it is time to learn about the wisdom of promoting walking and cycling as part of urban development and transport infrastructure initiatives, as well as of health promotion and disease prevention programs. Supporting pedestrian-and bike-friendly policies, programs, and investments in cities of developed and developing countries alike would not only reduce traffic congestion and pollution, but also improve the health of the population at different age groups. These approaches would bring together different sectors and disciplines, involve local communities, and help improve access to services, jobs, and education for disadvantaged groups. The net result would be a more pleasant and healthy life for all citizens.
The debate in the United States on how to change a health system that is geared to treat illnesses to one that focuses on preventing people from getting sick stirred my curiosity on how companies can improve employee health. After all, employees spend most of their waking hours at the workplace.

There is robust body of evidence showing that investment in workplace wellness programs is not only good for employees but also for the bottom line of companies. These programs, which are employer-organized and sponsored, help employees, and in some cases, their families, adopt and sustain behaviors that reduce health risks associated with chronic diseases and injuries. Both employees and employers value these programs because they help reduce health risks, absenteeism and employee turnover.

We know from a recent study [1] that the entry point for participation in these programs is employee health risk assessments, coupled with clinical screening for risk factors (e.g., blood pressure, cholesterol, and body mass index) that provide the baseline for subsequent interventions. Other methods include self-help education materials, individual counseling with health care professionals, and on-site group activities led by trained personnel. Besides obesity and smoking cessation, programs commonly focus on stress management, nutrition, alcohol abuse, and blood pressure, and on preventive care such as the administration of the flu vaccine. Companies have begun giving incentives to motivate healthy behavior, such as bonuses for completing health risk assessments, reimbursements for the cost of fitness center memberships, or lower health insurance premiums if employees adopt healthier behaviors (e.g., quit smoking).

As we continue to make strides in global health, we need to see the workplace as another promising “entry point” to tackle not only unhealthy behavior among individuals but also to reduce community health risks (e.g., through the adoption of programs to better train truck drivers and conduct regular vehicle inspections to prevent road traffic deaths).
So what are the essential pillars of these programs? According to an assessment [2] in the Harvard Business Review, they are:

**Engaged leadership:** Johnson & Johnson helps employees living with HIV/AIDS access antiretroviral drugs. Additionally, all of its facilities are smoke-free.

**Strategic alignment with the company’s identity and aspirations:** To promote a culture of health in a company where 60%-70% of jobs are safety-sensitive, Chevron has made fitness for duty a central concern on oil platforms and rigs, in refineries, and during the transport of fuel. Its wellness program includes a comprehensive cardiovascular health component, walking activities, fitness centers, stress-injury prevention, and work/life services.

**Design that is broad in scope and high in relevance and quality:** To be relevant to the needs of their employees, companies have adopted programs that are not just about physical fitness but also focus on mental health issues such as depression and stress, which are major sources of lost productivity.

**Broad accessibility:** SAS, a software firm, makes low- or no-cost services a priority. This is complemented with convenient arrangements that ensure high employee participation, for example, recreation facilities that are open before and after work and on weekends.

**Internal and external partnerships:** Companies offer services, such as biometric health screenings, at the worksite. These, in turn, are used to devise “individualized” programs with a local sport club and medical practice for at-risk employees.

**Effective communications:** To help overcome employee apathy or sensitivity about personal health issues, some companies are sharing information about wellness in regular corporate e-mails, health-related messages on intranet portals, and wellness “clues” in the workplace, such as the availability of bicycle racks in parking garages with showers nearby to make cycling to work appealing.

What are the returns on this investment? In the case of Johnson & Johnson, since 1995 the percentage of employees who smoked dropped by more than two-thirds, and the number who had high blood pressure or were physically inactive declined by more than half. The companies reaped financial rewards as well: Thanks to wellness programs in the workplace, medical costs for U.S. firms fell by about US$3.27 and illness-related absenteeism costs dropped by about US$2.73 for every dollar spent on such programs.

Governments can play an important role in helping implement and expand employer wellness programs, not only to improve the health of the population, but also to control health care spending. The 2009 Affordable Care Act, adopted by the U.S. Government to expand health insurance coverage, is a good example [3] as it expands employers’ ability to reward employees who meet health status goals by participating in wellness programs and to require employees who don’t meet these goals to pay more for their employer-sponsored health coverage.

*Follow the World Bank Health team on Twitter: [@worldbankhealth](https://twitter.com/worldbankhealth)*
6. Tobacco Taxation: a Win-Win-Win Policy
On 31 May, World No Tobacco Day (WNTD) is commemorated to raise awareness of the deadly effects of tobacco use and second-hand smoke exposure and to discourage tobacco use in any form.

This year’s WNTD is a good opportunity to highlight the trends in tobacco use and related disease burden in Indonesia, which with 85 million smokers, has one of the highest prevalence of cigarette consumption globally.
An estimated 68.1 percent of adult Indonesian men smoke, the highest rate in the world (see Figure below). Indonesian youth are starting to smoke younger and younger. While smoking among women is low, exposure to second-hand smoke is common, posing health risks to non-smokers. Easy access and low cigarette prices fuel tobacco use. A package of cigarettes in Indonesia can be bought for less than a US$ 1, among the lowest and more affordable prices in the world (http://documents.worldbank.org/curated/en/486661527230462156/Cigarette-affordability-in-Indonesia-2002-2017).

**High Tobacco Use, High Health Risk in Indonesia**

Smoking prevalence (% of adults)

The data presented are age-standardized rates for adults ages 15 and older from the World Health Organization (WHO)

Chart: As prepared by Divyanshi Wadhwa • Source: World Development Indicators (SH.PRV.SMOK.MA; SH.PRV.SMOK.FE)

Indonesia’s five leading causes of death are all tobacco-related, including ischemic heart disease, cerebrovascular disease, tuberculosis, diabetes, and chronic respiratory diseases (IHME, 2017). Morbidity from smoking-related diseases accounts for more than 21 percent of
all cases of chronic disease in the country. As show in the graph below, Indonesia is also a High Burden Tuberculosis (TB) country, which is one of the top ten causes of death worldwide.

Countries with the highest tuberculosis incidence
Tuberculosis incidence per 100,000 people (2017)

In Indonesia, paternal smoking is a predictor of increased probability of short-term and chronic child malnutrition. In households where the father was a smoker, tobacco accounted for 22 percent of weekly per capita household expenditures, with less money spent on food compared with households in which the father was a non-smoker (Semba et al., 2007). This is troubling as Indonesian children suffer from high rates of malnutrition with a prevalence of stunting of 37 percent and of wasting of 12 percent (http://documents.worldbank.org/curated/en/913341532704260864/). Stunting in the first two years of life can lead to irreversible damage, including shorter adult height, lower schooling attainment, reduced adult income, and increased incidence of morbidity in later life, which undermines human capital development.

The economic cost of smoking in Indonesia is high. Smoking-attributable health expenditure in Indonesia is estimated at about US$ 1.2 billion per year (Goodchild et al., 2017; Barber et al, 2008). This represents about 8 percent of total public expenditures on health (including government budgetary and social insurance expenditures) and about 3.3 percent of total health expenditures (https://openknowledge.worldbank.org/handle/10986/25363) (including government budgetary and social insurance expenditures, out-of-pocket, and other private). The indirect economic costs are estimated to amount to about US$ 6.8 billion (Kosen,2009).
On world no tobacco day: Highlighting Indonesia’s ominous tobacco use and disease burden


If the tobacco use pattern now observed in Indonesia is not controlled, the country risks a future “public health and fiscal tsunami” due to increasing rates of chronic diseases that are costly to treat and that will strain government and household budgets. Decisive tobacco tax reform is therefore required by the new government in Indonesia to rapidly raise prices and swiftly cut smoking rates (http://documents.worldbank.org/curated/en/219251526070564098/pdf/126158-REVISED-PUBLIC.pdf). Higher tobacco taxes can also increase domestic resources for investments that benefit the entire population, for example pursuing universal health coverage, which is one of the country’s priorities.

Policymakers in Indonesia are often concerned about impacts on employment. The results of recent World Bank Group assessments (http://documents.worldbank.org/curated/en/644791507704057981/The-economics-of-Kretek-rolling-in-Indonesia) show that tobacco manufacturing represents only a small share of Indonesia’s economy-wide employment (0.60 percent) and a relatively low percentage of jobs in the manufacturing sector (5.3 percent). This compares to the food (27.43 percent), garment (11.43 percent), and textile (7.90 percent) sectors. The productivity of tobacco manufacturing workers is also quite low relative to that in other comparable sectors, and tobacco manufacturing is geographically concentrated in East and Central Java (76 percent) and West Nusa Tenggara (18 percent). Only a few districts are substantially dependent on tobacco sector employment.

Simulations done by the World Bank (http://documents.worldbank.org/curated/en/919961507699751298/health-population-and-nutrition-global-practice) suggest that raising cigarette taxes by an average of 12 percent would increase cigarette prices by an average 5 percent and simplifying Indonesia's cigarette tax structure to 6 tiers will reduce cigarette demand by 1.89 percent, increase government revenue by 6.41 percent, and reduce gross employment in tobacco manufacturing by 0.43 percent. These estimates do not consider the creation of jobs in other sectors due to the shift in consumers’ spending away from tobacco. And, the estimated total household income loss from reduced employment in the handmade kretek industry amounts to only 0.16 percent of the revenue gain that Indonesia will obtain by increasing cigarette taxes (Rp 10,916 billion in one scenario).

So, on this WNTD, it would be appropriate for the new government in Indonesia to act boldly and swiftly to reform tobacco taxation for health and fiscal gains, as well as to promote human capital development (http://www.worldbank.org/en/publication/human-capital#Viz) — in 2017, Indonesia’s Human Capital Index (ICI) was lower than the average for its region. Priority action
should center on (i) reducing the number of cigarette tax tiers with the goal of adopting a uniform rate for all cigarettes; and (ii) removing the 57 percent tax burden ceiling, rapidly raising tobacco excise taxes for all categories of cigarettes, and aiming for WHO’s recommended tax level of 70 percent of retail price within three years.

In a recent visit to El Salvador, the smallest, yet beautiful most densely populated country in Central America, I attended an international event organized by the Secretariat of the Framework Convention on Tobacco Control (FCTC) for the FCTC 2030 project. During this event, I had the opportunity to learn from government officials and the Solidarity Fund for Health (FOSALUD) team about the significant tobacco control steps taken by the country.

According to data presented at the event, 1 in 10 adults in El Salvador smoke; the prevalence of current cigarette consumption is 17 percent among men, 2 percent among women, and 10 percent among young people. Data from the IHME Global Burden of Disease study indicate
that, in 2016, of the more than 1,600 tobacco-attributable deaths in El Salvador, almost half of them were premature deaths (before the age of 70 years). This contributed to an estimated 34,000 years of life lost due to tobacco-related premature mortality and disability. Besides these impacts, an assessment done by FOSALUD (http://www.fosalud.gob.sv/estudio-confirma-alta-rentabilidad-de-invertir-en-politicas-de-control-de-tabaco-en-el-salvador/) with the support of the FCTC Secretariat, UNDP and PAHO/WHO, estimates that tobacco use causes significant economic losses, including both health care costs (US$115.6 million) and loss of productivity (US$148 million), amounting to US$264 million or 1 percent of El Salvador’s GDP.

The good news is that El Salvador has responded strongly to this social and development challenge. Since its establishment by law in 2004, FOSALUD, has been leading the tobacco control effort, under a funding arrangement (http://www.fosalud.gob.sv/quienes-somos/) that allocates up to 35 percent of tax revenues from tobacco, alcoholic beverages, arms and ammunition to implement preventive campaigns to control tobacco and alcohol consumption, as well as for cessation services.

This sustained effort over the past decade has paid off. Following ratification of the FCTC, El Salvador now has a strong legal tobacco control framework, including a comprehensive smoke-free public space legislation adopted in 2015, prohibition of advertising, promotion and sponsorship by tobacco companies, graphic health warnings covering 50 percent of cigarette packs, and free and accessible cessation services for people who want to stop smoking.

Tobacco excise taxes, both specific and ad-valorem, have also been hiked up regularly over this period, representing 41 percent of the average retail price of a 20-cigarette pack. As a result, the price of a pack of the most popular cigarette brand in El Salvador increased from US$1.4 in 2008, to US$1.75 in 2010, and US$1.95 in 2012; an increase of 39 percent in four years (http://www.who.int/tobacco/global_report/en/). By 2016, the price rose to US$2.0. More importantly, between 2012-2016, cigarette price growth in El Salvador exceeded both inflation and per capita GDP growth, thus leading to a reduction in the affordability of cigarettes. Indeed, while cigarette prices increased by 70.6 percent, inflation rate rose by 9.6 percent, and GDP per capita by 10.4 percent.

All these actions, particularly the hiking of tobacco taxes that increased prices and reduced the affordability of cigarettes, contributed to reduce tobacco use in El Salvador. Annual cigarette consumption decreased from 1.5 billion cigarettes in 2002-2009, to 0.75 billion cigarettes in 2015-2016. Smoking prevalence surveys also show that smoking prevalence among adults declined between 2005-2014 period, as well as among teenagers between 2003-2015.
FOSALUD’s outstanding leadership and impactful work has been recognized internationally. It received the Bloomberg Philanthropies Award for Global Tobacco Control during the 2018 World Conference on Tobacco or Health held in South Africa (https://www.bloomberg.org/blog/2018-bloomberg-philanthropies-awards-global-tobacco-control-meet-winning-organizations/).

Moving forward, additional focused work needs to be done to reduce the health risks associated with tobacco-attributable diseases and save lives. The specific excise rate for cigarettes, along with the ad-valorem rate, for example, would need to be annually increased to ensure continued reduction in tobacco price affordability, and hence in consumption. This strategy would also increase excise revenues, which could contribute to domestic resource mobilization efforts recommended by a recent IMF mission to the country (https://www.laprensagrafica.com/economia/FMI-La-deuda-es-la-principal-vulnerabilidad-de-la-economia-20190322-0480.html). In addition, tobacco use surveillance and monitoring would also need to be further developed in El Salvador, including regular collection of information on cigarette prices, sales, and revenue collection, in addition to the undertaking of smoking prevalence surveys that help distinguish daily, current and ever smokers’ categories of users. The adoption of effective policies and institutional reforms and enforcement measures would be key to counteract tobacco smuggling and other kinds of illicit tobacco sales in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, that is yet to be ratified by the country.

I left San Salvador convinced that under the leadership of FOSALUD, El Salvador will continue to actively strengthen its tobacco control effort. This conclusion was reinforced by considering the “can-do” spirit of the Salvadoran people despite all odds in life.
El Salvador, un país pequeño que da pasos gigantes para controlar el consumo de tabaco

En una visita reciente a El Salvador, el país más pequeño y más densamente poblado de América Central, asistí a un evento internacional organizado por la Secretaría del Convenio Marco de la OMS para el Control del Tabaco (CMCT) para el proyecto CMCT 2030. En la
ocasión, tuve la oportunidad de escuchar a funcionarios del Gobierno y miembros del equipo del Fondo Solidario para la Salud (FOSALUD) que expusieron las importantes medidas de control del tabaco adoptadas por el país.

Según datos presentados en el evento, 1 de cada 10 adultos fuma en El Salvador; la prevalencia del consumo actual de cigarrillos es del 17 % en los hombres, el 2 % en las mujeres y el 10 % en los jóvenes (https://twitter.com/intent/tweet?text=1%C2%A0de+cada+10%C2%A0adultos+fuma+en+El+Salvador%3B+la+prevalencia+del+consumo+de+cigarrillos+es+del+17%20%28en+los+hombres%29%2C+el+2%20%28en+las+mujeres%29+y+el+10%20%28en+los+jóvenes%29&cid=EXT_WBBlogTweetableShare_D_EXT&via=WorldBank). Datos del estudio «Carga Mundial de Morbilidad» del Institute for Health Metrics and Evaluation (IHME) indican que, en 2016, casi la mitad de las más de 1600 muertes atribuibles al tabaco en El Salvador fueron prematuras (antes de los 70 años). Esto contribuyó a la pérdida de unos 34 000 años de vida debido a la mortalidad prematura y la discapacidad relacionadas con el tabaco.

Además de estos impactos, de acuerdo con una evaluación realizada por FOSALUD (http://www.fosalud.gob.sv/estudio-confirma-alta-rentabilidad-de-invertir-en-politicas-de-control-de-tabaco-en-el-salvador/) con el apoyo de la Secretaría del CMCT, el PNUD y la OPS/OMS, el consumo de tabaco causa pérdidas económicas significativas, que incluyen tanto los costos de atención de salud (USD 115,6 millones) como la pérdida de productividad (USD 148 millones), ascendiendo a USD 264 millones, o sea el 1 % del PIB de El Salvador.

La buena noticia es que El Salvador ha respondido de manera firme a este desafío social y de desarrollo. Desde su creación por ley en 2004, FOSALUD ha liderado los esfuerzos para controlar el consumo de tabaco, en el marco de un acuerdo de financiamiento (http://www.fosalud.gob.sv/quienes-somos/) que destina hasta el 35 % de los ingresos tributarios del tabaco, las bebidas alcohólicas, las armas y las municiones a campañas de prevención y control del consumo de tabaco y alcohol, así como a servicios de apoyo para dejar esos hábitos.

Esta labor constante durante la última década ha dado buenos resultados. Luego de la ratificación del CMCT, El Salvador cuenta ahora con un sólido marco jurídico de control del tabaco, que incluye una legislación integral sobre espacios públicos libres de humo adoptada en 2015; la prohibición de publicidad, promoción y patrocinio por parte de las compañías tabacaleras; advertencias sanitarias gráficas que cubren el 50 % de los paquetes de cigarrillos, y servicios de apoyo gratuitos y accesibles para personas que desean dejar de fumar. (https://twitter.com/intent/tweet?text=El+Salvador+cuenta+ahora+con+un+s%C3%B3lido+marco+jur%C3%ADdico+de+control+del+tabaco%2C+que+incluye+una+legislaci%C3%B3n+integral+sobre+espacios+p%C3%BAblicos+libres+de+humo+adoptada+en+2015%3B+la+prohibici%C3%B3n+de+publicidad%2C+promoci%C3%B3n+y+patrocinio+por+parte+de+las+compañ%C3%ADas+tabacaleras%3B+advertencias+sanitarias+gr%C3%A1ficas+que+cubren+el+50%20%28de+los+paquetes+de+cigarrillos%29%2C+y+servicios+de+apoyo+gratuitos+y+accesibles+para+personas+que+desean+dejar+de+fumar.&cid=EXT_WBBlogTweetableShare_D_EXT&via=WorldBank)

En este período también se han aumentado periódicamente los impuestos al consumo de
El Salvador, un país pequeño que da pasos gigantes para controlar el consumo de tabaco, tanto específicos como ad valorem, que representan el 41 % del precio minorista promedio de un paquete de 20 cigarrillos. Como consecuencia, el precio de un paquete de la marca de cigarrillos más popular en El Salvador aumentó de USD 1,4 en 2008 a USD 1,75 en 2010 y a USD 1,95 en 2012: un incremento del 39 % en cuatro años (http://www.who.int/tobacco/global_report/en/). (i) En 2016, el precio subió a USD 2,0. Más importante aún, entre 2012 y 2016, el aumento del precio de los cigarrillos en El Salvador superó tanto la inflación como el crecimiento del PIB per cápita, lo que dio lugar a una reducción en la asequibilidad de los cigarrillos. De hecho, si bien los precios de los cigarrillos aumentaron un 70,6 %, la tasa de inflación subió un 9,6 % y el PIB per cápita creció un 10,4 %.


El destacado liderazgo de FOSALUD y su labor de gran impacto han sido reconocidos a nivel internacional. El fondo recibió el Premio al Control Mundial del Tabaco de Bloomberg Philanthropies durante la Conferencia Mundial sobre Tabaco o Salud de 2018 celebrada en Sudáfrica (https://www.bloomberg.org/blog/2018-bloomberg-philanthropies-awards-global-
tobacco-control-meet-winning-organizations/). (i)

De cara al futuro, es necesario realizar esfuerzos concretos adicionales para reducir los riesgos sanitarios asociados con las enfermedades atribuibles al tabaco y salvar vidas. Por ejemplo, se deberían aumentar anualmente los tipos de impuestos especiales sobre los cigarrillos, junto con la tasa ad valorem, para garantizar una reducción continua en la asequibilidad del precio del tabaco y, por lo tanto, en el consumo.

Esta estrategia aumentaría, también, los ingresos por concepto de impuestos especiales, lo que podría contribuir a las iniciativas de movilización de recursos nacionales recomendadas por una reciente misión del FMI al país (https://www.laprensagrafica.com/economia/FMI-La-deuda-es-la-principal-vulnerabilidad-de-la-economia-20190322-0480.html). Además, en El Salvador debería desarrollarse aún más la vigilancia y el control del consumo de tabaco, incluida la recopilación periódica de información sobre los precios, las ventas y la recaudación de ingresos de los cigarrillos, realizando asimismo encuestas de prevalencia de tabaquismo que ayuden a distinguir categorías de fumadores (habituales, actuales y permanentes). La adopción de políticas eficaces y reformas institucionales y medidas de cumplimiento sería clave para contrarrestar el contrabando de tabaco y otros tipos de ventas ilícitas del producto en consonancia con las disposiciones del Protocolo para la Eliminación del Comercio Ilícito de Productos de Tabaco del CMCT, que aún no ha sido ratificado por el país.

Me fui de San Salvador convencido de que bajo el liderazgo de FOSALUD, El Salvador continuará fortaleciendo sus esfuerzos de control del tabaco. Esta conclusión se vio reforzada al recordar el espíritu “laborioso” del pueblo salvadoreño a pesar de las dificultades en la vida.

**Contenido relacionado**

Visite el sitio del Programa Mundial de Lucha contra el Tabaco del Grupo Banco Mundial para obtener información sobre evaluaciones mundiales y nacionales, blogs y videos (http://www.worldbank.org/en/topic/tobacco) (i)
I recently delivered a presentation on tobacco taxation at a workshop in Hua Binh, Vietnam. The event was organized by the Committee of Budget and Finance of the National Assembly and the Ministry of Finance of Vietnam, with the support of HealthBridge Foundation of Canada in Vietnam (INGO), the World Health Organization (WHO), and Southeast Asia Tobacco Control Alliance (SEATCA).
There is a growing consensus in the country about the need for the government to strengthen tobacco control to protect the population from health risks associated with tobacco use. Currently, close to 50 percent of adult males smoke in Vietnam. While fewer than 2 percent of women smoke, women and children are exposed to high levels of second-hand smoke at home and in public places, which also harms and kills. It is estimated (https://apps.who.int/iris/rest/bitstreams/1148386/retrieve) that 40,000 people are dying prematurely each year in Vietnam from tobacco-related diseases. In Vietnam, as in other countries across the world, smoking-related illnesses cost millions of dollars each year (https://www.bloomberg.org/program/public-health/task-force-fiscal-policy-health/), both in terms of direct medical costs and productivity losses, imposing a heavy economic toll on households and governments.

The discussions during this event emphasized the urgent need for Government commitment and action at the highest levels to reform the tobacco tax structure and increase tax rates. As shown by international experience, high tobacco taxes help boost cigarette prices, which are highly effective in reducing demand.

In Vietnam, the excise tax on tobacco (https://www.who.int/tobacco/global_report/2017/appendix-ix/en/) (an ad valorem tax based on the declared value of the item), represents a low 28 percent of the price of the most popular brand compared to the excise tax burden in neighboring countries such China (36%), Malaysia (47%), Philippines (51%), and the Republic of Korea (64). This rate is also well below the WHO-recommended tax burden of 70 percent of the price of a 20-cigarette pack to have a significant impact on consumption. Because of this low tax burden, cigarettes in Vietnam are among the cheapest in the world, with the price of a 20-cigarette pack of the most popular brand at less than US$1 and for economy brands as low as US$0.15-0.20 cents per pack.

The proposed tobacco tax reform in Vietnam, being considered as part of broader fiscal reforms, would aim to introduce a mixed excise tax structure by applying a specific tax on top of the ad valorem excise. This is a good policy measure as the introduction of a specific excise tax uniformly applied to all brands would help the government tax cigarettes based on their quantity, and not only their declared value, and the tax hike would raise prices by the same large amount on all brands at once preempting smokers’ switching to cheaper cigarette brands. This measure, however, would need to be accompanied with a provision to adjust the specific excise annually to keep pace with inflation and, preferably, at a faster rate to account for per capita income growth so that affordability is reduced over time.

A key question that awaits resolution in Vietnam is “how big and how fast” the tobacco excise tax increase should be. The answer should be clear to all: big tobacco excise tax increases are needed to avoid condemning large numbers of people to preventable tobacco-attributable diseases and premature death as is occurring now.

Improvements.pdf) presented at the event addressed policymakers’ concerns about the potential negative impact of hiking tobacco taxes. The experience of countries such as Colombia, Moldova, South Korea, Ukraine, and Philippines clearly show that rather than undermining revenue collection, increasing tobacco taxes not only contributes to reducing health risks associated with tobacco use, but can also help mobilize additional domestic resources to fund priority investments and programs under national budgets, including expansion of universal health coverage. Evidence from a recent global report (http://documents.worldbank.org/curated/en/677451548260528135/Confronting-I illicit-Tobacco-Trade-a-Global-Review-of-Country-Experiences) also shows that raising tobacco taxes is not the primary cause of illicit trade. Rather, it shows that non-price factors such as governance status, weak regulatory framework and enforcement mechanisms, and the availability of informal distribution networks are far more important factors. Indeed, the evidence highlights that the illicit cigarette market is relatively larger in countries with low taxes and prices, while relatively smaller in countries with higher cigarette taxes and prices.

Moreover, the findings of an assessment done for Indonesia (http://documents.worldbank.org/curated/en/219251526070564098/policy-implications-technical-brief) addressed concerns of potential job losses in agriculture, manufacturing, and distribution as an argument against higher tobacco taxes. They show that simplifying the tax structure and raising cigarette taxes by an average of 47 percent would reduce cigarette demand by 2 percent, increase government revenue by 6.4 percent, but reduce gross employment in tobacco manufacturing sector by only 0.43 percent. In addition, the results of assessments (http://documents.worldbank.org/curated/en/893811554737147697/Is-Tobacco-Taxation-Regressive-Evidence-on-Public-Health-Domestic-Resource-Mobilization-and-Equity-Improvements) done in eight low- and middle-income countries do not support the claim that increasing tobacco taxes is regressive and highlight the long-term benefits derived from improved health and productivity, particularly among the poor, who tend to be more responsive to prices changes than richer consumers.

The concluding message at the event was that by adopting a significant tobacco tax increase next year as part of a road map for subsequent yearly increases, the government of Vietnam would save lives and make people healthier. By increasing healthy life expectancy, this would be a critical investment in human capital (http://www.worldbank.org/en/publication/human-capital#Viz), which is becoming more and more important as the nature of work evolves in response to rapid technological change and the relative importance of knowledge economies continues to grow in the XXI Century.

Thuế thuốc lá ở Việt Nam: Nhu cầu phát triển nguồn vốn con người

PATRICIO V. MARQUEZ (TEAM/PATRICIO-V-MARQUEZ) | MAY 17, 2019

This page in: Vietnamese

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Gần đây tôi có bài trình bày tại hội thảo về thuế thuốc lá tại Hòa Bình, Việt Nam. Hội thảo do Ủy ban Tài chính Ngân sách của Quốc hội và Bộ Tài chính Việt Nam tổ chức với sự hỗ trợ của tổ chức HealthBridge Canada tại Việt Nam, Tổ chức Y tế Thế giới (WHO), và Liên minh Phòng chống tác hại thuốc lá khu vực Đông Nam Á (SEATCA).


Tại Việt Nam, mức thuế tiêu thụ đặc biệt đối với thuốc lá (là một khoản thuế theo tỷ lệ phần trăm trên mức giá khởi), hiện ở mức thấp khoảng 28% trong giá bán lẻ của nhàn hàng thuốc lá phổ biến, so với mức thuế tiêu thụ đặc biệt ở các quốc gia lang phong như Trung Quốc (36%), Malaysia (47%), Philippines (51%), và Hàn Quốc (64%). Mức thuế này cũng rất thấp so với tỷ lệ dưới 0.2 USD/WHO khuyến cáo là tỷ lệ thuế ở mức 70% giá bán lẻ một bao thuốc lá 20 điếu nhằm có tác động thực sự tới tiêu dùng. Với mức thuế thấp như vậy, thuốc lá ở Việt Nam thuộc diện rõ nhất trên thế giới, theo do giá bán lẻ một bao thuốc lá thuộc một hạng phổ biến chia đến 1 do la Mỹ, và các nhận dạng ở hơn chỉ vào khoảng 15 – 20 xu Mỹ một bao.
Để xuất cấp cách thầu thuốc lá tại Việt Nam hiện đang được cân nhắc trong một kế hoạch cải cách tài khóa rộng khắp, có mục tiêu đưa ra một cơ cấu thầu thuốc đầu tiên hợp lý, theo đó bổ sung thêm một mức thầu tùy đối trên phần thầu tính theo tỷ lệ phân trăm. Đây là một giải pháp chính sách tốt, vì việc áp dụng chung một mức thầu tùy đối với mọi nhân thuốc lá sẽ giúp chính phủ đánh thuế thuốc lá trên số lượng bao thuốc, không chỉ trên giá kệ hãi, và mức thầu cao sẽ nâng giá bán của mọi nhân hàng cũng lúc sẽ giúp tránh tình trạng người hút thuốc chuyển sang sử dụng các nhân hàng rẻ tiền hơn. Tuy nhiên, biện pháp này đòi hỏi chủ kinh doanh phải biết điều kiện chiết khấu của việc thầu và mức giá cao hơn lạm phát và nếu được, nền ở mức cao hơn lạm phát nhằm tính đến mức tăng thuế hấp nghe đầu người hàng năm để bảo đảm khả năng chi trả giảm theo thời gian.

Một cơ hội quan trọng để đổi mới với Việt Nam là mức tăng thuế đầu tiên và mức thầu lần này còn “cao như thế nào và nhanh ra sao”. Câu trả lời cần rõ ràng: cần tăng mức thuế đầu tiên và mức thầu lần này một cách mặn mà để tránh tình trạng đang tiếp là một số lượng lớn người dân mà các biện pháp thế thượng nguyên do thuốc lá và từ vong sớm như hiện nay.


Thông điệp kết luận tại hội thảo là với việc thông qua đề xuất tăng thuế thuốc lá mạnh mẽ vào năm tới trong một lộ trình tăng đột biến trong các năm tiếp theo, chính phủ Việt Nam có thể cứu nhiều người và giúp người dân khỏe mạnh hơn. Đây là một khoản đầu tư quan trọng vào nguồn vốn con người (http://www.worldbank.org/en/publication/human-capital#Viz), là vấn đề ngày càng quan trọng hơn khi bản chất của công việc phát triển để đáp ứng với sự thay đổi công nghệ nhanh chóng và tầm quan trọng của nền kinh tế tri thức tiếp tục phát triển trong Thế kỷ XXI.


Phiên bản tiếng anh của blog:
Ethiopia’s new tobacco control law: a step forward that needs to be complemented by higher taxes!

PATRICIO V. MARQUEZ (TEAM/PATRICIO-V-MARQUEZ) | FEBRUARY 15, 2019

Recently, Ethiopia’s parliament unanimously approved one of Africa’s strongest anti-tobacco laws. Ethiopia’s new tobacco control law is comprehensive as it requires 100 percent smoke-free public and work places, bans tobacco advertising and promotions, restricts the sale of flavored tobacco products and mandates pictorial warning labels covering 70 percent of the front and back of all tobacco products. The law also bans the sale of heated tobacco products, e-cigarettes and shisha, and prohibits tobacco sales to anyone under the age of 21.

The impact of this law on the health of the people of Africa’s second most populous country, with more than 105 million people, and on human capital formation in the country, cannot be overestimated.

While tobacco use is concentrated among adult males (the prevalence of smoking is estimated at 11% among urban men and 21.6% among rural men compared to less than 2% among
women), second-hand smoking puts unsuspected family members, particularly children, and people at work and in other public venues, at risk of developing or making worse a wide range of damaging health conditions including lung cancer, respiratory infections and asthma (https://www.lung.org/stop-smoking/smoking-facts/health-effects-of-secondhand-smoke.html). Deaths from tobacco-related chronic diseases are already leading causes of years of life lost in Ethiopia. What is ominous in Ethiopia and other countries in sub-Sahara Africa, where smoking is on the rise, is the vulnerability of their large youth populations to initiate tobacco use encouraged by the “deception and manipulation” strategy of tobacco advertisement and marketing (http://documents.worldbank.org/curated/en/820951485943150390/Summary-report).

By contributing to prevent tobacco-attributable diseases, the effective implementation of the different provisions of the new tobacco law in Ethiopia will result in improved adult survival rates (i.e., the proportion of 15-year-olds who will survive until age 60). This positive health outcome, along improved nutrition, skills, knowledge and resilience, would be critical for human capital formation, hence to help Ethiopians be more productive, flexible, and innovative in the future.

As done in other countries at different levels of income, the Ethiopian government could further strengthen the public health impact of the new tobacco control law by raising tobacco taxes to hike up prices, reduce affordability of tobacco products, lower consumption among current smokers, and prevent smoking initiation among the youth. This could be achieved if the tobacco tax structure is modified by adopting an uniform specific excise tax, on top of the current ad valorem excise tax, and the amount and rate of these taxes are increased, respectively, on a yearly basis, taking into account inflation and income growth. The rationale for this proposed fiscal measure becomes clear when one considers that the retail price for a pack of 20 cigarettes of the most sold brand in Ethiopia at $0.69 (15.00 ETB) in 2016, is among the cheapest in the world, well below the sub-Sahara Africa regional average (https://www.who.int/tobacco/global_report/en/) of $1.24 and the global average price of $2.15. And, as observed in other countries across the income spectrum globally, besides the public health benefits of tobacco taxation, there is significant potential for mobilizing additional domestic resources for development in Ethiopia.

Some people will argue that if Ethiopia were to reform its excise tax structure and impose higher tobacco taxes, a regressive policy would be adopted, and the country will experience an increase in illicit tobacco trade. Accumulated evidence from across the world, however, suggests that these claims are unfounded.

Different country studies conducted by the World Bank Group (http://www.worldbank.org/en/topic/tobacco) show that a rise in tobacco prices have a pro-poor, progressive effect, as they generate positive income variations across the lowest income
groups in the population (the bottom 20 percent), since poorer smokers respond more to changes in price than do richer smokers. This positive effect is further enhanced when lower medical expenses associated with the treatment of tobacco-attributable diseases and an expansion in working years are accounted. Also, a recent WBG global report (http://documents.worldbank.org/curated/en/677451548260528135/) documents that tobacco taxes are not the primary reason for cigarette smuggling and cigarette tax avoidance. Despite high cigarette prices due to high taxes in high-income countries, illicit trade is much less common in these countries than in low-income countries with low tobacco taxes. Non-price factors such as poor governance, weak regulatory framework, social acceptance of illicit trade, and the availability of informal distribution networks appear to be far more important determinants of the size of the illicit tobacco market.

In moving forward, the Ethiopian government could benefit from a large body of evidence (http://documents.worldbank.org/curated/en/docsearch/report/119792) on successful global practices in tobacco taxation, which points out that tobacco tax strategies should focus on health gains first, then on fiscal benefits. This means going for big tobacco excise hikes starting early in the process. Adopting a slow, cautious timeline might sound prudent. But it means condemning large numbers of people to avoidable health risks, including tobacco-attributable diseases and premature death, or in the case of the youth, to avoidable long-term addiction. And as shown by the experience in countries such as Botswana, Philippines and the United States (http://documents.worldbank.org/curated/en/820951485943150390/Summary-report), “soft” earmarking of funds -- for example, linking increased taxes to increased health spending or other priority programs and investments that benefit the population as a whole-- would help generate grassroots support for proposed tobacco tax hikes.
For those of us who have been impacted by the death of loved ones due to the negative health consequences of smoking, the recent announcement by Larry Merlo, the CEO of the U.S. pharmacy chain CVS, to stop selling tobacco products in the chain’s 7,600 stores, was a ray of hope and a step toward a future when public health concerns trump short-term profit motives.

CVS’s decision should be applauded and emulated as a good corporate example of the adoption of “shared value” principles, which combine social and economic concerns. Indeed, this was not only a courageous decision to help prevent more societal harm caused by tobacco addiction, but also a business-savvy decision for a man who lost his father to lung cancer.

While the company stands to lose about US$2 billion in annual revenues (1.6% of its total sales of US$123 billion), he is positioning CVS for the long term as an important health care provider, not just for selling
prescription drugs but also for offering basic health services such as flu vaccination and preventive care for chronic conditions in its fast-expanding “MinuteClinics” network.

Governments, private and non-governmental stakeholders, and international donors will do well to fully understand the business rationale of CVS and rethink their development strategies and assistance programs to make tobacco control a national and international priority. As Mr. Merlo noted in a recent interview [1] with the Financial Times, selling tobacco in CVS stores “had become a contradiction to the health outcomes that we were trying to achieve.”

So, if governments, private and civil society actors, and international donors are committed to maximize the well-being of the population, they must redouble multisectoral efforts towards tobacco control to avoid falling into the same contradiction that CVS faced.

Let’s be clear. As World Health Organization (WHO) experts pointed out years ago, tobacco is the only consumer product that eventually kills half of its regular users if they follow its manufacturers’ recommendations. So how to stop this “legalized” carnage across the world?

Besides corporate actions such as CVS’s decision, which will contribute to further reduce the social acceptability of smoking, the 2003 WHO Framework Convention on Tobacco Control (FCTC) [2]—ratified by the majority of the world’s countries—offers a number of anti-tobacco measures, including high taxes on tobacco products and regulations to protect people from exposure to tobacco smoke in public places.

The good news is that the effective application of the FCTC measures is both good for public health and for the economy at large. On one hand, these measures could yield cost-effective prevention for up to one-third of the world’s cancer cases—a positive step since cancer treatment is already unaffordable in many countries. On the other hand, as suggested in a 2012 analysis conducted for the U.S. government by the Congressional Budget Office, an increase of 50 cents per pack in the U.S. excise tax on cigarettes and small cigars (adjusted each year to keep pace with inflation and, in the long term, with the growth of people’s income), and the resulting impact on people’s behavior and health, would increase U.S. federal revenues by about US$41 billion and reduce spending by US$1 billion through 2021.

Almost US$38 billion of the additional revenues would come from the higher excise tax, and another US$3 billion in revenues would stem from improvements in health, primarily from additional earnings as better health allows people to work more and be more productive. Spending on the U.S. government’s largest health care programs, Medicare and Medicaid, would also decline slightly during that period as people’s health improved, while spending on Social Security would increase slightly as more people lived longer.

CVS CEO Merlo’s decision comes on the heels of another courageous position taken by Lt. General Ian Khama, President of Botswana. In spite of strong opposition from the tobacco industry, President Khama announced in his State of the Nation speech on November 4, 2013, a 30% increase in the tobacco levy on top of the 48% excise tax on tobacco adopted by the five Southern Africa Customs Union (SACU) countries, of which Botswana is a member.

Taking into account public health and economic evidence, and building upon these examples of bold leadership, we need to continue to keep pushing tobacco control across the world as a moral and development imperative. And only then we will truly honor the legacy of our loved ones who suffered and were lost because of lung cancer and other tobacco-related diseases.

*Follow the World Bank health team on Twitter: [@worldbankhealth] [3]*

Good News from the Global War on Tobacco Use

Submitted by Patricio V. Marquez On Thu, 03/26/2015

Last week, I participated in the 16th World Conference on Tobacco or Health (WCTOH) in Abu Dhabi--a scientific event where the latest developments in tobacco control were presented.

While there was general agreement that the World Health Organization 2005 Framework Convention on Tobacco Control (WHO FCTC)--the first global treaty negotiated under the auspices of the World Health Organization--is an effective tool for tobacco control, there was concern that implementation at the national level has fallen short of objectives.

I prefer, however, to see the glass half full rather than half empty. Let me explain why.

It should be clear to all of us that the WHO FCTC is a global framework that commits countries that have ratified it to move forward on tobacco control. This is in itself a tremendous achievement. To help make this a reality, WHO introduced MPOWER, a package of effective policies and interventions to assist countries in reducing the demand for tobacco. The MPOWER package includes: Monitor for tobacco use; Protect people from tobacco smoke; Offer help to quit tobacco use; Warn about the dangers of tobacco; Enforce bans on tobacco advertising, promotion and sponsorship; and Raise taxes on tobacco products.
As shown at the conference, MPOWER is increasingly being implemented worldwide. WHO estimates that 2.3 billion people in 92 countries – one-third of the world's population – are now covered by at least one MPOWER measure, up from 1.3 billion people in 48 countries in 2007.

More specifically, the 2012 WHO data show that:

- 2.8 billion people in 54 countries (40% of the world's population) are covered by effective tobacco use surveillance;
- 1.1 billion people in 43 countries (16% of the world's population) are covered by complete smoke-free legislation;
- 1 billion people in 21 countries (15% of the world's population) are offered appropriate cessation support;
- 1 billion people in 30 countries (14% of the world's population) are exposed to strong graphic health warnings;
- 694 million people in 24 countries (10% of the world's population) live in countries with complete tobacco advertising, promotion and sponsorship bans; and
- 530 million people in 32 countries (8% of the world's population) live in countries with sufficiently high taxes on tobacco products.

More importantly, according to WHO 2014 estimates, the implementation of the WHO FCTC over 2005-2015 has contributed to reduce smoking prevalence among males and females aged 15 years and older, from 40% to 35%, and from 9% to 6%, respectively. And, as documented in a recent study [1], evidence from 41 countries show that the effective implementation of MPOWER measures can help avert 7.4 million premature deaths by 2050.

Substantial and regular increases in tobacco excise taxes that raise prices and make tobacco less affordable have been shown to be the most cost-effective measure, since price increases are estimated to lead to a reduction of 7 million smokers and to 3.5 million smoking-attributable deaths averted.

To highlight the tangible progress being made in tobacco control in low- and middle-income countries, the winners of the 2015 Bloomberg Philanthropies Awards for Global Tobacco Control announced at the conference reflect good practices and results achieved in each of the MPOWER categories:

- **Monitoring:** Brazil Ministry of Health and National Institute of Statistics implemented the Global Adult Tobacco Survey in 2008, the first country to do so in the Americas, and the subsequent introduction of MPOWER measures into their existing national survey, creating strong technical capacity to monitor tobacco control.
- **Protecting:** Regional Advocacy Life Center (“LIFE”) of Ukraine led and coordinated support for the 2012 countrywide smoke-free law and comprehensive anti-tobacco advertising, promotion, and sponsorship bill.
- **Offering help to quit:** Uruguay’s Ministry of Health has been a leader in global tobacco control for nearly a decade. In 2008, the new Tobacco Control law mandated that all health care providers offer cessation support.
- **Warning:** Nepal’s Ministry of Health and Population passed a comprehensive law comprised of large, graphic health warnings, bans on tobacco advertising and sponsorships, and a smoke-free law, all while facing immense pressure from the tobacco industry.
- **Enforcing:** KONFOP, a Russian NGO, was a leader in the passage of 2013 tobacco control legislation in Russia, which is among the strongest comprehensive tobacco control legislation in the world.
- **Raising tobacco taxes:** The Philippines Department of Finance and Department of Health played a critical role in passing the Sin Tax Law in 2012, which made it more efficient to raise the tobacco tax by simplifying the country’s tax structure and channeling the revenue to help expand universal healthcare across the country.
Also at last week’s conference, Michael Bloomberg and Bill Gates launched a US$4 Million Anti-Tobacco Trade Litigation Fund to help governments that pass tough anti-smoking laws defend against international trade suits and increase public awareness of legal threats from the tobacco industry. And one of the most inspiring sessions addressed Australia’s move to mandate plain or standardized packaging for tobacco products in 2012, in spite of strong opposition from the tobacco industry. There were also a lot of discussion on how to best support agricultural diversification and end tobacco crop dependence.

While tobacco control remains a difficult challenge in a large number of countries (about 1 billion people are current smokers), I left the conference convinced that significant inroads have been made in the first 10 years of the WHO FCTC toward the 2013 World Health Assembly target of reducing tobacco use prevalence globally by 30% by 2025. But, as I noted in my presentations at the conference, reaching that target will require that we continue working on tobacco control across the world as a moral and development imperative. If we do that, we will also be able to honor the legacy of loved ones who have suffered and died prematurely due to lung cancer or other tobacco-related diseases.
Let’s be clear. Tobacco use, and its negative health, social and economic impact, is not a global problem that is simply going away.

As documented in a recent study [1], despite significant reductions in the estimated prevalence of daily smoking observed at the global level for both men and women since 1980, the actual number of smokers has increased significantly over the last three decades as the result of population growth. In 2012, it is estimated that close to one billion people were smokers, up from 721 million in 1980.

Clearly, tobacco use is a global epidemic. If we do not want to be passive spectators to the unhindered growth of this threat to global health, then political will at the highest levels of government needs to be galvanized, coupled with sustained support from civil society and international organizations. This is required not only to shine light upon this deadly but entirely preventable threat, but more importantly, to promote effective and sustained action to deal with it.

A new World Health Organization (WHO) report on tobacco taxation [2], launched today in Manila, raises a troubling question for policymakers across the world: If, as shown by scientific evidence, tobacco is a leading global disease risk factor, why then are so few governments levying appropriate levels of tax on cigarettes and other tobacco products?

The importance of this question is accentuated by the widely accepted fact that raising taxes on tobacco products is one of the most cost-effective measures to reduce consumption of products that kill, while also generating substantial domestic revenue for health and other essential programs—investments that benefit the entire population.

Findings in the report show that while only 33 countries impose taxes that constitute more than 75% of the retail price of a pack of cigarettes—the taxation level recommended to have an impact on consumption—
Making the public health case for tobacco taxation

most countries that do tax tobacco products have extremely low tax rates. And some countries do not have a special tax on tobacco products at all.

Given this situation, the WHO report is a much-needed and timely “call to arms.” It encourages governments to look at accumulated country evidence worldwide, and not simply the tobacco industry’s arguments, and to use tax measures to increase the retail price of tobacco products as one of the best available public health policy measures.

The report outlines some important lessons about how to effectively implement this policy measure to achieve the public health objectives of tobacco taxation, based on empirical evidence:

- While nearly all countries tax tobacco products, an excise tax is the most important type of tobacco tax, since it applies uniquely to tobacco products and raise their prices relative to prices for other goods and services.
- Simpler tobacco tax structures are more effective than complex ones, since tiered tax structures are difficult to administer and can undermine the health and revenue impacts of tobacco excise taxes.
- Use of specific excise taxes enhances the impact of tobacco taxation on public health by reducing price gaps between premium and lower-priced alternatives, which limits opportunities for users to switch to less-expensive brands in response to tax increases. Taxing all tobacco products comparably reduces incentives for substitution.
- Ad valorem taxes are difficult to implement and weaken tax policy impact. Since they are levied as a percentage of price, companies have greater opportunities to avoid higher taxes and preserve or grow the size of their market by manufacturing and selling lower-priced brands. This also makes government tax revenues more dependent on industry pricing strategies and increases the uncertainty of the tobacco tax revenue stream.
- Specific excise taxes need to be adjusted for inflation to remain effective.
- Tax increases should reduce the affordability of tobacco products. In many countries, where incomes and purchasing power are growing rapidly, large price increases are required to offset growth in real incomes.
- Strong tax administration is critical to minimize tax avoidance and tax evasion, to ensure that tobacco tax increases lead to higher tobacco product prices and tax revenues, as well as reductions in tobacco use and its negative health consequences.
- Regional agreements on tobacco taxation can be effective in reducing cross-border tax and price differentials and in minimizing opportunities for individual tax avoidance and larger scale illicit trade.

And, I will add, international trade agreements, such as the proposed Trans-Pacific Partnership, which is being negotiated by 14 countries (Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam), could help curb smoking globally if related public health measures adopted by participating countries are protected from the threat of litigation from the tobacco industry.

The report also warns countries against accepting the industry’s argument that illicit trade of tobacco products will thrive if taxes on tobacco products are increased. Accumulated evidence shows that this argument is flawed. While high taxes may create incentives for illicit trade, different country experiences show that illicit trade can be controlled by legal means (e.g., use of prominent tax stamps, serial numbers, special package markings, health warning labels in local languages, adoption of uniform tax rates nationwide that facilitate successful collection at the points of manufacture and import) and by increased law enforcement (e.g., improving corporate auditing, better trace and tracking systems, and good governance).

The report makes the point that controls over the distribution chain (from monitoring of production and/or distribution to licensing of all parties involved in manufacturing, distribution and retailing), improved technologies, and better use of data help to reduce illicit trade and complement tobacco tax reforms.

We at the World Bank, working with WHO and other partners, such as the Bill & Melinda Gates Foundation and Bloomberg Foundation, are committed to support countries in the implementation of tobacco taxation measures as outlined in this report. Effective tax regimes that make tobacco products unaffordable represent an important intervention to tackle the growing burden of noncommunicable diseases and a potential important domestic revenue stream for helping finance the UN’s Sustainable Development Goals (SDGs) across the world.

Follow the World Bank health team on Twitter: @WBG_SHealth [2]
Taxes for Better Health: Making the Case at the Joint Learning Network

Submitted by Patricio V. Marquez On Tue, 03/13/2018
co-authors: Somil Nagpal, Lydia Ndebele

This blog first appeared on Joint Learning Network for Universal Health Coverage [1]

Adam Smith, the 18th century social philosopher and political economist, renowned as the father of modern economics, observed in his seminal work “The Wealth of Nations” that “sugar, rum, and tobacco are commodities which are nowhere necessaries of life, [but] which are ... objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.”

Accumulated evidence on taxes from across the world, particularly on tobacco taxation, shows that taxing these products can offer a “win–win” for countries strengthening their health systems by increasing: positive health outcomes and domestic resources to fund priority investments and programs. The public health impact, revenue generation, and increased equity all point to the value of a redoubled and sustained effort to support the utilization of this fiscal policy as a global public good.

To move this global agenda forward, over 35 participants from 12 low-and middle-income countries came together in Nairobi, Kenya, on February 13, 2018 to participate in a learning exchange of country experiences organized by the Joint Learning Network for Universal Health Coverage [3] (JLN) with support from the World Bank’s Global Tobacco Control Program [4] and co-hosted by the Ministry of Health of Kenya [5]. This event was the first offering of a new JLN collaborative on Fiscal Policy for Public Health [6].
The presentations during this event showed how increasing tobacco taxes plays an important role in raising the price of tobacco products, reducing consumption, and generating new revenue for the public sector. The evidence on the impact of taxing alcohol and sugar sweetened beverages (SSB), combined with non-fiscal measures such as regulations on advertising and sales to minors, strict enforcement of drunk-driver laws, and education and communication to consumers, is also increasingly showing the positive public health impact of this policy. However, as documented in the case of tobacco taxes, taxation policies remain underused globally, especially in low- and middle-income countries (LMICs). The good news is that there is a growing interest among policymakers and public health professionals on this topic.

The range of experiences from Ukraine, Malaysia, England, Mexico, and the United States presented at the JLN event, showed taxation to be not only an effective but a progressive policy. The significant increases in tobacco taxes in Ukraine over the past decade have helped generate tax revenues amounting to about 1.7% of GDP in 2017 and resulted in a 20% reduction in the proportion of the population who smoke tobacco daily. The tobacco tax in Ukraine is strongly progressive as it benefits more the poorest population deciles when direct (e.g., out of pocket health care expenditures) and indirect costs (e.g., lost days of work due to sickness) averted are considered.

In the case of Malaysia, recent studies show that to achieve further reduction in the overall prevalence of smoking among adults from 24% in 2015 to 15% in 2025, the excise tax should be raised from the current rate of 47% to 78% of the retail price. The increase in alcohol taxes in England is predicted to result in the reduction of consumption and the avoidance of new cases of alcohol-related diseases and related health care costs. The spread of taxes on SSB to confront the alarming rise of obesity and diabetes in Mexico has led to a 10% decrease in SSB sales in Mexico, and a 21% reduction in self-reported SSB consumption in Berkeley, California, over the initial implementation phase of this measure.

Kenya offers an important lesson of real-life political economy and implementation challenges, showing that this is not an easy process and where there may be much more to learn from country exchanges.
Kenya’s experience shows that necessary elements for a successful tax campaign include collaboration with solid, technical in-country partners that can lead the effort on the ground, sustained advocacy and lobbying with key governments officials and/or stakeholders, generation of critical data to inform and support advocacy messaging, constant monitoring and countering industry interference and tactics, and proactive engagement of the public using appropriate media channels.

During an interactive brainstorming session, JLN participants focused on the public health implications of various fiscal policy measures in addition to their traditional role of raising revenue and how they had been tried in their own countries.

The big take-home messages identified by the participants included:

- taxing tobacco to make these products less affordable where this had not been done yet, and considering advocacy with policymakers to introduce or raise taxes on alcohol and SSB to reduce health risks and the onset of related diseases as a major step needed in their own country contexts;
- additional efforts to build capacity on the use of simulation models so that the expected impact of policy scenarios are assessed;
- documentation of best practices as well as insights from what did not work well and experiences in managing implementation challenges;
- and to explore ways in which countries could organize themselves and work together on these issues.

In moving forward, all of us should realize that fiscal policies such as taxation of products that pose major health risks for noncommunicable diseases are clearly amongst the most cost-effective measures for health systems, as countries seek to achieve universal health coverage. If this is not done, the growing burden posed by tobacco and alcohol use and the consumption of SSB will increase the number of people affected by these diseases, raising the demand and utilization of costly medical care, and undermining the financial sustainability of entire health systems.
Few people today doubt that smoking is bad. But many, including seasoned policy makers, do not realize just how bad it is. Bad for people, bad for economies, and bad for poverty reduction. In fact, tobacco use not only kills millions of people each year but places a staggering poverty and economic burden on low-income families and less-developed countries that is deepening inequalities between and within countries.
In a new report, *Tobacco Tax Reform: At the Crossroads of Health and Development*, prepared in collaboration with a multisectoral team from different institutions, we show that by implementing tobacco tax policy reforms now, policy makers can choose a fast road to healthier, more prosperous societies. Indeed, country evidence indicates that higher tobacco tax rates could save millions of lives each decade, reduce poverty, and boost public resources for development investment. Yet, today, tobacco taxation remains one of the world’s least-used tobacco control measures.

We argue in the report that the power to change this situation however exists. Not in the hands of any single leader or institution, but in a global coalition uniting governments, multilateral agencies, civil society, researchers, the private sector, and communities: a coalition dedicated to ensuring that the life-saving impact of tobacco tax reform reaches the largest possible number of people in the shortest possible time.

**MAKING IT HAPPEN**

If leaders want to move forward on tobacco excise taxation, what are the critical steps? What are the common pitfalls they should avoid? This report distills a large body of evidence on successful practice in tobacco taxation and the decision-making process.

**Key lessons include:**

- **Go big, go fast.** Tax strategies should focus on health gains first, then on fiscal benefits. This means going for big tobacco excise tax rate increases starting early in the process. Adopting a slow, cautious timeline might sound prudent. But it means condemning large numbers of people to avoidable illness and premature death. In tobacco taxation, the rewards go to those who act boldly.

- **Attack affordability.** Tobacco taxes only reduce tobacco consumption if they reduce cigarette affordability. In most LMICs, wages are rising. Thus, cigarettes will become de facto more affordable for consumers, increasing consumption, unless tobacco taxes rise even faster. Effective strategies will generally involve combining big initial tax increases with recurrent hikes over time, to keep cigarette prices climbing more steeply than per capita real income growth (including inflation).

- **Change expectations.** Communication with the public is also critical. Governments must make sure consumers know that a tax-rate hike is not just a one-off, but that cigarette prices will keep going up. This is a motivator for current smokers to quit and young people not to start.

- **Tax by quantity.** Tobacco tax rates should be simplified and based on the quantity of cigarettes, not their price. This is done in two ways, both of which preempt smokers’ switching to cheaper cigarette brands after a tax-rate hike on the brands they previously smoked (a response called “downward substitution”). The first key move is to use specific excises, as opposed to ad valorem (value-based) excises or other taxes. A key factor that needs to be considered is that specific rates require to be adjusted over time to at least keep pace with inflation and, preferably, at a faster rate so that affordability is reduced over time. Any strategy for adopting them should be therefore accompanied by a framework/instrument to allow for annual increases over time (such as the United Kingdom’s tobacco duty escalator). The second is to merge the multiple tobacco tax “tiers” used by most developing countries. This way, tax hikes raise prices by the same large amount on all brands at once, pushing smokers to quit completely, rather than switch.

- **“Soft earmarks” can win support.** Earmarking tax revenues through legislation is criticized by fiscal experts as contributing to rigidities, fragmentation, and eventual distortions in public expenditures. However, “soft” earmarking of funds — for example, linking increased taxes to increased health spending
— has helped generate grassroots support for the tax hikes. This has been shown by experience in other sectors, and it has worked for tobacco taxes in countries like Australia, Philippines, and the United States.

**Regional collaboration can boost results.** Momentum for ambitious tobacco tax reform can be enhanced, and cross-border threats like cigarette smuggling minimized, when countries work together in a regional structure. The European Union (EU) provides an example. The EU experience shows that regional cooperation can help countries achieve the dual goals of reducing tobacco consumption while increasing government revenues. Lessons also concern the pace of reforms. EU lawmakers faced early political pressure to “go slow,” by setting a low initial minimum tobacco excise rate to apply to all Member States. However, the EU accelerated progress by convincing Member States to agree up front to relatively high minimum tobacco excise rates, with longer transition periods authorized for some countries facing special challenges.

**Build broad alliances.** Country leaders face sharp resistance to tax rate increases and other tobacco control measures from the tobacco industry. The industry is both financially powerful and politically astute. Tobacco industry advice to governments promotes the most ineffective interventions and seeks to undercut and weaken tax measures. To counter these pressures requires robust scientific and economic analysis, as well as multi-sectoral policy development. It also demands the mobilization of civil society and opinion leaders. Support from international partners is also required, particularly in low-income countries, to strengthen country capacity for lining up and coordinating all parts of government, while engaging a wide set of stakeholders outside of government.

The good news is that countries and partners can come together, not just around a problem, but around a proven solution. A stronger, united effort is required to advance the global tobacco taxation agenda toward better health, less poverty, and greater development opportunity for all.
Taxing tobacco and the new vision for financing development

Submitted by Patricio V. Marquez On Mon, 04/18/2016

As part of the 2016 World Bank Group-International Monetary Fund Spring Meetings held this past week in Washington, D.C., a fascinating panel discussion, A New Vision for Financing Development, took place on Sunday, April 17. Moderated by Michelle Fleury, BBC's New York business correspondent, it included World Bank Group President Jim Yong Kim, Bill Gates, Justine Greening (UK Secretary of State for International Development), Raghuram Rajan (Governor of the Reserve Bank of India), and Seth Terkper (Minister for Finance and Economic Planning of Ghana).

The panel was in consensus about the current challenging economic and social environment facing the world as a whole. That environment includes low rates of economic growth across the world, drastic reductions in the price of commodities that are impacting negatively low- and middle-income countries, rising inequality, frequent natural disasters and pandemics, increased number of displaced populations and refugees due to conflict and violence spilling across national borders and continents, and the ambitious United Nations 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs). A question debated in the panel was, Where will the resources be found to address these challenges? This question is critical under the current scenario if countries are to continue to build on the progress achieved over the last decade and maintain previous gains.

Gates noted that new and innovative tools are required alongside the promotion, adoption, and adaptation of good practices to make a difference in dealing with these challenges. Terkper advocated for maintaining official development assistance commitments and adopting flexible risk-sharing financial instruments by multilateral organizations to help countries attract and leverage private investment. The importance of investing in the development of healthy and productive populations as key engines of economic and social development over the medium and longer terms was stressed by Kim, who argued that many governments have to be convinced to invest in "soft sectors" — health, nutrition, and education — compared to the "hard sectors" — roads, ports, and energy infrastructure.
While international financial assistance is necessary to help countries translate into reality the vision for a world free of extreme poverty, where there is opportunity for all, it should be recognized, as observed by Rajan, that domestic resources depend in large measure on economic growth. Growth, in turn, is supported by an enabling economic, social, and environment policy environment, including counter-cyclical fiscal policies, adequate fiscal space, and good governance. But, as highlighted by Greening, national governments must recognize that in accordance with the Financing for Development Addis Ababa Action Agenda [11] adopted in July 2015, the active mobilization and effective use of domestic resources, underscored by the principle of national ownership, are central to the common pursuit of sustainable development.

If development is lifting up lives, and new and innovative approaches for funding development are seen as “game changers,” then I would argue that the development community needs to redouble its commitment to advocate with national governments and society at large for raising taxes on tobacco products. Taxing tobacco is one of the most cost-effective measures to reduce consumption of products that kill prematurely, make people ill with all kinds of tobacco-related diseases (e.g., cancer, heart disease, respiratory illnesses), and cost health systems enormous amounts of money for treating often preventable diseases. In addition, hiking tobacco taxes can help expand a country’s tax base to mobilize needed public revenue to fund vital investments and essential public services that benefit the entire population and help build the human capital base of countries, such as financing the progressive realization of universal health coverage [12] and mental health scale-up [13] as well as education for all and early childhood development [14] initiatives. Indeed, data from different countries indicate that the annual tax revenue from excise taxes on tobacco can be substantial (e.g., close to 1% of GDP or $3 billion in the Philippines [15] in 2015).

We at the World Bank, in partnership with the Bill & Melinda Gates Foundation [16] and Bloomberg Philanthropies [17], as well as World Health Organization [18], are already working and committed to support countries in the design and implementation of tobacco taxation policy measures and monitoring their health and fiscal revenue impact, as a critical element of the global development agenda. The time has arrived to make tobacco taxation an important source of domestic resource mobilization that has the potential to generate substantial health and social welfare dividends across the world.
A Financial Times article this past week focused on IMF Managing Director Christine Lagarde’s call on policymakers to reform the global economy’s system for coping with financial shocks. She said the world must prepare for looming crises in emerging and low-income economies, and their negative spillover impact on the rest of the world, caused by tumbling commodity prices.

We would like to argue that this is the time to seriously re-examine the role of corrective taxation, such as taxes on tobacco, which can generate positive social benefits while raising much-needed fiscal revenue. Let us make the case.

Tobacco use is a leading global disease risk factor and underlying cause of ill health, preventable death, and disability. With around 6 million lives lost annually, tobacco-related diseases claim more lives than HIV/AIDS [1], malaria, and tuberculosis combined.

It is a widely accepted fact that raising taxes on tobacco products is one of the most cost-effective measures to reduce their consumption and save lives. Indeed, research from high-income countries finds that a 10% price increase will reduce overall tobacco use by between 2.5% and 5%. International experience, however, indicates that tax rate increases should be high enough to reduce the affordability of tobacco products, offsetting growth in real incomes.

Tobacco taxes can also generate substantial domestic revenue which could then be allocated to fund essential services that benefit the entire population. To this end, strong tax administration is critical to minimize tax avoidance and tax evasion (mainly in the form of illicit trade). Regional agreements on tobacco tax harmonization can also be effective in reducing cross-border tax and price differentials, and in minimizing opportunities for individual tax avoidance and larger scale illicit trade.
Equally important, governments must resist interference with tobacco control from the tobacco industry, which continues to expand its business in poorer countries with less educated and younger populations, to compensate for lower consumption in high-income countries.

There are positive trends on this front across the world. According to the 2015 WHO Global Tobacco Report, 106 countries have increased their tobacco taxes in various ways. In the United States, for example, cigarette prices rose 350% between 1990 and 2014, due to a five-fold increase in average state cigarette taxes and a six-fold increase in the federal cigarette tax. The 156% increase in the federal excise tax on tobacco over a four-year period adopted by the U.S. government in 2009 (taking it from 39 cents per pack to $1, not counting state taxes which average over $1 a pack) helps pay for the coverage of millions of low-income children under the State Children's Health Insurance Program.

The 2012 Sin Tax Reform Law in Philippines simplified the excise tax system on alcohol and tobacco, made the tax system more buoyant by indexing tax rates to inflation, and funded increased enrollment of the poor to the national health insurance program using tobacco and alcohol tax revenue. Excise taxes as a percentage of the price of the most-sold cigarette brand in some Latin American and Southern African countries have increased to levels that vary from 52% to 68%. In 2015, albeit still at a relatively low tax rate level, China increased tobacco excise taxes as a percentage of cigarette retail price, from about 33% to 38%.

Although several low- and middle-income countries have increased tobacco excise tax rates, overall they remain substantially below tax rates in high-income countries, even when adjusting for differences in purchasing power. This shows that low- and middle-income countries can increase their excise taxes further to effectively make cigarettes more expensive, reduce consumption, and mobilize fiscal revenue.

Over the past decade, a “call to arms” to accelerate the implementation of the Framework Convention on Tobacco Control, including tobacco taxation, has consistently being made by WHO, former New York City Mayor Michael Bloomberg, Bill and Melinda Gates, and yes, the World Bank Group. The international community has now a window of opportunity to advance the tobacco tax policy agenda within the broader framework offered by the Financing for Development Addis Ababa Action Agenda adopted in 2015. Indeed, as stated in clause 32 of this agenda, price and tax measures on tobacco should be seen as effective and important means to reduce tobacco consumption and health care costs, and as a revenue stream for financing for development in many countries.

Under the World Bank Group’s Tobacco Control Program, a multisectoral initiative funded with the support of the Bill & Melinda Gates Foundation and the Bloomberg Philanthropies, work is under way in several countries across regions combining public health, macroeconomics, tax policy, and tax administration expertise, as well as know-how on reforming the customs systems, to assist in the design and implementation of tobacco tax policy and administration reforms.

In times of crises, unconventional measures help. So, let’s make sure to include tobacco taxation as part of the policy arsenal for countries to use to deal with the stark new reality of budget shortfalls and faltering economic growth, while contributing to keeping the population healthy by controlling a preventable disease risk factor.
Taxation: Most effective but still the least-used tobacco control measure

A new report by the World Health Organization (WHO) shares some good news: Six in 10 people worldwide are now protected by at least one of the WHO Framework Convention on Tobacco Control (FCTC)-recommended demand reduction measures, including taxation. The report, launched on the sidelines of the UN high-level political forum on sustainable development, also makes clear that raising taxes to increase tobacco product prices is the most cost-effective means to reduce tobacco use and prevent initiation among the youth. But it is still one of the least used tobacco control measures.

The facts about this global public health scourge are undisputable:

- Tobacco use is the leading single preventable cause of death worldwide, killing over 7 million people each year.
- Cigarettes are addictive by design, and smoking cigarettes can damage every part of the body, causing different cancers from the head or neck to the lungs and cervix and other chronic conditions such as stroke and heart disease, which lead to early death.
- The direct and indirect economic costs are also enormous, totaling more than US$1.4 trillion.
• Controlling tobacco use is critical for the achievement of the health and social and economic targets in the 2030 Agenda for Sustainable Development.

But we know what needs to be done and governments are acting. Governments are implementing “MPOWER”, six tobacco control measures in line with the WHO Framework Convention on Tobacco Control (FCTC). MPOWER includes:

- Monitoring tobacco use and prevention policies;
- Protecting people from tobacco smoke;
- Offering help to quit tobacco use;
- Warning about the dangers of tobacco;
- Enforcing bans on tobacco advertising, promotion and sponsorship; and
- Raising tobacco taxes.

The WHO report indicates that 43% of the world’s population (3.2 billion people) are now covered by two or more MPOWER measures at the highest level, nearly seven times the number covered in 2007. Eight countries, including five low- and middle-income ones, have implemented four or more MPOWER measures at the highest level: Brazil, Islamic Republic of Iran, Ireland, Madagascar, Malta, Panama, Turkey, and the United Kingdom of Great Britain and Northern Ireland.

Some additional findings are noteworthy:

- Monitoring: Several countries, such as Nepal, India, and the Philippines, that conducted WHO-backed initiatives to monitor tobacco use have used the information to adopt measures to protect people from tobacco use. For example, Philippines’ landmark Sin Tax Reform Law was passed in 2012 after its 2009 global adult tobacco survey showed high smoking rates among men (47.4%) and boys (12.9%). The implementation of this policy measure has contributed to declining tobacco use as evidenced by the country’s 2015 adult tobacco survey results.
- Protect: Comprehensive smoke-free legislation is currently in place for almost 1.5 billion people in 55 countries. Dramatic progress has been witnessed in low- and middle-income countries, 35 of which have adopted these laws since 2007.
- Offer: Appropriate cessation treatment is in place for 2.4 billion people in 26 countries.
- Warn: More people are protected by strong graphic pack warnings than by any other MPOWER measure, covering almost 3.5 billion people in 78 countries – almost half (47%) the global population. And, 3.2 billion people live in a country that aired at least one comprehensive national anti-tobacco mass media campaign in the last two years.
- Enforce: Bans on tobacco advertising, promotion, and sponsorship interfere with the tobacco industry’s ability to promote and sell its deadly products and reduce tobacco use. But only 15% of the world’s population is currently covered by a comprehensive ban.
- Raise: Raising taxes to increase tobacco product prices is the most cost-effective measure to reduce tobacco use and encourage users to quit, but it is one of the least used tobacco control measures globally.

**What the World Bank Group is doing**

As an institution, the Bank has long been committed to tobacco control as reflected in its unambiguous Operational Directive 4.76 of 1999 that mandates that the World Bank Group does not lend directly or provide credits, grants, or guarantees for tobacco production, processing, or marketing. The Bank’s policy advice and technical assistance support tobacco tax increases to protect the population from health risks and to mobilize additional domestic resources.

Over the past two decades, Bank teams have carried out substantial analytical work to build the global knowledge base on issues related to tobacco control.
In recent years, the Bank, in partnership with the Gates and Bloomberg Foundations, and in coordination with WHO, has supported countries in the design of tobacco tax policy reforms to raise prices, reduce consumption, and mobilize domestic resources in accordance with the 2015 Financing for Development Addis Ababa Action Agenda.

In addition to support provided to the reforms in Philippines in 2012, in Botswana in 2013, in Ghana in 2014, and in Peru in 2015, the Bank’s assistance to Armenia, Colombia, Moldova, and Ukraine contributed to the adoption of significant tobacco tax increases in 2016. The total population covered by these policy actions is about 250 million people.

Ongoing support is being provided in 2017 to an additional set of countries across regions, including Montenegro, where the government recently announced that tobacco taxes will be increased over the next 3 years in line with the European Union Tobacco Tax Directive’s target rates, and in Lesotho, as part of the 2017 budget presented by the new government to Parliament.

In moving the global tobacco control agenda forward, as the findings of the 2017 WHO report suggest, a dedicated focus by governments with support of the international community is required to raise tobacco taxes since it continues to be the least used tobacco control measure. This is of critical importance to make these deadly products unaffordable, reduce consumption among current smokers, and prevent smoking initiation among children and youth.

While health is the main objective, we also need to argue, on the basis of country evidence from across the world, that raising tobacco taxes can generate a significant fiscal benefit by helping to expand a country’s tax base and increase the budgetary capacity of governments to fund priority investments and programs that benefit the entire population.
The accumulated evidence over the past half century on the causal relationship between smoking and harm to health provides us with a robust scientific foundation to inform policy design and action.

Tobacco use is a leading cause of death worldwide, killing close to 6 million people each year. This enormous loss of life and its social and economic impacts undermine development across countries.

While progress has been made in global tobacco control since 2005, when the World Health Organization’s Framework Convention on Tobacco Control (WHO’s FCTC) came into force, renewed effort is needed across low-and middle-income countries, led by national governments, to halt this human-made health scourge once and for all.

In an era, where many question the power of scientific evidence to influence human behavior: whether at the level of individual lifestyle choices, or of public policy, I believe that faith and reason remain the essential guideposts for charting human progress.
The rational case for tobacco control is that it aligns individual self-interest, in terms of preserving health and avoiding suffering, with governments’ economic interests in reducing expenditures, increasing revenue, and maximizing social welfare. Indeed, individual self-preservation, domestic revenue generation, and improvement of overall social well-being is a powerful combination of motivators!

To make this combination work, policy formulation should be informed by a clear understanding of the biological and behavioral mechanisms that lead to the onset of tobacco-related diseases and their adverse health and economic effects. By using country-specific data, we can target policy makers, government officials, and health services personnel, particularly those working at the community level, to raise awareness of the dangers of tobacco for patients, families, and the general population.

The message has to be stark and unapologetic: both active smoking and exposure to secondhand smoke cause disease and kill prematurely. Indeed, accumulated evidence shows that nicotine (a chemical in tobacco): 1) Is a highly addictive stimulant that at high levels produces acute toxicity; 2) activates multiple biological pathways through which smoking increases risk for disease; 3) adversely affects maternal and fetal health during pregnancy, contributing to adverse outcomes such as preterm delivery and stillbirth, as well as congenital malformations (e.g., orofacial clefts); and 4) during fetal development and adolescence has lasting adverse consequences for brain development. It also shows that tar, the resinous, partially combusted particulate matter produced by the burning of tobacco, is toxic. It damages the smoker's lungs over time. Carbon monoxide, a colorless, odorless gas produced from the incomplete burning of tobacco, accumulates indoors, and reduces the oxygen-carrying capacity of the blood.

We have to hammer home that cigarette smoking is causally linked to diseases of nearly all organs of the body. The evidence is sufficient to conclude that the risk of developing lung cancer from cigarette smoking has actually increased since the 1950s, due to changes in the design and composition of cigarettes. We have to explain that there is evidence for a causal relationship between smoking and several types of cancer, including liver and colorectal cancers, and prostate cancer. Smoking is the dominant cause of chronic obstructive pulmonary disease (COPD), including emphysema and chronic bronchitis; and smoking increases the risk of tuberculosis. We have to show that research continues to identify diseases caused by smoking, including such common diseases as diabetes. Scientists now know that the risk of developing diabetes is 30–40 percent higher for active smokers than nonsmokers.

Crucially, we need to link health arguments with the economic case for tobacco control. That case is powerful, as confirmed by recent studies demonstrating huge smoking-attributable economic costs in the United States and other countries. We can prove that the health benefits of tobacco taxes and other regulatory and control measures far exceed any required increase in taxes and prices, while disproportionately benefiting low-income households, as shown in a recent study in Chile and by results of the 2012 “sin tax reform” in the Philippines. Modeling work, as recently done in countries such as Armenia, Colombia, Lesotho, Moldova, Nigeria, and Ukraine, can inform policy making by reliably quantifying the likely impact of tobacco tax increases on prices, consumption, and domestic revenue mobilization. And related work in Ukraine, shows the estimated positive long-term health and cost-avoided impact of tobacco taxation and other control measures.

As we move into the third decade of the 21st Century, the achievement of smoke-free societies should be a critical marker of sustainable development. Globally, Finland, is paving the way. It has become the first country to set the goal of making itself tobacco-free by 2040. But to realize that vision, saving our children and their children from tobacco addiction, disease, and early death, we have to move from declaration of good intentions to committed, measurable, and sustained action over the medium term that is informed by quantifiable public health and economic evidence.
Earlier this month, we attended the 17th World Conference on Tobacco or Health[^1], held in Cape Town, South Africa—the first time on the African continent. While we celebrated the effort made by the global community to implement the Framework Convention on Tobacco Control (FCTC) over the past decade, it was sobering to realize that a greatly intensified and sustained effort is required in the future. Business as usual will not suffice.

The tobacco epidemic continues to be one of the biggest global public health threats. Data from the new edition of The Tobacco Atlas[^2], launched at the Conference, shows that 942 million men and 175 million women ages 15 or older are current smokers.

The good news: efforts in the past decade have slowed down the spread of the tobacco epidemic. Smoking rates among adults have decreased globally. The bad news: this positive result obscures the fact...
that in some countries declines among males have stalled, and in other countries has continued to rise. Female smoking is still relatively lower than males, but has had a moderate increase in some countries.

What is ominous for the future is the relative rapid increase of smoking rates among youth, globally. Africa, the Eastern Mediterranean, and the Americas, with young population age structures, have experienced the fastest percentage changes in consumption over 1980-2016 (52%, 65% and 44%, respectively).

While 181 countries are parties to the FCTC, many are lagging in implementing its provisions. A good example that illustrates this point is the banning of smoking in public places. Currently, only 50 countries, up from 10 countries a decade ago, have adopted comprehensive smoke-free legislation, covering about one-fourth of the total population in the world. Also, the adoption of significantly large tax hikes to make cigarettes more costly and reduce tobacco use and prevent uptake by youth, is still a widely underused policy measure [3].

We think that any end-game strategy for the future would need to place added emphasis in supporting the adoption, by all FCTC signatory countries, of smoke-free environments, regulations and tax policies to significantly reduce the social acceptability of smoking in all its forms and make the price of cigarettes unaffordable.

The economic rationale for this course of action is compelling, given the negative externalities from smoking, ranging from annoyance that smokers can cause to individuals around them in public places, harm suffered by non-smokers who are both exposed to smoking by others and third hand smoke (the residues that contain many of the harmful substances found in tobacco smoke that solidify and form in surfaces at homes and public spaces where smoking occurred), and the direct and indirect social costs of tobacco use that families, communities and governments have to pay.

Accumulated evidence shows that if properly implemented, these policies work and are impactful. In many cities around the world, smoking is not allowed in restaurants, bars, clubs, hotels, or even in public housing complexes as in New York City. Presentations delivered at the Conference by World Bank Group participants provided evidence of country experiences where tobacco tax hikes have led to higher prices, reduced consumption, helped mobilize additional domestic resources to finance priority investments and programs, and are helping reduce inequities associated with the impoverishment impact of costly treatments for tobacco related diseases. Indeed, the experience of a range of countries that that have adopted tobacco tax reform in recent years--from Azerbaijan, Armenia, Belarus, Botswana, Colombia, Gabon, Ghana, Indonesia, Moldova, Mongolia, Montenegro, Philippines, Sierra Leone, and Ukraine [4]--attest to the win- win [5] nature of this fiscal policy.

It was also gratifying to learn a couple days after the end of the Conference that President Buhari of Nigeria has approved significant changes in the
tobacco tax structure by introducing specific excise duties on to top of ad valorem rates to be implemented over 2018-2020. The potential impact of this policy decision in the most populous country and larger economy in Africa sends a clear signal that political will and commitment at the highest level of government can overcome industry interference and the power of interest groups for the benefit of the population of a country.

We left Cape Town with a clear understanding that the global epidemic of tobacco use is not a problem that will simply go away. But we are optimistic that it is possible to move the needle faster and further since the broad anti-tobacco movement comprised of governments, civil society, international agencies, and philanthropies, is growing stronger and bolder.

Besides supporting the implementation of the FCTC globally, we think it is time to move away from siloed approaches and closely connect tobacco control efforts to broader processes geared to the achievement of the sustainable development goals.

In practice, this would imply exploring, innovating and trying ambitious approaches from crafting public health exceptions for tobacco control under global, regional and bilateral trade agreements with the support of the World Trade Organization (WTO) or political fora such as the G77, to leveraging the power of international finance markets by promoting shareholder activism to pursue “tobacco-free investments” as proposed during the Conference by Tobacco Free Portfolios, a global not-for-profit organization based in Australia. Michael R. Bloomberg’s launching of STOP (Stopping Tobacco Organizations and Products), an initiative that creates a new global watchdog to closely monitor and highlight the tactics the tobacco industry uses across the globe to undermine public health, is another tool to advance the tobacco control agenda.

As we move forward, paraphrasing an African proverb, we should remember that if we walk alone we could go fast, but if we walk together as a broad collective learning from and supporting country, regional, and global efforts we will go far, in achieving the ambitious WHO target of a 30% reduction in the prevalence of tobacco use by 2025.
The landmark **Surgeon General's Report on Smoking and Health**[1], issued by U.S. Surgeon General Dr. Luther Terry in 1964, represented the first time that a government report linked smoking and ill health, including lung cancer and heart disease. The scientific evidence accumulated over the past five decades has helped us understand how tobacco use imposes a heavy health and economic burden across countries.

Action to curb tobacco use makes solid economic sense, given the high costs of tobacco-related illnesses and premature death and disability among adults in their most productive years. Smoking harms health, incomes, earning potential, and labor productivity. Smoking also undermines human capital development—a critical factor for inclusive economic and social development.
Raising tobacco taxation commensurate with affordability levels is proven to be the most effective measure to curve consumption. Tax increases are most effective in countries where the social acceptability of smoking is reduced by curtailing smoking in public places and educating the population about its negative health impact.

Contrary to the assumption that tobacco taxes are regressive, the results of recent studies done in Chile and the United States show that the benefits of this policy measured in terms of lower medical expenses and an increase in working years outweighs any relative increase in tobacco prices, largely benefitting the poor more than the rich.

Over the past decade, the World Bank Group (WBG), in partnership with the Bill & Melinda Gates Foundation and the Bloomberg Foundation, and in coordination other organizations, such as WHO, has expanded its tobacco taxation work globally to assist countries implement their public health and domestic resource mobilization efforts. Simultaneously, technical assistance is being provided to strengthen countries’ legal and regulatory capacity to control illicit tobacco trade. Support is also being provided to facilitate knowledge-sharing, building upon existing platforms such as the Joint Learning Network (JLN).

The experience of Philippines over 2012-2016 is one of the most compelling examples of ambitious national tobacco tax reform. It involved a fundamental restructuring of the country’s tobacco excise tax structure, including reduction in the number of tax tiers; indexation of tax rates to inflation; and substantial tax increases which expanded the fiscal space to fund the increase in the number of families enrolled in the health insurance scheme from 5.2 million primary members in 2012 to 15.3 million in 2015.

More recently, national governments in several countries have adopted significant tobacco tax reforms to improve public health and mobilize domestic resources, covering a total population of 200 million people. In the Ukraine, the 2017 budget includes a 40% excise tax increase on tobacco products, above the 2016 level, while maintaining a 12% ad valorem tax. It is estimated that that this measure will increase on average the excise tax burden as a share of the retail price of a pack of cigarettes from 41% in 2016 to 46% in 2017, while consumption is expected to decrease by 10%. To get a sense of the magnitude of health gains likely to result from the adoption of these tax increases, modeling work estimated that, by 2035, Ukraine’s recent tobacco tax increases will prevent 126,730 new cases of smoking-related disease; 29,172 premature deaths; and 267,098 potential years of life lost, relative to no change in tax. These reductions in disease and death are estimated to result in significant healthcare costs avoided.

As part of broad fiscal reforms approved by Colombia’s Congress, new taxes on tobacco products will nearly triple prices over 2017-2018, with annual adjustments for inflation and a mandated specific increase in subsequent years. Likewise, in Moldova, the average excise tax burden on a pack of cigarettes will increase from 39% in 2016 to 45% in 2017.

Following the introduction of the new tax regime in 2017, Armenia’s tobacco excise tax burden will double, increasing to 62% of the average retail price by 2020. In the case of Armenia and Colombia, tobacco taxation increases are part of larger tax system reforms that were included under fiscal consolidation programs.

In moving forward this agenda, we have to be clear that to be effective and sustainable, the design of tobacco tax reforms has to be grounded on a good understanding of how public policy is created and implemented in a country, including the social forces which could support or hinder the passage of strong anti-tobacco measures. We also have to be mindful that the adoption of tobacco tax reforms could be greatly facilitated if they are included as part of broad fiscal consolidation programs as shown by the recent experience in Armenia and Colombia, or as part of the formulation of annual government budgets as shown by the experience in Moldova and Ukraine.
Since the World Health Organization (WHO) adopted the Framework Convention on Tobacco Control (FCTC) a decade ago, over 180 countries have signed the treaty [4]. Progress has been made in expanding the coverage of effective interventions--more than half of the world’s countries, with 40% of the world’s population have implemented at least one tobacco control measure, and despite increasing global population, smoking prevalence has decreased slightly worldwide from 23% of adults in 2007 to 21% of adults in 2013. How can greater reductions in smoking be achieved in the next decade and contribute to
Tripling tobacco taxes: Key for achieving the UN Sustainable Development Goals by 2030? We review some key issues in the epidemiology and economics of global tobacco control.

Smokers face a three-fold higher risk of death versus otherwise similar non-smokers, resulting in a loss of at least one decade of life. While the hazards of smoking accumulate slowly, cessation is effective quickly. People who quit by age 40 get back nearly the full decade of life lost from continued smoking; quit by 50, get back six years; quit by 60, get back four years. Cessation is now common among adults in high-income countries. For example in Canada, there are over 1 million more ex-smokers than just a decade ago. However, due in large part to the marketing and pricing strategies of the tobacco industry, cessation remains a major public health challenge in most low and middle-income countries (LMIC) where 85% of smokers live.

Global annual cigarette sales rose from five trillion cigarettes in 1990 to about six trillion today. Cigarette production has increased by 30% in China since 2000, which consumes 40% of the world’s cigarettes. Global tobacco industry profits of about $50 billion – or $10,000 per tobacco death – enable it to access finance officials, fund pricing research, and run interference against tobacco control--summarised wonderfully by comedian John Oliver. Serious control of tobacco must counter these strategies on the basis of robust health, social and economic data that document the negative societal impact of tobacco use.

WHO has recommended a 30% reduction in smoking prevalence by 2025, which would avoid at least 200 million deaths by the end of the 21st century among current and future smokers. The only plausible way to reduce smoking to this extent would be to triple tobacco excise taxes in most LMICs. A tripling of the excise tax would roughly double the retail price and reduce tobacco consumption by about 40%. As of 2015, WHO reported that only 28 LMICs had comprehensive policies covering counter advertising, restrictions on public smoking, and on appropriately high taxes, and that few had made progress on raising taxes.

The common strategy of tobacco producers is to lobby governments to keep cigarettes affordable by keeping tax hikes below the rate of income growth, and by taxing different cigarettes at different rates to enable smokers to change to cheaper brands or lengths. Smart taxation needs to simplify taxes by adopting, ideally, a high, uniform excise tax on all types of cigarettes (both filter and nonfilter) to reduce downward substitution (let’s not forget, all cigarettes will kill you!). The Government of India has recently made modest tax reforms in this direction, the 2015 tobacco tax adjustment in China is reducing consumption and increasing fiscal revenue, and in 2016 World Bank teams supported the work of government teams in Armenia, Colombia, Moldova and Ukraine for the undertaking of comprehensive tax reforms that were approved by Parliaments, including reforms on tobacco tax structures and rate levels—additional work is being supported in other countries worldwide. Smart taxes can follow the example of Canada’s tax hike of about 5 cents a pack in 2014, as well as the Sin Tax Reform (both tobacco and alcohol) in the Philippines of 2012 that helped mobilize domestic resources to fund the expansion of universal health coverage. There have been other successes: Botswana, Ecuador, Mauritius, Mexico, and Uruguay, where local political champions, paired with expert taxation advice, achieved large tax hikes. South Africa also raised taxes in the last decade and has curbed consumption per adult by half.

Non-price interventions also play an important role as they help to reduce the social acceptability of tobacco use. Young American women took up smoking in large proportions in the 1960s and 1970s due in part to aggressive advertising (“The “Virginia Slims” epidemic”). Advertising bans or restrictions are likely one reason why young Chinese or Indian women have not yet done so. Australia has adopted plain packaging, and other countries are starting to follow this example. Simple questions on past smoking status to death certificates or to verbal autopsies could enable low-cost monitoring of the consequences of tobacco use in many populations.
Governments and international agencies with accumulated know how and expertise in data sciences such as the World Bank Group and OECD along with WHO could also help countries create accessible and independent sales, revenue and smuggling data sources as a basis for rational tobacco tax policy. Country finance officials should refuse advice from tobacco lobbyists to avoid falling into conflict of interest situations, as WHO recommends for health officials.

Implementing the FCTC more effectively in the next decade is required to raise cessation rates in LMICs. The World Bank recommended taxation as the core strategy in its 1999 publication, Curbing the Epidemic: Governments and the Economics of Tobacco Control [14]. Similar recommendations follow in recent reports on tobacco taxation by WHO [15], and by the International Monetary Fund [16]. Building upon accumulated evidence [17] and country experiences, a tripling of the worldwide excise tax might be the only way to achieve the 2030 UN Sustainable Development Goal of reducing non-communicable disease deaths by 30%!
Today we mark World No Tobacco Day and this year the focus is on “Tobacco and Heart Disease.” The goal is to highlight the important and often overlooked role of smoking cigarettes as a leading cardiovascular disease (CVD) risk factor.

If we look at recent data from the Institute of Health Metrics and Evaluation (IHME), we should be alarmed. CVD, which includes heart diseases and stroke, is the number 1 killer in the world, accounting for one-third of all deaths. The numbers are staggering. As evidenced in a related study, in 2015, there were more than 400 million individuals living with CVD and nearly 18 million CVD deaths worldwide.

But CVD is not only a problem in high income countries. IHME data shows that the United States, Canada, Australia, New Zealand, Japan, South Korea, and countries in Western Europe experienced...
On World No-Tobacco Day, calling attention to the dangers of smoking for the heart.

steep declines over the past two decades that have begun to taper off and plateau. The countries with the greatest number of cardiovascular deaths, after accounting for population size, are found throughout Eastern Europe, Central Asia, the Middle East, South America, sub-Saharan Africa, and Oceania.

Given the increased risk for smokers of CVD, cigarette smoking is one of the leading causes of preventable death. Accumulated scientific evidence shows that nicotine, a chemical in tobacco, is highly addictive; activates biological pathways that increase risk for disease and adversely affects maternal and fetal health during pregnancy. Smoking or chewing tobacco can also immediately raise blood pressure, albeit temporarily, as the chemicals in tobacco can damage the lining of artery walls, causing arteries to narrow, increasing blood pressure.

As shown in another global study, tobacco use not only increases an individual’s risk of death from all vascular diseases two- to three-fold, but 10–30% of all CVD deaths are attributable to tobacco worldwide. Among men aged 30–44 years, however, 48% of cardiovascular deaths are attributable to tobacco use. Smokers’ risk of heart failure is twice the risk of non-smokers, and smokers with heart failure have a worse prognosis than non-smokers.

What to do?

Waiting to treat affected individuals after the onset of CVD is not a medically efficacious nor a financially sustainable course of action, particularly in low- and middle-income countries that are struggling to implement ambitious agendas to attain universal health coverage (UHC).

The time has come, therefore, for a drastic paradigm shift to embrace primary and secondary prevention as critical pillars of service provision under UHC. Indeed, health promotion and disease prevention cannot have been less valuable or secondary to treatment for controlling the spread of CVD since both are two sides of the same coin, complementing and reinforcing each other, along a continuum of interventions.

Given this preventable “CVD carnage,” there is no longer a justification for Governments to keep delaying the implementation of the Framework Convention on Tobacco Control (FCTC) demand-reduction tobacco control measures to protect the population and prevent the onset of CVD. World No-Tobacco Day offers the opportunity to recommit our effort to support countries in raising taxes sharply on tobacco products, adjusting for inflation and increased affordability due to growing incomes, to hike up prices and make these products unaffordable to reduce tobacco use and the health risks associated with tobacco-related diseases, including CVD.

Equally important, on this World No-Tobacco Day, there is a need for governments to commit to preventing youth from taking up smoking by adopting strict regulatory measures (e.g., curtail advertisement and promotion through social media) and high taxes on “low-tar and other less harm innovations,” such as e-cigarettes and vape products. This, in turn, will significantly lower their risk for CVD in the future.

Governments will do well in heeding US FDA Commissioner Scott Gottlieb, who earlier this year indicated that “these products should never be marketed to, sold to, or used by kids — and we need to make every effort to prevent kids from getting hooked on nicotine.”

As we move forward, we need to be clear that to deal effectively with CVD as a global problem, we need to put added attention and effort to deal effectively with the global tobacco use epidemic. The success of the latter will help to make major inroads to reduce the burden of CVD. That should be our take-away message for action on World No-Tobacco Day!
World No Tobacco Day 2017 focuses on the links between tobacco use, tobacco control, and sustainable development. Does this mean that tobacco use is more than a public health issue? The answer is an emphatic yes, rooted in robust scientific evidence accumulated over the past five decades and country experiences worldwide. Let me explain.

While tobacco products are legal goods offered in the marketplace, their consumption, particularly cigarette smoking, is highly addictive, toxic, and deadly. Nicotine (a chemical in tobacco), tar (a partially combusted particulate matter produced by the burning of tobacco), and carbon monoxide (a colorless, odorless gas produced from the incomplete burning of tobacco) activate multiple biological pathways through which smoking increases risk for diseases of nearly all organs of the body. The WHO just released this week jarring new data – 7 million people a year are killed by smoking and other tobacco use each year, up from 4 million people at the turn of the century. Smokers who begin early in adult life and do not stop smoking face a three-fold higher risk of death compared to comparable non-smokers, resulting in a loss of at least one decade of life.

"Sugar, rum, and tobacco, are commodities which are nowhere necessaries of life, [but] which are ... objects of almost universal consumption, and which are therefore extremely proper subjects of taxation."
If global development is lifting lives within and among countries, it should be clear to all of us that ill health, premature death, and disability caused by tobacco use is a major obstacle to supporting the achievement of healthy, educated, productive, prosperous, socially engaged, and happy people. It also undermines economic development, as the total economic cost of smoking is estimated to exceed US$ 1.4 trillion per year, equivalent to 1.8% of the world’s annual gross domestic product (GDP).

So what can be done to further strengthen the global effort to deal with this development challenge?

This year’s World No Tobacco Day offers an opportunity for governments and societies across the world to recommit to implement strategies and plans that prioritize action on tobacco control, building upon ongoing efforts and achievements. The accelerated implementation of all demand-reduction measures, such as regulations to provide protection from exposure to tobacco smoke in public places, and to prohibit misleading tobacco packaging and labelling, as well as price and tax measures, along with raising public awareness of tobacco control issues, outlined in WHO’s Framework Convention on Tobacco Control (FCTC) since 2005 has already contributed to the decrease in smoking prevalence in 126 countries from 24.7% in 2005 to 22.1% in 2015. While all the interventions included in the FCTC need to be fully implemented, tobacco taxation demands increased attention and effort, as its implementation lags behind. Around the world, cigarette prices remain too low to discourage consumption. Only 33 countries impose taxes that constitute more than 75% of the retail price of a pack of cigarettes—the taxation level recommended to deter consumption.

Since price plays an important role in smoking and cigarette taxes play an important role in cigarette prices, raising taxes on tobacco products is one of the most cost-effective measures to reduce tobacco use, especially in low- and middle-income countries (LMICs) where smokers are more price-sensitive. Due to the addictive nature of tobacco products, more than just focusing on quantity of cigarettes consumed, particular attention needs to be placed on examining the impact of prices on smoking initiation, especially among children and adolescents, on quit attempts, and on the fraction of the population that smokes.

In redoubling the tobacco taxation effort, it is important to keep in mind that the positive impacts of higher tobacco taxes that lead to higher prices and reduced consumption extend well beyond direct health gains and indirect benefits such as higher productivity and reduced health care expenditures. As recognized in a recent publication by the International Monetary Fund (IMF), “In many countries, raising tobacco taxes can offer a “win–win”: higher revenue and positive health outcomes…. Of course, countries putting more weight on health objectives could raise taxes even further than the revenue maximizing point.”

Country experiences provide strong evidence that increasing tobacco taxes can contribute to accelerate domestic resource mobilization in line with the objectives set forth in the 2015 Financing for Development Addis Ababa Action Agenda. This is important, as augmenting a country’s tax base is critical to expand the fiscal capacity of governments to fund priority investments and programs, such as universal health coverage, education, safe water and basic sanitation, and road safety, to help countries achieve the Sustainable Development Goals (SDGs) by 2030.

On this World No Tobacco Day, those of us working at the World Bank Group should also reaffirm our commitment to “walking the walk and not only the talk” to help countries control the development threat posed by tobacco use. The unambiguous Operational Directive 4.76 of 1999 mandates that the World Bank Group does not lend directly to tobacco production, processing, or marketing; provide grants for investment in these activities; or guarantee investments, loans, or credits for these industries. World Bank Group policy advice and technical assistance support tobacco tax increases to protect the population from health risks and to mobilize additional fiscal revenue.
To advance the tobacco control agenda into the future, we should be guided by the realization that taxing tobacco is not only good for public health, but it is a fundamental policy measure that is necessary to help countries grow and develop for the benefit of the entire population.
On May 31, the global health community will mark World No Tobacco Day 2015. This year’s theme focuses on the public health priority of stopping the illicit trade of tobacco products. Perhaps this is a good occasion to clarify that raising tobacco taxes to make this habit-forming product unaffordable is not the cause of illicit trade. Let me explain.

The benefits of higher tobacco taxes are obvious, both in terms of good health outcomes for individuals and entire communities, which result from reduced consumption of tobacco products. In particular, this policy measure should be seen as a key strategy relevant for all countries to reduce the growing burden of non-communicable diseases. In addition, hiking tobacco taxes can help expand a country’s tax base to mobilize additional revenue to fund vital health programs and other essential public services that benefit all of us, even in the presence of cigarette smuggling. In the post-2015 period, increased tobacco taxation
(along with other “sin taxes”) could also represent an important domestic revenue stream for helping finance the UN’s Sustainable Development Goals (SDGs) across the world, which will build upon the Millennium Development Goals (MDGs).

One of the main arguments often raised by the tobacco industry and other parties against the adoption of tax increases on tobacco products is the threat of illicit trade. Accumulated international experience, however, demonstrates that this argument is flawed.

Tobacco taxes are not the primary reason for cigarette smuggling and cigarette tax avoidance. Despite high cigarette prices due to high taxes in high-income countries, illicit trade is much less common in these countries than in low-income countries with low tobacco taxes. Indeed, many countries, such as the United Kingdom, or various states in the United States, have increased tobacco taxes significantly without experiencing major changes in illicit trade.

While high taxes may create incentives for illicit trade, evidence indicates that other factors have a much bigger effect on illicit trade of tobacco products. The trade thrives where the potential for illicit gains is high, and the risk to illegal operators is low. More specifically, as noted in a new report [2] by the World Health Organization (WHO), factors driving illicit trade include: the ease and cost of operating in a country, tobacco industry participation, sophistication of crime networks, and low capacity in a nation’s tax administration system, and the likelihood of being caught and punished.

Also, as documented by the U.S. Government Accountability Office, where cigarette packs in the United States are taxed at varying rates at the state level, criminal enterprises have incentives to engage in cross-border and illicit schemes to profit or take advantage of these tax rate differentials.

What to do? Experience shows that these illegal activities can be controlled by legal means (e.g., use of prominent tax stamps, serial numbers, special package markings, health warning labels in local languages, adoption of uniform tax rates nationwide that facilitate successful collection at the points of manufacture and import), and by increased law enforcement (e.g., improving corporate auditing, better trace and tracking systems, and good governance). For example, since Her Majesty’s Revenue and Customs’ (HMRC) “Tackling Tobacco Smuggling” Strategy was introduced in the U.K. in 2000, the size of the illicit cigarette market has been cut by almost half, with more than 20 billion cigarettes and over 2,700 tons of hand-rolling tobacco seized. Additionally, the U.K. has seen more than 3,300 criminal prosecutions for tobacco offences following action by law enforcement officers. In Chile, a country that has one of the highest tax rates on cigarettes in the world, with taxes accounting for 78% of the price of each pack, the government has also experienced increased success in seizures of smuggled tobacco products. This has affected the country’s tobacco supply and is helping curtail the slight growth in illicit trade observed after a 2013 increase in tobacco prices.

After making the above argument on the need to delink tobacco taxation from illicit trade in policymaking discussions, it needs to be acknowledged that illicit trade of tobacco products is both a major health and fiscal challenge that merits urgent attention and action by governments across the world.

According to WHO research, one in every 10 cigarettes might be illicit. From a health perspective, increased availability and affordability of untaxed and inexpensive cigarettes puts more people at risk of being harmed because of increased smoking, addiction to a deadly product, and the resulting ill health, premature mortality and disability associated with tobacco-related diseases. From a fiscal perspective, illicit tobacco trade only benefits a few (often criminal enterprises) at the cost of forgone tax revenues for the government, which results from taxes not being paid on tobacco products.

Ratification of the Protocol to Eliminate Illicit Trade in Tobacco Products, which is a supplementary treaty to the WHO Framework Convention on Tobacco Control (FCTC), is a critical first step to confront this
global health, economic and social scourge. The Protocol is now open for ratification, acceptance, approval, formal confirmation or accession by all Parties to the WHO FCTC. So far, eight countries have ratified it (Gabon, Mongolia, Nicaragua, Spain, Turkmenistan and Uruguay). Thirty-two additional country ratifications are needed to make this Protocol an international law.

On World No Tobacco Day 2015, let’s all advocate and encourage lawmakers --from across the political spectrum in our respective countries-- to ratify and implement the Protocol to Eliminate Illicit Trade in Tobacco Products, in spite of the strong opposition from the tobacco industry. Lives and the social well-being of nations depend on it!

Follow the World Bank health team on Twitter: @WBG_Health
The scientific evidence is overwhelming. As Robert Beaglehole and colleagues at the World Health Organization (WHO) pointed out years ago, tobacco is the only consumer product that eventually kills half of its regular users if they follow its manufacturers’ recommendations.

Given this dire reality, it is clear that Africa is now at a crossroads. On one hand, the countries in this region have become an attractive and under-tapped market as tougher regulations, high taxes, and greater consumer awareness of the dangers of smoking in developed countries are “closing the door” to tobacco imports and leading to significant drops in consumption. And on the other hand, cigarettes are becoming increasingly affordable as incomes rise in several African countries due to the rapid economic growth of recent years. Indeed, African countries are experiencing the highest increase in the rate of tobacco use amongst developing countries—the number of smokers in sub-Saharan Africa is projected to increase 148 percent by 2030, to 208 million smokers or one-fifth of the total population.

Should African governments and the international community be concerned with this development?

I firmly believe, yes. If the current smoking patterns continue unabated, they will accelerate the growth of tobacco-related non-communicable chronic diseases (e.g., lung cancer, respiratory problems, heart attacks) compounding the already heavy burden imposed by communicable diseases (e.g., HIV/AIDS, tuberculosis, malaria). Besides undermining the health of the population and their productive potential and contributing to lives lost, Africa will be confronted with major health system and funding challenges to deal with these chronic diseases. The magnitude of these challenges is best illustrated by the United States, where cigarette smoking is estimated to cause annually more than 400,000 deaths and about US$200 billion in health-related economic losses, nearly half in direct medical costs.

The good news is that Africa is fighting back. Some 42 African countries have already signed the 2003 WHO Framework Convention on Tobacco Control (FCTC) that binds them to a number of anti-tobacco measures, including high taxes on tobacco products and protecting people from exposure to tobacco smoke.

On June 3-5, 2012, the World Bank, in partnership with the Southern Africa Development Community (SADC), the Ministry of Finance of Botswana, the Bloomberg and Gates Foundations, and WHO, is convening in Gaborone, Botswana, a high level forum “The Economics of Tobacco Control: Taxation and
Tobacco Kills: So what to do in Africa?

"Illicit Trade." With the participation of delegations from Ministries of Finance, Trade, and Health of 14 SADC member countries and global and regional experts, the aim of the forum is to promote dialogue on best practices in effective design and administration of excise taxes on tobacco as an instrument to promote public health and to share knowledge on the dimensions, causes, and extent of illicit trade of tobacco and strategies to control it.

These topics are critical for helping create a “smoke-free” environment in Africa. Of all the demand-reduction strategies outlined in the FCTC, increasing the retail price of tobacco products through higher excise taxes to make tobacco products less affordable is the single most effective way to decrease consumption and encourage tobacco users to quit. And, contrary to tobacco industry claims, the forum will be geared to show that increased tobacco smuggling does not automatically follow tax increases if governments show committed and strengthened law enforcement to combat smuggling and counterfeiting.
How Russia can further improve its tobacco taxation efforts to boost health and life expectancy

Submitted by Patricio V. Marquez On Fri, 11/16/2018  
co-authors: Sevil Salakhutdinova

Over the past 10 years Russia has made great progress in increasing the life expectancy of its people. Back in the mid-2000s, we documented the dramatic decrease in life expectancy in the post-Soviet period in the report “Dying Too Young.” due especially to high mortality among working-age men. Behavioral risk factors, such as high rates of cigarette smoking and alcohol abuse, economic and social dislocation, a shift in the predominant diseases and the deterioration of the health care system, including access to it, all contributed to premature death and a dramatic shrinking of the Russian population that hadn’t been seen since World War II.

At the time, cigarette smoking was singled out as one of the most preventable causes of disease and death in Russia, as it’s associated with higher rates of cardiovascular diseases, many cancers and chronic lung diseases. Survey data in the report showed that smoking prevalence among men stood at 61 percent in 2004, and 15 percent among women.

The good news is this has changed dramatically over the past decade. At the Second All-Russia Forum on Public Health, held in Moscow on October 17 to 18, 2018, we presented findings of recent assessments from the World Bank Group (WBG) showing that life expectancy in the country for men increased to 65.4 years in 2016, up from 58 years in 2003. Among women it reached 76.2 years in 2016, up from 72 years in 2003. A big factor for this change has been the effective measures adopted to control the consumption of tobacco and alcohol over this period.

While this is cause for celebration, the Russian government recently set ambitious demographic goals to increase the life expectancy of the population to 80 years by 2030. To achieve this, further efforts will be needed to reduce the
How Russia can further improve its tobacco taxation efforts to boost health and life expectancy

Russia is the third largest cigarette-consuming nation (after China and Indonesia) and has the highest per capita cigarette consumption rate in the world. Persistently high rates of smoking in the country. Currently 50 percent of adult men are smokers [4], far above the global average of 30 percent for men. For women, the situation is not much better: 14.5 percent of adult women in Russia smoke--twice as high as the world average.

As we stressed during the Forum last month, global evidence shows that raising tobacco taxes and prices are the single most effective measure for reducing tobacco use and therefore should be a key component of any Russian strategy to achieve the 2030 demographic target. Russia has been working on this. The government adopted a law on tobacco control in 2013 [5] and has raised tobacco excise taxes regularly since 2010, annually increasing the average excise tax burden by at least 30 percent since then. Because of tax and price increases, along with other tobacco control interventions, tobacco sales fell by almost 30 percent over this decade. Not surprisingly, the number of smokers also decreased, by 21 percent between 2009 and 2016.

However, findings of the first WBG assessment [6] we presented at the Forum clearly indicate that tobacco taxes will only continue to reduce tobacco consumption if they increase the price of and reduce the affordability of cigarettes, which can be done by adjusting tax increases for inflation and any rise in per capita incomes. We found that between 2002 and 2008, there was a 22 percent increase in cigarette affordability in Russia, and cigarette consumption increased by 17 percent. By contrast, between 2008 and 2017 there was a 62 percent decrease in cigarette affordability, which was accompanied by a cigarette consumption drop of 34 percent. This is an area Russia can really focus on in its tobacco control efforts, as the country has the most affordable cigarettes among the main tobacco-using countries despite its striking progress in reducing the affordability of cigarettes.

Our other presented findings [7] showed that under different tobacco tax increase scenarios, not only would cigarette consumption decrease, but excise tax revenue would continue to increase. We also showed [8] that the aggregate effect of an increase in tobacco taxes in Russia would be positive and progressive, especially for the poorest groups as they tend to be more likely to decrease cigarette use in the face of higher prices.

Finally, since Russia is part of the Eurasian Economic Union, it’s imperative that a strict minimum excise rate (tax floor) on cigarettes be set for all member countries at a level higher than currently proposed, which is only €30–35 (US$34–40) per 1,000 cigarettes by 2020 [9]. The European Union, in contrast, has a mandatory level of €90 (US$103) per 1,000 cigarettes for its member countries.

Russia has made much progress on tobacco control, and the related decrease in cigarette consumption and increase in life expectancy. However, to further improve health conditions and achieve the life expectancy target by 2030, big tax increases, with regular hikes to keep cigarette prices from climbing more steeply than inflation and per capita income growth, should be a priority policy measure in Russia’s overall tobacco control efforts. An added bonus: these taxes can also help increase tax revenue for the country and expand fiscal space for priority investments and programs, including health.
Back from the Cold: Russia Confronts Tobacco

Submitted by Patricio V. Marquez On Fri, 04/05/2013

You might have missed it over the winter, but Russia achieved an important public health milestone that deserves applause: It enacted a national law that bans smoking in public places and restricts cigarette sales, joining a growing number of countries in making tobacco control a health priority.

The policy victory was a long time coming.

I recall, working in Russia in the mid- and late 2000s, the sense of gloom that prevailed about the poor health conditions of the population. Indeed, in a report that the World Bank prepared in partnership with the Russian Ministry of Health and the World Health Organization (WHO), we documented that Russians were “dying too young,” the main causes driving this phenomenon, and its enormous demographic, social and economic toll.

It was obvious then, as it is now, that a major culprit of the demographic and health decline in Russia is the widespread use of tobacco, which is linked with the country’s high rates of cardiovascular diseases (some of the world’s highest), many cancers and chronic lung diseases. According to the 2008-10 Global Adult Tobacco Survey (GATS), there are nearly 44 million smokers in Russia, and almost every Russian is exposed to secondhand smoke in bars and restaurants. One in three Russians is exposed to smoke in the workplace, and it is estimated that smoking claims 330,000-400,000 Russian lives every year.

While Russia ranks number one in smoking rates among countries surveyed, cigarette smoking is the single most preventable cause of disease and death in the country. And the future disease burden will be influenced by the already high rates of smoking in adolescents and young adults of both sexes in the countr
By the late 2000s, the rising cost to public health from smoking could no longer be ignored. From the highest offices in the Kremlin and the State Duma, to the Ministry of Health, regional governments and civil society, a consensus began to emerge about the need to combat the tobacco epidemic as part of a broader effort to improve the poor health conditions of the population.

The stark reality underlying this shift was that mortality among Russian men had increased by 60% since 1991 -- four to five times higher than the European average -- contributing to the precipitous decline in life expectancy among males, to a low of 58 years in 2004 from the peak of 65 years in 1964, while women lived 14 years longer.

Although male life expectancy has risen in recent years to 63 years and life expectancy for women is now 75 years, poor health conditions, alongside declining fertility below replacement levels, have led to a significant decline in the total size of Russia’s population, from 148 million in 1991 to 141 million in 2011. Annual productivity loss from smoking-related premature mortality was estimated to reach US$ 24.7 billion, or more than 3% of the GDP, in 2008. Additional losses from morbidity and health care expenditures related to smoking compound this loss.

The growing political and social momentum toward addressing Russia’s high burden of preventable illness contributed to the decision by the Russian government to ratify in April 2008 the Framework Convention on Tobacco Control (FCTC), a global treaty adopted by the 56th World Health Assembly in 2003, which has now been signed by 168 countries covering close to 90% of the world’s population.

And on February 23, 2013, Russian President Vladimir Putin signed a long-awaited, comprehensive law that will ban smoking in most public places and restrict cigarette sales in the world's second-largest tobacco market after China (Russia’s tobacco market was estimated to be worth US$22 billion in 2011). The law, which will ban smoking on municipal transport, at railway stations, in lifts, bus stations and administrative buildings, as well as in health facilities and schools beginning June 1, 2013, will come into full force in 2014, covering other venues such as ships, long-distance trains, train platforms, hotels, cafes and restaurants. It will also ban sales of tobacco products at street kiosks, restrict advertising, and set minimum prices for cigarettes, which now cost less than US$2.

On this year’s World Health Day, celebrated on April 7, the Russian people and the global health community should rejoice. The enactment and implementation of this momentous law puts Russia on the right side of public health history. Its measurable benefit in years ahead will be less ill health and disability, countless lives saved, and a more productive and healthy population.

To paraphrase Boris Pasternak in his timeless novel Dr. Zhivago, perhaps “Mother Russia is on the move, she can't stand still, she's restless and can't find rest” -- hopefully until the tobacco curse is overcome.
What countries can learn from Moldova’s successful tobacco taxation efforts

Smoking begins at a young age in Moldova, with people starting to smoke at the average age of 17 years old. It’s a bigger concern among men here, as 30 percent of men in Moldova smoke, according to 2016 data, compared to 3.3 percent of women.

Tobacco use is a leading cause of the growing burden of noncommunicable diseases (NCDs) globally, harming and killing prematurely, so it’s no surprise that life expectancy for men in Moldova, at 68 years old, is eight years less than for women. Since the greatest relative years of life lost for men occur during their working years, this also impacts Moldova’s human capital development. The World Bank Group’s Human Capital Index value for Moldova, which measures the current and potential productivity of a country’s people, has increased since 2012 but it’s still lower than the average for the region, reflecting the country’s higher rates of premature mortality among men due to NCDs.

Besides the negative public health and human capital impacts, the rising burden of tobacco-related diseases also imposes a heavy cost on public health expenditures and household budgets, as on the economy. In Moldova, the total economic cost of smoking-attributable diseases, including health care costs and work absenteeism, is estimated at 3.8 percent of its GDP.
One of the most effective and least expensive tools in the fight against tobacco are taxes. In many countries, raising tobacco taxes can offer a “win–win”\textsuperscript{[5]}: positive health outcomes and increasing fiscal revenue for priority programs and investments. However, in many cases, countries’ tax rates are quite low, undermining their public health and revenue potential.

Moldova’s positive experience with taxing tobacco in recent years provides some lessons, and possibly encouragement, for other countries considering this measure. The government has been increasing tobacco taxes every year since 2016, with the goal of achieving the European Union (EU) tobacco tax directive minimum rate of 90 EUR/1,000 cigarettes by early next decade, per its Associate Agreement with the EU. This has translated into public health gains for the country, with a reduction in the volume of cigarettes sales taxed (used as a proxy for consumption) by about 10 percent, to 5.55 billion pieces in 2017 compared to 6.19 billion pieces in 2016.

While reducing tobacco use, and the related risk of developing tobacco-attributable diseases, Moldova has also been able to collect additional tax revenue, partly because of still high levels of tobacco use in the country and the low cost of cigarette production relative to the average retail price. Cigarette excise tax revenue in the country increased from MDL 1.73 billion (US$ 87 million) in 2016 to MDL 2.04 billion (US$ 110.6 million) in 2017, or about 1.16 percent of Moldova’s GDP. The tobacco tax increases adopted by Moldova’s Parliament for 2018-2020 are projected to further increase excise tax revenue, hitting 3.31 billion MDL (US$194 million) or 1.45 percent of GDP in 2020.

Evidence from Moldova also shows that tobacco taxation disproportionately benefits the poor. Research by the World Bank\textsuperscript{[6]}, using data from household budget surveys, shows that the poor tend to be more responsive to price increases, reducing their tobacco use more than the rich (the change in the quantity purchased relative to its price change for the lowest income group in Moldova was estimated at $-0.53$, compared to $-0.13$ for the highest income group). In turn, lower cigarette use among the poorest income groups can reduce the risk of developing tobacco-attributable diseases, the risk of impoverishment due to high out-of-pocket medical expenses to treat these diseases and would boost household incomes due to a decrease in ill health and absenteeism from work.

While Moldova has seen many benefits from taxing tobacco, a key lesson from their recent experience is the need for countries to simplify tax structures by merging multiple tobacco tax “tiers” and unifying the tax rate across all types of cigarettes. This can help to preempt smokers’ switching to cheaper cigarette brands after a tax-rate hike on the brands they previously smoked. While Moldova saw a reduction in cigarettes consumed from 2016 to 2017, there was a noticeable shift during this time in people’s consumption to non-filter cigarettes, which are taxed at lower rates than filter cigarettes and cost less. Additionally, tobacco tax rates should be adjusted over time to at least keep up with the pace of inflation and, preferably, at a faster rate so that affordability is reduced over time.

Moving forward, if Moldova adopts a uniform tax structure for both filter and non-filter cigarettes and increases tobacco tax rates by about 25 percent per year over 2021-2025, the country could benefit even further from reduced health risks due to lower cigarette consumption and collect additional tax revenue that helps its population as a whole. Momentum for future tobacco tax policy increases in Moldova can also be boosted, and cross-border threats like cigarette smuggling minimized, by coordinating with neighboring countries (particularly Belarus and Ukraine) and strengthening tax administration and customs control over the tobacco distribution chain, including the use of “track and trace” technologies.
Uruguay is arguably one of the most significant threats to public health we have ever faced. Since the publication of the landmark *U.S. Surgeon General's Report on Tobacco and Health in 1964*, that provided evidence linking smoking to diseases of nearly all organs of the body (see graph below), the international community slowly began to realize that a century-long epidemic of cigarette smoking was causing an enormous, avoidable public health catastrophe across the world.

History is not linear. The road to progress tends to be circuitous and full of uncertainties, and even more than a few steps backwards. In spite of this reality, at certain points in time, we have to admire those individuals and countries who have stepped in to shine the light to allow us all to move forward.

Recently, Uruguay, a small country in South America, offered us a good example of how a government that is committed to protecting the health and wellbeing of its people was able to withstand for more than 6 years the pressure of litigation from a giant multinational tobacco company, whose annual revenues of more than US$80 billion exceed the country's gross domestic product of close to US$50 billion. As discussed in detail below, Philip Morris started proceedings in February 2010 claiming that the comprehensive tobacco control measures adopted by the Government of Uruguay since 2003 violated obligations under international trade and investment arrangements.
We are heartened by the resolve of leaders in Uruguay, which reflects the “garra charrúa” or the “resourceful, daring, and never to give up attitude” of the Uruguayan people. Perhaps in this case is apt to paraphrase the words of Apollo 11 astronaut, Neil Armstrong, after he stepped onto the lunar surface for the first time in 1969, to describe Uruguay’s victory as "one small step for a country, one giant leap for global tobacco control."

Although cigarettes are “legal” goods that are produced, traded, and sold across the world, it is an indisputable fact, as one of us can attest as a specialist in vascular disease, that tobacco acts in a number of direct and indirect ways to cause damage to our blood vessels, heart and brain. Over time, these injuries raise blood pressure, reduce ability to tolerate exercise, and increase risk for blood clots and cancer.

Indeed, the bleak truth is that tobacco is the only “legal” product that kills when used as advertised. Despite decades of accumulated epidemiologic and experimental evidence on the causal relationship between tobacco smoking and lung cancer and other diseases, as well as significant progress achieved in reducing tobacco use globally since the adoption in
2005 of the **WHO's Framework Convention on Tobacco Control (FCTC)**, smoking remains one of the largest causes of preventable disease and death, with nearly 80% of the world’s one billion smokers living in developing countries. Data from the 2015 Global Burden of Disease study show that tobacco-attributable deaths and disability-adjusted life years (DALYs) lost have continued to rise across the world because of increases in population and aging that overwhelm declines in both exposure and risk-delated rates of related disease burden. In 2015, more than 7.1 million people died due to all tobacco smoke-related cases, up from 6.8 million people in 2005.

The lawsuit by Philip Morris, the biggest tobacco company in the world, against Uruguay argued that the country’s rules on tobacco packaging negatively impacted its intellectual property rights and sales in violation of the terms of a bilateral investment treaty between Uruguay and Switzerland, where the tobacco company has its headquarters. At its core, the lawsuit opposed provisions in two tobacco control measures adopted by the Government of Uruguay for protecting public health from the adverse effects of tobacco promotion, including false marketing that certain brand variants are safer than others, even after misleading descriptors such as “light,” “mild,” “ultra-light” were banned, and to increase consumer awareness of the health risks of tobacco consumption and encourage people, particularly the youth, to quit or not to take up smoking. **Ordinance 514** issued by the Ministry of Public Health in 2008 requires each cigarette brand to have a “single presentation” and prohibits different packaging or “variants” for cigarettes sold under a given brand. **Presidential Decree 287** of 2009 mandates an increase in the size of prescribed health warnings of the surface of the front and back of the cigarette packages from 50% to 80%, leaving only 20% of the cigarette pack for trademarks, logos and other information. The application of these provisions forced Philip Morris to withdraw most of its brands (such as Marlboro Red, Marlboro Gold, or Marlboro Green) from retail stores in Uruguay.

On July 8, 2016, however, the **International Center of Settlement of Investment Disputes (ICSID)**, an independent arm of the **World Bank Group**, dismissed the lawsuit in its entirety and ruled that Uruguay should be awarded compensation for all the expenses and costs associated with defending against these claims. In essence, the ruling accepted the claim made by the Government of Uruguay that its anti-tobacco measures were “about protection of public health, not interference with foreign investment.” We should be clear, as **Uruguay’s President, Dr. Tabaré Vázquez**, an oncologist, stated in a televised address to the country after the ruling, the ICSID award reinforces that “it is not acceptable to prioritize commercial considerations over the fundamental right to health and life.”

This landmark international ruling came at just the right time, as India prepares to host in early November 2016, the **Conference of the Parties (COP7)**, bringing together 180 Parties, which includes almost every country in the world, as well as regional economic integration organizations like the European Union, for reviewing the implementation of the WHO’s FCTC and the Protocol to Eliminate Illicit Trade in Tobacco Products.

At COP7, the victory of Uruguay needs to be highlighted echoing the words of former **New York City Mayor Michael Bloomberg**, an international public health champion, who provided financial support to help Uruguay deal with the litigation: “**No country should be ever be intimidated by the threat of a tobacco company lawsuit, and this case will help embolden more nations to take actions that will save lives.**” Indeed, countries across the world have now an important precedent to follow for the benefit of their people.
China’s 2015 tobacco tax adjustment: a step in the right direction

Submitted by Patricio V. Marquez On Wed, 11/09/2016
co-authors: Rose Zheng
In August 2016, the Chinese public health community got a much-needed boost. The President of the People’s Republic of China, Xi Jinping, said at the National Meeting on Health attended by members of the Standing Committee of the Political Bureau of the Communist Party Central Committee, “An all-around moderately prosperous society cannot be achieved without the people’s all-around health.” He stressed that “Prevention should be more important than treatment” and “If these issues are not addressed effectively, the people’s health may be seriously undermined, and economic development and social stability will be compromised.”

Given China’s size and importance in the world, the emphasis placed by President Xi on health promotion and disease prevention is nothing but revolutionary. Indeed, in an era where the organization and delivery of specialized, high-cost medical care dominates global health practice, the words of President Xi signals the emergence of a more balanced health paradigm in China, where public health and medical care reinforce and complement each other as part of a continuum of multi-sectoral actions to deal with both the causes and consequences of social, environmental, and behavioural drivers of ill health, premature mortality, and disability.

China has the highest number of tobacco users in the world (>300 million) and smoking is a major killer. Approximately 1 million deaths every year are caused by tobacco, despite improved access to medical care thanks to the expansion in recent years of national health insurance coverage.

In the face of this dire reality, what to do? Wait to treat people when they develop lung cancer and other tobacco-related diseases, or adopt measures to prevent the onset of disease in the first place? Governments have an obligation and the means to protect their population’s wellbeing by adopting effective fiscal and regulatory measures, in addition to providing medical care to those persons who fall ill. In that sense, 2015 may prove to be a landmark year for tobacco control in China, as the Government adopted a national tax reform on cigarettes as well as a ban on smoking in public places in Beijing—a ban that is proposed to be expanded across the country.
Initial assessments done by a team from WHO’s Collaborating Center for Tobacco and Economics at Beijing’s University of International Business and Economics (UIBE), show that the 2015 tobacco tax reform is proving to be a win-win for both fiscal and public health in China. The evidence thus far:

- **Impact on price and market structure.** The weighted average wholesale price increased by 8.9% from 10.27RMB per pack in 2014 to 11.18RMB per pack in 2015. The average retail price increased by 10.29%, from 11.61RMB per pack to 12.81RMB per pack. However, from a global perspective, the weighted average cigarette price in China is still cheap: less than US$2 per pack on average. As the low-end price categories increased more than middle and premium price categories of cigarettes, the price gaps between tiers have been reduced. This encourages smokers up-shifting from the low end categories (Class V and Class IV) to the middle and upper price categories (Class III and Class II).

- **Impact on tax incidence.** The sales weighted tax share as % of retail price increased from 52% in 2014 to 56% in 2015, which is still lower than WHO recommended standard of 75%. The sales weighted average excise tax as % of retail price increased by 4% from 31% in 2014 to 35% in 2015.

- **Impact on consumption.** For the first time since 2001, as confirmed by the State Tobacco Monopoly Administration (STMA), the volume of cigarette sales decreased by 2.36% in 2015 compared to 2014. After the 2015 tax adjustment, sales continued to decrease by 4.61% over May 2015-April 2016 compared with May 2014-April 2015, and by 5.36% between October 2015-September 2016 compared with October 2014-September 2015.

- **Impact on government’s revenue.** According to STMA data, the tobacco industry in China contributed 840.4 billion RMB (about US$129.29 billion) tax revenue from tobacco products in 2015, an increase of 9% over the 2014 level. As a state-owned enterprise, it also contributed an additional 190.97 billion RMB (US$29.38 billion) profit to the central government, plus 63.6 billion RMB (US$9.79 billion) enterprise income tax to the central government. The 2015 tax increase was
applied at the wholesale level, which generated an additional 57.8 billion RMB (US$8.89 billion) in excise tax at the wholesale level.

- **Impact on public health.** A preliminary estimation suggests that within 12 months followed by the 2015 tax increase, the total number of smokers would decrease by about 5 million.

While the impact of the 2015 tobacco tax increase is generating measurable benefits, the price of cigarettes in China continues to be low and increasingly affordable for a population that enjoys rapid wage increases. If the ultimate goal is to help smokers quit and prevent the next generation from getting addicted to smoking cigarettes, then additional tobacco tax policy reforms are needed in China, especially for re-orienting the excise tax structure towards specific excise taxes at the retail level in the medium-term and towards a uniform tax system at the retail level in the long-term. A recent study* estimated that a 50% increase in tobacco price through excise tax would lead over 10 years to 5.3 million years of life gained, and reduce expenditures on tobacco-related disease treatment by US$2.4 billion.

Looking into the future, as evidenced in a World Bank study “**Toward a Healthy and Harmonious Life in China: Stemming the Rising Tide of Non-Communicable Diseases**”, with stronger tobacco control measures including steeper tobacco tax increases, the rapid rise in China’s non-communicable diseases can be halted, resulting in major gains for people’s health and the country’s social and economic development.
For 2016’s World No Tobacco Day, celebrated today, the World Health Organization (WHO) and the Secretariat of the WHO Framework Convention on Tobacco Control (FCTC) are calling on countries to get ready for plain packaging of tobacco products. Why, may you ask?

The importance of this regulation is best explained in “Phishing for Phools” a new book by Nobel Prize Laureates in Economics, George Akerlof (2001) and Robert Shiller (2013). We humans think in terms of stories, Akerlof and Shiller observed, and our decisions are consequently determined by the stories we tell ourselves. Advertisers use this to their advantage by “graph[ing] their story” onto ours, and thereby influencing the decisions we make—in this case, to get us addicted to tobacco use, particularly teenagers and low-income people.
Australia passed legislation in 2012 to reduce the appeal of smoking by restricting the use of logos, colors, brand images, or promotional information on packaging other than brand names and product names displayed in a standard color and small font below hard-hitting warnings depicting the negative health consequences of smoking. In the two years following the law, tobacco consumption declined 12.8%, which some have attributed, in part, to the legislation.

Other countries are starting to follow Australia’s example. Similar regulations approved in France and the United Kingdom are set to begin implementation in 2016, and they are under formal consideration in several other countries across the world. Uruguay and Thailand already mandate that at least 80% of front and back of the packaging be covered with graphic health warnings. And Mauritius leads Africa in terms of requirements for tobacco packaging and labelling.

The arsenal of effective consumer protection regulations that contribute to reduce the social acceptability of smoking also includes advertising bans, smoke-free public spaces, and restricting sales to minors. In the United States as mandated to the U.S Food and Drug Administration (FDA) by the 2009, “Family Smoking Prevention and Tobacco Control Act,” regulatory agencies have authority to regulate the manufacture, distribution, and marketing of tobacco products, including e-cigarettes, like any other drug.

Cigarette taxes also play an important role in tobacco control. Evidence presented by high-level officials from China, Philippines, Uruguay, and the United States at a global tax conference held at the World Bank this past week, shows that raising tobacco taxes increases prices, reduces consumption, and improves the public health by reducing ill health and premature death.

Expanding the Global Tax Base: Taxing to Promote Public Goods, Tobacco Taxes: (Pictured left to right) Patricio Marquez, World Bank Group, Fernando Serra, Ministry of Economy & Finance, Uruguay; Philip Cook, Duke University; George Akerlof, Georgetown University; Jason Furman, US President’s Council of Economic Advisers; Jeremias Paul, former Under Secretary of Finance, Philippines; and Rose Zheng, University of International Business and Economics, Beijing, China.
Contrary to the assumption that tobacco taxes are financially regressive, Jason Furman, the Chairman of the US President's Council of Economic Advisers, illustrated how the sum of benefits fully offset the additional cost of taxes on consumers—tobacco taxes disproportionately benefit lower income households because as tobacco taxes increase, better health ensues, less money is needed for smoking-related healthcare services, and labor productivity improves due to reduced sickness and absenteeism.

Raising tobacco taxes is also an easy way to raise domestic revenue for health and other priority investments, as it is done in the Philippines under the 2012 Sin Tax Law to expand health insurance coverage to 15 million poor families or about 45 million people, and in the United States after federal tobacco taxes were increased in 2009 by US President Obama to fund the expansion of the Children's Health Insurance Program (CHIP) for low-income children. The 2015 excise tax increase at the wholesale level in China, which has increased the tax rate as a percentage of the retail price from 49% to 56%, is a significant step for China, not only because the country is the largest producer and consumer of tobacco in the world, but also to deal with the growing burden of non-communicable diseases. The experience of Uruguay, a country with one of the most comprehensive tobacco control laws in the world, shows that its application has significantly decreased smoking among adults from nearly 50% to about 20% over the past decade.

We have to be clear that tobacco control measures, such as plain packaging and higher taxes, are not part of a “nanny state” designed to hinder “free choice” in society. For those of us who have lost loved ones due to tobacco-related diseases, the story is a painful one. Simply told, our loved ones had become addicted to cigarettes, a product that unlike any other product on the market, kills when used as promoted by the “feel good” stories of manufacturers. Indeed, despite new year’s resolutions and promises to quit, they could not shake off the “urge” to smoke!

On this World No Tobacco Day, the international community needs to recommit itself to support countries in adopting plain packaging legislation to make tobacco use less attractive and increase taxes to make tobacco products less affordable. Improving public health and protecting future generations from the risks of tobacco use should be a priority in the global social contract. We owe it to the memory of our loved ones and to the millions of people who have died prematurely because of their tobacco addiction.
Regulating tobacco use using excise taxation, restrictions on smoking in public places, and restrictions on youth access and sale of tobacco products is now a widely-accepted policy action to prevent its harmful health effects. The ruling by the United States Federal District Court that ordered the country's four largest cigarette makers to make “corrective statements” to inform the public about the harms of cigarettes, including light and low-tar cigarettes, which began on November 26, 2017 for one year, using prime-time television commercials and full-page ads in newspapers, only confirms what is already known on the basis of accumulated evidence over the past half century: the manipulation of cigarette design and composition to ensure optimum nicotine delivery have led to addiction, ill health, and premature mortality and disability among smokers and among those exposed to secondhand smoke. And the recent decision by the Vatican to ban duty-free cigarette sales is a good example of how societal attitude towards tobacco use has changed: a sovereign state is willing to forego revenue from products that clearly harm people's health.

In recent years, policy discussions at the global level on whether e-cigarettes and other smoke-free nicotine delivery systems should be classified as tobacco products, and hence be regulated in the same way as cigarettes, have acquired great importance because their production is at the core of new diversified business plans of tobacco companies alongside the production and marketing of cigarettes. While the e-cigarette, a battery-power device that heats a liquid containing nicotine into a vapor that is inhaled like a cigarette, is being touted as a harm reduction technological innovation to protect smokers from the ill effects of cigarettes, which continue to be marketed globally, we must ask: Is there strong scientific evidence that justifies this claim and exempts e-cigarettes from being regulated as another tobacco product?
A review published in the New England Journal of Medicine concluded that “At present, it is not possible to reach a consensus on the safety of e-cigarettes except perhaps to say that they may be safer than conventional cigarettes but are also likely to pose risks to health that are not present when neither product is used.” The results of a comprehensive review of available evidence done by U.S. Surgeon General in 2016, went further by concluding that tobacco use among youth and young adults in any form, including e-cigarettes, is not safe, and that in recent years, e-cigarette use by youth and young adults has increased at an alarming rate, becoming the most commonly used tobacco product among youth in the United States. The report also warned that since e-cigarettes are tobacco products that deliver nicotine, which is a highly addictive and toxic substance, they may pose the risk that many of today’s youth who are using e-cigarettes could become tomorrow’s cigarette smokers to continue to feed their nicotine addiction. Moreover, nicotine exposure can harm brain development in ways that may affect the neurological development and mental health of children and adolescents.

The regulatory response to e-cigarettes in the United States and the European Union (EU) is clear in signaling the potential health risks of e-cigarettes. E-cigarettes, as other cigarette products, now fall under the regulatory jurisdiction of the U.S. Food and Drug Administration. This is in accordance with the U.S. Surgeon General Report recommendations that comprehensive tobacco control and prevention strategies for youth and young adults should address all tobacco products, including e-cigarettes, and that further reductions in tobacco use and initiation among youth and young adults are achievable by regulating the manufacturing, distribution, marketing, and sales of all tobacco products—including e-cigarettes. In May 2017, the EU’s Court of Justice cleared new legislation that also puts e-cigarettes under similar regulatory pressures as traditional cigarettes, including a broad ban on advertising and other promotional activity. The EU’s updated Tobacco Products Directive, which brings e-cigarettes under this strict regulatory umbrella for the first time, was drafted a couple of years ago, but it was challenged by several important players in the tobacco industry.

The World Health Organization (WHO) and the Secretariat of the Framework Convention on Tobacco Control (FCTC) have been clear in recommending that countries treat and regulate e-cigarettes no differently than other tobacco products. The World Bank Group (WBG) has had an unambiguous global policy on tobacco since the 1990s that precludes lending, provision of grants, or guarantee investments, loans, or credits for tobacco production, processing, and marketing. As an original supporter of the FCTC, the WBG also provides technical assistance to governments to increase taxes on tobacco products as a win-win policy measure for both public health and domestic resource mobilization.

I believe that all of us working to advance the great cause of global health should not waiver in our commitment to support the development of healthy societies. In doing so, we should keep in mind that tobacco use is the world’s leading preventable cause of death, killing 7 million people per year. Moving forward, we should be guided by the lessons from history and available scientific evidence and redouble our efforts to support globally the full implementation of the FCTC’s demand and supply reduction measures to control tobacco use in all its forms, including e-cigarettes.
Earlier this fall, my oldest son invited me to watch him run his first half marathon in Durham, North Carolina. While standing at the starting line, facing hundreds of runners of different ages, I could not help but be amazed by the irony of the situation: In the midst of a region in the United States known as “tobacco road,” there was tangible evidence of a significant, healthier turn in people’s norms and behaviors.

Why the irony, you may ask? After the U.S. Civil War in the 19th century, the tobacco industry became the backbone of North Carolina’s economy, and the city of Durham developed rapidly as a tobacco manufacturing center. Although cigarettes are no longer manufactured there, its historic district, where the race took place, still preserves the physical legacy of tobacco factories, which have now been converted into upscale apartment buildings and retail spaces.

While North Carolina is still the top tobacco-producing area in the United States, over the past two decades, tobacco employment, and the number of tobacco farming, processing and manufacturing...
establishments have declined steadily across all segments of the tobacco value chain in the U.S. In 1992, the U.S. tobacco industry employed over 80,762 people in 2,144 establishments. By 2012, this number had dropped to 42,531 workers in 1,955 establishments, a decline of 47.3% and 8.8%, respectively.

The continuous decline in the relative economic importance of the U.S. tobacco industry is due in large measure to the translation of medical and public health evidence, and knowledge about the negative health effects of tobacco use, into effective public policy measures, such as smoke-free laws and tobacco tax increases, which make these products unaffordable. Education campaigns and cessation programs have also helped to reduce the social acceptability of smoking and have changed consumption patterns. And funding from the 1998 Master Settlement Agreement—an accord between the state Attorneys General of 46 states, five U.S. territories, the District of Columbia, and the five largest U.S. tobacco companies, which requires the tobacco industry to pay the states approximately US$10 billion annually for the cost of health care for tobacco-related illnesses -- is being used to support crop diversification away from tobacco.

Beginning with the first U.S. Surgeon General’s report on tobacco released in 1964, a broad consensus now exists that tobacco use is the single-most preventable cause of death and disease in the United States. As documented in the Healthy People 2020 report, for every person who dies from tobacco use in the United States, 20 more people suffer with at least one serious tobacco-related illness. Overall, smoking in the United States kills about 480,000 Americans a year and costs nearly $280 billion a year in health care costs and lost productivity.

Thanks to widespread application of anti-tobacco policy measures, smoking rates have declined significantly. Survey data from the U.S. Centers for Disease Control and Prevention (CDC) show a significant downward trend in current cigarette smoking among adults in the U.S.: from 42% in 1965 to 19% in 2011.

In spite of the significant progress achieved over the past 50 years, the 2014 Surgeon General’s report warns against complacency. The list of illnesses caused by smoking has grown, and smokers today have a greater risk of developing lung cancer than they did in 1964, even though they smoke fewer cigarettes, due to changes in the design and composition of cigarettes that raise health risks. It is notable that, for the first time, women are as likely as men to die from many of the diseases caused by smoking.

As the tobacco industry and tobacco use in the United States gradually but inexorably continue to fade away, there are other deep-seated and far-reaching changes taking place in social and cultural norms, attitudes and behaviors that have had an impact on the population’s health.

Scientific evidence and knowledge about the health benefits of regular physical activity, for example, are influencing youth and adults alike to participate in moderate and vigorous physical activities, such as running. Events such as the Durham Half Marathon reflect the “running/jogging/walking boom” that has grown over the past decade. Since 2004, Americans’ estimated total running/jogging participation (6+days/year) has increased 70% to a record of nearly 42 million people, across both genders.
Public health warnings and advice on effective ways to deal with the growing U.S. obesity and diabetes epidemic are also making more people cognizant about the food they eat. CDC data show that improvement in eating habits, including reductions in the average number of daily calories children and adults consume; a decline in the amount of soda Americans drink by about one-quarter since the late 1990s; and a rise in physical activity, have all contributed to the fall in the rate of new diabetes cases by about one-fifth, from 2008 to 2014.

On the trip back home from Durham, I concluded that all of us who are involved in supporting the realization of universal health coverage across the world now have a tremendous opportunity to contribute to the attainment of longer lives, free of preventable disease, disability, injury, and premature death. But to do so effectively in today’s era of competitive priorities and vested commercial interests, we need to advocate and support sound policymaking by disseminating and adapting to specific country contexts, good practices such as the ones observed in the United States. We also must bring evidence to bear on the broad social and economic benefits of public health action, as well as the costs of inaction.

We have a ways to go, but “running away from tobacco road” is a step in the right direction.

*Follow the World Bank Health team on Twitter: [@WBG_Health](https://twitter.com/WBG_Health)*
7. Safe Water and Basic Sanitation: Critical Investment for Good Health
A recipe for good health: safe water and sanitation

SUBMITTED BY PATRICIO V. MARQUEZ ON WED, 03/21/2012

On the eve of World Water Day (March 22), there is some good public health news that is unrelated to medical care for the "sick," but to a critical investment that makes people healthier and more productive, and promises a higher quality of life, particularly among the poor.

The 2012 UNICEF/World Health Organization report, Progress on Drinking Water and Sanitation, says that at the end of 2010, 89% of the world’s population, or 6.1 billion people, had access to improved drinking water. This means that the related Millennium Development Goal (MDG) has been met well ahead of the 2015 deadline. The report also predicts that by 2015, 92% of people will have access to better drinking water.

But, the not-so-good news is that only 63% of the world has improved sanitation access, a figure projected to increase only to 67% by 2015, well below the 75% MDG aim. Currently 2.5 billion people lack improved sanitation. The report also highlights the fact that the global figures mask big disparities between regions and countries, and within countries (e.g., only 61% of the people in Sub-Saharan Africa have access to safe water).

Should this news matter to public health types like me who work with health systems, who are not sanitary engineers?

The answer is a definite yes, since improving water and sanitation systems is a necessary complement to primary health care services and targeted nutrition interventions for reducing deaths and ill health in rural and urban slums where the poor concentrate. Unsafe drinking water, inadequate availability of water for hygiene, and lack of access to sanitation together contribute to about 88% of deaths from diarrheal diseases, or more than 1.5 million of the 1.9 million children under age 5 who perish from diarrhea each year. This amounts to close to 20% of all under-5 deaths and means that more than 5,000 children are dying every day as a result of diarrheal diseases.

The dilemma for the international community is simple: Are we going to wait to treat sick children in newly renovated health clinics offering drug therapy and keeping them in costly hospital beds, or should we channel scare resources to building sustainable safe water and sanitation systems that prevent kids from getting sick?

Working in rural areas high in the Andes of my native Ecuador, I saw how improved access to safe water and sanitation alone could significantly reduce diarrhea-related morbidity combined with hygiene awareness and the use of latrines, safe disposal of feces, and hand washing. And regular vaccines and basic health checkups and proper nutrition, particularly to deal with children's Iron, Iodine, and Vitamin A deficiencies, help eliminate much of the infectious diseases burden.

While we should rejoice about the good news on World Water Day 2012, we also should heed the example of John Snow, one of the pillars of modern public health, who in the mid-1800s successfully demonstrated that the removal of pumps that supplied contaminated water controlled the cholera
epidemics that were common in London at the time. By applying our public health knowledge about how infectious diseases are diffused and spread within communities, we could make a major and lasting impact by working together with our water and sanitation colleagues to tackle the source of these diseases, rather than just their symptoms.
Protecting the Environment Matters
Climate Change and Health: Does it Matter?

The U.N. Climate Change Conference in Durban, South Africa, is in full swing now, aiming to reach consensus and agreements on addressing the climate challenge by its close on December 9. While there are high expectations, people also realize that this is not an easy issue to tackle. Uncontrolled, man-made carbon emissions, which climbed to a new record of 30 billion tons worldwide in 2010, are at the core of the climate change dilemma. Curbing this trend is not only a daunting multisectoral task that demands sophisticated technical solutions, but its complexity is intensified by disagreements among countries on the size of the problem and what to do about it.

Climate change should matter to all of us, since changing weather patterns, including more frequent extreme climate events (e.g., the 13 warmest years on record have been in the last 15 years) and natural disasters (e.g. in some regions the number of particularly large hurricanes has increased), negatively impact the lives and well being of ALL people—the raison d’être of development. In this context, climate change should be seen as a critical health challenge that demands increased attention and management. Why?
A landmark 2009 report by The Lancet Commission documented how climate change over the coming decades could have a disastrous effect on health conditions across the world. There are both direct and indirect health threats through changing patterns of disease, water and food insecurity, vulnerable shelter and human settlements, extreme climatic events, and population growth and migration.

But, as the report highlighted, while vector-borne diseases will expand their reach and death toll as a result of climate change, the indirect effects on potable water, food security, and extreme climatic events are likely to have the biggest negative effect on health conditions.

If the negative impacts of climate change are not mitigated, they will only exacerbate existing global health inequities, particularly affecting the poorest and less developed countries, such as those in Sub-Saharan Africa. Indeed, these impacts on the social determinants of health have the potential to magnify vulnerability among the poorest African communities, which are already easy prey to a variety of shocks—economic, health-related, natural disasters and armed conflicts—which tend to perpetuate poverty across generations, increase ill health and disability, and cause premature mortality undermining competitiveness, employment and wealth creation.

Focusing on climate change and the potential negative health sequelae and mounting a preemptive and sustainable response to limit their damage is critical to reduce vulnerability, build resilience, and contribute to realizing the full potential of Africa’s economic and social transformation in the 21st Century.

The management of climate change impacts will require the adoption and adaptation of multisectoral approaches coupled with participation, collaboration, and consensus between governmental agencies, civil society, private sector, local governments, communities, and international organizations to formulate and implement policies aimed at reducing carbon emissions, particularly in fast-growing cities, which account for two-thirds of energy demands and emissions.

In the health sector, we need to transcend traditional biological and medical approaches by focusing on the social determinants of disease to better understand how climate change impacts health. This will enable us to define more effective responses—that can complement and maximize other efforts such as technical solutions to reduce emissions and measures to mitigate the negative impact of climate change on the population. In order to help reduce vulnerability and build resilience in countries, it is imperative we continue supporting countries to ensure that strengthened and well-operating public health systems (e.g. basic public health laboratories and epidemiological surveillance systems and epidemiological intelligence capacity) are developed and maintained to anticipate, prevent, and deal with adverse health outcomes associated with climate change. Although the task at hand is difficult, it can be accomplished if we start acting now.
Let me begin with a disclaimer. I attended Jesuit schools as a boy and adolescent. Belief in the sanctity of human life and the principles of social justice, which were at the core of the teaching imparted there, shaped me. The vision and language spoken by Pope Francis, himself a Jesuit, with an emphasis on the “preferential option for the poor and vulnerable”, profoundly resonate with me.

In his much anticipated Encyclical Letter “Laudato Si’ or “Praise Be to You”, Pope Francis makes a powerful statement, unifying both the spiritual and scientific dimensions of life, on one of humanity’s greatest challenges in the 21st Century: environmental destruction and climate change.

It is a very timely reminder that the use of fossil fuels and human activity globally are destroying, sometimes irreversibly, “mother earth”, our common home. The impact is visible everywhere in the form of contaminated air, polluted rivers and oceans, widespread deforestation, and soil erosion. By destroying the environment through our lifestyle choices and actions, we are also contributing to climate change and its negative impact on life-sustaining cycles. Hence, we are contributing to undermine human life itself, and more ominously, to aggravate the plight of the poor and the vulnerable, who face a daily struggle to survive.

Why does all of this matter? Pope Francis’ Encyclical, quoting the ecological concerns of Pope Paul VI in 1971, provides a simple and clear explanation: “Due to an ill-considered exploitation of nature, humanity runs the risk of destroying it and becoming in turn a victim of this degradation.”
For those of us, working in public health, who believe that we have a responsibility to contribute to the improvement of human existence by promoting healthy behaviors, preventing and controlling the onset of disease, ensuring universal access to health care, and supporting the rehabilitation of the sick and the infirm, Pope Francis’ Encyclical should challenge our conventional views. It should reinforce our understanding that the improvement of health conditions is not only about better hospital services, new medical technologies, or how we finance more efficiently health services. Above all, we need to be mindful that unless we pay more attention to issues surrounding life conditions, including the destruction of the environment, climate change, and their linkage to poverty and ill health, our work will not achieve healthy and longer lives for all across the world.

Indeed, as documented in a 2009 report by The Lancet Commission, climate change over the coming decades could have a disastrous effect on health conditions globally. There are both direct and indirect health risks through changing patterns of disease, water and food insecurity, vulnerable shelter and human settlements, extreme climatic events, and population growth and migration. While vector-borne diseases will expand their reach and death toll as a result of climate change, the indirect effects on potable water, food security, and extreme climatic events are likely to have the biggest negative effect on health conditions. And, if these risks are not mitigated by preventing the further destruction of the environment by man-made actions, they will only exacerbate existing global health inequities, particularly affecting the poorest and less developed countries, by perpetuating poverty across generations, increasing malnutrition and ill health, causing premature mortality, and raising the specter of civil conflict and war.

Beyond scientific evidence and understanding, our resolve to do something to prevent the destruction of the natural environment and climate change, and hence their negative economic, social and health impact, can be guided by moral conviction as well. As Pope Francis’ Encyclical challenges us to do, we need to recognize that this is an extremely serious issue, because what is at stake is human life itself, and as humans we have the obligation to defend it from various forms of debasement.

If policies and strategies are adopted by governments to reduce emissions and other short-lived climate pollutants, and individuals and communities feel responsible for and are actively engaged in their implementation, clear and measurable economic, social, and health benefits can be achieved as shown in a 2014 WBG-report, *Climate-Smart Development*, and more recently, in *The New Climate Economy Report*.

In particular, the reduction of vulnerability to climate change, along with the reduction of health and other social vulnerabilities, can help establish economic and social conditions in countries to support the poor and disadvantaged in a sustainable way.
Pachamama or Mother Earth, revered by the indigenous people of the Andes to this day, is considered to be a benevolent deity that presides over planting and harvesting and who, through her creative power, sustains life. This belief system also holds that when people damage Mother Earth, problems arise because her life cycles are affected.

Rapid climate change—caused by the injurious impact of man-made actions on the environment—has become a priority issue in the 21st century since it has the potential to negatively impact the economic and social development of countries across the world. While solid scientific evidence on climate change has led to heightened awareness about this challenge in recent years, policy action at the international level has not lived up to expectations.

Uncontrolled, man-made carbon emissions, which climbed to a new record of 30 billion tons worldwide in 2010, are at the core of the climate change threat. Curbing this trend is not only a daunting task that requires sophisticated technical solutions, but its complexity is intensified by disagreements among countries on the size of the problem and what to do about it. In large measure, entrenched political and economic interests are behind these disagreements, which have slowed down progress to address this global challenge.

Climate change should matter to all of us. Changing weather patterns, including more frequent extreme climate events (e.g., the 13 warmest years on record have been in the last 15 years), sea level rise (e.g., while global sea level rose about 17 centimeters in the last century, the rate in the last decade is nearly double that of the last century), and natural disasters (e.g. in some regions the number of particularly large hurricanes has increased), negatively impact the lives, health conditions, and well-being of people—the raison d’être of economic and social development.
A landmark 2009 report by The Lancet Commission documented how climate change over the coming decades could have a disastrous effect on health conditions across the world. There are both direct and indirect health threats through changing patterns of disease, water and food insecurity, vulnerable shelter and human settlements, extreme climatic events, and population growth and migration. But, as this report highlighted, while vector-borne diseases will expand their reach and death toll as a result of climate change, the indirect effects on potable water, food security, and extreme climatic events are likely to have the biggest negative effect on health conditions.

If the negative impacts of climate change are not mitigated, they will only exacerbate existing global health inequities, particularly affecting the poorest and less developed countries, such as those in sub-Saharan Africa. This will help perpetuate poverty across generations, increase malnutrition and ill health, and cause premature mortality, undermining competitiveness, employment and wealth creation across countries. And this, in turn, has the potential to aggravate social tensions and increase the risk of political unrest.

**Call for Policy Action**

Not everything is bleak however. As documented in a recent World Bank report, *Climate-Smart Development*, prepared in advance of the U.N. Secretary General’s Climate Summit in September 2014, if public policies and market- based approaches that reduce emissions and other short-lived climate pollutants are implemented, they can have clear and measurable economic, health, and other social benefits.

Case studies prepared for the report simulate benefits to be realized from the application of key measures in six regions or countries (the United States, China, the European Union, India, Mexico, and Brazil) and the impact on global GDP. These studies show that regulations, taxes, and incentives to stimulate a shift to clean transport, improved industrial energy efficiency, and more energy-efficient buildings and appliances would generate annual benefits by 2030 that include an estimated GDP growth of between $1.8 and $2.6 trillion.

The report also estimates that approximately 94,000 premature pollution-related deaths could be avoided, and that these measures would avoid production of 8.5 billion metric tons of carbon dioxide-equivalent (CO2e) emissions and save almost 16 billion kilowatt-hours of energy—a savings roughly equivalent to taking 2 billion cars off the road.

It should be clear, therefore, that action on climate change — and control of its potential negative health consequences — will require adoption and adaptation of multisectoral approaches, coupled with participation, collaboration, and consensus among governments, communities, individuals, businesses, and international organizations. Such collaboration should result in policies and market-based approaches aimed at reducing carbon emissions and other heat-trapping gases that we are adding to the atmosphere, particularly in fast-growing cities, which account for two-thirds of energy demands and emissions.
Public Health Platforms

In the health sector, it is imperative that we move beyond biological and medical concepts of health and disease and focus on the social determinants of health to better understand the health risks associated with climate change and the possible response of the health sector to this phenomenon.

We should also be ready to collaborate on multi-sector economic analysis to better illustrate, for example, the environmental and health benefits of shifting behaviors to use public transport systems and advanced cook stoves, and to walking and cycling, by adopting road safety measures to protect the safety of pedestrians and bicycle riders on city roads.

To help reduce vulnerability and build resilience in countries, it is important that institutions such as the World Bank, working in tandem with other agencies such as the World Health Organization, the U.S. Centers for Disease Control and Prevention (CDC) and the European Center for Disease Prevention and Control (ECDC), redouble support to countries to develop and strengthen essential public health platforms (e.g. surveillance systems and epidemiological intelligence capacity) to anticipate, prevent, and deal with adverse health outcomes associated with climate change.

Although tackling climate change often seems to be an insurmountable challenge, we should be optimistic that the tide will turn, much as we witnessed in the last decade in relation to HIV/AIDS.

With committed political leadership at the highest level of government, active social movements pressing for action, new scientific and technological developments adapted to local realities, and sustained allocation of resources for action over the medium term, it will be possible to modify human activity which is contributing to global warming and its negative impact on public health and development.

And if we succeed, Mother Earth will begin to be cured, and the natural course of climate restored.

*Follow the World Bank health team on Twitter: @worldbankhealth*
9. Road Safety: a Public Health Challenge
On recent visits to Moscow and Tbilisi, and driving from Baku to the Sheki and Agdash regions in Azerbaijan, I observed challenges and progress in making roads safer. Why should this matter to public health folks? Or should this be only the concern of engineers?

If one of the goals of development is to improve health outcomes by reducing premature mortality, injuries and disability, then unsafe roads are a key public health challenge.

In Eastern Europe and Central Asia (ECA) the problem is acute. Road traffic deaths rank among the ten leading causes of death: people are 2-3 times more likely to die from road injuries than people in Western Europe. For every death, many more people have injuries that require medical care.

What is causing this problem? For sure, more people are driving because the number of cars has increased significantly due to rising incomes—the traffic jams in some ECA cities vividly reflect this change. Poor road conditions and spotty enforcement of speeding, drunk driving, and seatbelt and helmet laws are leading culprits. “Distracted driving,” due to the growing use of cell phones and texting, is also resulting in more car crashes.

The good news is that ECA governments are not sitting idle. As done in Georgia and Azerbaijan, they are improving the road infrastructure (e.g., constructing overpasses to facilitate safe pedestrian crossing).

Efforts to adopt and enforce laws to curtail risky driving behaviors and strengthen the health system response are as important as the modernization of road infrastructure. The Russian government, for instance, has adopted new blood (0.3 g/l) and breath (0.15 g/l) alcohol limits for driving; made drunk driving offenses punishable with prison sentences; increased fines tenfold for driving without a
seatbelt; and now mandates license revocation for crossing into the lane of oncoming traffic. Anti-alcohol campaigns with the support of the Russian Orthodox Church are highlighting the risk of drunk driving. The reorganization of emergency medical services, both pre-and in-hospital, started in 2010, is concentrating on the most dangerous regional highways to reduce deaths and lasting disabilities after car crashes. And data collection and assessments by the police and health institutions are better monitoring the impact of road safety interventions and guiding policy making.

These countries’ experiences clearly demonstrate that road safety is not the responsibility of just one or two sectors but that road safety requires a concerted multisectoral effort. The new UN Decade of Action 2011-20 on road safety will help raise political commitment, mobilize funding, but more importantly, put in place strong institutional arrangements to plan, coordinate, implement, evaluate, and sustain interventions across different sectors.
Stopping the Carnage on the Roads: a Multisectoral Challenge

SUBMITTED BY PATRICIO V. MARQUEZ ON THU, 03/21/2013

During a trip to South Africa last week, I was saddened to read this newspaper headline: “24 people killed, 14 seriously injured, and 44 with minor injuries after bus smashed into a mountainside.” The bus was bringing people back to Cape Town's township of Khayelitsha from a church gathering in eastern Mpumalanga—most of the occupants were women and children.

I was saddened not just by the loss of life but because a “road crash” is not a random event: it can be prevented by the adoption of measures that are clearly outlined in the five pillars of the ongoing 2011-2020 UN Decade of Action for Road Safety, which is supported by 103 countries worldwide.

Let me elaborate. Four of the five pillars of the Decade of Action are geared to:

1. Strengthening institutional capacity to further national road safety efforts, including activities such as establishing a lead agency for road safety in the country involving partners from a range of sectors and developing a national road safety strategy.

2. Influencing safety road design and network management to make roads safer for users, particularly the vulnerable (pedestrians, cyclists, children, the elderly, bus passengers) and reducing severity of crashes.

3. Making vehicles safer by adopting motor vehicle safety standards; implementing new car safety assessment programs; and ensuring that all new cars are equipped with seat belts that meet regulatory requirements and pass applicable crash test standards; and

4. Influencing road user behavior through sustained enforcement of road traffic laws and standards and rules combined with public awareness/education activities.

According to the news accounts, a preliminary investigation found that the bus had several certification problems: its roadworthiness certificate had not been renewed as mandated by the law; the original expired certificate had been issued by a testing station that had been closed down for fraud; and braking problems in the vehicle appeared to have caused the crash as the driver had tried to stop the bus by entering a sandy, slowing lane before losing control.
The causes that appear to have led to this bus crash can be tackled. Measures to do this include:

- Strengthening systems to inspect vehicles and prevent the issuance of forged operating licenses.

- Promoting better education and training of professional drivers.

- Enhancing policing to enforce existing laws and regulations on aspects such as speeding, reckless driving, drinking when driving, and seat belt and helmet use.

- Rethinking road design to make better use of rail barriers on the side of the roads to prevent cars from turning over or on the center line of roads to stop head-on collisions.

Despite the systemic failures that led to this bus crash, the elements of pillar 5 of the Decade of Action, which aims to improve post-crash care, were in place and responded well. Western Cape Province Emergency Medical Services teams were dispatched promptly to the scene of the accident to care for the injured and transport them in ambulances or rescue helicopters to hospitals and clinics around the Province. A pre-hospital screening process helped prevent further loss of life by determining the appropriate health facility to transport patients to, rather than sending them to the nearest facility which might not have been able to offer needed care.

I think this deadly crash in South Africa illustrates and reinforces the need for a multisectoral and systematic response to reduce road traffic injuries. These injuries cause both human grief and high economic costs due to loss of household earnings when a breadwinner dies, costly trauma care and rehabilitation services, damage to vehicles and property, and insurance and disability pay-outs.

The multilateral development banks, including the World Bank, have committed to support countries in developing sustainable “safe systems” to prevent road traffic casualties. So we should be optimistic that the Decade of Action, if implemented as envisioned, will help arrest the spread of this growing public health problem. But, to accomplish the Decade’s ambitious goal of stabilizing and then reducing road deaths by 2020, the time to act in a multisectoral manner is now.
Road crashes are among the most significant public health issues of the century; they account for 97 percent of deaths across all modes of transport.\(^1\) The latest WHO estimate of 1.34 million road crash deaths and up to 50 million injuries per year reflects a slight increase in deaths over previous years, with 90 percent of these deaths occurring in low- and middle-income countries. Further road injury disproportionately affects young adults 15–29 years old: it is the lead cause of death during their most productive years.

Along with the unquantifiable loss of life, and pain, grief and suffering, there is a direct burden to society from disabilities, deaths, and the economic hardships they bring. The devastating impact is not only felt by the victim’s family, where the disability or death of a breadwinner can drive a household into poverty; it also affects the overall economy. Overall productivity and quality of life is affected when otherwise healthy individuals are disabled or die. Crashes also place a burden on emergency response, medical treatment, and rehabilitation services in addition to loss of labor productivity, affecting the quality of life of the overall population.

The impact of crashes on GDP growth

Road deaths and their costs continue to rise during the 2010–20 Decade of Action for Road Safety, which is aimed at halving the total number of road crash deaths. The large burden of road crash deaths and injuries among young adults can have a long-term impact on GDP growth. Policymakers across sectors are increasingly recognizing the socioeconomic burden of road crashes, but the national-level economic impact is not fully understood or quantified. It remains widely unreported, largely due to the lack of data or inconsistent methodologies used for estimates.

The cost of crashes has been estimated by previous World Bank analyses across various regions,\(^2\) which found that crash costs can add up to more than

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7 percent of GDP in some Middle East and North African countries. But these costs may not have been followed by action, as they are not directly reflected in GDP growth measures. On the other hand, the measures of productivity of the industries that ameliorate crashes—emergency rescue, hospital care, vehicle repair, and the judicial system—are included in the GDP.

Demonstrating the effect of crashes on GDP growth over the long term is more likely to compel decisions to invest in road safety. Yet no clear analysis of the macroeconomic income impact of crashes has been undertaken until now.

A recent study by the World Bank\(^3\) is one of the first systematic efforts toward understanding the economic impact from reducing road crash deaths and injuries. The study—funded by the Bloomberg Philanthropies and inspired by health studies on the impacts of other diseases—shows that, over time, sharply reducing the number of road traffic injuries would enable developing countries to attain substantial increases in economic growth and national income, while leading simultaneously to welfare gains. The results underscore the high price of inaction, and demonstrate the potential economic benefits of sustainable interventions in road safety.

**Results across countries and years**

The study is built on existing estimates of the economic burden of disease and premature death, using data from 135 countries over a period of 24 years. It estimates the macroeconomic growth impact of road injuries in five countries: India, China, Philippines, Tanzania, and Thailand. The results indicate that halving road crash mortality and morbidity could generate substantial additional flows of income, with increases in GDP per capita over 24 years as large as 71 percent in Tanzania, 72 percent in the Philippines, 14 percent in India, 15 percent in China, and 22.2 percent in Thailand.

The effect on national income growth, however, is only a part of the story. Because the intangible value society assigns to health is not captured in the income growth estimates, the study also assesses what it would be worth to people to reduce the risk of road traffic injuries and deaths, and finds enormous welfare benefits. Using value of statistical life (VSL) measures—the monetary value assigned to a life saved—the study estimates that halving road traffic injuries and deaths over a period of 24 years could realize welfare benefits equivalent to 6 to 32 percent of national GDP for the five countries in the study.

A logical pattern of results has emerged: road crashes inevitably create costs from deaths, injuries, disability, and property damage; the crash costs may be equivalent to 3 to 7 percent of GDP. The compounded effects of these costs on actual economic growth have now been quantified in the study, and when accumulated over a 24-year period they are significant.\(^4\)

**The road ahead**

Many road safety interventions have proven their cost-effectiveness, yet have not been adopted. For nations and all organizations aiming to address poverty, these results have profound implications that are impossible to ignore. Country experiences around the globe have shown that if governments and other stakeholders adopt effective and sustainable evidence-based policies and interventions, the loss of life and its effect on the society, health, and economy can be greatly reduced.\(^5\)

Furthermore, a significant economic and welfare loss is associated with every year that low- and middle-income countries fail to adopt effective policies and interventions to substantially reduce road crash injuries and deaths. Countries should acknowledge these facts. They should not ask themselves: Can we afford to invest in road safety? They should instead ask: Can we afford not to invest in road safety?

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\(^4\) The World Bank study focused on a 24-year period as the underlying model for existing estimates was developed for a same period of time.


*Connections* is a series of knowledge notes from the World Bank Group’s Transport & Information and Communication Technology (ICT) Global Practice. Covering projects, experiences, and front-line developments, the series is produced by Nancy Vandycke and Shokraneh Minovi.

Preventable traffic injuries and deaths hold back the development of countries

SUBMITTED BY PATRICIO V. MARQUEZ ON TUE, 01/09/2018
CO-AUTHORS: DIPAN BOSE

While reading a newspaper over the holidays, one of us came across an article with an often common story: "car collision causes mass fatalities on mountain road". The collision resulted in 51 deaths, after a bus—one of the vehicles involved, plunged down a cliff in Peru. Many of the dead were returning to Lima after celebrating the New Year’s holiday with family outside the city.

The unfortunate reality is that these tragic events are a daily occurrence across the world. WHO data in 2015 show that 1.25 million people are killed on the world’s roads each year and another 20-50 million seriously injured. While the human toll is visible although underreported, the intangible costs that negatively impact societies and economies at large are not captured in national statistics. Data and lack of evidence on the economic and social cost of traffic crashes to inform policy making on road safety has proven to be difficult, especially in developing countries.
A new World Bank Group report, “The High Toll of Traffic Injuries: Unacceptable and Preventable”, prepared with the support of Bloomberg Philanthropies, attempts to fill this void. Building upon existing studies that estimate the economic burden of disease and premature death, and using data from 135 countries collected between 1990 and 2014, the report assesses both the potential economic growth benefits and aggregated social welfare gains from long-term reduction of traffic injuries and deaths in low- and middle-income countries (LMICs), focusing on an initial set of five countries: China, India, Philippines, Tanzania, and Thailand.

The results of the study and their implications for the development prospects of countries are hard to ignore. Besides preventing loss of life of people, and the resulting pain and misery bestowed on families and communities, there are significant long-term economic gains to be achieved from the adoption of simple, sustainable, affordable and effective traffic safety policies and interventions. The estimated impact ranges from a 7 to 22 percent increase in GDP per capita over 24 years – that can be achieved through substantial reduction in road traffic injuries and deaths in line with the target set under the UN’s Sustainable Development Goals 2030 Agenda. This finding is a clear message to governments: there is a significant economic loss associated with every year of inaction where LMICs fail to adopt effective policies and interventions to substantially reduce road traffic injuries and deaths.

The effect on national income growth, however, is only a part of the story. Since the intangible value society assigns to health is not captured in the income growth effect estimates, the study also assesses the enormous welfare benefits associated with what it would be worth to people to reduce the risk of road traffic injuries and deaths. Using value of statistical life (VSL) measures—the monetary value assigned for statistical purposes on a life saved through a policy measure—the study estimated additional welfare benefits equivalent to 6 to 32 percent of the national GDP that can be realized from reducing 50 percent of road traffic injuries and deaths over a period of 24 years.

As the report shows, much human potential is being lost unnecessarily due to traffic crashes. Beyond the enormous suffering they cause, as vividly captured in the devastating stories of people whose lives are ruined or never fully realized because of injuries, premature death, and long-lasting disabilities, the economic cost of road traffic injuries and death are unacceptably high. More importantly, country experiences from across the world have shown that if governments and other social actors are spurred into action and adopt effective and sustainable evidence-based policies and interventions, the loss of life and its effect on the society can be greatly reduced.

Looking ahead, the implications for action are clear. We should keep in mind that the prevention of road traffic injuries and premature deaths under transport sector interventions and as part of efforts to accelerate progress towards universal health coverage will pay off in terms of healthy life years, free of injuries and disabilities. This, in turn, will contribute to build health capital (the value of a person’s lifetime health) and hence, human capital (the sum of knowledge, skills, and know-how possessed by the population), which increasingly are the main source of a country’s total wealth and long-term success. Indeed, as recently highlighted by World Bank Group President, Dr. Jim Y. Kim, at a global forum on universal health coverage held in Tokyo, World Bank Group research clearly shows that the difference between the top quartile – the top 25 percent of countries that have improved human capital the most, compared with the bottom 25 percent – countries that have improved human capital the least – is enormous: between 1991 and 2016 – the difference in economic growth was 1.25 percent of GDP each year over 25 years.
As we enter a new year, let’s renew our commitment across sectors to help address one of the most significant global public health threats of the early 21st Century. In doing so, let’s be clear that we are not pursuing only a public health goal, but more importantly, a broad social goal that impacts all of us, since the reduction of preventable injuries and deaths due to traffic crashes is a key requirement for building healthy and resilient societies, dynamic and innovative economies, and the growth of living standards.
Confronting ‘Death on Wheels’: Making Roads Safe in ECA

Patricio V. Marquez, George A. Banjo, Elena Y. Chesheva, and Stephen Muzira

Key Messages

- Weak road safety management capacity, deteriorated roads, unsafe vehicles, poor driver behavior, patchy enforcement of road safety laws, and exponential growth in the number of vehicles have contributed to increasing road traffic injuries and fatalities in the ECA region.

- The nature of the challenge is multisectoral—cutting across transport, health, education, and legal and governance sectors.

- Coordinated action and partnership between the World Bank, World Health Organization (WHO), multilateral development banks, international agencies and donors, governments, and private and civil society institutions is required to address this often-ignored development challenge.

Death on Wheels

Road traffic injuries (RTIs) have become a major public health challenge in many low- and middle-income countries (LMICs). About 90 percent of the 1.3 million deaths and 50 million injuries from road traffic crashes worldwide each year occur in LMICs, although these countries have only 48 percent of the world’s registered vehicles. Increasing motorization and urbanization in LMICs could double this toll by 2030. The difference in road crashes between LMICs and high-income countries (where many road deaths still occur), is stunning.

ECA countries have experienced rapid growth in the number of passenger cars on the roads over the last two decades. In the Commonwealth of Independent States (CIS), there was a 120 percent increase in passenger cars per 1,000 persons—from 64 in 1990 to 141 in 2003. Similar trends were observed in countries in southeastern Europe. Vehicles in many ECA countries tend to be old and have sub-standard safety features. Length of roads and highways (in km.) has also increased since the 1990s—by 18 percent and 157 percent in the CIS, 21 percent and 75 percent in EU-10 countries, and 46 percent and 144 in southeastern Europe, respectively. In spite of significant investments in road infrastructure since the 1990s, in some ECA countries the roads still suffer from poor maintenance and under-investment.

While road traffic fatalities declined steadily in Western Europe—to below 6 fatalities per 100,000 (in 2006) in the Netherlands, Sweden, Switzerland, Norway, and the United Kingdom, deaths from RTIs increased in most ECA countries in spite of the smaller car fleet and relatively low number of km travelled per capita by car. RTI deaths in ECA in 2007 showed increases ranging from 8 percent to 39 percent. The average mortality rate due to RTIs in several ECA countries is nearly three times that of EU-15 and other Western European countries (7.9 per 100,000) (Figure 1). Kazakhstan has the highest mortality rate in ECA (30.6 per 100,000), followed by Russia (25.2 per 100,000) and Kyrgyzstan (22.8 per 100,000). In 2007, there were an estimated 80,000 reported traffic deaths in ECA countries, and more than


2 Countries of the former Soviet Union, the Baltics, the Balkans, Eastern and Central Europe, and Turkey.


800,000 nonfatal injuries. RTIs are already among the top 10 causes of death in ECA.

The RTI epidemic has negative effects on individuals, societies, and health budgets. RTIs negatively affect economically productive age groups: 55 percent of road traffic deaths in ECA countries are among people aged 15-44; more than 80 percent of those killed are men. Worldwide, the cost of road deaths and injuries is estimated at about 1 percent of GDP in low-income countries, 1.5 percent in middle-income countries, and 2 percent in high-income countries. The total costs to governments exceed US$ 500 billion annually. In ECA, the highest costs are in Russia (US$ 34 billion per year), Turkey (US$ 14 billion), Poland (US$ 10 billion), and Ukraine (US$ 5 billion).

**Mapping the Road to Safety**

An effective road safety strategy requires a multisectoral ‘safe system’ approach. It needs a lead agency to coordinate contributions by the many public and private entities across which road safety responsibilities tend to be diffused (Table 1).

<table>
<thead>
<tr>
<th>Action Areas</th>
<th>Scope</th>
<th>Main Actors</th>
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<tbody>
<tr>
<td>Partnerships</td>
<td>Promotion, engagement, coordination, and harmonization of efforts across many sectors of society to ensure long term sustainability of the effort.</td>
<td>Governmental agencies addressing transport, health, education; law enforcement, and civil society organizations; private companies, religious entities, and mass media.</td>
</tr>
<tr>
<td>Policies, legislation, enforcement</td>
<td>Enactment of laws and regulations. Costing of strategies and programs, adoption of sustainable funding mechanisms, and assignment of institutional responsibilities and accountability. Establishment of enforcement mechanisms.</td>
<td>Governmental agencies, parliaments, civil society organizations, car insurance companies, interior ministries, and police.</td>
</tr>
<tr>
<td>Design, building and maintenance of roads</td>
<td>Assessment and implementation of policies, plans, and new investment projects.</td>
<td>Transport ministries, finance, economic development, private firms, and enterprises.</td>
</tr>
<tr>
<td>Safe vehicles</td>
<td>Improvements in vehicle design to meet safety and environmental standards.</td>
<td>Automakers, regulatory agencies, insurance companies, and consumer organizations.</td>
</tr>
<tr>
<td>Public information, education and communication</td>
<td>Creation of a road safety culture to support implementation of road safety strategies. Inclusion of road safety themes in core curriculum of health education programs, targeting children and adolescents.</td>
<td>Transport, education and health ministries, mass media, and insurance companies.</td>
</tr>
<tr>
<td>Injury prevention, medical care, rehabilitation</td>
<td>Implementation of health system interventions along a continuum of service provision: public health, primary health care, post-impact medical care, including blood transfusion services and rehabilitation.</td>
<td>Health ministries and health insurance agencies.</td>
</tr>
<tr>
<td>Data collection and monitoring, and their use for decision-making and management</td>
<td>Collection and assessment of detailed and accurate data and information on road traffic injuries and fatalities for policymaking and program management across sectors.</td>
<td>Government agencies and systems (for example, epidemiological surveillance systems), data depositories at policy departments, and insurance companies.</td>
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**Table 1: Multisectoral Collaboration for Road Safety**

*Source: Bekefi (2006), and Peden and others (2004).*

Many ECA countries already have structures and processes in place to address RTIs, including lead agencies that have the mandate to coordinate the national response, funding in national budgets, and national road safety strategies. National laws set speed limits, regulate driving under the influence of alcohol, and mandate the use of safety equipment. Publicly available pre-hospital care systems for post-crash medical care are in place, albeit with varied quality.

However, in spite of progress achieved in recent years in some countries, the ECA region (including countries that are now part of the EU) continues to have one of the worse road safety performances in the world. Additional efforts and resources are needed to remedy this situation. Experience from HICs and other MICs show that improving road safety requires a consistent 20- to 30-year effort to develop and implement comprehensive, integrated safe system programs.

**Figure 1: RTI Death Rates in WHO-EURO Member Countries, per 100,000 population, 2007**

*Note: MKD is the international standardized abbreviation for the Former Yugoslav Republic of Macedonia.*
*Source: WHO EURO. 2009.*
Doing the Groundwork in ECA

The findings of a landmark WHO/World Bank report\(^5\) led to six over-arching recommendations that set out the strategic initiatives necessary to improve country road safety performance:

- Identify lead agencies in governments to guide the national road safety efforts.
- Assess the problem, policies and institutional settings relating to road traffic injury, and the capacity for road traffic injury prevention in each country.
- Prepare national road safety strategies and plans of action.
- Allocate financial and human resources to address the problem.
- Implement specific actions to prevent road traffic crashes, minimize injuries and their consequences, and evaluate the impact of these actions.
- Support the development of national capacity and international cooperation.

Implementing these recommendations at country level requires building capacity to create the resources and tools necessary to implement target initiatives. Managing for improved road safety results at country level must address three inter-related elements of the road safety management system: institutional management functions, interventions, and results.

Building institutional management functions requires:

- **Strengthening institutions and governance capacity for RTI prevention**, including lead agency capacity, targeting evidence-based training of senior policymakers, executive managers in the various relevant sectors, and ministry focal points and practitioners, especially in transport, justice, traffic police, and health. Creating space for civil society and private sector participation has the potential to galvanize political support on the basis of well-articulated social demands from communities that bear the burden of RTIs.

- **Improving nationwide traffic injury surveillance systems** to better map the causes, risks, extent, and consequences of injuries; to pinpoint risks for more effective action; and to evaluate the effectiveness of those actions.

- **Conducting national road safety reviews to formulate policies and plans**. These reviews help identify main risk groups and exposures to determine priorities, set realistic targets, allocate budgets, specify implementation responsibility, and ensure rigorous evaluation.

A focus on results requires:

- **Integrating road safety in all phases of planning, design, and operation of road infrastructure**.

- **Reducing speed limits, particularly in urban areas**, and strengthening these efforts with road design, enforcement, publicity, speed cameras and appropriate penalties, to generate immediate safety benefits.

- **Reducing drinking and driving**. Given the relative importance of alcohol abuse in some ECA countries, broad alcohol-control policies, fiscal measures, and interventions are required to support the long-term sustainability of road safety efforts.

- **Increasing seatbelt use** through enforcement and publicity campaigns, revising specifications (at least for new cars), promoting vehicle seatbelt reminder systems, and undertaking periodic surveys to monitor front and rear seatbelt usage rates.

- **Reducing young driver risk** through graduated licensing schemes and extended training programs.

- **Adopting and enforcing laws to prevent ‘distracting driving’** due to use of mobile phones and texting while driving.

- **Improving emergency medical systems** as part of broader health system modernization efforts to reduce fatalities and mitigate injuries.

- **Integration of road safety and transport policy**. Recent research indicates that improving transportation options (for example, better walking and cycling conditions, and improved ride sharing and public transport services) can reduce car collision frequency.

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Designing demonstration projects. Well-designed demonstration projects can support the process of catching up with best practice in road safety performance and are an essential part of building capacity. They can provide useful benchmarks for rolling out a modern road safety program to the rest of the country with support from donors and international finance organizations.

The World Bank’s Role

To advance the road safety agenda, the World Bank co-founded the Global Road Safety Facility in 2006 with other partners. The Facility works with international partners to provide funding and technical assistance to scale-up LMIC capacity to implement cost-effective road safety programs. Road safety is routinely a key component in World Bank road infrastructure projects. For example, recent projects in Bosnia and Herzegovina, Bulgaria, Georgia, Poland, and Ukraine include pilot measures (and monitoring), such as road safety reviews, strengthening capacity of national road safety authorities, improving safety features of road infrastructure, tightening enforcement, and public campaigns for safer driving.

The World Bank, working with international partners, could support ECA countries in their effort to reduce road crash fatalities during 2010-16 by exploring options to support the identification, selection, design, and implementation of actions most likely to prevent road crashes and improve road crash emergency and rehabilitation services. Some ECA countries, as members of the EU, have the opportunity to deal with the RTI challenge through that membership. Since non-EU ECA countries may not have the same opportunity, the support that could be provided by the World Bank would follow a tailored approach.

As seen in ongoing U.S.-supported efforts under the Recovery and Reinvestment Act of 2009, programs being funded by governments in different countries to reactivate economic growth and employment offer a ‘window of opportunity’ to scale-up and improve road safety in ECA. This implies that investments directed to roads and highways should incorporate safety features and be coupled with support for implementing existing road safety plans.

On the basis of priorities set by ECA countries and taking into account the individual circumstances of each country, the World Bank could provide an assistance program that advocates greater investment in certain road safety initiatives, taking into account evidence-based, cost-effective approaches and international best practices, evidence from modeling exercises, extrapolation of the impact of different interventions for improving road safety, and available economic evidence.

The proposed road safety effort is fully consistent with and supports the World Bank’s transport strategy and the new World Bank guidelines for implementing the recommendations of the 2004 World Report mentioned earlier. It also supports the health improvement and poverty alleviation objectives outlined in the ‘Healthy Development’ strategy for health, nutrition and population results. These efforts are also consistent with the new strategic directions guiding the World Bank’s overall work, particularly those of fostering regional and global public goods that transcend national boundaries and of cooperating with other agencies having special expertise.

About the Authors

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“ECA Knowledge Brief” is a regular series of notes highlighting recent analyses, good practices and lessons learned from the development work program of the World Bank’s Europe and Central Asia Region

http://www.worldbank.org/eca
Non-communicable diseases (NCDs) are becoming a significant burden in sub-Saharan Africa, and road traffic injuries are rapidly emerging as a major cause of death and disability. By 2010, cerebrovascular diseases (stroke) and road injuries were already within the top 15 causes of years of life lost, joined by ischemic heart disease, diabetes mellitus, and hypertensive heart disease in Southern sub-Saharan Africa. Road traffic injuries are expected to be the number one killer of children aged 5-15 in Africa by 2015 if current trends continue unabated. Yet, this burden remains largely hidden.

A new Bank report, "The Challenge of Non-communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa: An Overview" sheds light on the nature of these health challenges. Drawing on a comprehensive review of the literature and on input from policymakers, researchers, and practitioners, it addresses four questions: (1) How is the growing burden of NCDs and road traffic injuries changing the epidemiology of sub-Saharan Africa?; (2) What determines and drives this burden, and what are the commonalities with communicable diseases?; (3) What is the rationale for public intervention?; and (4) How could resource-constrained governments approach NCD prevention and treatment and road safety in a comprehensive, effective and efficient way?
The data show that action against NCDs and road traffic injuries in sub-Saharan Africa is needed, together with continued efforts to address communicable diseases and maternal and child health as well as to reach the Millennium Development Goals (MDGs).

Indeed, close relationships exist in cause, course and outcome between NCDs, communicable diseases, and maternal, perinatal, and nutritional conditions. There are common underlying social conditions, such as poverty and unhealthy environments, and commonalities across disease groups in causation, co-morbidity, and care needs. Frequently, both communicable diseases and NCDs co-exist in the same individual, and one can increase the risk or impact of the other, as happens for example with diabetes and tuberculosis. Maternal health, the intra-uterine environment and low birthweight may have long-term consequences for developing NCDs.

The report suggests that NCDs/road traffic injuries should not be tackled separately as a vertical program, nor should they displace communicable diseases as priorities. Instead, given resource constraints, and some shared determinants, characteristics, and interventions, there is scope for an integrated approach focusing on functions (prevention, treatment, and care) rather than on disease categories. Examples are cited of potential opportunities to integrate and add NCD prevention and treatment into existing services and programs. For example, interventions to improve maternal and child health – such as reducing malnutrition and exposure to smoke – are integral components of a continuum of preventive measures for NCDs.

Also, the report argues that proven, cost-effective, prevention interventions are needed, many of which (such as tobacco and alcohol taxes, road safety measures, and fuel-efficient ventilated cookstoves) require action beyond the health sector. These can deliver broader development benefits in addition to their benefits for health.

Ensuring an effective response, however, is a particularly difficult challenge in countries facing a double or triple burden of disease with a low national income level and weak health care systems. But as argued in the report -- and fully consistent with the health improvement and poverty alleviation objectives of World Bank work in the health sector, as reflected in the 2007 Health, Nutrition and Population Strategy, and in the recent “Connecting Sectors and Systems for Health Results” policy note -- efforts to address this challenge effectively in sub-Saharan Africa should be part of broader multisectoral effort, including health system strengthening programs and activities supported by national governments, public and private employers and businesses, civil society, and the international community over the short and medium terms.

It is expected that this report will advance the discussion on this topic in sub-Saharan Africa and beyond by heeding World Bank Group President Dr. Jim Kim’s advice at the 2013 World Health Assembly:
“For decades, energy has been spent in disputes opposing disease-specific ‘vertical’ service delivery models to integrated ‘horizontal’ models. Delivery science is consolidating evidence on how some countries have solved this dilemma by creating a ‘diagonal’ approach: deliberately crafting priority disease-specific programs to drive improvement in the wider health system. "Whether a country’s immediate priority is diabetes; malaria control; maternal health and child survival; or driving the ‘endgame’ on HIV/AIDS, a universal coverage framework can harness disease-specific programs diagonally to strengthen the system.“

*Follow the World Bank health team on Twitter: [@worldbankhealth](https://twitter.com/worldbankhealth)*
“Death on Wheels” in sub-Saharan Africa: How to prevent it?

SUBMITTED BY PATRICIO V. MARQUEZ ON MON, 09/03/2012

On the eve of the 2010 World Football Cup, former South Africa President Nelson Mandela experienced a tragedy that is all too common across sub-Saharan Africa: his great-granddaughter was killed in a car crash returning home after a concert in Soweto. The car's driver was arrested and charged with drunk driving.

Thousands of African families have experienced the pain of the Mandela family: according to WHO data, close to 250,000 people die each year on African roads, representing one-fifth of the world's road deaths, and about 500,000 sustain non-fatal injuries.

Severe underreporting hides the real magnitude of the problem; for example, in Mozambique, estimates done in 2011 by a Harvard University team indicated that road deaths and non-fatal injuries were twice as high as those reported in official statistics.

As the map shows, the sub-Saharan African countries, with an estimated death rate of 32.2 people per 100,000 population, have some of the highest road death rates in the world although they possess only 2% of the world’s registered vehicles.

This rate is double the average rate for Latin America and South-East Asia, and is more than five times that of best road safety performers (Sweden, UK, and Netherlands). Road traffic injuries are already the fourth leading cause of death in people aged 15–44 years; for young men, they are the second leading cause of premature death after HIV/AIDS.

Source: Map commissioned by author; data from 2009 WHO Global Status Report on Road Safety

With rapid urbanization, economic growth and higher incomes, and increasing numbers of cars and two wheelers operating in poor road networks, the number of road deaths is predicted to rise in sub-Saharan Africa by at least 80% by 2020 if nothing is done to improve road conditions and traffic safety. Vulnerable road users, such as pedestrians, cyclists, motorcyclists and passengers using unsafe public transport, suffer greatest as they account for more than 50% of road deaths.
The economic cost of road traffic deaths and injuries has been estimated at 1-3 percent of GDP in most countries (WHO/World Bank 2004). This cost reflects the value of medical services used to treat injured people, insurance administration, forgone individual or family earnings, and business costs such as those due to temporary or permanent disability of employees and delayed delivery of goods and services. Road injuries are also a major burden on already overburdened health systems.

So what is needed to make African roads safer?

Good roads are now seen as a critical investment for enhancing competitiveness and resilience in sub-Saharan Africa since they facilitate the movement of people, goods, and services and access to essential services. With the adoption of the 2011-2020 UN Decade of Action on Road Safety, African governments are also committed to reducing the heavy social toll imposed by road traffic injuries. So, too, are international organizations, despite the fact that in many infrastructure projects funded by multilateral development banks, road safety has often been merely an afterthought.

While economic aspirations and political declarations help, international experience makes it clear that making roads safer presumes the adoption of a “safe system approach” to make a country response effective and sustainable. Indeed, the reality in most of sub-Saharan Africa reflects the need to painstakingly build institutions and capacity to plan, manage and implement road safety initiatives at national scale rather than just adopting parallel or isolated sectoral interventions. A 2009 assessment by WHO covering 41 African countries evidenced this reality:

- While the majority (88%) of the countries reported having a road safety agency, in only 10 (24%) has the government endorsed a strategy with targets and earmarked funding.
- Most countries not only lack comprehensive road safety laws to address the main risk factors (speed, drunk driving, not wearing seat belts or helmets, using cell phones or texting while driving), but also suffer from sporadic enforcement, where bribes often prevent penalizing drivers who knowingly break traffic rules.
- The availability of quality data to accurately assess the problem is limited in most countries, constraining planning, monitoring and impact evaluation efforts.
- While 40% of countries reported having a formal emergency medical care system with a national access telephone number, their capacity and quality are poor. In most countries, emergency medical services are usually a marginal element of road safety programs as they are commonly equated with simple transportation arrangements (ambulance service). But to save thousands of lives and prevent long-lasting disabilities, interconnected systems are required to offer a “continuum of care” from first contact with a victim (communication and transport systems, well-trained paramedics), to medical care provided at different health system levels in accordance to the needs of the injured.

The adoption by governments and international agencies of “shared value” principles (Porter and Kramer 2011), which combine economic and social concerns, could help redress Africa’s road infrastructure deficits that hinder economic growth while addressing the societal harm caused by road traffic injuries and premature deaths. This type of approach is needed to generate collective action by winning political and community support to implement the African Road Safety Action Plan 2011-2020 that was adopted in Addis Ababa last year, forging public and private partnerships to share the cost of enhanced infrastructure and interventions, and building institutional and management capacity to effectively deal with road safety challenges.
Moving forward, all of us will do well to keep in mind the words of Desmond Tutu, the Emeritus Archbishop of Cape Town and 1984 Nobel Peace Prize Laureate, who noted that “From time to time in human history there comes a killer epidemic that is not recognized for what it is and is not acted against until it is almost too late. HIV/AIDS, which is ravaging Sub-Saharan Africa, is one such. Road traffic injuries have the potential to be another.”
Dangerous Roads: Russia’s Safety Challenge

Patricio V. Marquez and Anthony G. Bliss

Key Messages

- In 2008, there were nearly 30,000 road traffic deaths and about 271,000 non-fatal road traffic injuries in Russia. Road traffic deaths in Russia are five times higher than in countries with the best road safety records in the world.
- One-third of car crashes in Russia are caused by speeding vehicles and close to 40% of all road fatalities are among pedestrians.
- Although Russia has made significant progress since 2006, a stronger, multisectoral response is needed to reduce the still high number of road fatalities.

Dangerous Russian Roads: Causes and Costs

As in many countries of the Europe and Central Asia Region (ECA), vehicle ownership in Russia has grown faster in the last decade than the decline in the rate of fatalities per vehicle. At the same time, road safety policies and interventions have not kept pace with the boom in motorization. In 2008, the motor vehicle fleet in the country exceeded 41 million cars, up 24% from 2004, and the number of drivers licensed increased by 40% during this period.

In 2008, Russia saw nearly 30,000 road traffic deaths and about 271,000 non-fatal road traffic injuries. While these figures represent a drop of 13% from 2004, Russia’s road traffic mortality rate is still five times higher than what is seen in several European Union (EU) countries, about twice more than in the United States, higher than in other Eastern European countries such as Poland and Hungary, and higher than the average for Commonwealth of Independent States (CIS) countries (Box 1).

Box 1: Comparing Russia’s Road Fatalities with Other Countries, 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>Mortality rate due to road traffic injuries, per 100,000 people</th>
</tr>
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<tbody>
<tr>
<td>Russian Federation</td>
<td>21.1</td>
</tr>
<tr>
<td>Commonwealth of Independent States (CIS) average</td>
<td>15.0 (2007)</td>
</tr>
<tr>
<td>Poland</td>
<td>14.3</td>
</tr>
<tr>
<td>United States</td>
<td>12.3</td>
</tr>
<tr>
<td>European Union average</td>
<td>11.0 (2007)</td>
</tr>
<tr>
<td>Hungary</td>
<td>9.9</td>
</tr>
<tr>
<td>New Zealand</td>
<td>8.6</td>
</tr>
<tr>
<td>Australia</td>
<td>6.8</td>
</tr>
<tr>
<td>Germany</td>
<td>5.4</td>
</tr>
<tr>
<td>Great Britain</td>
<td>4.3</td>
</tr>
<tr>
<td>Sweden</td>
<td>4.3</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>4.1</td>
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</table>


About 72% of all car crashes in Russia occur in urban areas. Data for 2008 show that the majority of traffic deaths are among car occupants (52%), followed by pedestrians (36%), motorcycle drivers and passengers (5%), truck and bus drivers and passengers (4%), and cyclists and others (4%). The high percentage of pedestrian deaths in Russia contrasts sharply with other European countries (in France and Germany, for example, pedestrian deaths account for only 12% of total road fatalities) and shows that Russia’s transport system is limited in its ability to cope with the increased road traffic and vulnerable road users.

More than 50% of all road traffic deaths are among people aged 15-44, the most economically productive age group. Children and the elderly are also particularly vulnerable, especially as pedestrians.

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One-third of car crashes in Russia are caused by speeding vehicles. The possibility of a pedestrian being killed rises eightfold as the speed of impact with a car increases from 30 kilometers per hour (km/h) to 50 km/h. Head-on collisions due to driving into oncoming lanes are a major cause of road crashes - in the first half of 2010, close to 250 people died in the Moscow, Nizhni Novgorod, Krasnodar and Perm regions due to head-on collisions. Drunk driving, which accounts for 10% of all road crashes in Russia, along with poor road conditions and bad traffic management, also contribute to road traffic injuries and deaths. The use of cell phones and texting devices while driving is another growing risk factor.

The economic costs of motor vehicle crashes are severe. They include direct costs associated with emergency treatment, long-term care, insurance administration, and legal actions, and indirect costs associated with productivity losses in the workplace and in households. Property damage and travel delays are some of the other costs.

Estimates by the Russian Ministry of Internal Affairs in 2005 indicated that the cost of road crashes in Russia absorbed 2.5% of the Gross Domestic Product (GDP), or about US$26 billion annually. Road traffic victims are seven times more likely to need hospitalization compared with victims of other types of trauma, and they account for 75% of all types of injuries and 60% of severe trauma cases. The provision of medical services for traffic injuries and other traumas in 2003 absorbed approximately 0.27% of Russia’s GDP or about US$1.2 billion.

Russia Responds to the Road Safety Challenge

The Russian Government has been implementing the Federal Targeted Program for Ensuring Road Traffic Safety 2006-2012. About US$2 billion was earmarked to fund this Program over 2006-2012, with 43% of the allocation coming directly from the Federal budget and the rest from the general budgets of sectoral ministries and regional governments. The Program aims at reducing road fatalities in the country by 33% compared with 2004 levels. A multisectoral Government Commission for Road Safety led by the Ministry of Internal Affairs is coordinating this effort.

The main components of the Program include establishing a comprehensive legislation framework and strengthening enforcement-related laws and regulations. New legal blood and breath alcohol content limits (0.3 g/l and 0.15 g/l, respectively) were introduced in 2007 and the penalty for failure to submit to medical examination (in alcohol-related driving offenses) was increased from disqualification from driving for 18 months to two years. Other offenses that are now penalized with prison terms include causing death as a result of drunk driving. Fines have been increased ten-fold for driving without seat belts. A law has been enacted to make the offense of crossing into an oncoming lane punishable with license revocation. Anti-alcohol campaigns are being conducted under the Program. Other positive developments include improvements in the safety of cars and the introduction of new road signs on speed limits, pedestrian zones, speed humps, and parking restrictions.

More recently, draft legislation proposals were developed to reduce speed limits on city roads from 60 km/h to 50 km/h, and to 30 km/h around office areas and 20 km/h in residential areas and schools. Traffic calming measures, intelligent transport systems, and tougher requirements for drivers to give way to pedestrians, have also been initiated. A 3D social advertising video urging drivers to exercise care on roads was filmed for release in movie theaters in mid-June 2010 when a massive social awareness campaign named The Last Oncoming Lane was launched. Emergency medical services are being re-organized under the leadership of the Federal Ministry of Health and Social Development and the technical guidance of the Djanelidze Research Institute of Emergency Medicine in St Petersburg. To this end, all federal roads have been rated and actions are being taken on the most dangerous highways such as the ones from Moscow to south Russia (M4 Don Highway), from Moscow to Kiev (M3 Ukraine Highway), and from Moscow to Saint Petersburg (M10 Scandinavia Highway).

Some Issues Remain to be Resolved

In spite of scaled up efforts by the Government and the significant improvement in road safety performance achieved since 2006, road conditions in Russia are still very dangerous vis-à-vis other developed countries. As President Medvedev emphasized in a national speech on August 6, 2009, poor road infrastructure, bad organization of road traffic, and insufficient regional and local efforts hinder further improvements. Exacerbating the situation are the absence of effective education programs for drivers, particularly young drivers, the weak performance of the traffic police, and the unsatisfactory condition of emergency medical services in some regions.

“The national economy lost US$175 billion from traffic accidents over the past five years. That is comparable with overall health care expenditures of the same period.”

– Dmitry Medvedev
President of the Russian Federation
August 6, 2009
Countries that have successfully reduced road traffic injuries and fatalities - such as, Australia, Great Britain, the Netherlands, New Zealand, Sweden, and the United States - have adopted a safe systems approach which is anchored in the long-term vision of eliminating road deaths. Under this approach, improved road safety results depend on three inter-related elements: institutional management functions, interventions and results.\(^2\)

Russia has in place most of the elements of the safe systems approach but additional efforts are required to strengthen institutions and governance capacity for road safety, including the lead agency capacity to better coordinate and manage an effective multisectoral response.

**Strengthening Institutional Management**

Sustained support from the highest levels of government is needed to:

- Strengthen the results focus of the lead agency and coordinate arrangements among sectoral institutions and different levels of government.
- Promote active engagement by business, professional and non-government entities.
- Implement policy reviews and institutional reforms to improve legislation and enforcement practices, accountability and capacity of organizations, and the testing and licensing of drivers and vehicle safety standards.
- Secure sustainable and adequate funding for lead agency and key stakeholders and strengthen their management and operational capacity to achieve safety targets.
- Enhance nationwide road traffic injury surveillance systems to collect data, better understand the nature and characteristics of the problem, and evaluate the results of interventions.

**Effective Interventions with a Results Focus**

**Integrating road safety in all phases of planning, design, and operation of road infrastructure:** Analyses of road networks’ safety performance conducted at the planning stage of new road construction, complemented by road safety audits and safety impact assessments, help improve project design. Also, reviews of high road traffic crash concentration sections help target investments towards places with the highest crash reduction potential. Intersection controls, crash barriers, signs, markings, traffic-calming measures around schools, and road maintenance are effective interventions.

**Vehicle design and safety equipment:** Daytime running lights for cars and motorcycles, and other safety technologies such as electronic stability control systems, seat belts and airbags, contribute towards reducing road traffic crashes and fatalities.

**Enforcement of legal measures to improve road user behavior:** These include issuing graduated driving permits for teenagers, requiring six months of driving with learners’ permits, curfews prohibiting driving between midnight and 5:00 a.m., and passenger restrictions on the first year of driving after getting a license. Mandatory seat belt use helps reduce road traffic deaths and serious injuries once a crash has occurred; requirements on the use of motorcycle and bicycle helmets protect against fatal head injuries.

Setting and enforcing speed limits reduces road traffic injuries by up to 34%, particularly among pedestrians, cyclists, and motorcyclists. The introduction of speed cameras has led to a 14% reduction in fatal crashes and a 6% reduction in nonfatal crashes in developed countries.\(^3\) Road traffic injuries are also reduced by setting and enforcing legal blood alcohol limits and minimum drinking-age laws, using checkpoints to randomly stop drivers to detect alcohol, and running mass media campaigns to reduce drinking and driving.\(^4\) Other measures, such as license revocation and suspension, markedly reduce fatalities from alcohol-related crashes. Measures to outlaw the use of cell phones and texting devices by young drivers are starting to show positive results in countries such as the United States.

**Emergency medical care systems:** Effective post-crash medical care and treatment can prevent deaths and limit the severity of injuries. France’s Service d’Aide Médicale d’Urgence (Emergency Medical Assistance Service, SAMU), and the effective service arrangement established in some Russian regions such as the Chuvash Republic and Voronezh are good practices in this area.

**Cost and effectiveness of road safety interventions:** As shown in Figure 1, a strategy that simultaneously implements multiple road safety interventions produces the most health gains for a given investment.

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Figure 1: Cost-Effectiveness of Road Traffic Injury Prevention Strategies in Europe and Central Asia
(international dollars per disability adjusted life year (DALY) saved, 2005)

Average cost per DALY saved

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<thead>
<tr>
<th>Strategy</th>
<th>EurB</th>
<th>EurC</th>
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<tbody>
<tr>
<td>Enforcement of speed limits (via fixed/mobile cameras)</td>
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<tr>
<td>Drink-drive legislation &amp; enforcement (breath-testing)</td>
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<tr>
<td>Legislation &amp; primary enforcement of seat belt use</td>
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<td>Legislation &amp; enforcement of helmet use by motorcyclists</td>
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<tr>
<td>Legislation &amp; enforcement of helmet use by bicyclists</td>
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<tr>
<td>Speed cameras + breath-testing</td>
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<td>Seatbelts + motorcycle helmets</td>
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<td>Seatbelts + motorcycle helmets + speed cameras + breath-testing + bicycle helmets</td>
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Note 1: Countries in the WHO European region with low child and low adult mortality (EurB): Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Georgia, Kyrgyzstan, Poland, Romania, Slovakia, Tajikistan, FYR Macedonia, Turkey, Turkmenistan, and Uzbekistan. Countries in the WHO European region with low child and high adult mortality (EurC): Belarus, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, the Russian Federation, and Ukraine.

Note 2: “International dollar” is a hypothetical unit of currency that has the same purchasing power that the U.S. dollar had in the United States at a given point in time. The year of 1990 or 2000 is often used as a benchmark year for comparisons that run through time. Figures expressed in international dollars cannot be converted to another country's currency using current market exchange rates. Instead they must be converted using the country's purchasing power parity (PPP) exchange rate used in the study.

Source: Chisholm and Naci, 2008.

Conclusion

Building on the ‘Moscow Declaration’, which was ratified by all participating countries at the First Global Ministerial Conference on Road Safety held in 2009, the UN General Assembly approved on March 2, 2010, a resolution declaring 2011-2020 as the “Decade of Action for Road Safety” with the goal of stabilizing and ultimately reducing the forecast level of global road fatalities by 2020.

Accumulated local and worldwide experience can be used to strengthen ongoing road safety efforts in the Russian Federation. These efforts have the potential to help society as a whole and to provide a good practice example to other former Soviet Union countries. Programs funded by the Russian Government to develop the road infrastructure offer a window of opportunity to scale up and improve road safety in Russia over the medium term.

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http://www.worldbank.org/eca
Health Systems: How to Improve Them to Better Serve People
Drones and blood safety can save lives

PATRICIO V. MARQUEZ (/TEAM/PATRICIO-V-MARQUEZ) | FEBRUARY 05, 2019

Zipline uses drone technology to save lives
Photo: Sarah Farhat / World Bank

Recently, I was intrigued when I read a Gates Foundation tweet (https://twitter.com/gatesfoundation/status/107866975809810433/video/1) that asked, “How do you get access to urgent medical supplies like blood if you live in a remote community?”. The reply provided may seem at first glance far-fetched to some people: “Drones”

This reply should not surprise us since novel technologies (https://blogs.worldbank.org/publicsphere/campaign-art-disruptive-technologies-and-development-goals) are already disrupting different aspects of our lives. At the World Economic Forum (WEF) held last month in Davos, a topic that attracted a lot of attention was how drone delivery will change the face of global logistics (http://www3.weforum.org/docs/WEF_Advanced_Drone_Operations_Toolkit.pdf). To illustrate...
the potential of this disruption, the experience in Rwanda’s health system was highlighted as the biggest success story in global drone operation. As reported by The Lancet (https://www.sciencedirect.com/science/article/pii/S0140673618332537), in the fall of 2017, Rwanda, in partnership with California-based robotics company Zipline International Inc., became the first country in the world to incorporate drone technology (https://www.youtube.com/watch?v=7ZNzysHBxGc) into its health care system for delivering blood and medical supplies to hospitals across its Southern and Western provinces. Moreover, the article noted that the world’s south, particularly Sub-Saharan Africa, lead the way in the use of medical drones (https://www.worldbank.org/en/news/speech/2018/04/19/transcript-world-bank-group-opening-press-conference-by-president-jim-yong-kim-at-the-2018-spring-meetings) and the developed world is slowly catching up.

The potential lifesaving impact of the rapid adoption, development, and scale-up of medical drone use is unmistakable. They could facilitate the timely availability of blood supply for medical use in hard to reach regions. I would like to argue, however, that to help fully realize the health benefits of drone technology for transporting blood, we also need to assign priority attention to reduce the risk of an infectious organism being transmitted by transfusion.

Indeed, transfusions of blood or blood-based products are a critical procedure for situations involving massive blood loss due to hemorrhage during pregnancy or child delivery (about 25% of maternal deaths worldwide (https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1538-7836.2011.04398.x) result from massive obstetric bleeding that require blood transfusion). Similarly, blood transfusions are needed for women with severe anemia, which is associated with increased stillbirths, perinatal deaths, low-birth-weight babies and prematurity; victims of violence and traffic injuries involving major trauma and burns with important blood loss; as well as people requiring complicated surgery to deal with cerebrovascular diseases or an organ transplant.

The risk that contaminated blood may reach health facilities via drones for administration to unsuspecting patients by unsuspecting doctors is real. A wide variety of organisms, including bacteria, viruses, prions, and parasites can be transmitted through blood transfusions and can be deadly. For example, the transfusion of HIV-infected blood is about 100 times more efficient than intravenous drug injection with a contaminated syringe. Unsafe blood transfusions can also spread other diseases such as Hepatitis-B; Hepatitis- C, which lead in
65% of cases to the development of liver cirrhosis or cancer; syphilis; and malaria. Health workers are also at risk of infection with bloodborne viruses, as they are exposed to blood and other body fluids during their work, as we saw during the Ebola epidemic in West Africa in 2014-2015.

Reducing transfusion-transmitted infectious diseases demands that the systemic deficiency of blood services should be tackled as part of health system strengthening efforts. Well-organized, funded, staffed, and equipped blood services are needed to educate, recruit and select donors, collect and process donated blood, prepare blood products, and screen blood donations for various infectious markers and do other tests in a quality-controlled fashion. And, in coordination with health care providers, these centers are needed to follow up on the safe and appropriate use of blood and blood products (whole blood can be separated into blood products, both plasma and cellular components, such as red cells, white cells and/or platelets). Whole blood and its products also need to be stored and maintained under proper refrigeration, requiring an accurate and reliable cold chain in the health system.

The costs of delaying or neglecting action can be onerous as shown by past country experiences. During the AIDS epidemic in the 1980s, when tests to check blood for viruses were not reliable, contaminated blood supplies caused over 20,000 HIV infections in the United States (https://www.economist.com/the-economist-explains/2018/04/16/why-some-countries-still-ban-gay-men-from-giving-blood) alone. Similarly, the ongoing enquiry (https://www.thelancet.com/journals/lanhae/article/PIIS2352-3026(18)30068-1/fulltext) by the British Government of contaminated blood used in the UK in the 1970s and 1980s for blood transfusions attest to the gravest of this risk and its long sequelae, as thousands of NHS patients received tainted blood, ridden with Hepatitis-C and HIV, many of whom died because of transfusion-transmitted infections while others who survived are infected with Hepatitis-C.

The availability and safety of blood and blood products for transfusions will continue to pose a clear and present danger of spreading infectious diseases unless systematic improvements of blood services structures and processes is undertaken and sustained over the long-term. The enforcement of regulations, mandatory screening of blood products, and regular monitoring incorporated as part of quality control activities should priority activities in the health system. This should be coupled with the reduction of unnecessary and inappropriate blood transfusions in health facilities. Properly implemented, these measures will underpin and maximize the beneficial impact of drone technology in addressing unmet health needs of poor, vulnerable populations, living in hard-to-reach geographical regions, and save countless lives.
It’s widely accepted nowadays that the ultimate goals of a health system are to improve the health conditions of the population; minimize the risk of impoverishment due to catastrophic health events; and increase the level of satisfaction of the citizens of a country with the quality of services received.

What kind of health system needs to be developed to achieve these goals?

Professor Uwe E. Reinhardt, a distinguished Princeton University health economist, urges us to focus on broader social goals, including the distributive ethic or moral values in a country. In essence, this means that the “structural parameters” of a health system—financing health care, risk pooling to protect individuals from the cost of illness, producing and delivering health services, purchasing or commissioning health care on behalf of patients, stewardship and governance, and production and distribution of health care resources—should be determined by the shared ethic or moral values in a society.

As Professor Reinhardt points out, alternative “distributive social ethics” or “moral values” may offer three broad health care organization models to choose from: (i) a one-tier system, where health care is a social good available to all on equal terms; (ii) a two-tiered system, where health care is a social good for all with exception of the rich; and (iii) a multi-tiered system, where health care is a private consumption good like other services such as food and housing.
So which one of these models should governments adopt, adapt and develop? Which model should international organizations recommend as part of policy dialogue with governments? Is there an appropriate “government” versus “private market” combination that should prevail in a health system?

These questions perhaps are not very relevant for policy making or to ensure efficient allocation and use of scarce resources since we may run the risk of confusing “means” with “goals”. What is needed first is a better articulation and definition of a country’s social goals.

These debates have been taking place across the world: For example, in the United States, around the mandate that requires everyone to purchase health insurance to prevent healthy people from opting out; in Russia, around how to protect people from the impoverishing impact of out-of-pocket expenditures for medications; and in South Africa, on a proposed new health insurance scheme.

It is clear from these debates that how a health system is structured reflects decisions on what kind of society a country wants to have.

We have to be mindful that the definition of broad social goals ultimately guide policy and institutional decisions concerning the most appropriate and contextually relevant organizational forms, health care financing arrangements, and service delivery mechanisms that could be adopted to attain the intermediate goals of a health system (improved access, quality, efficiency, and fairness), which contribute to achievement of the ultimate goals of a health system (improved health status, financial protection, and patient satisfaction with health care received).
In the past decade we have witnessed a noticeable zigzag internationally on how to improve health system performance. While some have advocated for the primacy of primary health care (reinforced by a major 2008 WHO report), others have stressed the importance of hospital autonomy initiatives.

This zigzag clearly illustrates another false dichotomy in the health sector that merits urgent revision. More and more, we’re recognizing why a cohesive and integrated health care delivery model needs to be in place to better organize and respond to the changing needs of the population, particularly given the raising importance of noncommunicable diseases and injuries as the main causes of death and disability worldwide. A recent report on NCDs in China demonstrates how the chronic nature of these conditions—different from acute episodes of ill health resulting from infectious diseases—demands a well-coordinated combination of hospital, ambulatory and physician response, in some cases over the lifetime of an individual.

We need to take technological and financial imperatives into account, too. For example, procedures that used to require lengthy hospitalization now can be performed in an outpatient facility, thanks to new technologies with more convenience and safety for the patient. The financial realities across the world demand reductions in the avoidable costs of untimely, uncoordinated, expensive and substandard care.

How can we support the development of integrated care? Evaluated experiences in countries provide evidence: Kaiser Permanente and the Veterans Administration models in the United States; Trafford, a Greater Manchester borough of 215,000 people in England; the Chuvash Republic in Russia; the evolving privately run health management organizations model in Georgia; and more recently, the promising wider health care network established in Lesotho, a small country with significant health challenges in Africa.

These experiences show how the integrated care model embodies community-based primary, general acute medicine, specialist outpatient and diagnostic care, and referral hospitals.

The core of the model should be planned care in accordance with each population’s health needs. Integration is realized either through “vertical integration” of public facilities by developing agreements with unified goals and incentives, or “virtual integration” through contracting modalities that link public and private insurance companies and service providers. The critical enabling tools are de-concentrated or decentralized decision-making and management structures and processes, as well as the use of evidence-based clinical protocols to guide care coordination; health management information systems to coordinate the on time flow of patient and administrative and financial information across facilities; and new incentive frameworks that link resource allocation or payments to the production of quality services and good health outcomes.

Perhaps the time has come to ditch commonly accepted dichotomies and embrace more cohesive delivery system approaches by putting patients’ needs at the core of our work.
While much of the health focus in sub-Saharan Africa has been directed toward communicable diseases, particularly HIV/AIDS, there has been less acknowledgement that non-communicable diseases (NCDs) are a growing problem. These diseases already account for about 30% of deaths and are expected to become the leading cause of ill health and death by 2030 (see chart [1]).

In a recent article [2] for the British Medical Journal, we focus on the complex health burden in sub-Saharan Africa, and ask how the region might respond to this challenge.

We argue that the long-term care needs of chronic diseases, both communicable (as more people benefit from antiretroviral drug treatment, HIV/AIDS is fast becoming a chronic condition) and NCDs, threaten to overwhelm fragile health systems, and propose three strategies to alter this course:

First, capitalize on the inter-linkages between conditions and on their common determinants. Not much attention has been paid to the extent that communicable diseases contribute to the onset of NCDs and to potential common interventions. Around one-third of cancers in Africa are infection-related; for example, human papilloma virus (HPV) causes cervical cancer, a leading killer of African women, and HPV-associated cancers occur more frequently in HIV infected people. Diabetes triples the risk of developing tuberculosis (TB) and is a common co-morbidity in people with TB.
Some interventions to prevent NCDs are straight out of the communicable disease toolbox. Immunization programs could be expanded to provide HPV vaccines for young girls and protect them against HPV types which cause 70% of cervical cancer cases. Collaboration with reproductive and sexual health programs could help raise awareness of early signs and symptoms of cervical and breast cancer and increase coverage of low-cost cervical cancer screening and treatment programs.

*Second, focus on common care needs, rather than disease categories.* Interest is growing in how the resources, experience and models used for communicable diseases, such as scale-up of antiretroviral therapy treatment for AIDS, and the DOTS Framework for TB, can be used for the benefit of NCDs, as well as in how chronic care models commonly used for NCDs can support HIV care and treatment.

*Third, capitalize on existing resources and capabilities.* There is potential for redesigning the delivery of services around multidisciplinary teams to facilitate task-shifting among personnel and bringing care closer to the patient. Other approaches include using common procurement and supply lines for getting essential drugs to remote clinics and scaling up the use of new technologies, such as mobile phones and integrated health information systems. Linking health spending decisions to adoption of clinical guidelines for service provision would encourage coordination of care and improve the quality of services.

Much of the illness burden and inefficient use of resources could potentially be avoided. But to do so, both governments and the international community need to prioritize building health systems that offer universal financial protection against the cost of ill health, along with improved access to quality services, to deal with the multiple health needs of the population, rather than only a few specific diseases.

An effective response should also include multisectoral actions (for example, higher excise taxes to make tobacco products less affordable) for dealing with disease-related risk behaviors in the entire population.
Reforming health systems: leadership matters

SUBMITTED BY PATRICIO V. MARQUEZ ON WED, 11/16/2011

I was in Tbilisi last week for the launch of Georgia’s new five-year health strategy, "Affordable and Quality Health Care," the first strategy since 1999. It’s a milestone in the country’s ambitious health reform program, summarizing what has been achieved, the challenges ahead, and options to address them. And more importantly, the strategy reflects the government’s commitment to continue redesigning the health system and improving the health status of the population through the adoption of multisectoral actions.

The Georgians should be proud. Since 2006, the government has radically transformed the health system, moving rapidly from a budget-funded direct provision of medical care in public facilities to subsidizing health insurance premiums for the poor. Private health insurance cum services providers, who are increasingly operating as integrated health management organizations, are delivering services in the benefit plan. The initial results are promising: Health insurance coverage has risen steadily from about 2 percent to 40 percent of the population, and out-of-pocket health care expenditures among the poor have been decreasing, particularly after a basic drug benefit was added to the health insurance plan.

You may say that the Georgian experience is nothing new because many countries across the globe have adopted or are adopting similar arrangements—and some countries have more to show. However, this experience shows us how unwavering leadership is a key to persevering on the sometimes rocky path of health system reform.

To be successful, health reform has to defined and supported as a social imperative and development priority, with the government’s full support. It’s not just the responsibility of a ministry of health. Indeed, to be fully realized, health reform should embody and express the social values of the country and its aspirations for economic and social development.
With that articulated vision guiding policy making, strategic planing, resource mobilization and funding, communication and engagement with the public, and the management of program implementation, it’s critical to have the capacity to stay the course, and develop and adopt heterodox approaches by engaging different stakeholders (as in the case of Georgia, private health insurance companies, foreign and local investors to modernize health services delivery infrastructure, regional and local authorities, physician associations, and civil society), as well as coordinated support from international and donor agencies.

Effective leadership also depends on the ability to be flexible in adjusting processes, investments and activities with new knowledge and experiences, without deviating from the broad vision. Flexibility is crucial but it must be backed up by evidence.

All of us working in international development should be mindful that more than simple technocratic solutions, effective and sustainable health reforms require specific leadership attributes. If we’re going to be effective in supporting health reform efforts, we need to see the big social and political picture and avoid getting lost in discussions and proposals that are not fully articulated or embedded in the social fabric of countries.
My recent work in Azerbaijan convinced me that reforming medical and public health education programs is critical to revamping clinical processes and public health practices for effective prevention, diagnosis and treatment of diseases and injuries. In this small Caspian Sea country, improving physicians, nurses and public health specialists' educational programs—which are hampered by outdated conceptual and methodological structures and practices—is starting to receive priority attention in the country’s quest to improve health system performance.

The challenge is shared globally, as different countries are struggling to sufficiently staff their health systems with well-trained, deployed, managed and motivated physicians and nurses to provide quality medical care, and competent staff to manage service delivery and carry out essential public health work such as disease surveillance.

With few exceptions, such as the 2010 Lancet commission report[2], medical, nursing and public health education reform has failed to appear in the international health agenda—yet we continue to focus on employment and remuneration of existing personnel. This has to change. Why? Simply because the adoption of and adaptation to local conditions of new knowledge, country experiences and good practices help accelerate social and economic development.
The extraordinary progress in medical knowledge during the last 50 years, coupled with the introduction of new technologies, drugs and procedures, and the promise of more profound and rapid changes in the future catapulted by the “genome revolution” and evidence from different disciplines, clearly point out that medical and public health education programs cannot remain static. They need to continuously change with these developments and serve as the “conduit” for channeling new knowledge to reform medical and public health institutions and practices.

Education reform requires well planned and systematic efforts. In Azerbaijan, the Ministry of Health and the State Medical University, with the support of the Royal Society of Medicine and Barts and London Medical School, initiated the revision of the fragmented medical education curriculum by defining aims, outcomes and structure of the whole program, for each year, and for core modules. The country is also adapting new learning and training materials in the local language; introducing laboratory training (e.g., bedside teaching, using equipment) to develop the clinical skills of students; replacing oral examinations with test-based assessments to objectively measure student performance; supporting training to improve the knowledge and teaching skills of professors; and introducing a national licensing examination for recent graduates to determine who is fit to practice medicine.

Similar efforts are underway for post-graduate medical training through the introduction of residency programs for specialists. In January 2011, a mandatory accreditation process began with the standardized, computer-based testing of practicing physicians for the issuance of medical licenses. The effort to reform medical education will need to be accompanied in the future by similar reforms in nursing and public health education.

It is too early to measure the impact of the education reforms in Azerbaijan, but other countries may do well by emulating this experience. And international organizations and donors need to support this effort not only to help ensure that future physicians and nurses, as well as public health specialists, are well prepared to tend the health needs of the population, but to sustain ongoing health care organization and financing reforms.

Are all medical procedures, drugs good for the patient?

Submitted by Patricio V. Marquez On Mon, 03/05/2012

When healthcare professionals take the Hippocratic Oath, they promise to prescribe patients regimens based on their “ability and judgment” and to “never do harm to anyone”.

Although extraordinary progress in medical knowledge during the last 50 years, coupled with the development of new technologies, drugs and procedures, has improved health conditions and quality of life, it has also created an ever-growing quandary regarding which drugs, medical procedures, tests and treatments work best.

And for policy makers, administrators and health economists, the unrestrained acquisition and use of new medical technologies and procedures (e.g., open heart surgery to replace clogged arteries, ultrasound technology scanners to aid in the detection of heart disease, and life-saving antiretroviral drugs for HIV/AIDS) is increasing health expenditures in an era of fiscal deficits.

In many countries, I’ve see how ensuring value for money in a limited-resources environment is not only difficult but requires careful selection and funding of procedures and drugs. It also comes with serious political, economic and ethical implications—and with new drugs and technologies appearing every day, this challenge isn’t going away. What should countries do?

As they look for new approaches to improve the access to and quality of medical and public health services while minimizing escalating costs, some are reviewing and adapting best practices for preventing, diagnosing and treating diseases and injuries. For example, the United Kingdom National Institute for Health and Clinical Excellence (NICE) appraises new drugs, medical devices and diagnostic tests before funding them in the National Health Service.

With the support of World Bank projects, countries such as Georgia, Romania, Turkey, Tunisia and Jordan are initiating similar efforts with the participation of NICE teams. In Georgia, for example, we helped develop clinical guidance for cardiovascular diseases. Colombia is also establishing structures to appraise drugs, and China and Russia are adapting evidence-based clinical guidelines to their specific institutional realities. And under the new U.S. healthcare reform law, as of 2012, the government is requiring health insurance plans to find out which drugs, medical procedures, tests and treatments are the most effective and efficient.

Countries should consider emulating these experiences because scientific evidence is not only a critical tool to improve treatment and spending decisions—it also helps build capacity to adapt new knowledge and technologies that ultimately benefit people.
How can we improve access and get more value from drug expenditures in Africa?

Medicines are key inputs for quality medical care and the prevention of disease, and when administered appropriately, as evidence from Sub-Saharan African countries shows, they can contribute significantly to reducing death rates due to conditions such as HIV/AIDS, tuberculosis, and malaria.

But it is also obvious that not everybody in these countries, particularly the poor, enjoys this benefit, since limited access to essential drugs remains a key challenge in most health systems. High out-of-pocket expenditures, typically more than 40% of total health expenditures in some countries (a large portion for outpatient drugs), also place a heavy burden on poor families with chronically ill members who require daily drug intake.

Facilitating effective access to essential medicines at an affordable price has been a long-standing aspiration of governments across the world. This challenge has become more acute nowadays given the negative impact of the global economic downturn on public budgets that constrain health spending and development aid.

I think that to effectively deal with this challenge, countries need to reinforce the adoption of an essential drugs benefit for the most prevalent diseases, ensuring that decisions about what drugs are included on essential drugs lists and likely volumes are costed, and that the full implications of listing every new drug are taken into account.

But where should additional resources come from to finance this benefit?

An obvious option is to redirect public expenditures toward long-term needs of social sectors such as health, and away from less productive categories of public expenditures (for example, general administration expenditures, or untargeted subsidies and transfers). Another promising option is to increase excise taxes on cigarettes to pay for the drug benefit and improvements in the supply chain for drugs. This option is not only consistent with the Framework Convention on Tobacco Control, which most countries in Sub-Saharan Africa have ratified, but also would have the effect of raising prices to make cigarettes less affordable, encouraging tobacco users to quit and contributing to a reduction in the high cost of treating tobacco-related chronic diseases in the future.

The adoption and implementation of stronger tobacco taxation policies in Sub-Saharan Africa to generate additional funds for health programs is indeed feasible, since 30 out of 46 African nations have a tobacco
How can we improve access and get more value from drug expenditures in Africa?

Taxation rate lower than 40% as compared to only 5 out of 53 European countries, or to some Latin American countries, where the rates range from 56% in Costa Rica, 65% in Mexico, and 76% in Chile. A good international example of the application of this option is the decision in February 2009 by the US Government to renew and extend the Children’s Health Insurance Program (CHIPRA) for low-income uninsured children, financed by a 62-cent per-pack increase in the federal cigarette taxes and other tobacco tax increases.

Some people may argue that this type of proposal will only aggravate an already bleak situation given significant evidence that government-provided drugs are stolen (usually by health workers) and sold on the open market, which makes it even harder for poor people to get access to them. Yes, that happens, and the problem is part of institutional weaknesses in the health sector in many countries. But at the same time, there is significant evidence of success stories in other countries.

So, besides adequate funding, it is imperative that ongoing efforts be supported to build resilient institutions and systems to facilitate access to and promote the rational use of medicines.

For example, in Nigeria, as recently reported in The Economist, the government has adopted measures such as a scratch-off label system that have reduced the flow of counterfeit medicines from around half to a tenth in five years. Stronger supply chains for lifesaving drugs—including hiring district-level planners to help manage orders and deliver drugs more efficiently—have proved very effective in Zambia, where pediatric malaria drugs, essential to save children’s lives, have become available in 88% of public health centers in pilot districts, nearly doubling the 51% availability rate in control districts.

Results presented at the 2012 Clinton Global Initiative, showed that in Tanzania, the Medical Stores Department (MSD), leveraging Coca-Cola's expansive distribution system and supply chain expertise, has reduced the delivery times for anti-AIDS drugs and vaccines in 10 rural regions from 30 days to five. Now, the initiative is going to be expanded to cover 75% of Tanzania and include Ghana and Mozambique.

Given the ever-growing number of drug therapies, the lack of access of many physicians to scientific information or enough technical knowledge for making a critical appraisal of new medicines, the adoption of clinical guidelines for specific diseases as done in Botswana is helping improve prescription patterns of physicians avoiding tendencies to overmedicate with little or no benefit for the patient. Equally important are methods to ensure adherence of patients to the prescribed drug regime, such as the directly observed treatment for tuberculosis, that helps prevent the development of drug resistance.

As the implementation of the universal health coverage agenda evolves across African countries, proper attention needs to be placed to ensure timely access to essential medicines taking into account international experiences and ongoing innovative efforts in the countries. The policy decisions that could be adopted in this area will be of crucial importance to improve resource utilization and generate better health outcomes.
In the late 1990s, an international consultant told me that a proposed electronic health information system in the Dominican Republic was “like Star Wars and will not work in this country.”

Our objective was to improve service delivery by virtually connecting health providers to share medical records with one another as patients moved from health centers to hospitals. We learned that this was much more than an overnight task, requiring a sustained medium-term effort by the government to get the system fully up and running.

In recent years, I’ve seen similar efforts realized in the Russian Federation, Georgia, Azerbaijan and Botswana. In two Russian regions, Chuvash Republic and Voronezh Oblast, for example, electronic records are helping coordinate the flow of clinical and financial information across the health systems as facilities, departments within hospitals, and health insurance agencies have been “virtually” connected
through broadband networks. The electronic records are supporting clinical decision-making, facilitating performance measurement and pay-for-performance initiatives, and ultimately the continuity of care as patients move across the health system. Inter- and intra-regional medical consultations and distance learning activities are also being supported by telemedicine networks that connect specialized hospitals with general facilities.

In Georgia, the Social Information Management System (SIMS) at the Ministry of Labor, Health and Social Affairs is providing consolidated automated information about all the registered beneficiaries (each with a unique identifier) of government-funded social programs. This has improved management of the Mandatory Health Insurance for the Poor (MIP) and other programs, such as pensions, means-tested targeted assistance, and internally displaced person allowance distribution, bringing transparency in the use of public funds.

In Azerbaijan, electronic case reporting forms, supported by geographic information systems, is helping track and fight, in real time, communicable disease outbreaks.

And in Botswana, the government has rolled out an electronic medical records system to all of the country’s main hospitals, and the country continues to improve the coding and reporting of health conditions and internet connectivity.

These examples from countries clearly show that in reshaping the global health agenda, we need to support the spread and local adaptation of health information technology and overcome the thinking that implementing this information and communications technology is beyond the capacity of countries at different levels of development.

The Star Wars movie saga was entertaining science fiction, but transforming health service delivery in countries is not. Helping deploy the power of electronic health records is not only environmentally friendly (less paper-based medical records), but it has the potential to transform the decision-making capacity and the quality of services in the health system of a country.
There is growing optimism in the development community that the dawn of the “African Century” may be upon us. The reasons for this optimism are real. Over the last decade, six of the world's 10 fastest-growing economies were in Africa, and substantial political and social progress has been achieved.

But I would say that the potential for this development may be undermined if the everyday tragedy of preventable maternal deaths continues unabated across the continent.

The recently-released report “Trends in Maternal Mortality: 1990 to 2010. WHO, UNICEF, UNFPA and The World Bank estimates” paints a dramatic picture. Overall, close to 60% of global maternal deaths occur in sub-Saharan Africa, and at 500 maternal deaths per 100,000 live births, the region has the highest maternal mortality ratio (MMR) in the world, well above Southern Asia (220), Oceania (200), South-eastern Asia (150), and Latin America and the Caribbean (80).

While Sierra Leone (890), the Central African Republic (890), Burundi (800), Guinea-Bissau (790), Liberia (770), the Sudan (730), Cameroon (690), and Nigeria (630) had very high MMRs, Chad and Somalia had extremely high MMRs at 1100 and 1000, respectively.

The data also show that for many sub-Saharan African countries it will be difficult and in some cases impossible to achieve the Millennium Development Goal (MDG) 5 target of reducing maternal mortality by 75% between 1990 and 2015. That is the case of countries such as Zambia (440) and Kenya (360) that show insufficient progress, or Zimbabwe (570) and South Africa (300), with no measurable progress over the last 20 years.

Although the MMR has started to decline in some countries, such as Botswana, Lesotho, Namibia, South Africa and Swaziland, due to the increased availability of antiretroviral drug therapy for HIV infected people, they are not expected to meet the MDG5 target. Equatorial Guinea, with an 81% reduction achieved by 2010, is the only African country that has already met the MDG 5 target.

The situation in the sub-Saharan countries was common in the United States, Australia, New Zealand, and continental Europe up to the late 1930s, when dramatic declines began to occur. This was due in large measure, according to a historical account by Irvine Loudon, to successive improvements in the quality of maternal care services, including the adoption of simple hygienic measures such as mandatory hand washing by doctors before patient examination and the use of antibiotics to prevent and control bacterial infections contracted by women during childbirth that were often fatal.
While vaccination, distribution of insecticide-treated bednets, vitamin A supplementation, and deworming, that help reduce child mortality, can be delivered according to a “predeterminate” schedule or “outside” health facilities, acute or emergency care services for dealing with pregnancy complications that in most cases cannot be predicted and prevented require a well organized and run health system.

So, if we heed the lessons from history, a renewed push needs to be placed on expanding the referral and emergency obstetric care capacity in the African health systems, including well trained, incentivized, and supervised teams of community health workers, midwives, nurses and doctors, to provide quality services to deal with direct obstetric complications, which occur around the time of childbirth and cause more than 60% of maternal deaths: hemorrhage, hypertensive disease, sepsis/infection, obstructed labor and other direct causes. Well funded and accessible voluntary family planning services would also contribute by reducing unwanted pregnancies and thus the risk of maternal death. And the development of accurate data systems is vital not only for keeping track of the number and causes of maternal deaths, but also for evidence-based policy-making and performance management and evaluation.

There are “demand” factors as well. Since care at the time of birth is crucial for saving mothers and newborns, reducing barriers that prevent pregnant women from going to health facilities, particularly in regions with poor road infrastructure, challenging terrain and limited transport options, cannot be ignored. Addressing these factors will require new approaches, such as innovative community transport schemes when ambulances are not available, alongside efforts at the community level to raise knowledge of maternal and newborn danger signs that often go ignored.

As the “African Century” evolves, sustained reductions in maternal deaths should be seen as a “critical marker” to gauge its progress and impact on improving the lot of society as a whole.
Closing health gaps for women: The Botswana story

SUBMITTED BY PATRICIO V. MARQUEZ ON TUE, 12/22/2015
CO-AUTHORS: SHEILA DUTTA

The World Bank Group’s new Gender Equality Strategy for 2016-2023, launched last week, addresses gender inclusion not just as a goal in and of itself, but one critical to development effectiveness. Closing health gaps for women and girls by expanding access to essential services is one of the strategy’s main objectives. It represents a critical call for supporting major innovations to strengthen health care organization and service delivery platforms, along with adequate funding allocations, to make health systems more fully responsive to the needs of women and girls, offering high-quality, comprehensive and readily accessible services.

Botswana’s recent effort to integrate service delivery for HIV and cervical cancer offers a good example of a promising approach to improve women’s health and reduce preventable deaths. Let us explain why.

Botswana is located in Southern Africa, which is widely regarded as the ‘epicenter’ of the global HIV epidemic. Girls and women of reproductive age have been severely affected by HIV, with a prevalence of 29.4%. Southern Africa also has the highest incidence of cervical cancer in the world, with rates exceeding 50 per 100,000 population and mortality higher than 40 per 100,000 population.
HIV-positive women are four-to-five times more likely to develop cervical cancer, a preventable condition that usually results from a viral infection by the human papillomavirus (HPV), which is generally sexually transmitted, and one of the leading causes of premature death and ill health among women in sub-Saharan Africa. The high mortality from cervical cancer reflects limited access to cervical cancer screening and timely treatment.

The government of Botswana’s comprehensive response to the HIV epidemic, particularly its commitment to the national anti-retroviral (ARV) treatment program, using mostly domestic funding, has made the country a leader in Africa’s HIV response. However, the long-term demands of Botswana’s HIV/AIDS epidemic have overstretched the capacity of the health workforce and created fragmentation in health system planning and service delivery.

In response to these challenges, the Botswana Ministry of Health (MOH) has embarked on an ambitious agenda to harmonize and align health planning, financing, service delivery, and monitoring and evaluation across the health system. The Ministry is also implementing a 10-year Integrated Health Sector Plan to address current and future health needs and explicitly shift away from a vertical approach to program planning and implementation.

As part of this more integrated approach, with initial assistance from the World Bank-funded National HIV/AIDS Prevention Support Project, the Pink Ribbon Red Ribbon Initiative of the G.W. Bush Institute, PEPFAR, and other partners, the MOH is supporting expansion of the national Cervical Cancer Control Program. Under this strategy, the HIV diagnostic and treatment platforms established across Botswana since the early 2000s are being leveraged to expand upon, integrate and scale up the “see and treat” cervical cancer screening approach, using a visual inspection acetic acid procedure and enhanced digital imaging, as well as cryotherapy, to destroy abnormal tissue in the cervix by freezing it.

Given resource limitations hindering the expansion of cytology-lab based screening, the “see and treat” approach has proven to be a cost-effective intervention to prevent cancer deaths in different countries, such as India and Thailand. As of June 2015, the program in Botswana had achieved 60% of its target coverage and had been expanded to eight sites, with two additional sites and two mobile clinics planned for the near future.

Building upon a pilot program in Gaborone, HPV vaccination for school-age girls was rolled out nationwide in 2015 as part of the Expanded Program for Immunizations under a joint MOH and Ministry of Education Skills and Development initiative. The vaccine was administered in all schools and health facilities.

As of June 2015, more than 90% of girls aged 9-13 years had been vaccinated against HPV. The HPV vaccine can prevent infection from HPV types that are responsible for 70% of cervical cancer worldwide and also protects against types that cause anal and genital warts.

Sustainability of the integration strategy requires that regular MOH budgetary allocations be maintained and improved to ensure continuity of Botswana’s relatively high cervical cancer coverage screening and HPV vaccination rates, along with diagnosis and treatment of HIV and other sexual
transmitted infections. Support is also needed to facilitate geographical expansion of service coverage in rural districts with low population density, using mobile health units already employed to support the safe male circumcision outreach program.

Cervical cancer data collection in health facilities also needs improvement, through using revised data collection forms and integration within the new national electronic health information system.

Proposed incorporation of HPV DNA testing into the mobile health program would streamline cervical cancer screening. Essentially, this new technology would be used to screen out the 80-85% of women who would test negative for HPV DNA and consequently enable greater focus on the 15-20% who are at risk.

The Botswana experience of integrating cervical cancer control into HIV service delivery platforms has the potential to have a transformational impact in closing a major health gap for women and girls by maximizing the use of available resources. It also shows the power of leveraging and expanding partnerships with different actors to improve health outcomes.

Based on the government’s high level of commitment to this effort, we are confident that the health services delivery integration strategy will go a long way to save women’s lives and improve gender equality.

*Follow the World Bank health team on Twitter: [@WBG_Health](https://twitter.com/WBG_Health)*
I was glad to read the announcement[1] made by World Bank President, Dr. Jim Kim, at the start of this year’s UN General Assembly meetings, about the Bank’s projected financing support through the end of 2015 to help developing countries reach the Millennium Development Goals [2] (MDGs) for women and children’s health. As we move toward the culmination of the MDGs in 2015 and beyond, preventing maternal and child deaths should be seen by all government delegations and their partners in the international development community as a clear yardstick to measure their commitment for creating more just and inclusive societies.

But as evidence has shown across the globe, to effectively address the insidiousness of this challenge, a broad multi-sectoral paradigm for action is needed. In some countries, particularly in resource-poor settings and among certain population groups, there are social and cultural norms that need to be better understood to deal with myths and misconceptions surrounding pregnancy, childbirth and proper care of the newborn. There are also geographical barriers, as in rural communities high in the Andean mountains of my native Ecuador, or in the Caucasus mountain range in Georgia and Azerbaijan, where the poor state of roads in a challenging terrain, or the unavailability of transport to a health facility, contribute to preventable maternal deaths.

Since in most cases pregnancy complications cannot be predicted, a well-run health system organized around a care continuum—from prevention and diagnosis to care and rehabilitation, and without the hindrance of financial barriers to those in need, is an essential mechanism that needs to be in place to deal in a timely fashion with direct obstetric complications. Such complications cause more than 60% of maternal deaths and include hemorrhage, hypertensive disease, sepsis/infection, and obstructed labor.

What happens inside a health facility is of utmost importance in saving lives, beginning with the availability of trained and motivated staff to render needed services around the clock and essential drugs and blood products; adherence to basic quality standards, such as mandatory hand washing by doctors or nurses before patient examination; administration of safe blood transfusion in case of hemorrhage; and proper management of obstetrical and newborn complications such as eclampsia, asphyxia, and sepsis, which are often fatal if not promptly treated.

The power of modern technologies can also be harnessed to improve maternal and child health. As I recently learned in Ghana, an initiative by Mobile Technology for Community Health (MoTeCH) and the Grameen Foundation, piloted in the Upper East Region and now being replicated in the Central, Greater Accra and Volta Regions, is allowing women with limited literacy skills to be informed in the local language about the “do’s and don’ts” in pregnancy and childbirth. Women also receive reminders on clinical appointments, due dates, and required medication and immunization through their mobile phone.
This technology enables women, their partners and families, to recognize the signs of life-threatening complications during pregnancy and empowers them to seek immediate care. Other applications allow community midwives and nurses to provide rapid response and care and to follow up with health service defaulters in the community.

Building upon agreements made at the 2012 London Summit on Family Planning, and follow-on discussions expected in Addis Ababa in November 2013, added impetus should be given to ensure well-funded and accessible voluntary family planning services as another essential but integrated tool to reduce unwanted pregnancies, unsafe abortions, and the risk of maternal death.

It is clear, as noted by Dr. Kim and colleagues in a recent article [3] in The Lancet, that the end of extreme poverty will require sustained investments to improve health care delivery. It should be obvious to all of us working in global development that a critical step toward that goal should be the revamping and acceleration of efforts to make maternal mortality a rare event, rather than a daily occurrence across the world. To paraphrase the great Nelson Mandela, the keener revelation of a society’s soul is how it treats its women and children.
Measles cases in U.S. highlight need to eliminate vaccine-preventable diseases everywhere

The news media in the United States and abroad has been abuzz in recent days focusing on the measles outbreak at Disneyland. The irony of this situation is that measles, after being officially eliminated in the United States in 2000, reappeared in 2014 with 644 cases in 27 states as reported by the US Centers for Disease Control and Prevention (US CDC). The reason is simple: while in the 1980s, more than 97% of one-year olds in the United States were routinely vaccinated, the current share has fallen to 91%, facilitated by exemptions in some states that permit parents to “opt out” of vaccinating children on the basis of religious or personal beliefs. In other parts of the world, continued measles outbreaks in Europe, sub-Saharan Africa and Southern Asia have also occurred due to weak routine immunization systems and delayed implementation of accelerated disease control.

Unfortunately, these outbreaks are hindering the momentum and the significant progress achieved in controlling and eliminating measles across the world under the combined support of governments and the international community, particularly the Bill & Melinda Gates Foundation, Rotary International, and Gavi, the Vaccine Alliance. Indeed, as documented by the United Nations, between 2000 and 2009, global coverage with the first dose of measles containing vaccine (MCV1) increased from 72% to 84%, but then stagnated at 84% between 2009 and 2012.
I think that the implicit social contract that governs our lives in a society demands that we as a collective and as individuals adopt and adhere to measures that minimize risks, particularly public health risks, that have the potential to harm others. Taking such measures is important not only within each country, but across countries, since infectious diseases do not need passports or visas to spread, infect and wreak havoc among unsuspecting populations.

The evidence presented in a study by British researcher Andrew Wakefield, which linked autism and the vaccine for measles, mumps and rubella—did not withstand scientific scrutiny. On the contrary, decades of scientific evidence and results on the ground clearly support the claim that efficacious vaccines not only protect those who have been immunized, but can also reduce the risk of disease among unimmunized individuals in a community through “herd immunity”, the indirect effect of conferring protection from viral transmission to children who are not immunized because of weakened immune systems.

Indeed, global improvements in routine coverage among children who received the first dose of the measles vaccine, and the efforts to vaccinate children outside the reach of existing health services, have contributed to the decline in measles deaths by more than three quarters in the past 12 years, from 562,000 deaths in 2000 to 122,000 in 2012, mostly among children under five years of age.

We should be clear that because of immunization and efforts to facilitate greater access to safe water and basic sanitation, improve hygiene and nutrition, and deliver basic public health services, including essential drugs, people across the world have now a better chance of living longer, healthier, and productive lives.

I am hopeful that the latest measles outbreak in the United States and the heated political debate that it has generated will help galvanize and reinforce the momentum to eliminate in countries vaccine-preventable diseases such as measles by immunizing at least 90% of the population through the application of two doses of a safe, effective and inexpensive vaccine. The added benefit of administering a combined measles, mumps and rubella (MMR) vaccine could be the elimination and eventual eradication of rubella and mumps, two other dangerous childhood illnesses. Also, let’s hope that it helps to strengthen the commitment of governments and the international community to support and accelerate the effective implementation of the Polio Eradication and Endgame Strategic Plan 2013–2018 in the few countries where transmission of polio (types 1 and 3) persists.

While elimination and eradication requires high levels of population immunity in all regions of the world over a prolonged period and adequate disease surveillance systems in place, we should not despair thinking that it is a long shot. History is full of examples that show that the achievement of such goals is possible if political commitment, the alignment of resources, and determined efforts converge around a common objective. Indeed, as told by Dr. William Foege in “House on Fire”, his memoir about the fight to eradicate smallpox in the 1960’s and 1970s, well-structured and supported programs such as the one for smallpox eradication show that “humanity does not have to live in a world of plagues, disastrous governments, conflict, and uncontrolled health risks” because “the coordinated action of a group of dedicated people can plan for and bring about a better future.”

Follow the World Bank Health team on Twitter: @WBG_Health
Recently I was part of a panel at an international symposium on Integrated Community Case Management (iCCM) that was held in Accra, Ghana, and hosted by UNICEF and other organizations, including the World Health Organization (WHO), U.S. Agency for International Development (USAID), Gates Foundation and Save the Children. The goal of the panel was to consider the role of partners in sustaining iCCM, in particular in supporting countries and their governments to scale up, deliver and fund iCCM.

The group agreed that iCCM helps increase access to treatment to those beyond the reach of health facilities and has the potential to more equitably address the main causes of child mortality such as pneumonia, malaria and diarrhea. iCCM also offers a way to deal effectively with other conditions such as neonatal infections, child malnutrition and neglected tropical diseases, like onchocerchiasis. In the iCCM model, community health workers (CHWs) are identified and trained in diagnosis and treatment of key illnesses and also in identifying those in need of immediate referral to health facilities and specialized personnel.

In looking forward to the post-2015 MDG period, the critical questions on everyone’s mind are: How can iCCM be scaled up in a way that ensures quality of service and increases demand? How can we assess the costs and evaluate the impact of such strategies to ensure that we are best supporting progress on child mortality and balancing needs with other pressing challenges such as malnutrition and maternal mortality.
As I noted in my comments during the Ghana panel, rather than a “vertical strategy”, iCCM should be seen as key component of an integrated health response to the multiple health needs of the population along an interconnected continuum: from health promotion, disease prevention, treatment and care, to rehabilitation.

The use of community platforms and CHWs can also be leveraged as part of intersectoral approaches to tackle the social determinants of health (e.g., poor living and working conditions, lack or limited access to basic services), behavioral and biological risk factors (e.g., smoking, alcohol abuse, high blood pressure), and cultural misconceptions about health problems that influence the risk for, or vulnerability to, both communicable and non-communicable diseases and injuries.

Integration of iCCM within broader systemic arrangements requires additional effort at the policy level. If one takes into account iCCM benchmark components (coordination and policy setting; costing and financing; human resources; supply chain management; service delivery and referral; communications and social mobilization; supervision and performance quality assurance; and monitoring, evaluation and health information systems), it is clear that institutionalization is key. That is, the scaling up and sustainability of iCCM requires that it becomes institutionalized, or fully incorporated into national priorities, policies, and programs, with corresponding funding and capacities to sustain it.

Institutionalization of iCCM also requires evidence-based frameworks to conduct a more systematic look at questions such as: How are the interventions in “health packages” selected? How often are the analyses updated? Are local data used? What are the innovative service delivery models that leverage both internal and external actors and resources that should be replicated? How are decisions reached based on evidence, and how is that evidence translated and adapted to specific institutional, cultural and fiscal realities of the countries?

So, where does iCCM fit with regard to the current and future drive to move towards universal health coverage, which the World Bank is strongly championing? The answer is simple. First, iCCM is a critical strategy to achieving equity objectives—for reaching the last 20% of people in remote regions or areas, or in refugee camps, that are hard to access due to poor roads, lack of transport and infrastructure, civil unrest or conflict.

Equally important, the institutionalization of iCCM can contribute over the medium term to sustain access to a continuum of services to poor and vulnerable population groups, particularly in rural and peri-urban areas, to offer both disease prevention interventions such as mass drug administration, alongside distribution of bed nets, micronutrients, or chemotherapy for seasonal malaria, and refer them for treatment of diseases and their co-morbidities.

Follow the World Bank health team on Twitter: @worldbankhealth
In recent days, the media in Ghana have been abuzz with news about the government’s decision to scale up the capitation system as another method for paying health care providers under the National Health Insurance Scheme (NHIS). The Upper West, East and Volta regions of the country are included in the second phase of the capitation scale-up, which was piloted in the Ashanti Region, where the majority of affiliates and providers are reported to have expressed satisfaction with this system.

Why all this buzz? Capitation is another innovative payment instrument being introduced by the NHIS for a defined package of services. Ghana plans to cover 22% of the services paid under the NHIS through capitation, while serious health cases which need referrals would be reimbursed under the Ghana Diagnosis Related Grouping payment method.

Differing from traditional fee-for-service systems, which tend to encourage more consultations, diagnostic tests, over-prescription of drugs, higher surgical rates, and higher costs, capitation offers a vast array of incentives for providers to increase efficiency in their medical practice, since they must absorb any additional cost if they exceed the fixed amount that is allocated per person.

However, capitation on its own may compromise quality through under-provision of services. The experience of other countries that have adopted this method of payment suggests that a strong regulatory system of quality controls and audits coupled with a reliable information system are needed to help realize capitation’s promise of controlled costs without limiting needed care.
The good news is that the Ghanaian NHIS is making progress on both fronts. The scale-up of capitation, along with a biometric registration system for the instant issuance of membership cards, e-claims system, medical quality audits, and robust information systems are part of the NHIS’ arsenal in its quest to expand coverage (half of the population is already enrolled), ensure quality in the provision of care, and contribute to the financial sustainability of the scheme.

The media coverage reflects different points of view about the merits of the capitation system. This is a good omen, since successful implementation of this initiative will depend in large measure on the education, understanding, assessment, and ownership by policymakers, service providers, insured Ghanaians, and the population at large, rather than by a select group of technicians.

I saw something similar while working in Chile in the 1990s, when the new government introduced similar payment mechanisms in the health system. There, wide societal ownership of policy initiatives -- rooted in consultation, open debate, and informed choices -- helped ensure the political and institutional sustainability of the reform process. Learning from pilot experiences, before nationwide scale-up of policy and institutional instruments, is another important measure that has helped to validate and adjust instruments and has guided decisions in many countries on the basis of collected evidence and experience gained.

The roll-out of capitation in Ghana also offers the opportunity of linking public health and clinical guidelines to payment, and hence helping evidence-based medicine become part of current practice and everybody’s business (including payers), rather than just an academic endeavor of a few top clinicians.

The policy and institutional measures being rolled out by the NHIS are consistent with good practices at the international level. Data and information from close monitoring and evaluation of the implementation experience will be essential to provide much needed local evidence on what is working well and what needs further modifications to guide the process forward and make adjustments along the way.

At the end of the day, these initiatives are about building health systems as opposed to advocating solely for individual diseases—both are part of the same coin. It is also about developing organizational incentive structures rather than solely incentivizing individual providers. Indeed, the system-wide measures being adopted in Ghana are steps within a framework of “progressive universalism” to facilitate opportune access to health services and financial protection, as recommended by The Lancet Commission’s Global Health 2035 investment framework.

Follow the World Bank health team on Twitter: @worldbankhealth
As a newcomer in my new post in Accra, I am starting to learn about Ghana’s achievements and challenges. I have been impressed with some innovative policies and measures adopted to address difficult development challenges in the social sectors.

This week the country is celebrating the 10th anniversary of the National Health Insurance Scheme (NHIS). This scheme is mandatory for all residents and largely funded from general tax revenues and a specifically levied *ad valorem* tax* on goods and services. The enrolled beneficiaries are entitled to receive a broad package of services covering 95% of the disease burden. While many challenges remain for achieving the universal health coverage goal, the institutional building blocks are firmly in place to continue to improve and innovate for providing financial risk protection to the Ghanaian people against the impoverishment impact of out-of-pocket health care expenditures.
The celebration is justified as a lot has been accomplished in a short period of time. Since its establishment in September 2003 following a series of pilots in different districts, many policy and institutional measures have been launched to support the growth and expansion of coverage from a membership base of 1.3 million in 2005 to 9 million in 2012 (about 35% of the total population).

Some of these measures merit highlighting, such as the development of an ICT platform in 2007, the introduction of the Free Maternal Program in 2008, the development of a formal accreditation system for service providers in 2009, the institutionalization of a clinical audit system to improve patient care and outcomes, the establishment of the Claims Processing Center in 2010, and the creation of a Call Center in 2012 to facilitate the interaction with the members of the scheme.

And currently, the National Health Insurance Authority, which runs the scheme, is rolling out an instant ID card regime with biometric registration that includes details such as fingerprints and pictures for efficient authentication of members at health facilities to prevent fraud and abuse. Also, arrangements are underway to undertake electronic claims processing to pay services providers on time, introduce uniform prescription forms, and review capitation as a provider payment mechanism.

As the scheme evolves into the future, a widely acknowledged critical challenge is how to accelerate the enrollment of the rest of the population, particularly the poor and vulnerable, so that the universal health coverage ideals are realized, but in a manner that ensures the financial sustainability of the scheme. It is expected that after the successful completion of the pilot project to register new beneficiaries onto the NHIS and to process membership renewals biometrically that began in mid-2013 in two districts, Ayawaso and La, in the Greater Accra region, a nation-wide scale-up of this exercise will follow. While this measure will help increase population coverage, the long term sustainability of the scheme would perhaps require a broader discussion on the content of the benefits package, measures to promote the rational use of drugs, and possible complementary funding sources. With the expansion of coverage, a concerted effort to improve the supply of quality health services across the country would also be required—from infrastructure and technology improvements to medical care delivery in accordance with evidence-based norms and guidelines that promote integrated health service arrangements along a care continuum. Equally important to the registration of new beneficiaries, particularly the poor, would be the need to inform and educate the public about the benefits of the scheme (e.g., the free maternal care services) so that they can be motivated to register and be empowered with an informed “voice" to demand good services from providers.

While a good share of problems and challenges exist, Ghana’s experience has a lot to offer to other countries still struggling to find a path towards universal health coverage. So, a warm “happy birthday" to the Ghana NHIS is amply deserved.

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*Any tax imposed on the basis of the monetary value of the taxed item
Taking the pulse: The evolving health public-private partnership in Lesotho

SUBMITTED BY PATRICIO V. MARQUEZ ON MON, 03/05/2012

Jean J. De St Antoine and Kanako Yamashita-Allen are co-authors of this post.

During a recent visit to Maseru, we met with staff at the 425-bed Queen ‘Mamohato Memorial Hospital which opened in October 2011 and at one of three primary care clinics that have been running since 2010 as part of a Ministry of Health (MOH)–led public private partnership (PPP). The PPP aims to facilitate access to quality health services in a poor country.

The facilities operate as an integrated health network that provides services following a “continuum of care” approach, not only to the people of Maseru, but the hospital, as a national referral facility, also receives patients from the rest of the country. No fees are paid in the clinics except for dentistry and radiology. Fees collected at the hospital are in line with the MOH’s fee schedule used in all public facilities in the country. Fees are transferred to the MOH per existing national policy and do not fund the operation of the network.

Besides modern physical infrastructure and equipment, well-developed managerial systems connect the facilities providing unified goals, operational norms and incentives. While the overall budget, human resources and procurement of supplies are centralized under the hospital’s Operations Director, decentralized decision making and management guide the day-to-day operation of the clinics. And continuous training helps strengthen the knowledge and skills of doctors, nurses, and administrative personnel (training is also held periodically for medical staff from other facilities in the country).

Clinical guidelines help doctors and nurses make decisions on the services that are provided, when to refer patients to the hospital, and what drugs to prescribe. The ongoing development of computerized health information systems will further strengthen coordination of care across facilities by facilitating the online flow of patient information.

Quality control measures, including performance assessment of doctors and nurses, are also in place. Team rewards (e.g., vouchers for selected staff) are linked to the achievement of service and client satisfaction targets. The quality of clinical and non-clinical services is measured on a quarterly basis by an independent monitor, with penalties levied for non-compliance and actions agreed with Government for improvement.

Information provided by the staff shows high level of patient utilization of the clinics. The hospital is operating at an occupancy rate of 70% and the average length of stay is about 5 days showing that proper coordination of care between the clinics and hospital reduces the need for lengthy and costly hospitalization (e.g., lab exams could be done in the clinics prior to admission to the hospital). The hospital is also seeing a greater survival of low birth weight babies due to availability of equipment and appropriate care. A 2011 survey showed that 75% of patients are satisfied with services received.
There are challenges. Managing a PPP contract is difficult, particularly to ensure that stipulated volume and quality of services in the contract are met. This requires that the government’s capacity to manage the PPP be continuously strengthened.

At the end the visit we were not only impressed with what we saw and learned, but left with a feeling that the Lesotho PPP experience as it evolves further may offer some lessons that could be adapted to the specific reality of other countries considering health PPPs.
Restructuring Regional Health Systems In Russia

Patricio V. Marquez and Nadezhda Lebedeva

Key Messages

- The delivery of health services in Russia is a federal, regional and municipal responsibility. Reform of the regional health systems - which suffer from over-reliance on curative and inpatient care, deteriorating infrastructure and equipment, and poor quality of services - is a major challenge for the country.

- From 2003-2008, the World Bank helped strengthen the stewardship capacity of Russia’s Federal Ministry of Health and Social Development (MOHSD) and restructure health systems in two pilot regions: the Chuvash Republic and Voronezh Oblast.

- In both regions, hospital bed numbers were reduced while simultaneously increasing service delivery capacity at the primary care, specialized ambulatory, and long-term care facility levels through the introduction of new technologies, clinical protocols, and resource allocation mechanisms that link payments to performance.

The Context

After the dissolution of the Soviet Union in the early 1990s, Russia inherited a publicly-funded health system that promised universal access to comprehensive services. The system was fragmented and financially unsustainable, characterized by over-reliance on curative and inpatient care, with incentives that encouraged providers to hospitalize patients for lengthy periods. Underfunding of the health system over the last two decades further contributed to the deterioration of infrastructure and equipment, poor quality of services, and escalation of out-of-pocket payments by patients. The system is not adept in responding effectively to the health needs of the population, particularly due to the high prevalence of non-communicable chronic diseases such as cardiovascular diseases, cancer, and injuries, which are the leading causes of ill-health, premature mortality and disability in the country.

The delivery of health services in Russia is a federal, regional and municipal responsibility, carried out in accordance with federal and regional regulations and funded through multiple sources (for example, the federal budget and transfers, regional budgets, and health insurance). The reform of regional health systems is a major challenge for the country.

From 2003-2008, the World Bank supported the MOHSD’s Health Reform Implementation Project (HRIP) which restructured the health systems in two pilot regions southeast of Moscow: the Chuvash Republic and Voronezh (with 1.28 and 2.27 million population, respectively), at a total cost of US$ 41 million. The Chuvash Ministry of Health and the Voronezh Department of Health managed the implementation of the reforms.

Reform Components

Master Plan for Health System Restructuring:
Comprehensive plans were prepared in the two regions on the basis of detailed assessment of needs and options for streamlining health care organization and financing. Lessons from international experience were incorporated into the plans. The aim of the reform was to improve access to quality health care and ensure financial sustainability of the system by shifting from inpatient to outpatient services and from specialist to primary care.

The plans were formulated in accordance with the federal government’s strategies and approved at the highest political level in the regions - by the cabinet of ministers and president in the Chuvash Republic, and by the local parliament and governor in Voronezh. The plans were

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1 This Knowledge Brief takes into account the findings of the Implementation Completion Report of the Russia Health Reform Implementation Project prepared by Anne Bakilana in December 2009, on the basis of a report prepared by the Russian Health Care Foundation and regional agencies. Peer review comments were provided by J.P. Uribe, C. Lovelace, J. Langenbrunner, and P. Belli, World Bank, and Kalipso Chalkidou, UK NICE.

 endorsed by the MOHSD, and US$20 million from the HRIP was channeled to support their implementation, complementing regional and federal allocations. The Canadian International Development Agency (CIDA) funded technical assistance activities in the Chuvash Republic and the delivery by the World Bank Institute of a training program on health reform in both regions.

Stewardship: Policy and regulatory instruments (for example, standards, manuals, and licensing methods) were developed at the MOHSD to guide the restructuring of regional health systems across the country in accordance with disease profiles, geographic conditions, institutional capacity, and resource constraints in each region. About 500 disease management protocols were produced on the basis of available clinical evidence to improve the process of care in health facilities. The health workers’ remuneration system was restructured and related regulations adopted. A national health accounts system was developed and fully institutionalized at the MOHSD and in the regions to monitor financial flows and uses across the country.

Health Care Organization and Service Delivery: The master plans defined investments to be made in infrastructure, medical equipment, information systems, and training. Emphasis was placed on increasing the capacity at the primary care level while gradually substituting hospital care with outpatient services.

The primary care network was strengthened with the construction of new centers and repair of existing facilities. Investments in modern equipment helped improve diagnostic and problem resolution capacity.

The scope and scale of primary care services were also modified and expanded. The tripartite polyclinic system - which provides services separately for adults, women and children - is being gradually and partially replaced with unified general/family medicine practice units that provide services for the whole population. These units, which are staffed with general practice physicians, nurses and auxiliary personnel, are now responsible for the care of patients within defined geographical catchment areas (e.g., in Voronezh, each unit is responsible for 2,500 persons in rural areas and 1,700 persons in cities). In addition to curative services, the units also focus on health promotion and disease prevention, emphasizing the use of primary care physicians as gatekeepers to specialists and other medical resources, and continuity of care - the latter is particularly important for the management of chronic illnesses.

Innovative ambulatory approaches to health services delivery were also introduced - such as, day-care centers for outpatient diagnostic, surgery and rehabilitation services. Modern medical equipment (e.g., video-laparoscopic equipment, arthroscopic and anesthesia equipment) was procured to expand outpatient surgery. The setting up of inter-municipal centers is helping minimize the duplication of investments for costly specialized medical equipment and facilitating the rationalization of health care organization.

The population covered by general practice units has increased significantly in both pilot regions (Figure 1). In 2010, the Chuvash Republic and Voronezh were ranked among the top three regions in the Russian Federation, as measured by the number of general practitioners per 100,000 population (the other region is Samara). The emphasis on the gatekeeping role of general practitioners, with care continuity, is already bearing fruit, with reduced cases referred to specialists. In the Chuvash Republic, referral to specialists declined from 8.7% in 2003 to 2.3% in 2008.

Medical facilities were reorganized, and in some cases merged, to reduce excess hospital infrastructure and bed capacity. Some hospitals were converted into long-term care facilities. As a result, the number of hospitals was reduced over 2003-2008: in the Chuvash Republic by about 43% and in Voronezh by 54% (Figure 2). Similarly, the number of 24-hour hospital beds was reduced in the Chuvash Republic by 18% and in Voronezh by 20%. By 2008, the availability of hospital beds (except for psychiatric and tuberculosis patients) in the Chuvash Republic stood at 84 beds per 10,000 population, down from 100.7 per 10,000 in 2003.

Reflecting the increased reliance on ambulatory facilities, the number of day-care beds out of the total number of beds increased from 9% to 21% in the Chuvash Republic, and from 7% to 18% in Voronezh over 2002-2007. In Voronezh, the number of patients treated in day-care facilities increased by 79% during this period, and in 2008, 40% of surgeries were done at ambulatory centers. Hospital
admissions also decreased during this period (e.g., in Voronezh City, by 12%). All these improvements in health organization and service delivery also resulted in shorter average length of stay in hospitals, albeit at a still high level. In the Chuvash Republic, the average length of hospital stay was reduced from 13.2 days in 2002 to 12.1 in 2008; in Voronezh from 13.5 to 11.8 days. These figures are below the average for Russia, which is 13.6 days. This trend stands when disaggregating data by type of service: in Voronezh, the average occupancy rate of cardio-surgery beds declined from 13.8 days in 2002 to 10.1 in 2008.

In both regions, the pre-hospital emergency medical services were revamped by:

- Upgrading the communication systems, putting in place a single system for emergency calls (e.g., in the Chuvash Republic, by dialing ‘112’), and establishing 24-hour ambulance dispatch centers;
- Modernizing the ambulance fleets by stocking them with essential equipment and drugs, radio connections and cellular telephones, and satellite geo-positioning systems;
- Providing training on basic and advanced life support services to improve knowledge and skills among paramedic and medical personnel; and
- Making triage arrangements to determine the order and priority of emergency treatment, transport and destination for patients.

This contributed to a timely response to emergency calls and improved quality of services. The average response time for 86% of emergency calls in the Chuvash Republic declined from 20.9 minutes in 2006 to 13.5 minutes in 2008, lower than the average of 25 minutes for all of Russia. Similarly, in Voronezh, 83% of emergency calls were attended to within 15 minutes of being received.

Health Information Systems: Investments were made in health information systems to coordinate the flow of clinical and financial information across the health systems in the two regions. Health care facilities, units within facilities, and regional health agencies are now “virtually” connected through broadband networks. Electronic health records, which collect data at the point of service, support clinical decision-making and facilitate performance measurement. Inter- and intra-regional medical consultations and distance-learning activities were supported by establishing telemedicine networks. In Voronezh, consultations using videoconferencing increased by 381% over the 2003-2008 period.

**Figure 2. Number of hospital beds by region, 2002-08**

<table>
<thead>
<tr>
<th>Year</th>
<th>Chuvash republic</th>
<th>Voronezh oblast</th>
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<tbody>
<tr>
<td>2002</td>
<td>106</td>
<td>175</td>
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<tr>
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<tr>
<td>2008</td>
<td>61</td>
<td>80</td>
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</tbody>
</table>

*Source: Ministry of Health of the Chuvash Republic and Voronezh Health Department.*
Human Resources: Retraining of medical personnel and training of new general practitioners and nurses were done in regional institutions such as the Voronezh State Medical Academy, and outsourced to leading centers such as the Family Medicine Department of the St. Petersburg Medical Academy. An indicator of training quality is the share of certified physicians and nurses: in Chuvash Republic, certification increased by 29% among physicians and 55% among nurses over the 2002-2008 period.

Managerial capacity was strengthened at all levels of the system through the provision of training in health policy and management, and health economics and finance, to implement and sustain the reforms.

Health Finance: The Chuvash Republic adopted “a single payer system” of health finance, pooling all funding sources (regional and municipal budgetary allocations for the non-working population, and health insurance contributions from employers and employees) under the management of the regional health insurance scheme. This has helped eliminate administrative duplication in the management of health financing (previously, certain services were funded using budgetary allocations managed by regional and municipal entities and others were funded by the regional health insurance agencies), and increased flexibility in the allocation of funds between services.

Major changes were also introduced in the payment methods for general practitioners and services provided at the facility level. In the Chuvash Republic, primary care facilities now remunerate general practitioners using contracts that include fixed salaries with variable monthly payments. These payments are based on the attainment of program targets as measured by 30 indicators – e.g., population coverage for priority services such as vaccinations or cervical cancer screening, and reduction of maternal and infant deaths. A similar arrangement was adopted in Voronezh. In both regions, 100% of general practitioner physicians now work under performance-based contracts. These payment modalities have helped general practitioners achieve remuneration levels that are 25% higher than salaried doctors, and regional authorities are able to attract and retain trained personnel in peri-urban and rural areas.

For services provided at the facility level, a new reimbursement system was introduced in the Chuvash Republic. It combines fixed tariffs and bonuses that vary in accordance with the performance of doctors and nurses in different types of facilities, as measured by process and outcome indicators (e.g., compliance with treatment protocols, unjustified hospital admissions, and post-surgery complications).

Resource allocation has improved in both regions, with substantial increases in the resources channeled to primary care and outpatient services and a proportionate decline in funding allocated to hospital services due to the reduction in the number of hospitals and 24-hour beds. Spending on primary health care as a percentage of total health expenditure rose in the Chuvash Republic from 31% in 2002 to 46% in 2008, and in Voronezh from 42% in 2002 to 53% in 2008.

Health Promotion: In parallel to the restructuring of the medical care system, both regions are implementing health promotion strategies to modify the health risk factors of their populations (e.g., information and education campaigns on the negative effects of smoking and alcohol abuse, promotion of physical activity and healthy diet, and mandatory use of seat belts to prevent traffic fatalities and injuries).

Conclusion

The experience of the Chuvash Republic and Voronezh has been disseminated in federal and regional forums within Russia. It provides evidence that it is possible to effectively restructure the regional health systems in the country. A critical lesson from the experience is that successful reforms require holistic and well-sequenced approaches, based on detailed plans for investment in institutional and human resource development. Partial reforms produce imbalances. In both regions, reducing the numbers of hospital beds made it necessary to increase service delivery capacity at the primary care, specialized ambulatory, and long term care facility levels by redesigning the process of care through adoption of new disease management protocols, introduction of modern medical equipment to improve the diagnosis and treatment of patients, development of information systems to coordinate the flow of data and information across levels of care and within facilities, training of personnel, and resource allocation mechanisms that link payments to performance.

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Battle Against Tuberculosis: Some Gains in Russia

Patricio V. Marquez, Wieslaw Jakubowiak, Dmitry D.Pashkevich and Vladimir A. Grechukha

Key Messages

- About 1.1 million people, or almost 0.6-0.7% of the population in Russia, developed TB between 1995 and 2004.

- Russian TB control practices were highly centralized, relied heavily on mass X-ray screenings and were not effective in controlling the increasing numbers of TB cases.

- From 2003-2008, the World Bank, in coordination with the World Health Organization (WHO) and other international partners, supported the implementation of the TB/AIDS Control Project in Russia. The Project covered 79 of the 83 regions across Russia, strengthening both the civilian and prison health systems. Project activities supported the implementation of the WHO-recommended “Directly Observed Treatment Strategy” (DOTS) for TB control.

- Since 2004, notifications of new TB cases in Russia have stabilized. TB mortality in the general population has decreased by 25% and among prisoners by 35%.

The Challenge

Tuberculosis (TB), a disease that infects the lungs, is spread from person to person through the air. It tends to manifest itself in situations of high social stress, poor nutrition, and low levels of immunity. If not treated, TB can be fatal.

Across Russia, the deep socio-economic crisis of the 1990s and early 2000s provided fertile ground for the spread of TB. Indeed, as noted, “People who were already living very precariously saw their real incomes drop by 25% to 30% at a time when government spending was also falling.” As a result, social and health conditions deteriorated, and TB spread rapidly. Russia also had one of the highest rates of imprisonment in the world that, coupled with adverse conditions in prisons, increased the risk of TB, HIV and other infectious diseases among prisoners.

This situation contributed to Russia having one of the highest rates of TB in the world. The annual number of new cases and relapses tripled after 1990, reaching 92 per 100,000 population in 2001; Russian prisons reported more than 50,000 TB patients annually during this period. More than 50% of all new TB cases in the country were among the unemployed, pensioners, homeless and alcoholics.

Expanding the Directly Observed Treatment Strategy (DOTS) for TB Control

Russian TB control practices were highly centralized and relied heavily on mass X-ray screenings. Treatment included lengthy hospitalizations in specialized centers and allowed for variations in drug regimens for patients. This approach, coupled with a deteriorated health system, was not effective in addressing the increasing numbers of TB cases: 1.1 million people, or almost 0.6-0.7% of the population, developed TB between 1995 and 2004.

From 2003-2008, the World Bank supported the implementation of the TB/AIDS Control Project (total cost US$ 244 million), in partnership with the WHO Stop TB Program. The Project was complemented by support from the Global Fund to Fight AIDS, TB and Malaria, of the US Agency for International Development (USAID), as well as

1 This Knowledge Brief takes into account the results of the Implementation Completion Report for the Russia TB/AIDS Control Project prepared by Betty Hanan and Axel Sargaddakova in December 2009, WHO assessments, and data from the Russian MOHSD.

2 John Litwack, World Bank Lead Economist in Russia, as quoted in “A Turning Point in the Fight Against Tuberculosis in Russia” (de Preneuf, F., 2006). World Bank web site: http://go.worldbank.org/XDVCCX0fBM


Russia’s own federal and regional efforts. The Russian Health Care Foundation managed project implementation on behalf of the Federal Ministry of Health and Social Development (MOHSD) and the Ministry of Justice’s Federal Corrections Center in charge of prisons.

The Project was designed in accordance with the Federal Targeted Social Disease Prevention and Control Program (2002-2006). About 80% of Project funds were allocated for TB control with the goal of contributing to a leveling-off or reduction in morbidity, mortality and transmission of TB. The Project covered 79 of the 83 regions across the vast Russian territory - from the Baltic Sea to the Pacific Ocean, strengthening both the civilian and prison health systems.

To achieve its objective, Project investments and activities supported the full-scale implementation of the WHO recommended DOTS strategy for TB control as follows:

1. Sustained political commitment to TB control. The MOHSD-led High Level Working Group (HLWG) on TB and Thematic Working Groups, made up of representatives of leading national agencies and specialists, revised the national TB strategy according to international standards and developed new policies and guidelines for TB control. These groups also facilitated consultation among Russian and international experts and the coordination of all TB programs in the country. A Strategic Five Year Plan for TB (2003-2007) was launched by the MOHSD, along with Ministerial Orders 109, 50, and 690 to guide the implementation of activities. Needs assessments and investment plans financed under the Project in each of the participating regions were prepared by teams from specialized institutes: Research Institute of Phthisiopulmonology of the Sechenov Medical Academy, Central TB Research Institute of the Russian Academy of Medical Sciences, St. Petersburg Research Institute of Phthisiopulmonology, Ural Research Institute of Phthisiopulmonology, and Novosibirsk TB Research Institute. The Ministry of Justice’s Federal Corrections Center conducted similar work in the prison health system. Technical assistance was provided by WHO.

2. Access to quality sputum microscopy for case detection among persons with TB symptoms (for example, prolonged cough). The most common diagnostic test to detect TB is microscopic examination of sputum smeared on a glass slide. It detects the most infectious cases and is highly specific in high-prevalence settings. This test, supported by X-rays when necessary and confirmed by bacteriological culture, is considered the diagnostic gold standard as it can identify over 80% of TB cases and allows for drug susceptibility testing.

Project investments modernized the public health laboratory network, particularly at the municipal level and in the prison health system, where it was the weakest. The reference laboratories at the federal research institutes were also strengthened. More than 42,000 units of modern laboratory equipment and 200 X-ray/fluorography machines were procured for six reference laboratories at federal TB research institutes, 49 bacteriological laboratories and 2,371 clinical diagnostic laboratories in primary care facilities. Routine drug resistance surveillance is now in place; in 2009, over 90% of culture-positive cases were tested for resistance to first line anti-TB drugs. The supply of biosafety cabinets increased the capacity of laboratories for infection control. More than 24,000 medical personnel working in civilian and prison health facilities were trained on the role of primary care physicians, organization of TB control at the municipal level, and TB detection using microscopy and culture methods.

3. Standardized short-course chemotherapy for all cases of TB, including direct observation of treatment. By 2007, all 83 regions in the Russian Federation, up from 14 in 2003, adopted the WHO recommended DOTS strategy for TB control. Training of specialists in accordance with new MOHSD TB treatment protocols was provided.

In routine TB cases, standard first-line treatment regimens are prescribed. The majority of infectious TB patients are hospitalized during the intensive phase of treatment to prevent person-to-person contagion; during out-patient treatment, drug dispensing and follow-up of patients are performed at primary care facilities. Management of TB/HIV co-infection is carried out jointly by TB and HIV/AIDS services. Six to nine months of therapy is required, using a combination of several drugs, to cure TB. The Project supplied 142 civilian and prison health facilities in 80 regions with anti-TB first-line drugs (Isoniazid, Rifampicin, Pirazinamid, Ethambutol) worth US$ 19.3 million, which ensured uninterrupted treatment using strengthened centralized drug procurement systems.

Some regional governments, such as in Vladimir, have implemented social support programs for TB patients to prevent treatment interruptions and defaults during ambulatory treatment, particularly targeting the unemployed, homeless, alcoholics, and former prisoners. Support provided includes food supplements, free transportation or reimbursement of transport costs, and psychological and legal counseling. Incentives for service providers are also included to support timely detection and treatment.

Compliance with the standard treatment regimen among newly detected TB cases has increased from 44% in 2004 to about 75% in 2008 - close to the 85% target set for the end of the project. Assessment of treatment success is done using cohort data.
4. Confronting multiple-drug resistant TB. While Project laboratory improvements contributed to better diagnosing drug-resistant TB cases, parallel funding from national programs, the Global Fund and USAID supported treatment with second-line TB drugs following WHO guidelines.

5. Improved recording and reporting system, enabling assessment of patient outcomes. New forms of TB recording and reporting were introduced in all civilian and prison health facilities for cohort method analysis of TB detection and treatment outcomes. Specialists from federal TB research institutes monitored TB control activities in every region covered by the project. Training workshops were conducted to improve monitoring and evaluation capacity.

6. Addressing HIV/TB co-infection. With Project support, a comprehensive set of 52 standards and protocols for HIV/AIDS prevention, diagnosis, care and treatment were developed by the MOHSD and adopted for nationwide use. In addition, the laboratory network in 82 regional AIDS centers, 16 regional STI centers, 35 regional prison laboratories, and federal research institutes, was strengthened with new equipment and supplies for the detection, diagnosis and case management of HIV and other sexually transmitted diseases using PCR (polymerase chain reaction), CD4, Viral Load and CD8 tests. This investment contributed greatly towards confronting the spread of the HIV/AIDS epidemic; timely access to quality PCR testing, which helps detect and diagnose infectious diseases such as HIV, and the measurement of the number of CD4 and CD8 cells in the blood and viral load concentrations, that assess the status of the immune system in persons diagnosed with HIV, are critical procedures that support the scaling-up of treatment with anti-retroviral drugs, help reduce the infectivity level of patients, slow the rate of new infections, and help increase the life expectancy and quality of life of people infected with HIV. The safety of blood services was also improved, reducing the risk of HIV transmission via blood transfusions.

Results

- Since 2003, TB notifications have stabilized (Figure 1). The notification of new TB cases was 82.6 per 100,000 population in 2009, down from 90.7 at the beginning of the decade. In 2009, the registered TB prevalence rate was 185.1 per 100,000, significantly down from 218.2 per 100,000 in 2004.

- By 2008, 75% of new TB patients were receiving the standardized treatment regimen, up from 44% in 2004. The treatment success rate among TB cases registered for treatment was about 60%, still below the 85% recommended by WHO, due in large measure to the increase in the number of multiple-drug resistant TB cases. However, improved diagnosis and care hold the promise for better treatment success rates.

- TB mortality in the general population decreased by 25% between 2003 and 2009 (Figure 2). In prisons, TB deaths dropped by 35% over this period.

- Diagnosis of HIV infected people improved significantly and the percentage of HIV patients receiving treatment with anti retroviral drugs more than doubled between 2005 and 2008, reaching 60% of those in need of treatment as determined by CD4 count (a measure of the state of the immune system) and viral load tests (a measure of the severity of the viral infection). Expanded access to treatment contributed to the decrease in HIV-positive infants born to HIV-infected mothers, from 13.2% in 2003 to 10.6% in 2008.

Results

- Timely detection and diagnosis are yielding higher numbers of notified TB cases among previously unscreened or misdiagnosed patients, including those in the late phase of TB who are harder to cure. Between 2003 and 2008, case detection among persons with TB symptoms using sputum smear microscopy increased by more than 24%, reaching a 73% level in 2008.5


Lessons Learned

- The establishment of high-level and thematic working groups for policy setting and coordination and the participation of key stakeholders in the implementation of project activities were crucial to securing ownership of new approaches and sustaining activities and gains.

- A clear division of responsibilities among international agencies helped harmonize cooperation and maximize their impact in supporting the implementation of the national program.

- Modernization of the public health laboratory network and improved knowledge and skills of health personnel were essential to facilitate adoption of new guidelines for TB and HIV control, and scale up treatment.

- The spread of drug-resistant TB (about 15% of new cases in 2009) and HIV/AIDS are a serious challenge to effective TB control in Russia. The provision of social support services (for example, free transportation between the home of the patient and the health center, food supplementation, etc.) and compliance by patients to the treatment regime is needed to prevent treatment interruptions and defaults during ambulatory treatment, particularly among the unemployed, homeless, alcoholics, and former prisoners. TB/HIV co-infection is also a growing problem among vulnerable population groups (for example, injecting drug users), demanding improved prevention and treatment efforts.

- The strengthening of case registration and reporting systems, and improved technical capacity at different levels of the health system to monitor and evaluate TB detection and treatment outcomes using cohort data, are key institutional building blocks for improving program management and policy formulation.

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Action Needed: Spiraling Drug Prices Empty Russian Pockets

Patricio Marquez and Mikhail Bonch-Osmolovskiy

Key Messages

- **Spending on drugs contributes to the high level of out-of-pocket (OOP) payments for health care in Russia.** This is mostly due to lack of an outpatient drug benefit under the Mandatory Health Insurance Program and the underfunding of drugs for hospital care.

- **Drug prices in Russia increased substantially during the ongoing economic crisis.** While the official Consumer Price Index (CPI) increased by 15 percent between March 2008 and March 2009, retail drug prices increased by 29 percent.

- **The increased drug prices have had a significant impact on the affordability of medicines, particularly among vulnerable population groups.** As a result of the recent increase in drug prices, the poor, on average, may have lost more than 1 percent of their total household expenditure.

- **There are several options for improving access to and affordability of drugs in Russia,** including adopting an essential outpatient drugs benefit package that could be offered through the Mandatory Health Insurance Program.

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ECA Knowledge Brief

Figure 1: Trends in Drug Prices in Russia, March 2008-2009

Drug prices not only increased substantially as a whole, but also showed significant price variability.

This was true for both brand-name and generic drugs (the latter are generally cheaper than brand-name drugs). An assessment of changes in median, minimum and maximum distributor prices of equivalent drugs in St. Petersburg showed that overall, between March 2008 and 2009, median drug prices increased by about 40 percent but maximum prices (usually for brand name drugs) increased by 105 percent on average. On the opposite end of the spectrum, the minimum prices (usually for generic drugs) increased by 14 percent. High overall variability is accompanied by higher variability in prices for the same class of drugs in the Russian market; moreover, drug prices in Russia are much higher than in the international market. While in March 2008, the average ratio of maximum to minimum distributor prices for the same drug was about five times, by March 2009, the ratio had increased almost 10 times. Comparison of median distributor prices in St. Petersburg with the international reference prices for 52 drugs shows that prices in Russia are on average three to four times higher than international reference prices.

Impact of Drug Price Increases on Households

As a result of the recent increase in drug prices, the poor, on average, may have lost more than 1 percent of their total household expenditure.

Rosstat data for 2006 indicate that about 95 percent of survey respondents who purchased medical drugs in the last three months of the year, paid out of pocket. The increase in drug prices can therefore have a significant impact on the budgets of families with chronically ill members who require a daily drug intake. According to data from the 2005 Russian Longitudinal Measurement Survey (RLMS), over 75 percent of households had a member with one or more chronic illnesses, with two illnesses reported on average per household member. The average budget share of expenditures on drugs for the poorest 10 percent of the households that had to purchase drugs regularly was about 9 percent. However, as discussed below, this average hides the grim reality that the amount could be significantly higher for many households--actual spending on drugs greatly depends on the particular illnesses to be treated and the kinds of drugs that are prescribed.

The cost of treatment of liver cirrhosis, for example, has risen from less than 50 percent to more than 110 percent of a hypothetical household’s budget.

Table 1 provides a conservative estimate of the potential monthly expenditures for treating several common chronic illnesses for a typical household consisting of two pensioners, each receiving a typical subsistence minimum pension of 4000 rubles (this estimate is conservative as the real retail mark-ups are estimated to be much higher than the ones used here). The last two columns show the median price increases for the recommended drug treatment, and the additional expenses that will have to be incurred by the household due to the price increases for several drugs. For example, the median price of ‘ademetionine’, one of the drugs commonly used for the treatment of liver cirrhosis, increased by almost 2.5 times. This would result in almost 4,800 rubles of additional expenditure for the monthly treatment of liver cirrhosis, relative to what Russians were to pay if the price of ‘ademetionine’ increased at the same 15 percent rate as the CPI.

In this context, recent evidence indicates that drug affordability has likely fallen, with the contributing factors being the increase in drug prices and a nine-year high unemployment rate of 10.2 percent.

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2 Rosstat monitors prices of 20 selected drugs. The DSM group publishes Laspeyres retail price index for all drugs on the market, with weights taken proportional to sales volumes in 2007.

3 A pre-selected list of 80 essential drugs from the PharmIndex magazine, between March 2008 and March 2009, for each of the 80 drugs, the minimum, median and maximum price of a daily dose of the drug were documented.

4 For five cases, the maximum price was more than 50 times higher than the minimum published price: Ciprofloxacin - 56 times, Acetylsalicylic acid - 58 times, Loperamide - 67 times, Omeprazole - 144 times, Diclofenac -119 times. These medicines typically have very high brand premiums.


6 The questions asked were about heart, lung, liver, kidney, gastrointestinal, spinal and other chronic illnesses.
**Table 1. Estimated Expenditure on Drugs Using Median Distributor Prices**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Suggested Treatment</th>
<th>Suggested daily dose</th>
<th>Average monthly expenditure, rubles</th>
<th>Share of subsistence minimum budget for two pensioners, %</th>
<th>Median Price 2009/ Median Price 2008</th>
<th>Effect of price increase above the CPI increase, rubles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver Cirrhosis</td>
<td>Ademetionine</td>
<td>1200 mg</td>
<td>8874</td>
<td>111</td>
<td>2.48</td>
<td>+4757</td>
</tr>
<tr>
<td>Stroke prevention</td>
<td>Clopidogrel</td>
<td>75 mg</td>
<td>3478</td>
<td>43</td>
<td>2.51</td>
<td>+1882</td>
</tr>
<tr>
<td>Stroke prevention</td>
<td>Aspirin</td>
<td>100 mg</td>
<td>90</td>
<td>1</td>
<td>1.10</td>
<td>-45</td>
</tr>
<tr>
<td>Arthritis</td>
<td>Diclofenac</td>
<td>100mg</td>
<td>87</td>
<td>1</td>
<td>2.11</td>
<td>+39</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Enalapril</td>
<td>20 mg</td>
<td>186</td>
<td>2</td>
<td>1.40</td>
<td>+33</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Insulin soluble</td>
<td>50 ME</td>
<td>1384</td>
<td>17</td>
<td>1.03</td>
<td>-168</td>
</tr>
<tr>
<td>Gastric ulcer</td>
<td>Omeprazole</td>
<td>20 mg</td>
<td>143</td>
<td>2</td>
<td>1.53</td>
<td>+36</td>
</tr>
<tr>
<td>Prostatitis</td>
<td>Tamsulosin</td>
<td>400 mcg</td>
<td>1595</td>
<td>20</td>
<td>3.06</td>
<td>+996</td>
</tr>
<tr>
<td>Prostatitis</td>
<td>Terazosin</td>
<td>10 mg</td>
<td>1250</td>
<td>15</td>
<td>1.38</td>
<td>+216</td>
</tr>
<tr>
<td>Ischemic heart disease</td>
<td>Trimetazidine</td>
<td>50 mg</td>
<td>238</td>
<td>3</td>
<td>0.97</td>
<td>-44</td>
</tr>
</tbody>
</table>

Source: Distributor prices published in “Pharmindex” on March 2009. A retail mark-up of 10 percent was used to estimate retail prices and calculate average expenditures. According to federal legislation in Russia, the maximum mark-up over the manufacturer’s price is 25 percent, and retail prices should not exceed wholesale prices by more than 30 percent for essential drugs; the limit is higher for other drugs. It is estimated that in general actual mark-ups are much higher than the official ones.

**How Can Essential Drugs Become More Accessible and Affordable?**

Russia’s public spending on health over the medium-term needs to increase above the current level of 3.6 percent of GDP. The major long-term drivers of health care spending--rising incomes, technological change and demographic change--all point to a significant, long-term rise in health care expenditure. It is reasonable to assume that part of this increase could and should be met by public provision of health services. The Russian Government can consider several options for improving access to and affordability of drugs in Russia.

**Change drug policies and prescription practices:** A typical household’s drug expenses or the cost of a subsidized drug program could be substantially lowered, thereby raising affordability. This could happen if drug policies and prescription practices are based on the evidence of demonstrated efficacy and safety of equivalent drugs, as well as on comparisons of their costs. For example, the evidence on the demonstrated efficacy and benefits of ‘clopidogrel’, a drug used in Russia for stroke prevention at a cost of 1,481 rubles per month, is scant. The alternative would be to use the lower cost and efficacious and safe generic ‘aspirin’ costing only 50 rubles per month as the ‘best buy’ first-line drug for stroke prevention in most patients. This would result in a major saving of 1,431 rubles per month, while ensuring the demonstrated benefits of an alternative drug.

**Provide an essential outpatient drugs benefit package:** One option to explore for dealing with this challenge under current fiscal constraints would be adopting an essential outpatient drugs benefit package for priority, high-burden diseases, to be provided as part of the Medical Program of State Guarantees. It could include approximately 70-100 different essential medicines for high-burden chronic diseases--such as, cardiovascular diseases, mental disorders, diabetes, chronic respiratory problems, digestive disorders, and frequent infections,--selected on the basis of therapeutic efficacy, efficiency, and value for money criteria.

The proposed essential drug benefit program could be funded through an improved allocation of overall public expenditures, including a shift toward long-term needs of social sectors such as health and away from less productive categories of public expenditures (for example, untargeted subsidies and transfers, general administration expenditures and unproductive public investments). Other funding options include increasing taxes on cigarettes (the current price of cigarettes in Russia is very low compared to major international cities) and liquor, and taxing high sugar soft drinks.

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7 The 2005 World Bank report, “Dying Too Young: Addressing Premature Mortality and Ill Health Due to Noncommunicable Diseases and Injuries in the Russian Federation,” provides health and economic arguments to concentrate on these diseases.
Promote Rational Drug Use: A critical measure that would need to be supported in Russia as part of health system restructuring efforts to complement the introduction of outpatient drug benefits is the development of new methods and approaches to strengthen rational drug prescription processes. These could be in the form of new or revised evidence-based clinical guidelines to treat some diseases, therapeutic pocket guides that offer quick consultation guidance to the doctors on how to treat the most common health problems, and continuing in-service medical education programs. Additionally, there are electronic modules that can be incorporated as part of the development of health information systems that could facilitate on-line consultations by physicians before prescribing. Given the ever growing number of drug therapies, if physicians do not have access to scientific information and do not have enough technical knowledge for making a critical appraisal of new medicines, the prescription process will be vulnerable to marketing techniques by the pharmaceutical industry and decisions will not be taken in terms of the best option for the patient and the health system as a whole. To promote rational drug use for priority, high-burden diseases on an outpatient basis, a tiered co-payment arrangement could also be developed to fully reimburse the cost of generic drugs but set high co-payments for brand name drugs to cover the cost differential. This would create a powerful incentive to shift toward higher use of generic equivalents.

Improve the incentive framework for physicians by regulating perverse financial incentives: These include prescribers earning money from the sales of medicines, which only encourages over-prescription of medicines. Generic drugs could be promoted by setting up incentives in the form of performance-based payments, as is currently done in some Russian regions such as in the Chuvash Republic to reward doctors for achieving program targets, improve health outcomes and lower overall medical spending.

Educate patients about generic medications: There is a widespread perception among patients in Russia that generic drugs are cheaper because they are lower quality and not as efficacious or safe as their equivalent brand name drugs. Broader efforts by health insurance agencies, policy makers and providers are needed to educate patients about generic medications, help them make informed decisions, and influence personal preferences for generic use, which in turn could result in improved adherence to essential medications.

Develop drug pricing and procurement reforms to support the implementation of demand side priorities as defined by the adoption of an outpatient essential drug list targeting priority, high-burden diseases and related rational drug use measures: Proper consideration also needs to be given to supply side practicalities such as wholesaler/pharmacist mark-ups and differential margins for the establishment of an uniform drug pricing framework; enforcement of price controls; procurement and tendering processes, including possible negotiated arrangements with producers and suppliers to contain drug price inflation; the competitiveness of the generics market; and the availability of pharmaceuticals in rural regions.

Conclusion

There is plenty of evidence worldwide to show that timely access to essential medicines yields large overall savings through fewer hospitalization, tips the balance in favor or survival when a person is affected by a chronic disease or prevents the disease altogether, and contributes to higher productivity when the patient is at work. Also, from an ethical and medical point of view, protecting and/or increasing expenditures on medicines is critical for continuing to treat conditions such as tuberculosis and HIV/AIDS, and hence prevent the onset of (sometimes untreatable) drug resistance among patients. While the current economic downturn imposes rigid budgetary constraints, improved access to and better use of pharmaceuticals under public subsidy arrangements should not be delayed because it could, in the medium term, contribute towards improving the health status of the Russian population, reducing the risk of impoverishment of vulnerable population groups, and enhancing overall social welfare.

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ECA Knowledge Brief is a regular series of notes highlighting recent analyses, good practices and lessons learned from the development work program of the World Bank’s Europe and Central Asia Region.

http://www.worldbank.org/eca
Redesigning Health Care in ECA: Some Lessons from the UK

Patricio Marquez, Kalipso Chalkidou, Derek Cutler, and Nick Doyle

Key Messages

- Health systems in the Europe and Central Asia region (ECA) have been struggling to deliver good and affordable health care to their populations.
- The basic structure of the health care systems in the region must be redesigned from within, based on available scientific evidence, by revamping clinical processes, organizational structures, management systems, and the cultures that support them.
- The UK Government’s National Institute for Health and Clinical Excellence (NICE), set up in 1999 to provide national guidance on the promotion of good health and prevention and treatment of ill health, offers some lessons in this respect. In addition to setting national quality standards, NICE clinical guidelines are used to determine how payments are made to general practitioners and funds allocated for hospital care in the National Health Service (NHS).
- Knowledge partnerships between countries that help them learn from each other’s experiences and best practices are becoming increasingly important in the new era of global health. The World Bank can play a major role in fostering these partnerships.

Why Redesign Health Systems in ECA?

The countries in ECA have been struggling to deliver good, affordable health care to their populations. Indeed, life expectancy gains in the region have been significantly lower than in other middle- or high-income countries, and in some ECA countries the relative low level of public sector funding to cover the cost of free medical care that is already promised by the governments to their citizens has consistently hindered access to quality services and led to a significant increase in out-of-pocket spending by patients for healthcare. The main challenge now is to redesign health systems to effectively address the changing health needs of the population - chiefly the increase in non-communicable diseases such as cardiovascular diseases, cancer, and injuries, as the leading causes of ill-health, premature mortality and disability.

Fixing Health Care: A Worldwide Dilemma

The extraordinary progress in public health and medical knowledge over the last 50 years, coupled with the introduction of new technologies, drugs and procedures, has contributed to the improvement in health conditions and quality of life across the world. But these developments have also disrupted health care organization, as is evident from the experience in different countries where medical care has become fragmented and uncoordinated, with multiple providers serving the same patients. Several studies show that fragmentation of health service delivery adversely impacts quality, cost, and outcomes of health care. The unrestrained acquisition and use of new medical technologies and procedures (for example, open heart surgery to replace clogged arteries, ultrasound technology scanners to aid in the detection of heart disease, and life-saving antiretroviral drugs for HIV/AIDS) also lead to increased health care costs.

There are no easy solutions to manage these tensions. Countries around the world, not just in ECA, are searching for new approaches to cure their ailing health systems. The shared goal is to improve the quality of services and reduce or curb escalating costs. But, as argued in a recent Harvard Business Review article, regardless of what happens to many reform efforts, the old, basic structure of the health care

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system will remain in place for the foreseeable future. Health systems must be redesigned from within by revamping public health and clinical processes, organizational structures, management systems, and the cultures that support them, by taking into account scientifically established best practices for preventing, diagnosing and treating diseases and injuries.

The United Kingdom (UK) Experience: Using Evidence to Improve Health Care

Faced with the above challenges, the UK government set up the National Institute for Health and Clinical Excellence (NICE) in 1999 to develop national guidance on the promotion of good health, and the prevention and treatment of diseases on the basis of available scientific evidence. In addition to setting national quality standards (Table 1), NICE clinical guidelines are used to help determine how payments are made to general practitioners and funds allocated for hospital care across the UK National Health Service (NHS). Over 100 guidelines covering major diseases have been published and a further 40 are being developed as of 2010.

NICE is also responsible for appraising new medical technologies - including pharmaceuticals, medical devices and diagnostic (imaging and laboratory) tests - for use in the NHS. NICE’s guidance informs NHS drug coverage and reimbursement decisions for new pharmaceuticals and its decisions have an international impact, with 25% of the global market referencing UK prices.

Methodology of evaluation

NICE uses an extensive network of UK universities and professional organizations to synthesize and evaluate public health, clinical and economic data which are then assessed for their quality and applicability to the local UK setting. NICE is, by law, required to make economic evaluations to judge the comparative value of technologies that provide additional benefit but at an increased cost. Where available, NICE uses the quality adjusted life year (QALY), which takes account of both length and quality of life as a measure of health benefits. While important, the cost per additional QALY is meant to inform, but not determine, NICE’s decisions. Social values are also essential components in the decision-making process and strengthen the legitimacy and social acceptability of NICE’s guidance.

<table>
<thead>
<tr>
<th>Table 1: NICE’s Core Objectives and Operational Principles</th>
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<tr>
<td><strong>Objectives</strong></td>
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<tr>
<td>Set evidence-informed quality standards</td>
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<tr>
<td>Reduce unwarranted variation in medical practice and improve equity</td>
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<tr>
<td>Develop best practice guidance for professionals</td>
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<tr>
<td>Promote the efficient use of healthcare resources</td>
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<tr>
<td>Encourage good value innovation</td>
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Source: Elaboration by authors.

Scientific evidence is not enough: social value and feasibility considerations

NICE engages with the users of the NHS and the broader public in a number of ways:

- All decision making committees have lay membership.
- All guidance, as well as the methods and processes for their production, are subject to public consultation.
- Patient testimonies are a core component of decision-making committee meetings.
- Patients are invited to submit written evidence.
- Patient organizations can appeal against NICE decisions.
- NICE sponsors a dedicated Patient and Public Involvement Program, responsible for engaging with and drawing on the expertise of individual patients and patient groups.

9 Information on NICE’s methods for Clinical Guidelines production can be found at: http://www.nice.org.uk/aboutnice/howwework/developingniceclinicalguidelines/clinicalguidelinedevelopmentmethods/clinical_guideline_development_metho ds.jsp and information on NICE’s Technology Appraisal methods can be found at: http://www.nice.org.uk/aboutnice/howwework/devnicetech/developing_nice_technology_appraisals.jsp
10 More information can be found at: http://www.nice.org.uk/aboutnice/howwework/devnicetech/technologyappraisalprocessguides/guidetothemethodsoftechnologyappraisal.jsp?domedia=1&id=B52851A3-19B9-E0B5-D48284D172BD8459
All NICE products are also issued in a simple format and distributed to patients directly and through the internet. In addition, NICE runs the Citizens Council to periodically discuss critical issues, such as: Should age be a factor when making healthcare resource allocation decisions and should efficiency be sacrificed up to a point to favor disadvantaged social groups? The reports form the basis of NICE’s guideline on “Social Value Judgments” for the decision-making committees.\(^1\)

Practical issues are considered before guidance is produced. For example, training requirements for clinicians, in case of a new recommended intervention or need for capital investment in imaging equipment, are all factored into the guidance. All public health guidance is field-tested among public sector bodies (for example, education boards) before being issued.

Budget impact evaluations are also undertaken but NICE guidance is driven not by budgetary impact in the short term but by longer-term value for money. Affordability concerns, though legitimate, can often have perverse implications and bias against, for example, prevention interventions, which may, on aggregate, be expensive in the short-term but are potentially life- and cost-saving in the longer run.

### Who makes the decisions?

The clinical, public health and economic evidence, and the broader societal values, are considered by independent advisory committees made up from frontline practitioners, academics, industry representatives, hospital administrators and budget holders, patients, and members of the public. The committee members are not paid by NICE but volunteer their time. NICE facilitates the decision-making process but does not make the decisions itself. This ensures the independence of the final advice and increases its buy-in by stakeholders across the country.

### Political backing matters

Given the often difficult and conflicting policy environment that is influenced by public pressure to adopt new health technologies and procedures, support at the highest levels of government is critical for ensuring that priorities are defined on the basis of best available scientific evidence and consideration is given to social values and available budgets\(^2\).

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\(^1\) The Social Value Judgments guideline is available from this link: [http://www.nice.org.uk/aboutnice/howwework/socialvaluejudgements/socialvaluejudgements.jsp](http://www.nice.org.uk/aboutnice/howwework/socialvaluejudgements/socialvaluejudgements.jsp)

Making alcohol less affordable appears to be the most effective way of reducing alcohol-related harm. The evidence, extremely relevant for countries such as the Russian Federation where there is a high prevalence of alcohol abuse, suggests that young people who drink and people who drink harmful amounts of alcohol tend to choose cheaper drinks. Therefore, establishing a minimum price per unit has the greatest potential of limiting the ability of these groups to ‘trade down’ to cheaper products, whereas it has a negligible impact on people drinking small amounts of alcohol.

**Dissuading at-risk groups from smoking**

NICE analysis showed that interventions to improve the reach, use and retention of smoking cessation programs in disadvantaged groups are good value for money. The cost per QALY gained for these interventions ranges from about US$ 234 to US$ 1,080 (Figure 2). Workplace smoking cessation programs, for example, are 230 times better value for money than alternative interventions.

**Conclusion**

While the NICE model cannot be simply transplanted to other countries’ healthcare settings, policy-makers would benefit from looking at elements of its methodology, process, evidence base, and actual products. Many of them can be *adapted* to other countries’ local realities to improve health care organization, public health and clinical practices, and develop new financial mechanisms that link budget allocation with improvements in service delivery and better health outcomes.

NICE is currently advising and working with Ministries of Health from around the world to help them build capacity, gather locally relevant evidence, and strengthen processes and structures for turning this evidence into actionable policies for better public health practices and delivery of medical care. A good example in ECA is the recent agreement signed on March 3, 2010 between the Georgia Ministry of Labor, Health and Social Affairs and NICE.

The development of partnerships between countries to share knowledge, experience and good practices is becoming critical and increasingly important in the new era of global health. Institutions like the World Bank have a major role to play in fostering these partnerships. Indeed, as Julio Frenk, the former Minister of Health of Mexico and current Dean of the Harvard School of Public Health, says: “In our turbulent world, still scarred all too often by intolerance and exclusion, science remains as the most powerful force for enlightened social transformation. Every country should have access to global knowledge repositories, along with the capacity not so much to adopt evidence as to adapt it to local circumstances.”

**About the Authors**

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MEXICO: REACHING THE POOR WITH BASIC HEALTH SERVICES

Patricio Marquez and Willy de Geyndt

The Problem: Low Access to Basic Health Care Among Poor Mexicans

In the mid-1990s, many Mexicans lived in poverty without adequate access to health and social services. Of a total population of 84 million, 25 percent were considered poor and 16 percent, extremely poor. Urban areas had health indicators similar to OECD countries, with an increasing burden of non-communicable diseases and injuries, while many people in rural areas and the southern states still suffered from common infectious diseases and malnutrition. Life expectancy in rural areas was 55 versus 71 in urban areas and 53 among the poor.

The Mexican government realized that inequitable access to basic health care for poor and indigenous people hampered economic development, jeopardized investments in basic education and deprived citizens of their constitutional right to attain good health. So it devised a strategy to reduce inequities, improve health care, and modernize the Federal Health Secretariat (SSA). A 1994 presidential decree created a Health Cabinet (Gabinete de Salud) headed by the President with representatives from social security, finance and other social sector entities, to guide the SSA restructuring, promote coordination among sectors, and oversee the decentralization of health services.

The Second Basic Health Care Project (PAC/Programa de Ampliación de Cobertura; Ln. 3943-ME)

The PAC’s realistic and achievable objectives and three components were completely aligned with the Government’s health strategy and with the World Bank’s Country Assistance Strategy. The Project reflected Mexico’s broad consensus on a three-pronged approach to:

(i) reduce inequities, increase access to basic health services and improve quality and resource use, targeting the least-developed states; (ii) decentralize services and functions; and (iii) modernize the SSA.

A health sector study initiated by the Government in 1994, with assistance from the World Bank, IDB, and PAHO/WHO, helped outline priority policies and investments, appropriate roles of the SSA, social security, non-governmental organizations (NGOs) and private sector, and ways to strengthen sector financing and efficient resource use.

The project benefited from lessons learned while implementing the First Basic Health Care Project (Ln. 3272-ME, 1991-1996). This experience highlighted the importance of: (a) improved targeting in delivering a cost-effective basic health care package in the most disadvantaged municipalities within poor states; (b) rehabilitating first level health centers and second level hospitals to improve access to basic health care; (c) recruiting and training community health care workers to staff health posts in communities without medical doctors; (d) building ownership in the states through institutional capacity development and decentralized project implementation; and (e) joint annual review meetings to evaluate the previous year’s work plans and prepare next year’s investment and implementation plans.
PAC Components

Basic Health Care Services (US$335 million). This component aimed to provide basic health services to targeted, uninsured, hard-to-reach groups. Initially, health jurisdictions and municipalities in eleven states (Oaxaca, Chiapas, Guerrero, Hidalgo, Puebla, Veracruz, Zacatecas, Michoacan, San Luis Potosi, Campeche and Yucatan) with health indicators below the national average were selected, using a poverty targeting mechanism based on the CONAPO (Consejo Nacional de Poblacion-National Population Council) poverty index. As provided for in the project design, coverage was later extended to extremely poor, difficult to reach populations in 8 more states (Chihuahua, Durango, Guanajuato, Jalisco, Mexico, Nayarit, Queretaro, and Sinaloa).

Following the guidelines of the 1993 World Development Report “Investing in Health,” expenditures were redirected to the 13 most cost effective health interventions. The component focused on (i) strengthening public health interventions that benefit the whole population, including safe water and basic sanitation, health and nutrition information and education, and vaccinations; and (ii) delivery of essential clinical services: reproductive health, child health, prevention and control of tuberculosis and cervical cancer, and treating parasitic and infectious diseases (intestinal infection and control of tuberculosis and cervical cancer, and chronic diseases (diabetes, asthma, hypertension).

Institutional Development and Decentralization. This component (US$61 million) supported decentralization of health services management from the SSA to the 32 states and their health jurisdiction levels. It supported the State Health Agencies in improving financial management, training managers, building information systems, improving procurement and inventory systems and enhancing the overall quality of the health care delivery system.

The Modernization and Restructuring of the SSA component (US$47 million) helped redefine the mission, objectives and functions of the SSA. It financed 60 person months of technical assistance, numerous policy studies on optimizing the provision and utilization of health services, and development of a national health communication and information system.

What were the Results?

Improved access to basic health care. PAC successfully provided basic health services to about 9 million poor people (90 percent of the Health Sector Reform Program 1995-2000 target), mostly indigenous and often non-Spanish speaking, in 878 municipalities and more than 46,000 isolated rural communities in 19 states, an unparalleled feat in Latin America. Unprecedented collaboration between the federal and local governments galvanized hundreds of mobile units to deliver the basic health care package.

Decentralizing the responsibility for service delivery to the state level triggered increases in counterpart project funding from the Federal Government (an extra US$115.4 million) and from participating states (US$80.1 million more), which allowed additional personnel to be hired beyond the original project plans. With community contributions of about US$4.5 million (1996-2001), total project spending was about US$639 million, far in excess of US$443 million envisaged at appraisal.

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1 The CONAPO poverty index ranked states, jurisdictions and municipalities based on results of “principal components analysis,” using the 1990 INEGI census, using the following variables: population density, adult illiteracy, population >15 years without primary schooling, availability of basic sanitation services and drinking water, % of households without electricity, % of overcrowded households, % of households with dirt floor, % of population in localities of fewer than 5,000 inhabitants, per capita income of less than two minimum salaries, and presence of indigenous population.
Project services were coordinated and integrated with other national programs to expand social services, especially the anti-poverty Education, Health and Nutrition Program (PROGRESA). PROGRESA offers cash transfers to eligible families provided they obtain preventive health care, participate in growth monitoring and nutrition supplements programs, and attend education programs about health and hygiene.

Together, the programs extended basic health service coverage to all the targeted 10.9 million poor, most in communities with fewer than 500 inhabitants. About 1.5 million of these beneficiaries live in small rural and mountainous hamlets that could only be reached by traveling health teams. Most of these people saw a professional health care worker and received care for the first time in their lives. The intensity of services provided increased dramatically, almost doubling the number of medical visits per 1,000 people. The number of Mexicans with no health coverage decreased from 10 million in 1995 to 1.5 million in 1999, according to a Government of Mexico/PAHO/WHO assessment. Experts expect the Project to have helped reduce this to 500,000 by the end of 2002.

Outcome indicators in Table 1 suggest that PAC helped reduce maternal mortality, increase life expectancy and decrease fertility, bringing the poorest states closer to the national averages. Other social programs and changes in general economic conditions also contributed to the improvements.

These outcomes are consistent with the PROGRESA impact evaluation findings of more utilization of public health clinics for preventive care, lower inpatient hospitalizations and visits to private providers, reflecting less incidence of severe illnesses, and significantly improved child and adults health.2

**Institutional development and decentralization.** The operational capacity of the states was strengthened, additional staff were hired, and personnel were trained in general management functions and in specific functional areas such as inventory control, management information systems, epidemiological surveillance, and quality control. States assumed responsibility for service delivery, increased their share in financing operating expenses, and put newly-hired health workers on their regular payroll. Some of the goods financed by PAC were procured online using the federal electronic COMPRANET system, which increased efficiency and lowered procurement costs, and became a pilot intervention for procurement in other World Bank-financed operations.

**SSA modernization and restructuring.** The SSA was the only federal secretariat decentralized during the Zedillo Administration (1994-2000). The federal level divested itself of all operational responsibilities and redefined its mission and role as one of policy making and stewardship. Management of human, physical and financial resources—and three fourths of SSA’s budget—have been shifted to the states. A pioneering and unique communication system (REDSSSA) transmits data and voice messages electronically among 2,600 connection points in the 31 states, the federal district and 231 health jurisdictions. Mexico is now a leader in health communication and information systems in the developing world.

Forty two studies to guide policy making and health sector reform were financed. Operational studies supported service delivery improvements (baseline and annual evaluations, mapping service delivery routes, improving the distribution of pharmaceuticals and supplies). Policy studies included analyses of policy changes, prepaid medicine, a national nutritional survey, a feasibility study for privatizing production and distribution of vaccines, and studies of specific public health problems such as HIV/AIDS, intra-family violence, and use of insecticides and toxic substances.

**Lessons Learned**

**Government ownership is key.** Project objectives were set by the country, and commitment was firmly entrenched in the Government’s program. The Bank’s role was mostly to provide flexible support to facilitate timely achievement of the objectives.

**Responsible risk-taking pays off.** The project was a traditional investment loan infused with an adaptable lending spirit, in that the World Bank agreed on a financial package without a detailed five-year spending blueprint. The Bank appraised the first year’s activities, and participated in annual planning, performance budgeting and evaluation. Design flexibility allowed PAC to adapt to the needs of participating states, especially when highly-dispersed groups needed to be reached. The Bank’s flexibility and limited control enabled the Government to take risks and learn while doing. Annual monitoring and evaluation of the project by an external firm was an important mechanism for providing

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2This was a controlled randomized study design with household panel data. “An Experiment in Incentive-Based Welfare: The Impact of PROGRESA on Health in Mexico”, Paul J. Gertler, UC-Berkeley and NBER and Simone Boyce, UC-Berkeley, April, 2002. [http://www.worldbank.org/research/project(Projects/service_delivery/paper_gertler1.pdf)].
input for planning the following year’s program, coverage and activities.

Political commitment contributed to a highly successful outcome. The country was politically committed to raising the health status of the poorest groups, decentralizing health service delivery and modernizing its arrangements for serving uninsured people. Project performance was prominently mentioned in the President’s annual State of the Union addresses. Progress was reviewed and discussed weekly with the Undersecretary of Health and monthly with the Federal Health Secretary. It was recognized that reaching the poor in highly dispersed geographical locations requires substantial resources. The Government (federal and state) decided to finance a basic package of health care services for hard-to-reach rural groups, and added US$200 million more to the project than originally agreed.

Consistent strategic approaches to reach the poor. The “symbiotic relationship” with PROGRESA proved highly effective in achieving Government’s health priorities, using the comparative advantage of each program. While PAC strengthened basic health service delivery, PROGRESA used cash transfers as incentives for families to invest in their children’s health and education.

Managed Decentralization. Decentralizing management of human, physical and financial resources to the 32 state and federal entities and having states compete for resources may hurt weaker states; central level technical assistance and support is needed. Equity requires walking a fine line between letting go and being directive.

Project components were mutually supportive. It is unlikely that the basic health care component would have been as successful without progress in decentralizing responsibility for health services, and modernizing and restructuring the SSA. The Government’s full commitment to these two components was fundamental to being able to provide basic health care services successfully in dispersed rural areas.

Moving Forward

The Mexico Third Basic Health Project (PROCEDES/ Programa de Calidad, Equidad y Desarrollo en Salud, approved June 2001) builds on PAC’s success and supports the Government’s Sector Strategy for 2001-2006. This aims to: (i) decrease social and regional inequities by reducing differences in health status among the Mexican population (e.g. life expectancy of poor groups is 17 years lower than non-poor); (ii) provide better quality health care services to poor, disenfranchised and indigenous groups; and (iii) decrease the financial burden of catastrophic illnesses, that exacerbates poverty. The project’s major components: (a) improving health services quality and equity for population groups in poor rural and marginal urban areas, including HIV/AIDS prevention and control, organizing health care networks, social communication, and state level investments (half of the US$581 million total project cost); (b) increasing efficiency, institutional development and decentralization, including restructuring health service delivery system incentives, and more autonomy and financial responsibility for local organizations and networks (12 percent); and (c) innovation, pilots (e.g., the Seguro Popular health insurance scheme), policy studies and impact evaluation (13 percent).

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Can improved health conditions contribute to long-term economic growth?

SUBMITTED BY PATRICIO V. MARQUEZ ON WED, 11/14/2012

In the face of budgetary limitations, constrained international aid, and competitive demands from different sectors, how can those of us working in the health sector make a strong case to finance ministers that public investments in health are as productive as public investments in, say, infrastructure or agriculture?

The public health narrative does a good job of explaining the distribution of diseases in populations and the environmental, social and personal factors that influence the occurrence of disease, while providing a good basis to guide the formulation of health policies and resource allocation within the health system. But, as we have found in different countries, it is not sufficient to convince our counterparts at the ministries of finance about the need to invest on improving health conditions as a development priority.

So what arguments can we put on the table to make the case that investments in health matter for the overall economic and social development of developing countries? A recent article by Jakob Madsen convincingly explains how improved health and nutrition conditions in a population can drive economic growth. To reach this conclusion, Madsen constructed a measure of health-adjusted educational attainment among the
working-age population (based on their health status during the time they did their education) and assessed data for 21 OECD countries from 1812-2009. As Madsen’s paper shows, the pathway through which health influences economic growth can be better understood when considering the direct contribution of malnutrition and sickness among children on decreased enrollment and increased absenteeism from school. Illness also contributes to reduced concentration in the classroom, cognitive impairment, stigma, and impaired coping skills.

Similarly, ideas production as measured by the growth in patents, entrepreneurship and lateral thinking to solve problems through creative approaches, are impaired by chronic health conditions. So, ill health, premature mortality and disability negatively influence cognitive development, learning, the amount of schooling and idea production—that is, they undermine knowledge generation and human capital production, which are the core drivers of technological progress for long-term economic growth.

Some people may conclude that these findings mainly restate a well-known argument (consistent with common sense) that ill-health affects education outcomes that, in turn, affect economic growth. But the two centuries of OECD country data assessed by Madsen reinforces the need for governments in developing countries to prioritize policy measures and multisectoral interventions that contribute to improve health conditions and support early child nutrition and development as key investments for improving the quality and quantity of human capital production—the path through which health influences economic growth. Indeed, while good health is an important goal in and of itself, the paper by Madsen provides strong evidence that health is not only highly influential for learning but subsequently for enhanced productivity of workers when they enter the labor force.

In assessing possible factors that may influence developing countries to embark or continue on a sustained growth path, or even accelerate it in the future, governments will do well in heeding the lessons from history. In an increasingly competitive world, improved health and nutrition of the population, coupled by relevant knowledge and skills imparted by quality education are essential building blocks for strong, inclusive and prosperous countries.

After all, as the 1993 Nobel laureate Robert Fogel compellingly documented in his book, “The Escape from Hunger and Premature Death, 1700-2100,” the synergy between improved productive technology and healthier people has contributed to the acceleration of economic growth, reduced inequality, and improved quality of life.
Healthy women are the cornerstone of healthy societies

On a recent road trip over the holidays, one of us had a good chat with his college-aged daughter about her views on gender. She was quite adamant in rejecting arguments voiced by some people about “innate intellectual differences” between males and females. She views these arguments as sexism that ignores the fact that there are women who are not getting the same opportunities as men because they are subject to cultural norms that limit their potential.

We not only agree with her views but also know that healthy women are at the core of healthy societies. The health of women is not, however, innate to any society. Development experience has shown that deliberate policies and programmatic strategies aimed at nurturing women’s health and well-being across the life cycle are vital for realizing the full potential of women and girls.
Healthy women are the cornerstone of healthy societies

The World Bank Group Gender Strategy [1], which builds on the 2012 World Development Report [2], makes the point that while some women may face fewer disadvantages now than in the past, major gaps remain. One significant gap is excess female mortality, which could be avoided with better access to quality health care services, particularly during pregnancy and child delivery. Early detection and treatment for conditions such as cervical cancer help increase survival rates as many women are diagnosed only after the disease is in an advanced stage, leading to higher case fatality. As noted by the US CDC [3], since the human papillomavirus (HPV) is the main cause of cervical cancer, vaccination among school-aged girls is another critical intervention.

Social conditions and cultural norms that limit women’s access to health services, education, and economic opportunities are at the root of women’s health disparities and exacerbate the feminization of poverty as measured by the higher percentage of female-headed households who are poor. The prevalence of gender-based violence (e.g., in the midst of conflict situations, human trafficking, and domestic violence) is another often hidden determinant of women’s excess morbidity and mortality.

Research has shown that many maternal illnesses and lifestyle behaviors also affect children, amplifying their negative impact on society. For example, tobacco and alcohol use, anemia, over-nutrition, and under-nutrition all have potential long-term consequences on children. Gestational diabetes is a strong predictor of future health, both of the mother, who may develop diabetes and cardiovascular diseases (CVD) later in life, and the child, who has increased risk of developing Type II diabetes later in life. Poor maternal nutrition before and during pregnancy, as well as tobacco and alcohol use during pregnancy, contribute to poor intrauterine growth, resulting in low birth weight (LBW), which in turn predisposes the child to metabolic disorders and risk of non-communicable chronic diseases (NCDs) later in life. These problems are compounded by HIV and malaria. For example, LBW and malnutrition are more frequent in HIV-infected children, and malaria infection during pregnancy is a common cause of anemia and LBW.

Findings from new research also provide evidence about the impact that the well-being of women has on the intergenerational propagation of good physical and mental health. The findings [4] published in late 2016 indicate that pregnancy is associated with substantial changes in brain areas of pregnant women that are responsible for social cognition and the ability to understand the thoughts and intentions of others and that they may help intensify the bonding between mothers and their babies, and hence, the survival and healthy development of children.

Supporting access to effective interventions such as reducing malnutrition, preventing anemia, and improving access to essential health services, including effective contraception, are not only important for ensuring women’s well-being but also for improving nutrition in the early years of children and as important preventive measures for arresting the explosive growth of NCDs worldwide as noted above. The promotion of breastfeeding – which protects against diarrhea, respiratory infections, and obesity -- also helps prevent NCDs and protects against infection, apart from its nutritional benefits. Screening for gestational diabetes and screening for and prevention of malaria, HIV, and tuberculosis could also be part of an integrated antenatal care program with multiple benefits. And in conflict-and post-conflict contexts, programs targeting displaced populations and refugees are found to maximize their impact by combining nutrition, maternal mental health, and psychosocial stimulation interventions that address the symptoms of post-traumatic stress linked to exposure to extreme violence. Such integrated interventions have been shown to reduce the disabling impact of post-traumatic stress on mothers’ ability to nurse and feed their children.

Investing in women’s education is another critical contributor to child health. Again, research data [5] highlight the strong correlation between mother’s primary school completion and better infant health (as measured by incidence of very low birth weight) and child health (as measured by height-for-age and weight-for-age), even after controlling for many potential confounding factors. The data also shows that mother’s primary school completion leads to earlier preventive care initiation and reduces smoking. An
Healthy women are the cornerstone of healthy societies

Assessment of increased educational attainment and its effect on child mortality in 175 countries between 1970 and 2009 [6] showed that half the reduction in child mortality over the past 40 years can be attributed to the better education of women—that is, for every one-year increase in the average education of reproductive-age women, a country experienced a 9.5% reduction in child deaths. Economic empowerment of women is also transgenerational, women who have the dignity of a roof above their heads and food on their tables make better choices not just for themselves but for their families, including their children.

In short, it should be clear that addressing the root causes of ill health, premature mortality, and disability among women, and enhancing women's voice and agency to deal with limiting, and in some cases, oppressive, social and cultural norms and gender-based violence that impede the health and human capacity development of women is a cross-sectoral development priority. Policies that help turn the tide against the feminization of poverty and toward enabling women to lead lives of sustainable economic advancement and self-reliance will at the same time improve the health and mental well-being of future generations, and contribute to ensure that development is socially and economically inclusive.
Accumulated scientific evidence [1] shows that proper nutrition and stimulation in utero and during early childhood benefit physical and mental well-being later in life and contribute to the development of children’s cognitive and socioemotional skills. Yet, a critical but often overlooked fact in policy design and program development across the world is the association between maternal depression and childhood stunting – the impaired growth and development measured by low height-for-age.

The human, social and economic toll imposed by lack of attention to mental illness and substance use disorders across the world is enormous. It is estimated [2] that at least 10% of the world’s population is affected and that 20% of children and adolescents suffer from some type of mental disorder. In fact, according to WHO data, mental illness account for 30% of non-fatal disease burden worldwide and 10% of overall disease burden, including death and disability. Recent estimates indicate that about 23% of 667 million children under the age of 5 worldwide are stunted, and an estimated 45% of deaths of children under age 5 are linked to malnutrition [3].

Depressive disorders during pregnancy and the post-natal period are common in both developed and developing countries, impacting negatively both mothers and children. And in some countries, suicide (which is frequently caused by mental disorders) is a leading cause of death among women aged 15 to 49 [4]. Diverse factors, including poverty, gender discrimination, marital conflict, domestic violence, crime, post-traumatic stress, substance use disorders, and lack of control over economic resources, contribute to the onset of mental illness, which can cause functional impairment at a time when the mother is performing
tasks vital to an infant’s growth and development. Research suggests that maternal depression is associated with compromised parenting behavior, nonresponsive caregiving practices, and a lower likelihood or shorter duration of breastfeeding.

Data from different countries\(^5\) show that unattended maternal mental illness has a negative impact on infant and young child growth, development and care, having serious health implications in terms of physical, cognitive and emotional well-being during crucial stages of the life span, such as the first 1000 days and early childhood. For example, a study in Northern Ghana\(^6\) found that children of depressed mothers are more likely to be stunted compared to children of non-depressed mothers. A recent study in Mexico\(^7\) estimated the prevalence of depression among mothers at 21.4%, with a negative impact on children at different socioeconomic groups. In low-income households, depression was associated with higher risk of never being breastfed, health problems, acute respiratory disease, injuries requiring child hospitalization, and moderate or severe food insecurity, while in medium- or high-socioeconomic households, depression was associated with higher risk of never attending a developmental check-up, and moderate or severe food insecurity.

The risk for emotional and behavioral problems is also known to be high among children of depressed mothers. A comprehensive literature set documenting the effects of maternal depression on both the psychological and physical development of children, evidence that children who experience maternal depression early in life may experience lasting effects on their brain architecture and persistent disruptions of their stress response systems, with implications for their ability to learn as well as for their own later physical and mental health\(^8\).

These findings suggest that prevention of maternal depression could lead to reduction of negative childhood health and development outcomes.

Since some of the benefits from improved human capital accrue beyond the generation in which the investments are made, we feel that it is imperative that a concerted, multisectoral response be supported, not only to raise public awareness and political commitment about mental health as an often overlooked and stigmatized issue, but also to support the integration of mental health and psychosocial support services as part of reproductive and child health services and early childhood programs, benefiting both mothers and children. Interventions could include routine screening for and early treatment of prenatal and postnatal depression, and psychotherapy for groups to improve adoption of nutrition-related behaviors to reduce stunting.

We also feel that this proposition is doable and highly cost-effective. A study prepared for the 2016 WBG/WHO global mental health conference\(^9\) showed that the returns on investment in mental health treatment at the community level can be substantial with benefit-to-cost ratios ranging between 2.3-3.0 to 1 when economic benefits are considered and 3.3-5.7 to 1 when social returns are included.

In addition, recent studies\(^10\) indicate that mental illness can be affordably treated in developing countries. Varied interventions, such as health care and social support, group therapy or home visits, which are often delivered by lay community workers and auxiliary personnel at primary care settings and at the community level, have led to a demonstrated reduction in maternal depressive symptoms in a diverse range of countries, including China, Brazil, Jamaica, Pakistan, Peru, South Africa and Uganda.

We feel, therefore, that to transform lives and communities, it is imperative that country governments with the support of the international community fund the sustainable scale up of mental health prevention and treatment as part of integrated health and social services delivery platforms, including humanitarian and development programs for addressing the needs of displaced people and refugees. If this is done, not only mothers’ well-being and children’s healthy development would be promoted, but society at large stands to reap the benefits of closing the human capital gap, enhancing a country’s productivity and competitiveness, and the resulting future prosperity of countries.
At the World Bank Group (WBG)-International Monetary Fund Annual Meetings earlier this month in Bali, Indonesia, WBG President Dr. Jim Kim posed a critical question [1]: “What will it take to promote economic growth and help lift people out of poverty everywhere in the world…How will they reach their ambitions in an increasingly complex world?”

The key, President Kim noted, is for countries to make investments in people – ensuring that people accumulate the health, knowledge and skills needed to realize their full potential and that they can put those skills to use across the economy. In response, the WBG launched the Human Capital Project, [2] an effort to accelerate scaled and smarter investments in people around the world, and a Human Capital Index to measure the current and potential productivity of a country’s people.

As the same time as the Bali Annual Meetings, we were in London at the Global Mental Health Ministerial Summit [3], hosted by the U.K. Government and the Organization for Economic Co-operation and Development (OECD) with the support of the World Health Organization, making the case that investing in mental health is a critical but often overlooked investment in individual potential, human capital accumulation and economic success. Sadly, due to widespread global inaction, there is still limited or no access to integrated mental health services in most countries, which leaves mental health services under-resourced and creates a major problem for accessing appropriate care. Stigma and discrimination only compound the problem.
Lessons from OECD countries: mental health is critical for human capital development

Yet this approach is myopic. A growing body of evidence shows that the social and economic losses related to unattended mental conditions, including substance use disorders, are staggering. In the world’s most advanced economies – the 36 OECD countries – mental ill health affects an estimated 20 percent of the working-age population at any time, and its direct and indirect economic costs are estimated to account for about 3.5 percent of gross domestic product (GDP), equivalent to US$1.7 billion in 2017.

In the wealthy OECD countries, which spend on average 9 percent of GDP on health care, the high economic cost associated with mental conditions is largely driven not by mental health care expenditure, but by lost productivity in the working-age population (see Figure 1). Indeed, people suffering from mental ill health are less productive at work, are more likely to be out sick from work and when they are out sick are more likely to be absent for a longer period. Around 30 to 40 percent of all sickness and disability caseloads in OECD countries are related to mental health problems, according to a 2015 OECD report.

**Figure 1: Measures of productivity loss: Sickness absence incidence and duration and proportion of workers accomplishing less than they would like because of a health problem, 2010**

<table>
<thead>
<tr>
<th>Sickness absence incidence: Percentage of people who have been absent from work in the past four weeks (apart from holidays)</th>
<th>Average duration of sickness absence: Average number of days absent from work in the past four weeks (of those who have been absent)</th>
<th>Presenteeism incidence: Percentage of workers not absent in the past four weeks but who accomplished less than they would like as a result of an emotional or physical health problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe disorder</td>
<td>Moderate disorder</td>
<td>No disorder</td>
</tr>
<tr>
<td>42</td>
<td>28</td>
<td>21</td>
</tr>
<tr>
<td>7.3</td>
<td>5.6</td>
<td>4.8</td>
</tr>
<tr>
<td>88</td>
<td>69</td>
<td>35</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: OECD (2012), *Sick on the Job? Myths and Realities about Mental Health and Work.*

While most people with a mental illness do work, people living with mild-to-moderate mental disorders, such as anxiety or depression, are twice as likely to become unemployed. Premature mortality is another tragic driver of lost human potential and productivity; in the typical OECD country, people with bipolar disorder or schizophrenia, for example, have a mortality rate 4 to 6 times higher than the general population.

To effectively tackle the lost human capital from mental health conditions, it is imperative that countries turn their attention to preventing and addressing mental health conditions earlier in the life course. The economic costs of mental ill health begin before individuals enter the workforce, as mental health problems typically have their onset in childhood or adolescence, accounting for the most significant disease burden amongst children and young people. However, often there isn’t appropriate care and treatment at this life stage, or it doesn’t occur right away. This can have a lasting impact, as children and young people with mental ill health are more likely to stop full-time education early and have poorer educational outcomes (see Figure 2).
Lessons from OECD countries: mental health is critical for human capital development

If countries want to improve their relative ranking in the WBG’s Human Capital Index, they must start investing seriously in integrated programs to promote mental well-being and prevent and treat mental ill health in communities, maternal and child health and nutrition programs, in schools, in their health systems, in prisons and in the workplace. It’s also value-for-money, as it is much more effective to take action while people are still in school or the workplace than wait until they have dropped out from schools, the labor market or fall into a revolving door of homelessness and incarceration.

There are examples of progress on this front. In 2015 employment and health ministers from the OECD countries signed up to show their support for an integrated policy approach, agreeing that more policies were needed to support the mental health of young people, develop an employment-oriented mental health care system, build better workplace policies with employer support mechanisms and incentives and make benefits and employment services fit for claimants with mental health problems. We need more of this. As we argued in London, an integrated, cross-sectoral approach, rather than intervention silos, is a must. Inaction on mental health cannot be a challenge for health systems to tackle alone — communities, schools, employers and society as a whole must all be on board.

Source: OECD (2012), Sick on the Job? Myths and Realities about Mental Health and Work.

Figure 2: Percentage of people who stopped full-time education before age 15, by severity of mental disorder, 2010
Institutions and Systems Matter for Health and Social Development

This past week, I attended a couple of interesting seminars at the World Bank’s Human Development Forum on how some mineral-rich countries have been able to translate their newfound riches into sustained economic growth, improved living conditions, and better nutrition, health and education levels for their populations.

The evidence from Chile (the largest copper producer in the world), Botswana (rich in diamonds) and Malaysia (blessed with oil), highlights the strong link between inclusive political and economic institutions and development. In large measure, these institutions are anchored in well-defined and accepted moral principles that govern the conduct, relationship, and interaction among individuals and groups within society. And, as a result, governments tend to be run in accordance with the rule of law, protecting and empowering their citizens to actively participate in the political and economic life of the nation, and helping people in need.

The democratic experience of Chile since the early 1990s offers a good example of how mineral wealth has helped develop and strengthen institutional and governance arrangements, not only to mobilize
additional government revenue through effective taxation policies on mining activity, but more importantly, how those increased public revenues are managed in a transparent manner in accordance with fiscal and budget laws.

Several policy changes in Chile illustrate this transition: Economic and social stabilization funds have been established to minimize the negative impact of fluctuations in copper prices on government revenues. In response to a new demographic scenario characterized by an increase in life expectancy and the growth of the senior citizen population, a Pension Reserve Fund was set up to guarantee basic solidarity pensions to those who were not able to save enough for their retirement. Investments have been made abroad to prevent the appreciation of the local currency that may undermine economic competiveness. And new mechanisms, such as program budgeting, budget execution controls, and performance management, help guide funding decisions in sectoral ministries, controlling expenditures and assessing results achieved.

Reflecting social and political aspirations to construct more inclusive societies, Chile, Botswana and Malaysia have also increased social spending that over time have helped their citizens have more equitable access to health, education and social protection systems. For example, under Malaysia’s 2006-2010 Ninth Development Plan, which recognized that “health is an important asset in the development of human capital”, the government further strengthened one of the best health systems in Southeast Asia by promoting public/private integration for service delivery.

Botswana has done an effective job in controlling the spread of the HIV/AIDS epidemic by implementing prevention interventions, increasing access to voluntary testing and counseling services, and providing antiretroviral drug treatment to more than 90% of people who need it. As documented in a recent study, Chile’s Regime of Explicit Health Guarantees, that mandates coverage by public and private health insurers of a comprehensive benefit package, has resulted in significant improvements in the early detection and treatment of chronic conditions, contributing to the high human development level achieved by the country.

Overall, the combination of sound economic policies, strong institutions and a commitment to social development in these countries has helped reduce poverty and build the human capital needed to sustain economic growth, modernize institutions and systems, enhance job opportunities, and raise living standards.

Are these experiences relevant and applicable to other countries, particularly those middle-income countries that have been enjoying a mineral boom and rapid economic growth over the past decade but continue to be plagued by high levels of poverty and inequality and low human development indicators (e.g., far from meeting the key MDG targets such as reducing maternal mortality by 75% between 1990 and 2015)?

I would say the answer is a resounding yes. But all of us working in international development need to understand that to effectively support countries in operationalizing the social aspirations and goals of
governments and citizens, we need to strike a better balance between the pursuit of short-term “easy wins” or “results”, usually associated with traditional investment projects, and “medium- term engagement” approaches that are required to construct strong and effective institutions and systems.

This, in practice, implies that we need to transcend the “project mentality” and be ready to support institution- and system-building processes over the long haul, particularly by facilitating knowledge and experience sharing among countries. To do so with hope and persistence, we should be guided by Martin Luther King’s words “The arc of history is long, but it bends toward justice.”

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As countries look to domestic resources to help meet the ambitious development agenda laid out in 2015, there is value in looking at international experiences where mineral wealth has become a dedicated revenue stream for financing development efforts, particularly for investing in human capital (via public health or education).

Why the emphasis on mineral wealth? The answer is simple. Many countries with large endowments of valuable natural resources, particularly in sub-Saharan Africa [1], do not fare better in terms of human development outcomes than less well-endowed countries, and in some cases often do worse.

Yet there are good international examples of spending mineral wealth in ways that benefit people, as in copper-mining Chile [2], diamond-rich Botswana [3], and oil-producing Malaysia [4] and Norway [5]. There’s also one in the United States [6] – Texas.
We share a deep connection to Texas and would like to highlight this state’s century-old experience as another good practice from which we have both benefited. While it is well-known that oil and natural gas contribute to almost half of the economic activity in Texas, not many acknowledge that dedicated revenue from oil and natural gas taxes and royalties have played a critical role in funding public education that reduces poverty not just in Texas but around the world.

As mandated by the Texas constitution, the Foundation School Fund, the primary mechanism for transferring state funds to more than 1,000 school districts, is largely financed by 25% of the state’s occupation tax revenues, which include oil and natural gas production taxes. In 2014, the state’s education system received over $1 billion in revenue from these taxes.

The Permanent School Fund, a state education endowment worth $34.5 billion in 2015 (the second-largest in the United States) that is capitalized with annual oil and natural gas royalties and investments managed by the State Lands Board, supports K-12 public schools. This Fund also helps secure AAA bond ratings for school districts, enabling them to pay lower interest rates. It is estimated that the Permanent School Fund has contributed more than $23 billion to Texas schools since 1960, with about $1.7 billion being disbursed over 2014-2015.

The Permanent University Fund (PUF) is a public endowment that supports 21 institutions of the University of Texas (UT) and the Texas A&M University systems that provide educational opportunities to close to 200,000 students across the state. PUF was established by the 1876 Constitution of the state of Texas through the appropriation of 2.1 million acres of land in West Texas. Since 1923, when oil began to be drilled on what was once cattle-grazing land, the principal of the PUF, which cannot be spent, has included proceeds from oil, gas, sulfur, and water royalties on this land, gains on investments in the financial markets, rentals of mineral leases, and the amounts received from the sale of university lands. The income generated by grazing leases on university lands and a portion of the earnings from the endowment are distributed across the two university systems (about $650 million in 2013 alone); the rest is added back into the principal.

The PUF is managed by the Board of Regents of the UT System, which contracts with a non-profit organization for its day-to-day investment management. It grew from $11.6 billion in 2010 to over $21.8 billion in 2015 — one of the largest educational endowments in the United States, with slightly more than Stanford ($21.6 billion) but a little less than Harvard and Yale.

To prevent political interference in the management of the PUF, specific provisions are included in the state constitution limiting how much money could be withdrawn and prohibiting spending on anything outside academics.

In addition to paying taxes and royalties, the oil and natural gas industry contributes funding for special training programs in local high schools and colleges, particularly focusing on science, technology, engineering, and math. This helps the state educational system meet the demand for a skilled workforce in the Texan energy industry and gives students skills to help them find jobs after graduation.

Overall, the experience in Texas shows the benefits of a strong legal framework, well-developed institutional and governance arrangements, sound financial management of mineral endowments, infrastructure development, and political and social commitment to human capital development. Dedicated funding streams from mineral taxes and royalties can help meet both the long-term requirements for economic growth when extractive revenues dwindle, as well as the immediate need to build human capital
as a key contributing factor to diversified growth and social well-being over the medium and longer term. Trade-offs made for short-term benefit rarely provide the necessary investment required to ensure shared prosperity.

Mineral-rich countries would do well in applying lessons from the Texas experience in their local contexts, particularly for mobilizing domestic funding needed to support the education-for-all agenda and the progressive realization of universal health coverage. Learning from what has worked well and not so well across the world is perhaps the path to follow in order to overcome the “poverty of imagination” that prevents the creation of more just and prosperous societies.

As we say in Texas, “Hook ‘Em Horns…”

“When health is absent, wisdom cannot reveal itself, art cannot become manifest, strength cannot fight, wealth become useless, and intelligence cannot be applied”.

Herophilus, 325 B.C.
Physician to Alexander the Great