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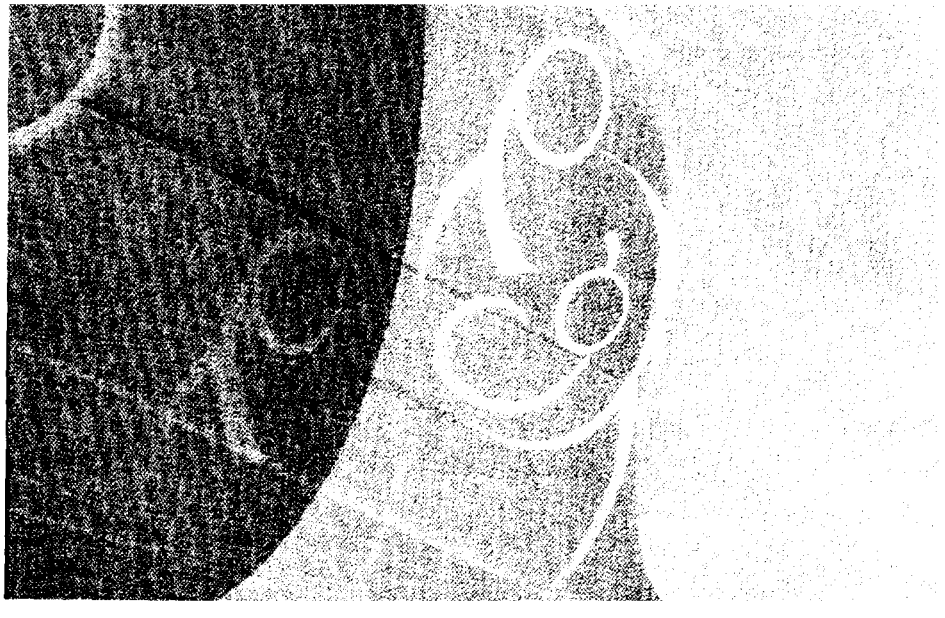
Safe Motherhood and The World Bank

Lessons From 10 Years of Experience



The World Bank

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This publication was prepared by the Health, Nutrition, and Population division (HNP) of the World Bank's Human Development Network. HNP publications provide information on the Bank's work in the sectors of health, population, and nutrition. They consolidate previous papers in these areas, and improve the standard for quality control, peer review, and dissemination of HNP research.

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Contents

Tables

Foreword

In April 1998, World Health Day commemorated the Tenth Anniversary of the Safe Motherhood Initiative. World Bank President James Wolfensohn stated that "Safe motherhood is a human right...Our task and the task of many like us ... is to ensure that in the next decade safe motherhood is not regarded as a fringe issue, but as a central issue." He requested that the Bank review its progress on the Safe Motherhood Initiative and recommend further actions needed.

The lessons reported here are based on a review of the World Bank's experience in providing support to borrowing countries for safe motherhood activities over the past decade. The findings are clear: maternal death is preventable. Effective interventions are known. Investment in safe motherhood will reduce maternal and infant death and disability, contribute to the well-being of families and the community, and ultimately improve human development and enhance economic growth.

This report identifies opportunities for improving World Bank work in safe motherhood. In many countries more work is needed for policy dialogue and programming in maternal health, and more effort is particularly needed on the most crucial intervention for reducing maternal mortality – safe delivery, especially for poor women. This review of 10 years' experience describes cost-effective strategies, discusses factors to be considered in program planning and implementation, and recommends ways that development agencies such as the Bank can assist developing countries in improving maternal health outcomes.

Reducing maternal morbidity and mortality will contribute to the goals of the Bank's Health, Nutrition, and Population Sector Strategy. A key element of the strategy is to work with countries to improve outcomes for the poor, especially the most vulnerable such as women and children. Another priority is to allocate scarce public resources to achieve the greatest effect. The Bank's recent report, "Population and the World Bank," also recognizes the links between safe motherhood and broader human development goals.

This report is intended primarily for the use of World Bank staff. We hope that it will also provide guidance to governments, other international agencies, and nongovernmental organizations in the design and implementation of programs to reduce maternal mortality and morbidity and improve the status of women.

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Acknowledgments

This report was finalized under the guidance of the Population and Reproductive Health Thematic Group. Anne Tinker was the Task Team Leader, and she, Edna Jonas, and Pat Daly prepared the overview report. Peer review was provided by Chris Walker, Susan Stout, and Jerker Liljestrand (WHO). Joanne Epp and Kathleen Finn contributed to the data analysis, and Joanne Epp provided overall coordination for the final report. The country reviews were conducted by a team comprising Edna Jonas, Kathleen Finn, Nancy Piet-Pelon, Marjorie Koblinsky and Pat Daly. The following Bank Task Team Leaders and staff were consulted on the country reviews: Bangladesh – Phil Gowers, J.S. Kang, Tony Measham, and Tom Merrick; Chad – Michelle Lioy; Brazil – Jean Jacques De St. Antoine and Tom Merrick; India – Indra Pathmanathan and Rashmi Sharma; Indonesia – Fadia Saadah; The Philippines – Rama Lakshminarayanan; Romania – Richard Florescu, Sabrina Huffman, and Olusoji Adeyi; Yemen – Gail Richardson and Atsuko Aoyama; and Zimbabwe – Keith Hanson, Kees Koostermans, Hope Phillips, and Wendy Roseberry.

Executive Summary

Complications of pregnancy and childbirth are the leading cause of death and disability among women of reproductive age in developing countries. One in four women in these countries suffers from acute or chronic conditions related to pregnancy. A woman in a developed country has a one-in-1,800 chance of dying from pregnancy-related causes; the ratio for the developing world is one in 48.[1] Of all the human development indicators, this shows the greatest discrepancy between developed and developing countries.

The implications for infants and older children are also serious. At least 20 percent of the burden of disease among children less than five years old is attributable to conditions directly associated with poor maternal health, nutrition, and the quality of obstetric and newborn care.

Most of this loss and suffering is preventable. Investment in pregnancy and safe delivery programs is a cost-effective way to meet the basic health needs of women in developing countries. It can reduce maternal death and disability, contribute to the well-being of families and the community, and ultimately improve human capital development and increase the opportunities for economic growth.

The World Bank is a leader in promoting and supporting efforts to improve maternal health, and is now the largest source of external assistance for safe motherhood. To focus international attention on the subject, the Bank cosponsored the 1987 Nairobi Conference on Safe Motherhood; where only 10 Bank-financed projects addressed maternal and child health and family planning issues by 1987, since then there have been close to 150 such projects.

The 1987 conference also saw the launch of the Safe Motherhood Initiative to provide access to family planning and appropriate care for women before, during, and after pregnancy. Safe motherhood is now universally acknowledged as a central component of reproductive health programs, and most countries have undertaken to improve and expand their maternal health services. Many of the World Bank's borrower countries have committed themselves to halving maternal mortality by 2005, and have been increasingly willing to borrow funds to achieve this goal.

Safe Motherhood in the Development Context

A decade of research and experience in addressing maternal health has made it clear that safe motherhood initiatives are a sound investment, promising high social and economic returns at low cost. Interventions to improve maternal health and nutrition are not only cost-effective but also clearly feasible, even in poor settings. The potential benefits are substantial:

- Investments in safe motherhood not only improve a woman's health and the health of her family, but also increase the labor supply, productive capacity, and economic well-being of communities.

- The burden on women associated with frequent pregnancies, poor maternal health, pregnancy complications, and caring for sick children drains women's productive energy, jeopardizes their income-earning capacity, and contributes to their poverty.

- Unwanted or ill-timed pregnancies can interfere with women's social and economic activities and cause emotional and economic hardship not only to women but also to their families.

- Children whose mothers die or are disabled in childbearing have vastly diminished prospects of leading a productive life.

A cost-effective intervention

World Development Report 1993: Investing in Health, which assessed the disease burden and the cost-effectiveness of a wide range of health interventions, concluded that interventions for children under age five and for women of reproductive age bring the greatest benefit at lowest cost. Family planning can eliminate the risks of unwanted pregnancies. Good-quality prenatal, delivery, and postpartum care to the underserved—and particularly better management of obstetric complications—can substantially reduce the death and disability associated with child bearing and ensure that more women and their children survive, thrive, and contribute to societal welfare.

Benefits to the entire health system

Strengthening maternal health services can also bring benefits to the overall health system and enhance the impact of a country's broader reproductive health program. To manage obstetric complications—the key life-saving component of maternity care— a facility must have trained staff and a functional operating theater, and must be able to administer blood transfusions and anesthesia. All of these resources and capabilities can also be applied to the management of accidents, trauma, and other medical emergencies.

Pregnancy and childbirth are often the reasons for a woman's first contact with the health services, and therefore present a valuable opportunity to identify and treat other illnesses such as anemia, malaria, and tuberculosis. The provision of antenatal care also offers a chance to counsel women about family planning and sexually transmitted diseases. By packaging together pregnancy and delivery care, family planning, and management of sexually transmitted infections, the health service can achieve even greater cost-effectiveness.

Policy and Program Design

Despite improvements over the past 10 years, maternal death and disability remain major public health concerns. Countries that have addressed their deficiencies in maternal health care have improved the health of mothers and their newborns, but more needs to be done. The most effective interventions are attendance at birth by providers trained in life-saving skills, and prompt diagnosis and treatment of complications. The focus needs to be on a continuum of care for safe motherhood interventions, however, not just on scattered elements of the program. Achieving such a continuum requires commitment at the highest levels of government, and a step-by-step approach that takes initial conditions and capacities into account. Education is also needed to address the constraints on the demand side, so that women and their families and communities understand the importance of seeking proper care during pregnancy and delivery, particularly in the event of complications.

World Bank Support for Safe Motherhood

The World Bank hosted a meeting on safe motherhood on World Health Day in April 1998 for heads of UN agencies, senior government officials, and representatives of nongovernmental organizations (NGOs). Following the meeting, an in-depth desk study was conducted for nine countries in which the Bank currently provides assistance for safe motherhood. The countries—Bangladesh, India, Indonesia, the Philippines, Yemen, Romania, Zimbabwe, Chad, and Brazil—were chosen for their regional diversity and for the broad range of initial conditions they presented.

Unfinished agenda

The World Bank has been a leader in safe motherhood at the country level as well as at the international level. However, there are outstanding gaps in the World Bank's work. In many countries, we are missing opportunities for policy dialogue and programming in maternal health, and even where we are supporting safe motherhood, there are few projects that include the most crucial intervention—safe delivery.

Bank support of other projects aimed at the broader goals of alleviating poverty and sharing growth has also significantly improved women's health and status. These projects include the

encouragement of smaller families and older age at marriage, the provision of widespread primary schooling and wider access to health facilities, and efforts to lower fertility and infant mortality. Too many women still die from causes that can be cost-effectively prevented, however.

Guiding Lessons

The Bank is capable of influencing health systems and outcomes in its member countries through its policy dialogue and projects. Lending for safe motherhood over the past decade has indicated that borrower countries are willing to borrow funds for safe motherhood activities. From its experience with safe motherhood projects over the past decade, the Bank has learned much about how to work with countries to develop more effective and sustainable safe motherhood programs. To achieve the Bank's poverty, equity, and human development objectives, considerably more needs to be done to improve women's access to maternal health services. Countries that fail to institute the necessary changes will fall further behind other countries in human capital development.

Several key lessons emerge from the review of World Bank experience in safe motherhood over the past decade:

- **Safe motherhood is a vital social and economic investment.** Safe motherhood interventions are among the most cost-effective in the health sector. They contribute to women's health and well-being and that of their children, to women's role within the family, and ultimately to societal welfare. Countries (and areas within a country) where poor women lack access to basic family planning and maternal health services should receive priority attention.

- **Improving maternal health requires a continuum of services, including, in particular, referral capacity for the management of complications.** The Bank-assisted projects that are designed to address safe motherhood most effectively, such as those in Bangladesh, India, Indonesia, and the Philippines, are designed from the start to provide a continuum of high-quality care from the community to the hospital. This requires staff trained in midwifery skills at various levels of the health system, and well-functioning facilities accessible to clients and equipped with essential obstetric drugs and supplies.

- **Safe motherhood interventions can strengthen the performance of the health system.** The effectiveness of maternal health services, like that of other primary health care activities, is often hampered by organizational and institutional constraints. In some countries, for example, links have had to be established between separate family planning and health programs. Improving access to good-quality maternal health care also remains a challenge in many countries because it requires a functioning primary health care system in the community and a referral system to a health facility capable of providing emergency obstetric care. Safe motherhood interventions designed to integrate these different sectors of the health service can thus bring about improvements that more broadly affect the health system.

- **Bank-financed safe motherhood programs need to adapt to local conditions and do what is feasible.** Competing demands on resources may make it difficult to simultaneously address every component of an effective safe motherhood program, but every country can make a start. Initial measures in the poorest countries should start by expanding family planning, promoting good nutrition and hygienic births, training more health providers in midwifery skills, and improving the capacity of district hospitals to manage obstetric complications. Increasing the number of female health workers can improve service quality and use, particularly in cultures that discourage women from consulting male health providers. In more developed borrower nations, efforts should focus on improving the quality of case management and counseling in family planning and maternity care and pay special attention to marginalized groups such as adolescents.

- **Effective programs promote awareness of maternal health services as well as improve the quality of services.** Activities to promote awareness of maternal and reproductive health services are needed to increase the demand for those services. In Indonesia, for example, more than 50,000 village midwives have been trained, but they continue to be underutilized. Well-informed and educated families and communities will take responsibility for the health of women in their community by supporting and encouraging them to seek good maternal health and nutrition, and by helping them to recognize danger signs in pregnancy. Bank support is being used to increase this awareness among women, families, and providers.

- **Sector work is important for policy reforms and setting program priorities, especially since data related to maternal health are scarce.** Projects need indicators that measure the variables affecting maternal health, such as the percentage of births attended by skilled providers and the proportion of district hospitals able to provide essential obstetric care. More information about maternal mortality and morbidity is also needed. In India, sector work on reproductive health supported the government's shift from a target-driven family planning program to a reproductive-health-centered approach. After a sector analysis in Bangladesh showed that maternal health lagged far behind achievements in fertility and infant mortality reduction, the government made a determined commitment to make similar achievements in maternal health. In Brazil, sector work contributed to a better understanding of how fee structures provided incentives for hospitals and doctors to encourage cesarean sections, most of which were unwarranted.

- **High-level government commitment and partnerships are essential to effective safe motherhood programs.** Bangladesh, Chad, India, and Indonesia have all been able to advance their safe motherhood programs because of the strong commitment of their national leaders, supported by consistent and coordinated external assistance. For safe motherhood programs to be effective, the Bank needs to promote dialogue between governments, policymakers, health providers, NGOs, and other assistance agencies. The consortium of development partners in Bangladesh, for example, has coordinated its planning in partnership with the government. The Bank is well-positioned to support this sort of policy dialogue, to mobilize resources, and to facilitate the work needed to link investments made in different sectors and by different donors.

- **Both the borrower country and the Bank must have a sustained commitment to reducing maternal mortality.** There is no shortcut for reducing maternal mortality. Better maternal health is a cost-effective and achievable objective, but progress in reducing maternal death and disability has been slow, often because interventions are not properly phased or focused. Changes may be needed both in the health system itself and in the understanding of maternal health issues at the household, community, and national levels to provide an effective continuum of care. Countries should not try to achieve too much in too short a time. Behavioral change is an important element of an effective healthy pregnancy and safe delivery program, but achieving that change can take a long time.

Safe Motherhood and The World Bank: Lessons From 10 Years of Experience

Introduction and Overview

Nearly 99 percent of the more than 500,000 maternal deaths each year occur in the developing world. A woman in the developing world has a one-in-48 chance of dying from pregnancy-related causes, compared to a one-in-1,800 chance in the developed world.[2] That makes maternal mortality the human development indicator showing the greatest discrepancy between developing and developed countries. The means to narrow the gap are now well known, and maternal health interventions are among the most cost-effective in the health sector. So why does the gap persist? Consider these further findings:

- Complications of pregnancy and childbirth are the leading cause of death and disability among women of reproductive age.

- One in four adult women in the developing world suffers from acute or chronic conditions related to pregnancy.

- Twenty percent of the burden of disease among children under the age of five is attributable to perinatal conditions—low birthweight, birth asphyxia, and birth-related trauma—directly associated with poor maternal health and poor quality of obstetric and newborn care. These same conditions are responsible for more than 3 million deaths of newborns each year.

- Research from Bangladesh shows that children up to the age of 10 whose mothers die have three to five times the mortality rate of children whose mothers are alive or whose fathers die. A recent study from Tanzania also found a detrimental effect on children's education, especially at the secondary level.

The World Bank has been a leader in promoting and supporting efforts to improve maternal health, and today it is the largest single source of external assistance for safe motherhood. In 1987, the Bank cosponsored the Nairobi Conference on Safe Motherhood, which launched the Safe Motherhood Initiative, the first global commitment to issues of this type. In the 10 years since then, the number of projects that include safe motherhood-related activities has increased substantially. By 1987 the Bank's lending program included 10 projects with family planning and maternal and child health components; today, almost 150 projects include such components. Overall lending for population and reproductive health has totaled $385 million a year since 1992, or 30 percent of the Bank's total lending for health, nutrition, and population, although only a portion of this amount supports safe motherhood (Annex 1).

In the decade since 1987, knowledge of the causes of maternal disability and death and of the appropriate interventions in poor settings has increased considerably. With that new understanding has come a broader recognition of the importance of interventions aimed specifically at pregnancy and childbirth. It has become clear that life-threatening complications of pregnancy (prenatal and postpartum hemorrhage, infection, eclampsia, obstructed labor, and complications of abortion) are responsible for nearly three-quarters of maternal deaths, and that risk-screening methodologies cannot reliably predict which women will experience these complications. The most effective interventions are attendance at delivery by providers skilled in midwifery and prompt diagnosis and treatment of complications (figure 1).[3]

Borrower countries have demonstrated an increasing commitment to safe motherhood. So too has much of the international community, which confirmed its support for safe motherhood initiatives at the International Conference on Population and Development (ICPD) and at the International Conference on Women. It is important now to take stock of the safe motherhood experience, to distill the lessons learned, and to prepare recommendations for the future.

This paper examines the Bank's work in safe motherhood, based largely on a review of experiences in nine countries in which the Bank provides substantial assistance in maternal health and family planning. These countries—Bangladesh, Brazil, Chad, India, Indonesia, the Philippines, Romania, Yemen, and Zimbabwe—bring regional diversity and a range of maternal health conditions to the study. The projects reviewed were selected for their different approaches to maternal mortality and disability, the lessons they offer on program experience over the past decade, and their contribution to the identification of critical interventions for future work in safe motherhood.

Safe Motherhood in the Development Context

A decade of research and experience in addressing maternal health has made it clear that safe motherhood initiatives are a sound investment, promising high social and economic returns at low cost. Interventions to improve maternal health and nutrition are not only cost-effective but also clearly feasible, even in poor settings. The potential benefits are substantial:

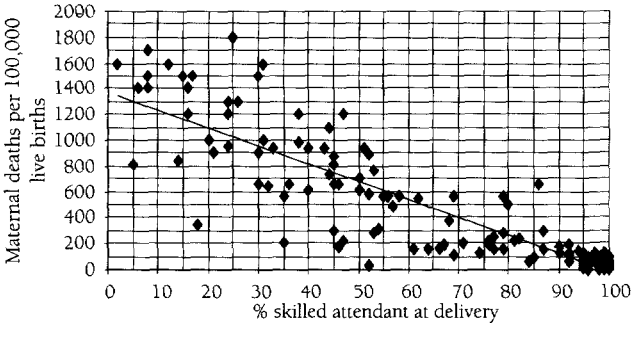
- Unwanted or ill-timed pregnancies can interfere with women's social and economic activities, and cause emotional and economic hardship not only to women but also to their families.

- Children whose mothers die or are disabled in childbearing have vastly diminished prospects of leading a productive life.

- The burden on women associated with frequent pregnancies, poor maternal health, pregnancy complications, and caring for sick children drains their productive energy, jeopardizes their income-earning capacity, and contributes to their poverty.

- Investments in women's health not only improve a woman's health and the survival and health of her family, but also increase the labor supply, productive capacity, and economic well-being of communities.

Figure 1 Relationship between the presence of a skilled attendant at delivery (percentage of deliveries) and the maternal mortality ratio (1990 data)



Source: WHO Discussion Paper. Prepared for United Nations ICPD+5 PrepCom Meetings, New York, March 24–31, 1999.

A cost-effective investment

World Development Report 1993: Investing in Health, which assessed the disease burden and cost-effectiveness of a wide range of health interventions, concluded that interventions for children under age five and for women of reproductive age bring the greatest benefit at lowest cost. Family planning can reduce the risks of unwanted pregnancies. Good-quality prenatal, delivery, and postpartum care to the underserved—particularly better management of obstetric complications—can substantially reduce the death and disability associated with child bearing and ensure that more women survive, thrive, and contribute to societal welfare.

The World Bank and the World Health Organization (WHO) have estimated that providing a standard package of maternal and newborn health services would cost approximately $2.60 per person per year in a low-income country. These costs are predominantly for maternal health services (68 percent), but also include postpartum family planning and basic neonatal care, as

well as condom promotion to prevent sexually transmitted infections (Annex 2). Delivering effective maternal health services requires better infrastructure and maternity care hospitals, but does not usually require new facilities. In most countries, the greatest impact could be achieved through interventions to improve existing community health centers and district hospitals; for example, by training health providers, especially midwives, and purchasing essential obstetric supplies and equipment. Strengthening the infrastructure would also benefit the population by improving the delivery of other services.

Safe motherhood involves changes at the household, community, and health system referral levels (table 1). Within households it requires changing the behavior and practices of women, their husbands, and families so they can recognize danger signs in pregnancy and be more responsible for good health practices in pregnancy. In the least-developed settings, properly trained and supervised traditional birth attendants may help to improve hygiene during home deliveries and the referral of women with complications. However, even with training, traditional birth attendants cannot treat serious complications, and higher-level health providers with life-saving skills are key to reducing maternal mortality.

At the community level, the needs are for health providers trained in first aid who can stabilize and refer complications and for readily accessible referral sites. At the referral level, the package requires timely treatment in appropriately equipped and staffed facilities.

Table 1 Essential safe motherhood interventions

Prevention and management of unwanted pregnancies
- Family planning
- Management of complications from unsafe abortion
- Termination of pregnancy where not against the law

Pregnancy-related services

Prenatal care
- Birth planning
- Prompt detection, management and referral of pregnancy complications
- Tetanus toxoid immunization
- Nutrition promotion, including iron and folate supplements
- Iodine supplements, where warranted
- Management and treatment of sexually transmitted infections, malaria, and tuberculosis

Safe delivery
- Hygienic, normal delivery
- Detection, management, and referral of obstetric complications
- Facility-based essential obstetric care

Postpartum care
- Monitoring for infection and hemorrhage
- Child spacing

Synergy with health services

Safe motherhood efforts can provide the groundwork for broader progress in strengthening health systems.

To manage obstetric complications—the key life-saving component of maternity care—a facility must have trained staff and a functional operating theater, and must be able to administer blood transfusions and anesthesia. All of these resources and capabilities can also be applied to the management of accidents, trauma, and other medical emergencies. Indeed, one way to evaluate the performance of a country's health system is to examine the functioning of its prenatal and delivery care system. The success of a country's maternal health program also reflects its performance in meeting other development objectives, such as infant and child mortality reduction, gender equity, and reduced fertility.

Pregnancy and childbirth services are often an entry point or first contact with the health system for women, and therefore provide a valuable opportunity to identify and treat women for illnesses such as anemia, malaria, and tuberculosis, for which early treatment during pregnancy is critical. Antenatal care is also the health service women are most likely to use, and as such offers a chance to counsel women about family planning and sexually transmitted infections, including HIV/AIDS. Maternal health services—pregnancy and delivery care, family planning, and the management of sexually transmitted infections—can be even more cost-effective when offered as a package.

The Link Between Safe Motherhood and the Bank's Strategies for Health, Nutrition, and Population

In recent years, the Bank has greatly increased its funding for health, nutrition and population (HNP) pro-

grams in developing countries. It is important to understand the links between safe motherhood and the Bank's objectives and strategies in the sector. Moreover, the Bank has recognized the central role of maternal and infant health outcomes in the context of a comprehensive development framework.

Safe motherhood programs can make a critical contribution to achieving the three primary goals of the World Bank's stated strategies for health, nutrition, and population:

- Improving health, population, and nutrition outcomes for the poor
- Strengthening the performance of health care systems
- Securing sustainable health care financing

The most vulnerable groups, women and children, are most likely to suffer where scarce public resources are not used to protect the poor. As a result, the Bank's senior managers in HNP have identified maternal and child health and nutrition as one of five sectoral emphases for Bank assistance.

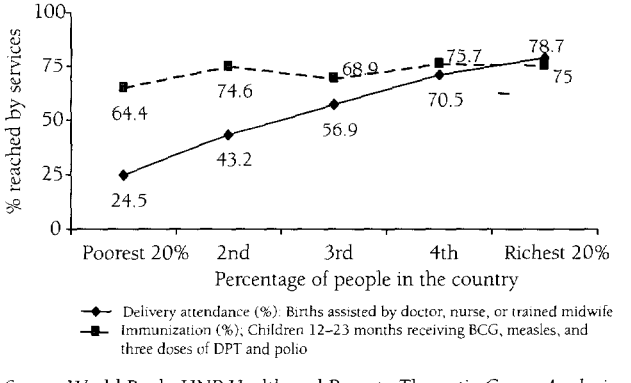
Low consumption of maternal health services is most marked among lower-income groups. In the Philippines, and in developing countries in general, the gap between the poorest segment of the population and the richest for women whose delivery is attended by an appropriately trained provider is even wider than the gap for other basic services (figure 2 and Annex 3). Poor women make less use of skilled providers during delivery, and their access to referral services during obstetric emergencies is limited by transport costs, fees for service, and opportunity costs, as well as social factors. Strengthening maternal health care can provide greater access to health services for the poor, and can improve the allocation of scarce public resources to programs that have the greatest impact on health, particularly among those unable to pay.

As already mentioned, maternal health services can also provide the groundwork for better performance of the health system, since these interventions require an effective continuum of care from community to hospital-based services. A minimum package of safe motherhood services requires governments to provide essential community-based services and to upgrade support systems such as clinical training, medicine and equipment supply systems, safe blood supply, and institutional capacity.

In countries where the health infrastructure is better developed, there can be more emphasis on quality assurance and client satisfaction. These countries should also encourage greater diversity in the ways that health services are provided, by improving public-sector performance and increasing the participation of the private sector and nongovernmental organizations in health. New facilities and regulatory mechanisms for providers, both public and private, may be needed. Improved access to family planning and maternity care services also requires working with the ministries of education, women's affairs, planning, and finance, as well as with the ministries of health and population.

It is important that countries secure sustainable health-care financing for their maternal health services, and they should take advantage of the different ways of doing this. The Bank project in Indonesia is introducing a new approach for financing referral services for essential obstetric care, for example, which pools the risk of a major health expenditure. The welfare gains for risk pooling are greatest for risks that are relatively rare but involve high costs, such as life-threatening obstetric complications. This use of demand-side

Figure 2 Philippines: Gap in Maternity Care and Immunization Between Poorest and Richest Segments of Society



Source: World Bank. HNP Health and Poverty Thematic Group Analysis. March 1999.

financing of emergency obstetric care is consistent with the trend toward self-financing hospitals in Indonesia.

The Bank's population and reproductive health strategy also emphasizes that population and reproductive health programs need to be location-specific, and adapted to the demographic, economic, and geographic conditions of each country (box 1). This strategy recognizes the links between safe motherhood interventions and broader human development goals (figure 3). It notes that high maternal mortality is part of the unfinished agenda for the Bank and its borrower countries, and calls for the Bank to support borrower countries in implementing safe motherhood programs.

World Bank Support for Safe Motherhood

The Bank has been a leader in promoting and supporting efforts to improve maternal health. Today it is the largest single source of external assistance for safe motherhood. Projects supported by the Bank employ a variety of strategies, including health-sector reforms, multisectoral approaches, and partnerships with other international agencies and nongovernmental organizations. Most of the projects have included maternal and child health—which historically has focused primarily on child health, and family planning activities; far fewer projects include activities to ensure safe delivery, particularly the management of obstetric complications (figure 4). Of the 77 countries where the Bank has supported safe motherhood activities since 1987, only 29 countries have had projects that include safe-delivery interventions (Annex 4). Although the number of projects that include safe motherhood-related activities has increased substantially over the decade, safe delivery still lags behind other areas of health, nutrition, and population.

The unfinished agenda

Assessment of the Bank's work in safe motherhood shows that a substantial number of women remain at risk. Twenty-nine countries have maternal mortality ratios of 600 or more deaths per 100,000 live births. The Bank finances safe motherhood-related activities (family planning or maternity care) in 22 of them, but safe delivery activities are supported in only seven (Annex 5).

Box 1 Safer births and a better health system in Chad

Two World Bank-supported projects in Chad, the Health and Safe Motherhood Project and the Population and AIDS Control Project, are working to improve reproductive health services and to strengthen the overall health system. Safe motherhood is an effective entry point both for improving women's health and for strengthening the overall health system because it requires functioning health services at all levels of care.

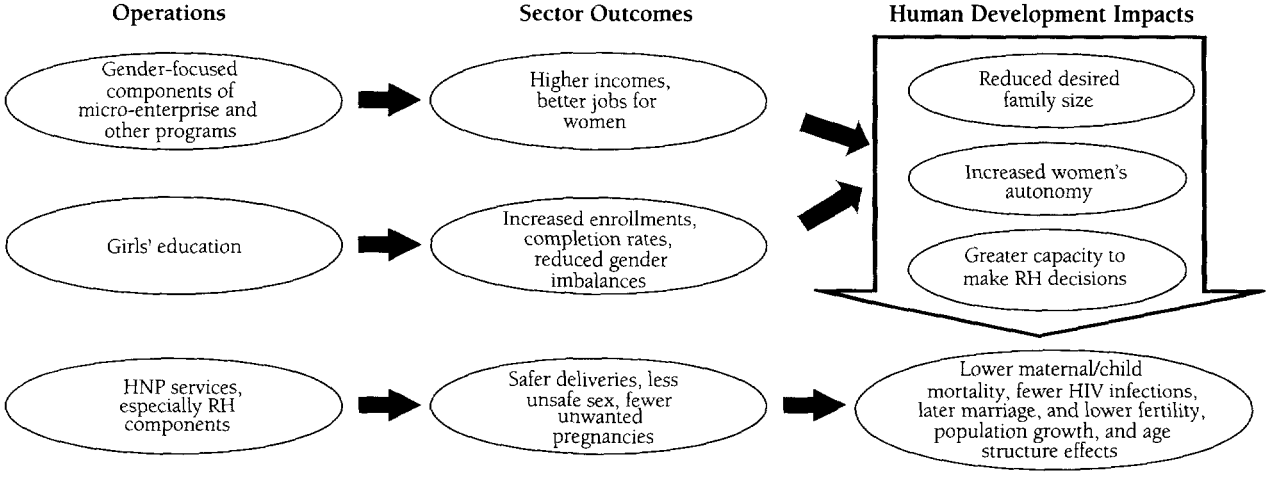
The projects are building institutional capacity by strengthening decentralized planning and implementation of health services, and by improving access to basic health services. One of every nine women in Chad will die of pregnancy-related causes. Less than 25 percent of women deliver with a skilled birth attendant, and approximately 2–6 percent of adults have AIDS. About 20 percent of women have experienced female genital mutilation.

The Safe Motherhood Project emphasizes managing obstetric emergencies, ensuring access to drugs, and offering health education to encourage all women to seek good maternal health care. During implementation of the project, it became clear that improving transportation and training paramedics to recognize and manage obstetric and newborn problems were critical to better pregnancy outcomes. The Bank arranged for a supplemental credit to address these issues immediately. Providing paramedics with the support they need—drugs, radios, motorcycles, and referral backup—requires a long-term commitment.

The Population and AIDS Control Project is working to increase the use of modern contraceptive methods and to slow the spread of HIV infection by promoting behavioral change and increasing antenatal care. The project is building up national capacity for population-related activities through better information and research, HIV screening of pregnant women, a social marketing program for condom use, and establishment of a social fund to provide grants for population and AIDS control efforts.

Both projects had to adapt their activities to local conditions. They needed to build the institutional capacity of the health system to provide services and address neglected issues related to high fertility, high maternal mortality, and the HIV/AIDS epidemic. Vital linkages between community-level service providers and referral points, and between service provision and education activities are key elements of safe motherhood programs that work to strengthen the overall performance of the health system.

Figure 3 Population, Gender, and Reproductive Health-Related Development Impacts of Bank Operations



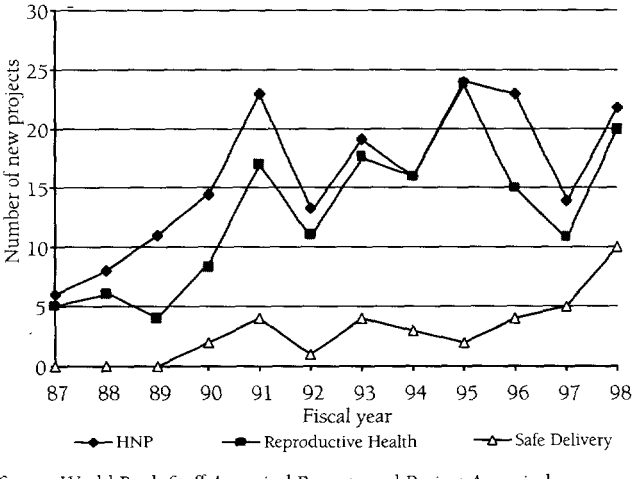
Source: Adapted from World Bank, *Population and The World Bank*, 1998.

Country-assistance strategies rarely mention maternal mortality and disability concerns, even for countries with the most serious maternal health problems. Only nine of 24 country-assistance strategies for countries with very high maternal mortality ratios mention the issue as part of the country strategy (Annex 5). For example, despite unacceptably high maternal mortality ratios in most of Sub-Saharan Africa, the most recent country-assistance strategies for countries in the region fail to mention this as a problem. Among the few country-assistance strategies that do consider maternal health, those for Bangladesh and Guinea both address maternal mortality ratios as a serious problem that affects poverty alleviation as well as women's health. Both use data on the attendance of skilled practitioners at delivery as a measure of progress. There is scope in all country-assistance strategies for more detailed analysis of how maternal health care fits into the overall country program, particularly in countries with high maternal mortality ratios. It is also important to identify links with other sectors—education, gender, and infrastructure development—to show how they affect maternal health and how better maternal health contributes to a multisectoral development agenda.

Strategies tailored to local conditions

Half of women in developing countries deliver without an attendant trained in midwifery skills, and about one-third of pregnant women have no prenatal contact with an appropriately trained health provider. Conditions vary widely by region, country, and even locality. Sub-Saharan Africa, South Asia, and the Middle East and North Africa account for 90 percent of maternal deaths. In these regions, women have limited access to prenatal, delivery, and postpartum care,

Figure 4 Number of New Projects with Reproductive Health, Safe Delivery, and Health, Nutrition, and Population Activities, Fiscal 1987–98



Source: World Bank Staff Appraisal Reports and Project Appraisal Documents.

and treatment for obstetric complications and the quality of care are generally poor. In Latin America and the Caribbean, East Asia and the Pacific, and Europe and Central Asia, maternal mortality ratios are lower. In these regions, the priority concerns are complications from unsafe abortion and limited access to quality care for the poor.

To be most effective, safe motherhood initiatives need to consider the country context and develop a roadmap based on level of development. For example, a country like Cambodia, which has an estimated maternal mortality ratio of 900 per 100,000, also has other urgent needs in the health sector, including the control of communicable diseases such as tuberculosis and malaria. With the need so great and capacity still low, there is a risk of trying to do everything at once, and failing. The Bank's initial work has therefore focused on strengthening general health services and controlling communicable disease. Interventions in areas such as maternity care will be phased in later, as capacity grows. However, it is useful for policymakers and program managers to develop a framework which lays out the sequencing of interventions to achieve long-term goals.

There can also be substantial differences within a country. For example, the national maternal mortality ratio in Indonesia is 390 per 100,000, but the ratio varies from 150 per 100,000 in parts of Java to more than 1,000 in Eastern Indonesia. This differential is much greater than that for other basic health indicators such as infant and child mortality. In cases such as this, flexible project designs may be needed that allow for location-specific interventions for maternity care. Also, because of the difficulty of accurately measuring maternal mortality, these statistics should be complemented by others when designing safe motherhood interventions, such as the percentage of births attended by skilled providers or the proportion of district hospitals offering essential obstetric care services.

The mix of strategies supported by the Bank reflects the variations in local settings. The World Bank Discussion Paper, *Making Motherhood Safe*, identifies factors across all levels of institutional capacity that need to be considered in any project attempting to improve maternal health. The means must be tailored to the setting for a project to successfully achieve the following outcomes:

- Families, communities, and providers informed about good maternal health and nutrition practices and about the danger signs of complications
- Well-functioning facilities accessible to clients and equipped with essential drugs and supplies to manage complications
- Staff trained in midwifery skills at all levels of the health system
- Different levels of the system linked to ensure a continuum of care from community to hospital, including alarm and transport for emergency cases.

In resource-poor countries such as Chad and Yemen, where fertility and mortality rates are high, it is most important to expand family planning services and introduce cost-effective prenatal interventions; to train midwives; and to strengthen obstetric services at the district hospital. Programs to educate women and influential family members about the importance of pregnancy and delivery care, healthy practices during pregnancy, and recognition of danger signs in pregnancy are also important.

Education programs also need to address demand-side factors, and especially to advise families and providers about the importance of seeking health care during pregnancy and delivery. Depending on the policy environment, a first step may be to increase awareness among policymakers of the extent, dimensions, and development implications of maternal death and disability. Multisectoral approaches can also be taken to improve women's status, including girls' education, raising the age of marriage, and ending female genital mutilation.

In countries with more health infrastructure, such as Indonesia and the Philippines, competency-based training and quality assurance systems should be strengthened to ensure that normal deliveries are safe and complications appropriately managed. Communication and counseling skills for providers may also need attention to improve the quality of care. More

Box 2 Improving maternal health in Malaysia: A success story

Until the 1970s, most Malaysian women delivered at home, assisted by untrained traditional birth attendants. Maternal mortality ratios were high. By 1996, childbirth practices had changed dramatically, with more than 95 percent of Malaysian women using prenatal care. Of the 98 percent of women who delivered with a skilled attendant in 1995 (compared to 57 percent in 1980), 66 percent delivered in government hospitals, 20 percent in private hospitals or maternity homes, and 12 percent at home. By 1996 the maternal mortality ratio had dropped to 43 out of 100,00 live births. What accounts for these changes?

Two factors at the policy level were especially important:

- **Sustained political commitment** over four decades aimed at increasing the acceptability of publicly provided health services for the rural poor, and at improving access to those services.
- **Investments in primary education and primary health care** received high priority within a generally buoyant economy.

In the health sector, evolution has been steady, though gradual:

- **Clinical midwives conduct home deliveries.** The backbone of the rural health services is a strong network of government rural midwives supervised by public health nurses. Rural midwives have 18 months of clinical midwifery training, and public health nurses have five years of training in nursing, clinical midwifery, and public health. Attention during the 1960s and 1970s focused on establishing this network. The push for more rural doctors came only in the mid-1980s.
- **Communities now prefer clinical midwives.** In the 1970s, literate traditional birth attendants were registered and trained in basic clean and safe practices. The relationship between traditional birth attendants and rural midwives evolved gradually, from early days of suspicion to a collaborative system in which birth attendants worked alongside rural midwives. Today, the traditional birth attendant has almost disappeared.
- **District maternal and child health committees use adverse obstetric events to mobilize and educate communities.** Since the 1980s, the district maternal and child health committees, headed by a district hospital-based obstetrician and anchored by the district public health nurse, have investigated every adverse event, including maternal and perinatal death, eclampsia, and puerperal sepsis. Contributing factors to these events, such as delays in seeking appropriate care or referral, are explained to rural midwives, community leaders, and family members to educate them about the importance of appropriate treatment.
- **Care systems placed joint responsibility on the district hospital and rural health service to prevent maternal deaths.** Village health committees listened when the hospital-based obstetrician visited to explain how an untoward event could have been prevented.
- **Every maternal death is reviewed.** Hospital practices have changed to become more user-friendly. Nurse midwives oversee normal pregnancies and conduct normal deliveries, allowing doctors to focus on complications. Obstetric practices are regularly updated, and early-warning systems are continually strengthened.

Sources: Koblinsky, M. A., Campbell, O., and Heichelheima, J. Forthcoming. "Organizing Delivery Care: What Works for Safe Motherhood?" WHO Bulletin.

Lieberman, S. 1996. "Redesigning Government's Role in Health: Lessons for Indonesia from Neighboring Countries." Indonesia Discussion Paper Series Number 1. 1996. World Bank, East Asia and Pacific Region, Country Department III, Washington, D.C.

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effort should go into counseling families to develop contingency plans for delivery in case of emergency, and into improving access to referral services which are fully equipped and staffed 24 hours a day and have the necessary communication and transport systems.

Where the health infrastructure is better developed, such as in certain regions of Brazil, priority can be given to the prompt and humane treatment of complications of unsafe abortion and to discouraging the overmedicalization of obstetric care.

Expanding access to a variety of contraceptive methods can provide good results, and making maternity care more efficient as well as client-centered is also an important issue for many of the more developed borrower nations, including Romania. In these countries, efforts should focus on improving the quality of support—such as case management and counseling—for family planning and maternity care, and should pay special attention to marginalized groups such as adolescents. The private sector and NGOs have an increasing role in providing pregnancy and delivery care, and as consumers are able to choose from a variety of providers—public, private nonprofit, and private for-profit—regulation of these providers will be critical for maintaining quality.

Country Reviews: Improving Project Implementation at the Country Level

A review of selected Bank-financed projects with substantial maternal health activities was recently conducted to assess the Bank's work over the past 10 years, to identify what works and what doesn't, and to understand what has contributed to the improved quality of projects. The review covered the operational and technical aspects of project design and implementation. It was designed to track the Bank's work in a country over time, rather than to focus on a particular project. This approach was important because some of the countries were in transition from target-driven family planning programs to a broader reproductive health approach, following the 1994 International Conference on Population and Development (Annex 6).

The review covered nine countries that had projects with safe motherhood components or activities that were approved by the Board before the end of fiscal 1998: Bangladesh, Brazil, Chad, India, Indonesia, the Philippines, Romania, Yemen, and Zimbabwe. These countries were selected to ensure representation of all geographic regions and all different stages in the establishment of a continuum of services for improved maternal health. World Bank lending in these nine countries accounts for 40 percent of its total lending in the health, nutrition, and population sector since 1987. Some countries have had only a single Bank project supporting health programs; others have had a series of such projects (Annex 7). The reviews were guided by a set of questions and included analysis of the key project documents.[4]

Bank assistance to clients with population projects shows a common pattern: initial faltering evolving into an effective program several years later. Bangladesh, India, and Indonesia provide examples of how a deepening relationship between Bank and government has coincided with a remarkable increase in contraceptive prevalence and a dramatic change in the approach to service provision. This has produced a strong foundation that will enable the transition from a target-driven family planning program to one based on the reproductive health approach. The Indonesian Government, building on its successful family planning program, launched initiatives to improve reproductive health, including reducing maternal mortality (box 3).

In another example, an initial health and family planning project in Zimbabwe stimulated institutional development in the sector. By project's end in 1994, 48 percent of couples were using contraceptives, more than 90 percent of all women received prenatal care, and 70 percent had a facility-based delivery. A second project was able to build on the gains made to enhance the capacity to deliver maternal, child, and nutrition services and to give top priority to addressing the AIDS epidemic.

Bank assistance in Brazil and Romania took a broader sectoral approach. For example, the Health Rehabilitation Project in Romania was designed to reverse a long decline in health indicators, including maternal health. The project included funds to improve maternal health services at rural dispensaries and hospital referral centers and to increase the availability of contraceptives at local family planning units. During this period, maternal mortality declined substantially.

The review examined experience with sector analysis and project preparation, design, and implementation. Each project had successful aspects as well as problems from which to learn. The most comprehensive projects were based on careful sector review, especially of institutional issues and the linkage between supply characteristics and client demand. Lasting commitment at the highest levels by the Bank and borrower agencies was very important, especially during implementation.

Sector analysis and project preparation

Several lessons relate to the early planning stages of the project cycle for safe motherhood projects:

- Institutional constraints can present barriers to achieving safe motherhood objectives

Safe motherhood programs involve a continuum of care. It is therefore important to identify beforehand any institutional constraints, to avoid attempting projects that are too ambitious for their institutional setting. Divided institutional responsibilities can be another obstacle. In Indonesia, for example, different ministries manage family planning and health programs, making it difficult to create a coherent approach to strengthening maternal health services at all levels.

There are also cases where efforts have been made to optimize existing capacity, as in the Chad Health and Safe Motherhood Project and the Population and AIDS Control Project. These projects focus on strengthening the overall health system as well as improving reproductive health services. Originally a single project whose activities were to be managed by the Ministry of Public Health, the Chad project was split into two when it became clear that the project would exceed the limited capacity of the Ministry of Public Health. The two projects were managed by separate ministries (Ministry of Public Health and Ministry of Planning and Coordination), with a single Bank task leader providing overall coordination. In Bangladesh and Indonesia, an analysis of the institutional constraints made it clear that the project would have to include components to develop linkages between the separate family planning and health arms of the government, in coordination with the ministries responsible for women's affairs and education.

Box 3. Expanding coverage for maternity care in Indonesia

Although almost 90 percent of Indonesian women receive some antenatal care, more than two out of three women still deliver at home and fewer than two out of five are attended by a skilled health provider. Maternal mortality remains unacceptably high at 390 per 100,000 live births.

In the late 1980s, the Indonesian government began an intensive program, partially supported by a World Bank loan, to train and place more than 54,000 village midwives in almost every village in the country. The midwives, who complete a four-year training program in nursing and midwifery, are hired on three-year renewable contracts to work in villages throughout Indonesia. Often, they are the primary source of basic health care and maternal and child health care. In addition to managing normal pregnancies and deliveries, they are trained to diagnose and treat a range of pregnancy-related complications, to stabilize cases before referral, and to provide basic care of newborns. Because so many women deliver at home, the midwives are encouraged to conduct home visits throughout the pregnancy and the postpartum period.

The training program was accelerated to quickly boost the number of midwives, resulting in some sacrifice of quality. The Ministry of Health is consequently working to improve skills through additional in-service training and on-the-job training in district hospitals. It is also working to develop standard protocols for obstetric care.

Progress has been good, and the proportion of births attended by a village midwife has increased over the past five years, especially among the poor. However, a number of supply- and demand-related obstacles keep the program from becoming self-sustaining. These range from low retention rates for midwives and inadequate support and technical supervision, to weak demand for midwife services. The World Bank-financed Partnership for Safe Motherhood Project is supporting government efforts to learn more about these issues through pilot tests, with the goals of developing the midwives into successful private practitioners and providing them with proper financial incentives.

Pilot interventions include targeted performance-based contracts to compensate village midwives for providing a clearly defined package of services to the poor. On the demand-side, the recent economic crisis in Indonesia has brought renewed concern about ensuring that fees for family planning and maternal health services are not a deterrent to seeking care, especially among the most vulnerable. To address this, the project is supporting a pilot effort that guarantees poor women who consult midwives access to referral services at a health center or district hospital if the care is certified as necessary by the midwife. This program would be part of an existing voucher system for essential prenatal, delivery, and postpartum care.

Note: Estimates of maternal mortality are influenced by the size and type of the sample, and vary from 343 to 718 per 100,000. The figure of 390 per 100,000 is from the 1994 Indonesian Demographic and Health Survey.

- **Demand-side analysis is especially important for maternity care services**

Although stakeholder participation in project preparation is increasing, client-centered, demand-side analysis is still often lacking, along with examination of the interdependence of supply-side factors. It is important to know how social constraints, such as the low status of women in many societies, may affect demand for services. Assessment of staffing requirements for health facilities and of plans for training in counseling and technical skills, especially for female health care providers, is similarly important.

Innovative ways to address demand-side constraints were applied in Bangladesh, Iran, and Pakistan.[5] Most women in these countries are forbidden to receive health care from men. To overcome this barrier, programs have implemented training programs for women and deployed them at the community and household levels. In Indonesia, the Population V Program had shown that increasing the number of village midwives would not have the desired impact if women were not informed about the benefits of using services. The Safe Motherhood Project thus included an education component aimed at strengthening the counseling and communication skills of the village midwives to encourage mothers to adopt safer birthing practices.

- **Project preparation can assess the multisectoral dimensions of maternal health issues**

Maternal death and disability are also influenced by social factors, particularly those that are consequences of a woman's perceived role in society, such as education, access to income and resources, and degree of isolation. Sometimes these intermediate factors need to be addressed before real progress can be made in maternal health. For example, in Yemen, women have little power to make decisions about their own reproductive health, and men pay little attention to women's reproductive health needs. The Bank program uses a multisectoral approach that incorporates activities aimed at raising the status of women and alleviating poverty, in addition to strengthening maternal and child health.

- **Strong government commitment and agreement on priority interventions are important for the success of safe motherhood programs, particularly because of the low status of women in many countries**

Government ownership and high-level support are important to successful safe motherhood programs. In the Philippines, strong initial interest by the Department of Health during preparation of the Women's Health and Safe Motherhood Project soon gave way to increasing ambivalence about the project as the government sought to introduce broader institutional reforms and to devolve program and budget responsibility to local-government units. The project was weakened by the lack of national leadership for the program, and it is only recently that the new leadership of the Department of Health has shown a commitment to the safe motherhood program, within the context of women's health.

In countries where resources are limited and many health problems demand attention, a common practice is to fund those activities that have highly visible results, such as building new hospitals and purchasing ambulances, rather than to fund maternity care, which has a low profile in part because of the low status of women. Furthermore, in many Bank-assisted projects that include lower maternal mortality ratios as a goal, the choice of specific interventions is not always strategically sound. There is a tendency to incorporate some elements of antenatal care into the project without providing support for safe deliveries, particularly management of complications, the most important intervention for reducing maternal deaths.

- **Sector work is important for policy reforms and setting program priorities, especially where data on maternal death and morbidity are scarce**

Research related to maternal health status and services has been very limited (box 4). Baseline data and information on program performance and impact are not routinely collected. To supplement available data, sector analysis is important for providing country-specific information about population and reproductive health issues. In India, sector work on reproductive health supported the government's shift from a narrow family planning program to a reproductive health and

Box 4. Scarcity of data

Over the decade, data on maternal mortality and morbidity have neither been routinely collected nor followed a consistent methodology. Furthermore, achieving improvements in maternal mortality and morbidity trends requires a sufficient lapse of time. Therefore, baseline data need to be collected and better monitoring and evaluation systems put in place to monitor program progress effectively and assess impact and cost-effectiveness.

Limited data on maternal health exist for the nine countries reviewed. Those trends over the decade that can be identified from a review of comparable national surveys are as follows:

- Skilled attendance at delivery increased by 25 percent in India and Indonesia and seven-fold in Bangladesh (up to 14 percent).
- Prenatal care increased from 64 to 81 percent in Brazil.
- Romania's maternal mortality ratio dropped substantially from 170 to 40 per 100,000.

The total fertility rate, which is measured regularly, declined significantly in most of the countries, although only slightly in Chad and Yemen. In Bangladesh, it dropped by one-half between 1980 and 1997.

client-centered approach, and led to the Reproductive and Child Health Project. The Bangladesh program was based on the government's sector analysis and strategy, which defined priorities, including maternal health, that had lagged far behind achievements in fertility and infant mortality reduction.

Project design

Every country, regardless of institutional or financial constraints, has the capability to work toward a continuum of care for safe motherhood. It is important that project planners envision from the start how the program should ultimately look, even if a country can initially undertake only such basic measures as expanding access to family planning, promoting good nutrition and hygienic births, training more female paramedics in midwifery skills, and improving capacity to manage obstetric complications at major hospitals. Few Bank projects are designed to ensure this continuum of care, however.

- **Safe motherhood requires a continuum of care from the community to the referral facility**

Well-designed projects have a logical and coherent framework of objectives, interventions, and indicators. Many Bank projects have proposed numerous activities but failed to include those necessary to achieve their stated objectives. Others have included some ad hoc antenatal care, but not necessarily the most cost-effective care. In contrast, few projects have included interventions to ensure skilled assistance at delivery, a key element of safe motherhood. Incomplete project designs have missed vital linkages between community-level service providers and referral points, and between service provision and the education that makes known the availability of those services. Well-designed projects—for example, the Indonesia Safe Motherhood Project, India's Reproductive and Child Health Project, and Bangladesh's Health and Population Project—included the key elements of safe motherhood programs that strengthen the overall performance of the health system.

- **In countries where providing integrated maternal health services is new, the Bank could advise borrowers to include an operations research and evaluation component in their national programs to test new approaches**

The Indonesia Third Community Health and Nutrition Project included an operations research component that financed pilot studies proposed by district health officials to test local approaches to strengthening safe motherhood interventions. In the Philippines, new services, such as screening for cervical cancer and sexually transmitted infections, are being tested in some provinces. A quality assurance system is also being introduced at hospitals to reduce maternal infections and to review adverse obstetric events. In Zimbabwe,

a project-supported study of user fees found a 23–30 percent drop in attendance at facilities charging fees, with many women delaying antenatal care because of the requirement that they pay delivery fees on their first antenatal visit.

In each of these instances, valuable information was learned before the program was expanded nationwide. The Bank's new adaptable lending instruments (learning and innovation loans and adaptable program loans) can address issues of uncertainty such as these and facilitate the testing of new services. At the same time, the new instruments enable the Bank to offer a long-term financial commitment to subsequent expansion.

- **Appropriate indicators to measure project progress are critical, especially to measure attendance by skilled providers at delivery**

The projects that devised an appropriate and comprehensive set of indicators for measuring project progress—in Bangladesh, India, Indonesia, and the Philippines—were usually devoted primarily to safe motherhood and included support from a maternal health specialist. Indicators chosen for the other projects vary in appropriateness and comprehensiveness. A few projects whose goal is reducing maternal mortality have no indicators for measuring maternal health, for example. In some projects, indicators are more of a "to do" list than a means of measuring progress. Other projects have proposed indicators for which there are no baseline data or means of measurement. Since the start of its project, Romania has seen remarkable drops in the maternal mortality ratio (from 169 per 100,000 in 1989 to fewer than 40 per 100,000 in 1997) and the abortion ratio (from more than three per 1,000 live births in 1990 to less than two per 1,000 in 1997). Had process or outcome indicators been established at the start of the project, they could have provided important information on the factors contributing to this achievement.

Many projects propose using maternal mortality ratios as an impact indicator, but these are not an appropriate or practical indicator of project outcomes or progress. Projects should use process and output indicators that measure the intervening variables affecting maternal health, such as the proportion of births attended by skilled providers and health service utilization rates (box 5). Quantitative indicators such as these should be supplemented, where possible, with survey information, including qualitative measures, and maternal death audits. In Indonesia, maternal and perinatal death audits are used as a kind of verbal autopsy to determine the causes of death—both medical and nonmedical. These reviews trace events from the health facility back to the community in an effort to uncover the medical, institutional, and sociocultural factors that led to a mother's death. A good maternal or perinatal death review involves health providers and members of the community, and seeks to identify avoidable factors and to educate health providers and the community about these factors.

- **Reducing maternal mortality requires sustained, long-term commitment and partnership**

Countries are often expected to achieve too much in too short a time. In the Philippines, the technical design of the project was strong, but it was too ambitious, and when institutional changes were introduced into the health system the project faltered. Neither the donors nor the government had conducted the institutional analysis during project preparation that might have resulted in a more realistic assessment of implementation capacity, and therefore have guided policymakers to make the necessary program adjustments. Such an assessment is now part of the restructuring plan for the project.

In countries where the Bank makes a commitment to work for at least 10 years—through an adaptable program loan, for example—expectations tend to be more realistic. Projects are also more successful when they are designed in partnership with other donors and NGOs, in addition to national and local officials. The consortium of development partners in Bangladesh and Romania, for example, has enabled coordinated planning in partnership with the government. Other partners may have specialized skills that are needed by the country to deal with technical or institutional issues. For example, the United Nations Population Fund (UNFPA) is often best situated to provide technical assistance and procurement for family planning services. In Chad, where there is also effective donor

Box 5. Safe motherhood indicators

Routine data collection
- Percentage of births with skilled attendant
- Percentage of pregnant women attending antenatal care at least once
- Proportion of health facilities capable of providing essential obstetric care

Special surveys
Quantitative indicators
- Ratio of complicated obstetric admissions to all deliveries
- Percentage of women with complications treated in essential obstetric care facilities
- Percentage of adults knowledgeable about danger signs in pregnancy

Quality-of-care indicators
- Proportion of skilled health providers (midwives, doctors, and nurses) who can appropriately manage and treat postpartum hemorrhage
- Time between arrival at essential obstetric care facility and treatment
- Patient satisfaction with treatment

collaboration, NGOs are actively involved in the program. A social fund provides grants to NGOs for family planning and AIDS control.

Project implementation

The review of safe motherhood projects strongly confirms the importance of the quality of supervision to project performance.

- Safe motherhood projects can be strengthened, even those with initially poor designs, through intensive supervision and restructuring

Regular supervision that focuses on the maternity-care component of safe motherhood projects results in the most effective project implementation. Supervision can make possible the early identification and removal of constraints to good project performance. In Chad, project supervision helped to identify transportation as a barrier to women's access to services, and to show that centralized paramedic training was leading to delays in staffing peripheral sites. The Bank arranged for a supplemental credit to address these issues immediately. Circumstances may also change during the course of a project, and the Bank may need to modify some project components accordingly. This happened in Indonesia during the recent economic crisis, when the project was modified to assist the government in procuring contraceptives. Mid-term reviews and surveys conducted by the borrower, followed by supervision missions, have also been used in countries such as Indonesia and the Philippines to strengthen projects during implementation.

- Project outcomes can be enhanced by a supervision strategy that includes monitoring of the maternal health component of broader health projects, and that maintains continuity of team leaders and the supervision team

Most supervision budgets are inadequate to cover the cost of all the specialists needed. As a result, many supervision missions fail to assess the status of maternal health activities that are part of broader health projects. To address this, the Zimbabwe project included a maternal health specialist in all supervision missions; local staff can also participate to provide this expertise.

Even when a specialist is not available, however, the supervision team should report on the progress of maternal health activities. In Romania, the project had been consistently rated unsatisfactory, including an unsatisfactory rating for the reproductive health component. In 1997, project supervision was moved from

headquarters to the field office, and the more frequent field-level monitoring immediately improved project performance.

Proposed World Bank Actions to Further Strengthen Safe Motherhood Programs

Making motherhood safer is fundamental to the health and human resources agenda of the World Bank and to its view of strategic initiatives such as poverty reduction and a comprehensive development framework. In response to continued high maternal mortality and morbidity, the Bank is able to influence health systems and outcomes through its sector work, policy dialogue, and projects.

Bank leadership

There must be strong, visible demonstration from Bank senior management, from the president to each country director, that reducing maternal mortality is an integral part of meeting the Bank's objectives of human development, equity, and poverty reduction. It also needs to be clear that the Bank has a long-term commitment to safe motherhood.

- Recent country-assistance strategies include maternal mortality ratios as one of their human development indicators; they also need to add skilled attendance at delivery, which is more easily measured over short periods of time.

- Bank assistance to countries with maternal mortality ratios (greater than 300 per 100,000) should include efforts in health, population, and nutrition programs as well as other sectors to address the problems of unwanted fertility and maternal mortality as well as critical gender-related issues, such as girls' education.

- If the Bank is not providing support for safe motherhood programs in a country with a high maternal mortality ratio, the country-assistance strategy should note that the issues were considered and explain why the decision was made to not address them now.

Contributions of sector managers and task team leaders

Maternal and child health and nutrition is an important emphasis of the Bank's Health, Nutrition, and Population Sector, particularly to improve health outcomes for the poor (Annex 8). Making sure that safe motherhood activities receive full attention at the Health, Nutrition, and Population Sector Board and regional sector-head level can help to improve their effectiveness.

- Sector heads can help ensure that the technical content of projects with safe motherhood components is closely monitored through supervision missions and midterm reviews. Sector heads and task-team leaders can also use the Implementation Completion Report as a tool for addressing maternal health, by including lessons learned in maternity care services and formulating recommendations for further work in safe motherhood.

- The Sector Board should ensure that enough trained staff or consultants are available to provide technical expertise in safe motherhood and to implement this action plan.

- Sector heads and task-team leaders also need to see that sector strategies address the problem of maternal mortality as well as other areas of HNP sector emphasis. Effective sector strategies will recognize the importance of strengthening the continuum of care, including hospital-based obstetric services, in a coherent, step-by-step manner according to each country's particular circumstances.

- Health system reform projects should use as a measure of performance skilled attendance at delivery and, over the longer term, the maternal mortality ratio.

Contributions of the Population and Reproductive Health Thematic Group

The Population and Reproductive Health Thematic Group, a part of the Bank's Human Development Network, is central to strengthening safe motherhood within the Bank's programs. It will monitor safe moth-

erhood and related activities in Bank projects to enhance the quality of this work. The Population and Reproductive Health Thematic Group has several important population and reproductive health initiatives underway or planned:

- Safe motherhood concerns will be included on the Population and Reproductive Health Policy Watch List. The watch list was established to ensure that key documents such as the country-assistance strategy and analytical economic and sector work include a population perspective. Countries with maternal mortality ratios greater than 300 per 100,000 live births, at either the national or regional level, will be placed on the watch list and monitored to ensure that Bank-financed programs include effective interventions to reduce maternal deaths and disability. Additional knowledge-management support will be provided to regions with countries on the watch list to support studies of critical gaps in safe motherhood. Countries on the watch list that are preparing country-assistance strategies or economic and sector work will be eligible for support from the Thematic Group to prepare a brief summary of the country's maternal health status.

- The Thematic Group will post information and documents about Bank-financed safe motherhood programs on the Human Development Network's Web site and will provide links to other safe motherhood sites. It will also disseminate information about safe motherhood to Bank professional staff through periodic training activities or information sessions.

- The Population and Reproductive Health Thematic Group will develop cooperative activities in maternal and child health and nutrition and will collaborate with other thematic groups such as the Public Health, Indicators, Health Reform, Gender, and Education Groups.

- A Safe Motherhood subcommittee of the Thematic Group will be established to guide and monitor implementation of the Bank's activities to strengthen safe motherhood programs and improve the quality of our work.

Partnerships

The Bank strongly supports collaboration among donor agencies and NGOs on safe motherhood issues:

- The Bank will continue as a member of the Safe Motherhood Interagency Group that includes UNICEF, UNFPA, WHO, the International Planned Parenthood Federation, and the Population Council. The Bank will also work with the relevant UN agencies on the Safe Motherhood Working Group of the UN Coordinating Committee on Health, as well as nongovernmental organizations such as the International Federation of Obstetricians and Gynecologists and the International Confederation of Midwives.

- Internationally, and in the countries where we work, there is a critical shortage of technical experts who can help plan, design, and monitor maternal health programs. No agency has an adequate stable of experts to assist governments in obstetrics and nurse-midwifery. There is more expertise available in many other areas of health and family planning. We will need to work with our partners to develop this expertise and to help make it available to our clients.

- Collaboration at the country level is needed to maximize participation of local stakeholders, focus scarce resources on priority areas, and make the best use of donors with a specialized focus or a particular expertise.

- The Bank should continue to use the Development Grant Facility to address critical areas in safe motherhood and reproductive health that cannot be addressed through the lending program.

Guiding Lessons

The Bank has done much to increase attention to safe motherhood within the Bank, among borrower countries, and among its partners. The Bank has also

learned much from project experience over the past decade about what constitutes an effective safe motherhood package, and this knowledge is being used to help borrower countries develop more effective and sustainable safe motherhood programs.

There are nonetheless gaps in the World Bank's work. In many countries we are lacking efforts for policy dialogue and programming in maternal health. Even where we are supporting safe motherhood, there are few projects that include the most crucial intervention for reducing maternal deaths—safe delivery. There are many health issues competing for resources, and safe motherhood is seldom accorded high priority in country programs. This is despite the fact that it is one of the most cost-effective health-sector interventions, with the potential to bring about broad improvements throughout the health sector.

The key lessons for improving safe motherhood programs include:

- **Safe motherhood is a vital social and economic investment.** Safe motherhood interventions are among the most cost-effective in the health sector. They contribute to women's health and well-being and to that of their children; to the performance of women in their roles within the family and society; and ultimately to societal welfare. Countries and local areas where poor women lack access to basic family planning and maternal health services should receive priority attention.

- **Improving maternal health requires a continuum of services, including in particular, referral capacity for management of complications.** The Bank-assisted projects that are designed to address safe motherhood most effectively, such as those in Bangladesh, India, Indonesia, and the Philippines, are designed from the start to provide a continuum of high-quality care from the community to the hospital. This requires staff trained in midwifery skills at various levels of the health system, as well as well-functioning facilities, accessible to clients and equipped with all essential obstetric drugs and supplies.

- **Safe motherhood interventions can strengthen the performance of the health system.** The effectiveness of maternal health services, like that of other primary health care activities, is often hampered by organizational and institutional constraints. In some countries, links have had to be established between separate family planning and health programs. Improving access to good-quality maternal health care remains a challenge in many countries because it requires a functioning primary health care system in the community and a referral system linked to a health facility capable of providing essential obstetric care, particularly for emergencies. . Safe motherhood interventions can thus bring about improvements that affect the health system more broadly.

- **Bank-financed safe motherhood programs need to adapt to local conditions and do what is feasible.** Competing demands for resources may make it difficult to simultaneously address every component of an effective safe motherhood program. But every country can work toward a continuum of care from the start. Initial measures in the poorest countries should start with expanding family planning, promoting good nutrition and hygienic births, training more health providers in midwifery skills, and improving the capacity of district hospitals to manage obstetric complications at district hospitals. Increasing the number of female health workers can improve service quality and use, particularly in cultures that discourage women from consulting male health providers. In more developed borrower nations, efforts should focus on improving the quality of case management and counseling in family planning and maternity care and pay special attention to marginalized groups such as adolescents.

- **Increasing the demand for maternal health services can be as important as improving the quality of services.** Activities to promote awareness about maternal and reproductive health services are also needed to increase the demand for services. Well-informed and educated families and communities take responsibility for the health of women in their community by encouraging and supporting all women to seek good maternal health and nutrition and to recognize danger signs in pregnancy. In Indonesia, more than 50,000 village midwives were

trained, but they continued to be underutilized. Bank support is being used to increase awareness among women, families, and providers.

- **Sector work is important for policy reforms and setting program priorities, especially where data related to maternal health are scarce.** In addition to maternal mortality ratios, projects need indicators that measure intervening variables that affect maternal health, such as the percentage of births attended by skilled providers and the proportion of district hospitals able to provide essential obstetric care. In India, sector work on reproductive health supported the government's shift from a target-driven family planning program to a reproductive health-centered approach. After a sector analysis in Bangladesh showed that maternal health lagged far behind achievements in fertility and infant mortality reduction, the government made a determined commitment to make similar achievements in maternal health. In Brazil, sector work contributed to a better understanding of how fee structures provided incentives for hospitals and doctors to encourage cesarean sections, most of which were unwarranted.

- **High-level government commitment and partnerships are essential to effective safe motherhood programs.** Bangladesh, Chad, India, and Indonesia have all been able to advance their safe motherhood programs because of the strong commitment of national leaders, supported by consistent and coordinated external assistance. For programs to be effective, the Bank needs to promote dialogue and program planning in safe motherhood with governments, policymakers, health providers, NGOs, and other assistance agencies. The consortium of development partners in Bangladesh, for example, has enabled coordinated planning in partnership with the government. The Bank is well positioned to support policy dialogue, mobilize resources, and facilitate work that links investments made in different sectors or by different donors.

- **Both the borrower country and the Bank must have a sustained commitment to reducing maternal mortality.** There is no shortcut for reducing maternal mortality. Better maternal health is a cost-effective and achievable objective, but progress in reducing maternal death and disability has been slow, often because interventions are not properly phased or focused. To provide an effective continuum of care, changes may be needed both in the health system and in the understanding of maternal health issues at the household, community, and national levels. Countries should not try to achieve too much in too short a time. Behavioral change is an important element of an effective healthy pregnancy and safe-delivery program, but behavioral change can take a long time.

Notes

1. WHO. 1996. Revised 1990 Estimates of Maternal Mortality: A New Approach by WHO and UNICEF.

2. The first estimate of the extent of maternal mortality around the world, made in the late 1980s, indicated that some 500,000 women die each year from pregnancy-related causes. This estimate was revised by WHO and UNICEF in 1996, based on the availability of additional information, to 585,000 maternal deaths each year. New global estimates are now being made which will be reported before the end of 1999 and are expected to be around 500,000.

3. The term "skilled attendant" refers exclusively to people who have been trained in midwifery skills (for example, doctors, midwives, nurses). Skilled attendants must be able to manage normal labor and delivery, recognize the onset of complications, perform essential interventions, start treatment, and supervise the referral of mother and baby for interventions that are beyond their competence or not possible in the particular setting. Depending on the setting, other healthcare providers, such as auxiliary nurse/midwives and community midwives, may also have acquired appropriate skillls *if they have been specially trained*. These individuals frequently form the backbone of maternity servies at the periphery, and pregnancy and labor outcomes can be improved by making use of their services, especially if they are appropriately supervised. WHO, 1999. Reduction of Maternal Mortality: A Joint WHO, UNFPA, UNICEF, and World Bank Statement.

4. Country Assistance Strategy, economic and sector work, appraisal documents of closed and active projects, supervision and completion reports, and mid-term reviews. Aide memoirs and more detailed mission reports were not included. Team and task leaders' views were also solicited.

5. Pakistan and Iran were not included in the review. These interventions are used as examples that show an innovative approach to the problem.

Annex 1 World Bank Lending for Population and Reproductive Health
FY 1987–98 (US$ millions)[a]

Fiscal Year	*Region/Project*	*IBRD/IDA Lending*	*P/RH Lending*
1987			
	Africa		
	The Gambia—National Heath Development Project	5.6	0.6
	Guinea Bissau—Population Health and Nutrition Project	4.2	0.5
	Malawi—Second Family Health Project	11.0	4.8
	Zimbabwe—Family Health Project	10.0	2.0
	Subtotal	30.8	7.9
	Latin America and the Caribbean		
	Jamaica—Population and Health Project	10.0	6.8
	Subtotal	10.0	6.8
	Total	40.8	14.7
1988			
	Africa		
	Burundi—Population and Health Project	14.0	4.4
	Ethiopia—Family Health Project	33.0	3.3
	Kenya—Third Population Project	12.2	22.2
	Subtotal	59.2	29.9
	Latin America and the Caribbean		
	Brazil—Northeast Endemic Disease Control	109.0	n.a.
	Subtotal	109.0	n.a.
	South Asia		
	India—Bombay and Madras Population Project	57.0	57.0
	Sri Lanka—Health and Family Planning Project	17.5	5.3
	Subtotal	74.5	62.3
	Total	242.7	92.2
1989			
	Africa		
	Benin—Health Services Development Project	18.6	0.3
	Mozambique—Health and Nutrition Project	27.0	0.1
	Subtotal	45.6	0.4
	Middle East and North Africa		
	Yemen, Rep.—Second Health Development Project	4.5	0.4
	Subtotal	4.5	0.4
	South Asia		
	India—Family Welfare Training and Systems Development Project (Sixth Population Project)	124.6	124.6
	Subtotal	124.6	124.6
	Total	174.7	125.4
1990			
	Africa		
	Kenya—Fourth Population Project	35.0	35.0
	Lesotho—Second Population, Health, and Nutrition Project	12.1	1.2
	Tanzania—Health and Nutrition Project	47.6	9.5
	Subtotal	94.7	45.7
	Latin America and the Caribbean		
	Brazil—Second Northeast Basic Health Services Project	267.0	13.4
	Haiti—First Health Project	28.2	1.6
	Subtotal	295.2	15.0
	Middle East and North Africa		
	Morocco—Health Sector Investment Loan Project	104.0	10.4
	Yemen, Rep.—Health Sector Development Project	15.0	1.5
	Subtotal	119.0	11.9

(Continued on next page.)

Annex 1 *(continued)*

Fiscal Year	*Region/Project*	*IBRD/IDA Lending*	*P/RH Lending*
	South Asia		
	India—Seventh Population Project	96.7	96.7
	Subtotal	96.7	96.7
	Total	605.6	169.3
1991			
	Africa		
	Ghana—Second Health and Population Project	27.0	4.9
	Madagascar—Health Sector Improvement Project	31.0	4.4
	Malawi—Population, Health,and Nutrition Sector Credit	55.5	5.8
	Mali—Second Health, Population, and Rural Water Supply Project	26.6	3.0
	Nigeria—National Population Project	78.5	78.5
	Rwanda—First Population Project	19.6	19.6
	Senegal—Human Resources Development Project: Population and Health	35.0	14.8
	Togo—Population and Health Sector Adjustment Project	14.2	4.3
	Subtotal	287.4	135.3
	Eastern Asia and Pacific		
	Indonesia—Fifth Population	104.0	104.0
	Subtotal	104.0	104.0
	Latin America and the Caribbean		
	El Salvador—Social Sector Rehabilitation Project	26.0	1.5
	Haiti—Economic and Social Fund	11.3	0.5
	Honduras—Social Investment Fund	20.0	0.2
	Mexico—Basic Health Care Project	180.0	3.5
	Venezuela—Social Development Project	100.0	5.0
	Subtotal	337.3	10.7
	Middle East and North Africa		
	Tunisia—Population and Family Health Project	26.0	26.0
	Subtotal	26.0	26.0
	South Asia		
	Bangladesh—Fourth Population and Health Project	180.0	61.5
	Pakistan—Family Health Project	45.0	13.5
	Subtotal	225.0	75.0
	Total	979.7	351.0
1992[b]			
	Africa		
	Niger—Population	17.6	17.6
	Mauritania—Health and Population	15.7	6.9
	Equatorial Guinea—Health Improvement	5.5	0.7
	Subtotal	38.8	25.2
	East Asia and Pacific		
	China—Infectious Disease Control	129.6	0.5
	Subtotal	129.6	0.5
	South Asia		
	India—Family Welfare	79.0	63.2
	India—Child Survival and Safe Motherhood	214.5	96.5
	India—AIDS Control	84.0	84.0
	Subtotal	377.5	243.7
	Europe and Central Asia		
	Poland—Health	130.0	6.5
	Romania—Health Services Rehabilitation	150.0	40.1
	Subtotal	280.0	46.6

	Latin America and the Caribbean		
	Honduras—Second Social Investment Fund	10.2	0.1
	Guyana—Health, Nutrition, Water, and Sanitation	10.3	2.2
	Subtotal	20.5	2.3
	Total	846.4	318.3
1993			
	Africa		
	Burundi—Social Action	10.4	0.5
	Guinea Bissau—Social Sector	8.8	0.9
	Angola—Health	19.9	1.2
	Zimbabwe—STI Prevention and Care	64.5	64.5
	Subtotal	103.6	67.1
	Middle East and North Africa		
	Iran—Primary Health Care and Family Planning	141.4	59.5
	Jordan—Health Management	20.0	6.6
	Yemen, Rep.—Family Health	26.6	13.3
	Subtotal	188.0	79.4
	East Asia and Pacific		
	Papua New Guinea—Population and Family Planning	6.9	6.9
	Philippines—Urban Health and Nutrition	70.0	35.0
	Indonesia—Third Community Health and Nutrition	93.5	37.4
	Subtotal	170.4	79.3
	South Asia		
	India—Social Safety Net Sector Adjustment Program	500.0	40.0
	Pakistan—Second Family Health	48.0	19.2
	India—ICDS	194.0	19.4
	Subtotal	742.0	78.6
	Latin America and the Caribbean		
	Honduras—Nutrition and Health	25.0	1.0
	Chile—Health Sector Reform	90.0	0.9
	Ecuador—Second Social Development:		
	Health and Nutrition	70.0	23.1
	Columbia—Municipal Health Services	50.0	10.0
	Guatemala—Social Investment Fund	25.0	1.0
	Subtotal	260.0	36.0
	Total	1,464.0	340.4
1994			
	Africa		
	Burkina Faso—Health and Nutrition	29.2	7.5
	Burkina Faso—Population and AIDS Control	26.3	26.3
	Chad—Health and Safe Motherhood	18.5	6.1
	Comoros—Population and Human Resources	13.0	4.3
	Guinea—Health and Nutrition Sector	24.6	2.5
	Uganda—Sexually Transmitted Infections (STI)	50.0	50.0
	Subtotal	161.6	96.7
	East Asia and Pacific		
	China—Rural Health Workers Development	110.0	8.9
	Malaysia—Health Development	50.0	0.5
	Subtotal	160.0	9.4
	South Asia		
	India—Family Welfare (Assam, Rajasthan, Karnataka)	88.6	70.9
	Nepal—Population and Family Health	26.7	21.4
	Social Sector—Pakistan—Social Action Program	200.0	40.8
	Subtotal	351.3	133.1
	Latin America and the Caribbean		
	Argentina—Maternal and Child Health and Nutrition	100.0	12.0

(Continued on next page.)

Annex 1 *(continued)*

Fiscal Year	*Region/Project*	*IBRD/IDA Lending*	*P/RH Lending*
	Brazil—AIDS and Sexually Transmitted Diseases	160.0	160.0
	Nicaragua—Health Sector Reform	15.0	.06
	Peru—Basic Health and Nutrition	34.0	10.5
	Peru—Social Sector—Social Development and Compensation Fund	100.0	1.4
	Subtotal	409.0	184.0
	Total	1,045.9	423.2
1995			
	Africa		
	Benin—Health and Population	27.8	13.9
	Burundi—Second Health and Population	21.3	8.0
	Cameroon—Health, Fertility, and Nutrition	43.0	21.5
	Chad—Population and AIDS Control	20.4	20.4
	Kenya—Sexually Transmitted Infections (STI)	40.0	40.0
	Senegal—Community Nutrition	18.2	1.8
	Uganda—District Health Services Pilot and Demonstration	45.0	11.3
	Zambia—Health Sector Support	56.0	28.0
	Zambia—Second Social Recovery	30.0	0.9
	Subtotal	301.7	145.8
	Middle East and North Africa		
	Lebanon—Health Sector Rehabilitation	35.7	8.9
	Subtotal	35.7	8.9
	East Asia and Pacific		
	China—Comprehensive Maternal and Child Health	90.0	45.0
	China—Iodine Deficiency Disorders Control	27.0	2.7
	Indonesia—Fourth Health Project: Improving Equity and Quality of Care	88.0	22.0
	Lao P.D.R.—Health Systems Reform and Malaria Control	19.2	4.8
	Philippines—Women's Health and Safe Motherhood	18.0	18.0
	Cambodia—Social Fund	20.0	1.0
	Subtotal	262.2	93.5
	South Asia		
	India—Andhra Pradesh First Referral Health System	133.0	26.6
	Pakistan—Population Welfare Program	65.1	65.1
	Bangladesh—Integrated Nutrition	59.8	14.9
	Subtotal	257.9	106.6
	Europe and Central Asia		
	Croatia—Health	40.0	1.6
	Estonia—Health	18.0	0.2
	Turkey—Second Health Project: Essential Services and Management Development in Eastern and Southeastern Anatolia	150.0	37.5
	Subtotal	208.0	39.3
	Latin America and the Caribbean		
	Panama—Rural Health	25.0	4.0
	Mexico—Program of Essential Social Services	500.0	50.0
	Subtotal	525.0	54.0
	Total	1,590.5	448.1
1996			
	Africa		
	Côte d'Ivoire—Integrated Health Services Development	40.0	13.5
	Sierra Leone—Integrated Health Sector Investment	20.0	1.3

	Mozambique—Health Sector Recovery Program	98.7	35.9
	Subtotal	158.7	50.7
	Middle East and North Africa		
	Egypt—Population	17.2	17.2
	Morocco—Social Priorities Program: Basic Health	68.0	20.3
	Subtotal	85.2	37.5
	East Asia and Pacific		
	Indonesia—HIV/AIDS and Sexually Transmitted Diseases (STD) Prevention and Management	24.8	24.8
	Vietnam—National Health Support	101.2	39.6
	Vietnam—Population and Family Health	50.0	50.0
	Subtotal	176.0	114.4
	South Asia		
	India—Second State Health Systems Development	350.0	56.0
	Pakistan—Northern Health Program	26.7	26.7
	Subtotal	376.7	82.7
	Europe and Central Asia		
	Bulgaria—Health Sector Restructuring	26.0	9.5
	Georgia—Health Project	14.0	8.1
	Kyrgyz Republic—Health Sector Reform	18.5	4.2
	Russian Federation—Medical Equipment	270.0	90.0
	Subtotal	328.5	111.8
	Latin America and the Caribbean		
	Mexico—Second Basic Health Care	310.0	111.8
	Subtotal	310.0	111.8
	Total	1,435.1	508.9
1997			
	Africa		
	Niger—Health Sector Development Program	40.0	1.7
	Subtotal	40.0	1.7
	East Asia and Pacific		
	Indonesia—Intensified Iodine Deficiency Control	28.5	1.9
	Cambodia—Disease Control and Health Development	30.4	6.1
	Subtotal	58.9	8.0
	South Asia		
	India—Reproductive and Child Health	248.3	124.1
	Sri Lanka—Health Services	18.8	7.6
	Subtotal	267.1	131.7
	Europe and Central Asia		
	Turkey—Primary Health Care Services	14.5	4.4
	Bosnia—Herzegovina—Essential Hospital Services	15.0	2.0
	Russia—Health Reform Pilot	66.0	19.7
	Subtotal	95.5	26.1
	Latin America and the Caribbean		
	Argentina—Maternal and Child Health and Nutrition	100.0	33.3
	Paraguay—Maternal Health and Child Development	21.8	16.2
	Argentina—AIDS and Sexually Transmitted Diseases Control	15.0	15.0
	Subtotal	136.8	64.5
	Total	598.3	232.0
1998			
	Africa		
	Eritrea—National Health Development	18.3	9.9
	The Gambia—Participatory Health, Population and Nutrition	18.0	5.8
	Guinea-Bissau—National Health Development Program	11.7	9.3
	Madagascar—Community Nutrition II Project	27.6	5.0

(Continued on next page.)

Annex 1 *(continued)*

Fiscal Year	*Region/Project*	*IBRD/IDA Lending*	*P/RH Lending*
	Mauritania—Health Sector Investment Project	24.0	8.0
	Senegal—Integrated Health Sector Development Program	50.0	20.0
	Ghana—Health Sector Support Program	35.0	7.0
	Subtotal	184.6	65.0
	Middle East and North Africa		
	Egypt—Health Sector Reform Program	90.0	33.0
	Tunisia—Health Sector Loan	50.0	5.0
	Subtotal	140.0	38.0
	East Asia and Pacific		
	China—Basic Health Services Program	85.0	6.1
	Indonesia—Safe Motherhood Project	42.5	42.5
	Philippines—Early Childhood Development Project	19.0	2.0
	Subtotal	146.5	50.6
	South Asia		
	Bangladesh—Health and Population Program Project	250.0	84.0
	India—Orissa Health Systems Development Project	76.4	7.0
	India—Woman and Child Development	300.0	80.0
	Subtotal	626.4	171.0
	Europe and Central Asia		
	Armenia—Health Financing and Primary Health Care Development Project	10.0	2.7
	Subtotal	10.0	2.7
	Latin America and the Caribbean		
	Dominican Republic—Provincial Health Services Project	30.0	14.4
	Ecuador—Health Services Modernization Project	45.0	7.8
	Nicaragua—Health Sector Modernization Project	24.0	6.0
	Mexico—Health Systems Reform	700.0	70.0
	Subtotal	799.0	98.2
	Total	1,906.5	425.5

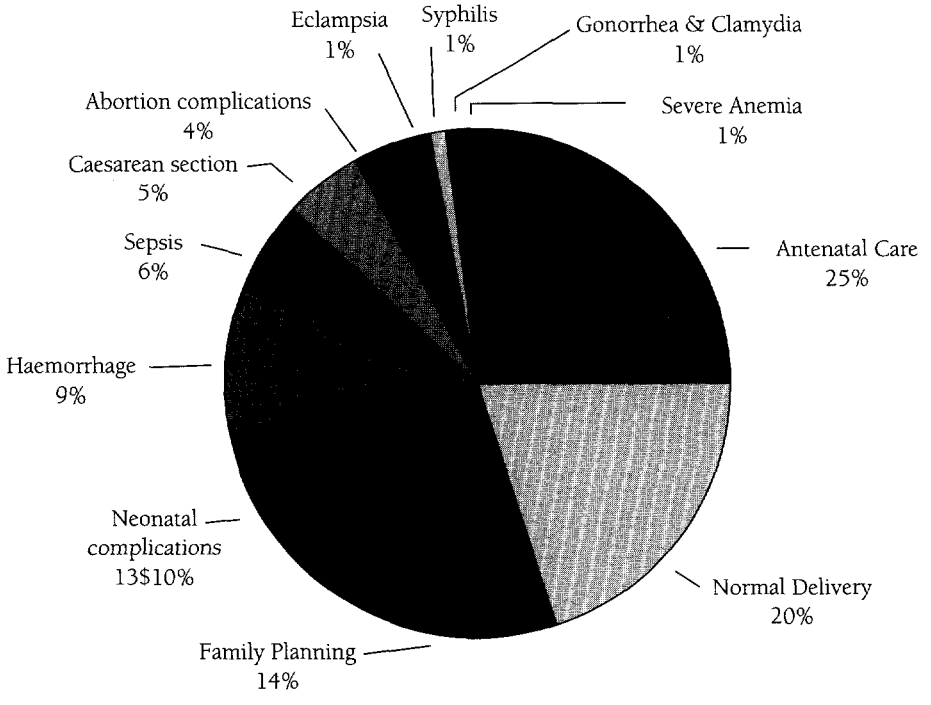
a. Includes P/RH activities in some social sector projects.

b. Starting in FY92, the World Bank broadened its definition of Population to Population and Reproductive Health (P/RH)

Source: Staff Appraisal Reports and Project Appraisal Documents

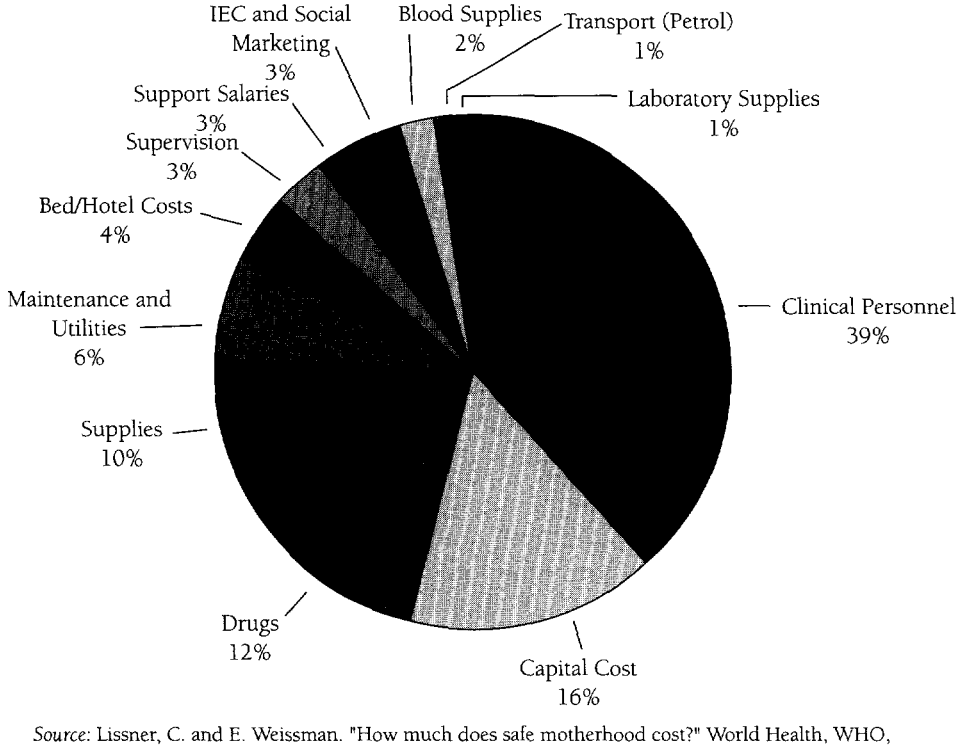
Annex 2 Cost of Mother-Baby Package, by intervention and input

Cost of Mother-Baby Package, by intervention (low-income scenario)



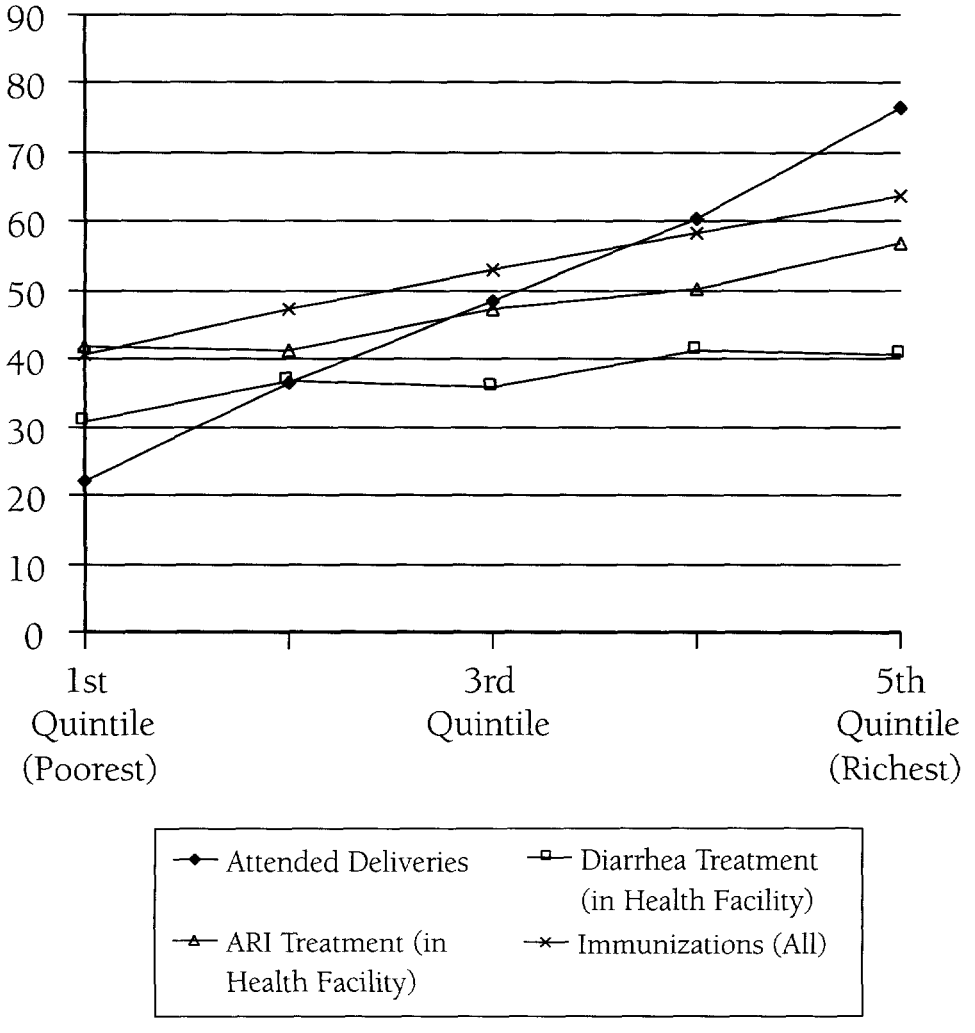
Source: Lissner, C. and E. Weissman. "How much does safe motherhood cost?" World Health, WHO, 51st Year, No. 1, January–February 1998, pages 10–11.

Cost of Mother-Baby Package, by input (low-income scenario)



Source: Lissner, C. and E. Weissman. "How much does safe motherhood cost?" World Health, WHO, 51st Year, No. 1, January–February 1998, pages 10–11.

Annex 3 Poor-Rich Inequalities in Access to Different Types of Health Care
(unweighted average of 10 developing countries)



Source: World Bank. HNP Poverty Thematic Group Analysis. May 1999.

Annex 4 World Bank-supported Safe Delivery Activities in 29 Countries between 1987 and 1998

World Bank Regions	*Countries where World Bank health projects include safe delivery activities*
Sub-Saharan Africa	Chad Gambia, The Ghana Rwanda Madagascar Zimbabwe
South Asia	Bangladesh India Pakistan
East Asia and the Pacific	China Indonesia Philippines Vietnam
Middle East and North Africa	Egypt, Arab. Rep. Morocco Turkey Jordan Tunisia Yemen, Rep. of
Latin America and the Caribbean	Argentina Brazil Dominican Republic Haiti Honduras Paraguay Peru Nicaragua
Europe and Central Asia	Bosnia and Herzegovina Romania

Source: Staff Appraisal Reports and Project Appraisal Documents

Annex 5 Countries with Highest Maternal Mortality Ratios (600–1,500 maternal deaths per 100,000 live births) and Selected Information Related to World Bank Assistance and Basic Indicators

Country	*Active World Bank health project with any Safe Motherhood activities*	*Family planning included*	*Safe delivery included*	*Latest CAS mentions Maternal mortality/ Maternal health*	*MMR*	*1997 TFR*	*% of births attended by trained health staff*
1. Angola	No	-	-	N/A	1,500	6.8	17
2. Nepal	Yes	Yes	No	No	1,500	4.4	9
3. Ethiopia	No	-	-	No	1,400	6.5	8
4. Yemen, Rep.	Yes	Yes	Yes	No[a]	1,400	6.4	43
5. Burundi	Yes	Yes	No	No	1,300	6.3	24
6. Rwanda	Yes	Yes	Yes	No	1,300	6.2	26
7. Mozambique	Yes	No	No	Yes	1,100	5.3	44
8. Gambia, The	Yes	Yes	Yes	Yes	1,050	5.7	44
9. Eritrea	Yes	No	No	No	1,000	5.8	21
10. Nigeria	Yes	Yes	No	N/A	1,000	5.3	31
11. Burkina Faso	Yes	Yes	No	No	930	6.6	41
12. Guinea-Bissau	Yes	Yes	No	Yes	910	5.8	25
13. Cambodia	Yes	No	Yes	No	900	4.6	31
14. Congo, Rep.	No	-	-	No	890	6.1	50
15. Guinea	Yes	Yes	No	No	880	5.5	31
16. Congo, Dem. Rep.	No	-	-	N/A	870	6.4	..
17. Bangladesh	Yes	Yes	Yes	Yes	850	3.2	8
18. Chad	Yes	Yes	Yes	Yes	840	6.5	15
19. Côte d'Ivoire	Yes	Yes	No	No	810	5.1	45
20. Mauritania	Yes	Yes	No	Yes	800	5.5	40
21. Ghana	Yes	Yes	No	Yes	740	4.9	44
22. Central African Rep.	No	-	-	N/A	700	4.9	46
23. Lao PDR	Yes	Yes	No	Yes	660	5.6	30
24. Kenya	No	-	-	No	650	4.7	45
25. Zambia	Yes	No	No	No	650	5.6	47
26. Togo	Yes	Yes	No	N/A	640	6.1	32
27. Malawi	Yes	Yes	No	No	620	6.4	55
28. Lesotho	No	-	-	No	610	4.8	50
29. Haiti	Yes	No	Yes	Yes	600	4.4	20

a. Yemen 1999 CAS in process refers to maternal mortality.

Note: The table indicates the following safe motherhood activities supported through Bank projects = safe delivery, family planning, and maternal health care or services. Other donors may be providing assistance for safe motherhood activities, especially for family planning.

Source: World Bank. *World Development Indicators 1999* and various Bank project documents.

Annex 6 ICPD Definition of Reproductive Health

Reproductive health care in the context of primary health care should, inter alia, include: family-planning counselling, information, education, communication and services; education and services for prenatal care, safe delivery and post-natal care, especially breast-feeding and infant and women's health care; prevention and appropriate treatment of infertility; abortion as specified in paragraph 8.25, including prevention of abortion and the management of the consequences of abortion; treatment of reproductive tract infections; sexually transmitted diseases and other reproductive health conditions; and information, education and counselling, as appropriate, on human sexuality, reproductive health and responsible parenthood. Referral for family planning services and further diagnosis and treatment for complications of pregnancy, delivery and abortion, infertility, reproductive tract infections, breast cancer and cancers of the reproductive system, sexually transmitted diseases, including HIV/AIDS should be available, as required. Active discouragement of harmful practices, such as female genital mutilation, should also be an integral component of primary health care, including reproductive health-care programmes.

Source: From the October 18, 1994 Report of the International Conference on Population and Development, Cairo, Egypt, September 5–13, 1994.

Annex 7 Projects with Safe Motherhood Components in Country Reviews, 1986–1998

Country	*Project Name and Cost*	*Project Objectives*	*Key Safe Motherhood Components*
Bangladesh	*Third Population and Family Health Project* Projects cost: $213.8 million FY 86–FY 92	• Help government achieve a 38%-40% contraceptive prevalence rate and a reduction in the total fertility rate to 4.8 • Reduce maternal and child mortality	• Strengthening delivery of and demand for family planning and maternal/child health services through improved management and training; deployment of additional personnel; provisions of drugs, medicines, and supplies; and infrastructure • Improving childbirth practices by training traditional birth attendants and family welfare visitors, providing delivery kits, and improving the referral capabilities of field workers
Bangladesh	*Fourth Population and Health Project* Project cost: $ 601.4 million FY 91–FY 98	• Strengthen family planning services delivery • Strengthen health services delivery • Improve supportive activities to the delivery of family planning and health services • Continue women's work and nutrition programs	• Training traditional birth attendants • Screening and referring high-risk pregnancies • Strengthening delivery of and demand for antenatal, delivery, and postpartum services • Supporting a special maternal and neonatal health care project • Strengthening obstetric and gynecological services at health centers and district hospitals • Strengthening nursing and medical education and introducing medical assurance
Bangladesh	*Health and Population Program Project (V)* Project cost: $2,895.9 million FY 98–FY 04	• Improve access to services for the poor • Lower maternal mortality and morbidity • Improve child health and family planning	• Provision of essential and emergency obstetric care • Strengthening referral system • Proposing a Behavior Change Communication initiative to address those behaviors related to pregnancy and childbirth
Brazil	*Northeast Basic Health Services Project* Project cost: $129.7 million FY 88–FY 96	• Improve the organization and use of resources for delivering a package of three programs of essential basic health services, including: (i) a program of comprehensive care for women and children (including family planning), (ii) a program of infectious diseases control, and (iii) a program of walk-in as well as hospital-based medical care	• Training health personnel in maternal and adolescent health

Country	*Project Name and Cost*	*Project Objectives*	*Key Safe Motherhood Components*
		• Improve and expand the network of basic health facilities • Strengthen the institutional capabilities of the State Secretariats of Health and the Ministry of Health • Prepare a second-phase project for the other six states of the Northeast.	
Brazil	*Second Northeast Basic Health Services Project* Project cost: $610.6 million FY 90–FY 97	• Strengthen basic health services • Support investment in health facilities in previously underserved areas • Strengthen federal and state management of the health sector	• Comprehensive care for women and children, including family planning • Infrastructure development, including 81 obstetric and delivery units • Training 60,000 personnel in maternal and adolescent health
Brazil	*Health Sector Reform (REFORSUS)* Project cost: $750 million FY 97–FY 01	• Establish an investment fund to finance rehabilitation, equipment, and improved management of the Unified Health System • Institutional development to improve health care financing and management	• Increasing antenatal visits to 80% • Aiming to reduce maternal mortality, but no other specific safe motherhood components included
Chad	*Health and Safe Motherhood Project* Project cost: $25.7 million FY 94–FY 00	• Enhance capability at the central level to support regional health services • Improve access to basic and maternal health services in two regions (Guera and Tandjile) • Ensure that the population has access to low-cost essential drugs	• Strengthening capacity in IEC (Information, Education and Communication) for maternal health • Enhancing the capacity of health centers to provide obstetric services • Training physicians and other health providers in basic emergency care • Improving transport and communication system for emergency care • Conducting research related to maternal mortality
Chad	*Population and AIDS Control Project* Project cost: $27.2 million FY 95–FY 01	• Advance the onset of fertility decline by increasing the use of modern methods of contraception • Slow the spread of HIV infection by promoting behavioral change	• Promoting information and education in family planning and HIV/AIDS • Promoting family planning services, especially condom use • Establishing activities to improve identification and treatment of sexually transmitted infections

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Annex 7 *(continued)*

Country	*Project Name and Cost*	*Project Objectives*	*Key Safe Motherhood Components*
India	*Child Survival and Safe Motherhood Project* Project cost: $329.6 million FY 92–FY 97	• Enhance child survival • Prevent maternal mortality and morbidity • Increase the effectiveness of service delivery	• Providing prenatal care by distributing iron foliate tablets, tetanus toxoid immunization, and training in clean delivery techniques • Establishing First Referral Units by upgrading subdistrict hospitals and community health centers with equipment for essential obstetric care and safe motherhood technical guidelines
India	*Population XI: Family Welfare* (Assam, Rajasthan and Karnataka) Project Total project cost: $103.8 million FY 94–FY 02	• Strengthen and improve the functioning of the Government of India's Family Welfare Program with the objective of lowering current levels of fertility and maternal and child health in the three states	• Construction of subcenters and Primary Health Centers to serve as first referral units for obstetric emergencies • Strengthening outreach and community linkages by setting up mobile clinics and establishing volunteer networks.
India	*Reproductive and Child Health Project* Project cost: $309.0 million FY 97–FY 03	• Improve management performance by nationwide implementation of policy change referred to as the "target-free approach," and institutional strengthening for timely, coordinated utilization of project resources • Improve the quality, coverage, and effectiveness of Ffmily welfare services. • Progressively expand the scope and content of existing family welfare services to include more elements of a definedessential package of reproductive and child health services • In selected disadvantaged districts and in cities, expand access by strengthening family welfare infrastructure while improving its quality	• Improving the performance of Family Welfare Program in reducing maternal mortality and morbidity • Fixing the systems that deliver women's health services, including the planning and implementation systems as well as those for monitoring and evaluation • Conducting rigorous district-level surveys.
Indonesia	*Fifth Population Project* Project cost: $148.4 million FY 91-FY 97	• Help the government intensify efforts to lower fertility • Reduce maternal mortality by improving the effectiveness of community midwives and training an additional 16,000 during the 1990s	• Implementing policies to allow midwives to practice with and without supervision • Contributing to the development of standards and protocols for midwives

Country	*Project Name and Cost*	*Project Objectives*	*Key Safe Motherhood Components*
Indonesia	*Third Community Health and Nutrition Project* Project cost: $ 164.1 million FY 93-FY 00	• Elevate infant, child, and maternal health status by improving the effectiveness of community health and nutrition interventions in five provinces (West Java, Central Java, East Nusa Tenggara, Maluku, and Irian Jaya)	• Building provincial and kabupaten capacity to plan , implement, and evaluate safe motherhood (including family planing), child survival, and nutrition interventions • Training traditional birth attendants and BDDs (Bidan di Desa: village midwives) • Providing essential equipment and supplies, maternity huts, and health centers
Indonesia	*Safe Motherhood Project: A Partnership and Family Approach* Project cost: $61.9 million FY 98-FY 03	• Improve demand for and utilization of high-quality maternal health services. • Strengthen the sustainability of maternal health services at the village level • Improve quality of family planning services • Prepare adolescents to lead a healthy reproductive life	• Improving supply and demand for maternal health services • Strengthening sustainability of maternal health services at the • village level • Increasing demand for and access to high-quality family planning services • Giving the government the opportunity to develop and test alternative strategies for addressing adolescent reproductive health issues.
Philippines	*Health Development Project* Project cost: $108.4 million FY 89-Fy 97	• Achieve improvements in the control of major communicable diseases • Reduce infant and child deaths, maternal mortality and fertility • Upgrade institutional capacities of the Department of Health at all levels to improve the program effectiveness and managerial efficiency • Promote health equity by targeting high-risk groups according to degrees of risk and/or disease prevalence • Strengthen partnerships among the Department of Health, local governments, and nongovernment organizations • Establish improved planning mechanisms and consultation mechanisms for longer-term health policies and programs	• Increasing the number of midwives who provide family planning services and antenatal, delivery, and postpartum care in rural areas • Financing the revision of training curricula for midwives and other health staff

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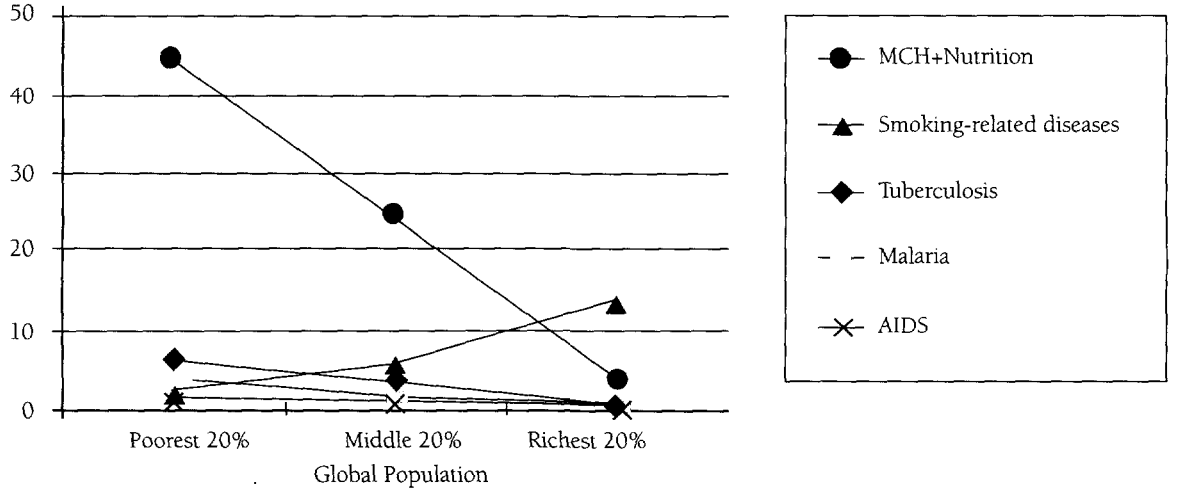
Annex 7 *(continued)*

Country	*Project Name and Cost*	*Project Objectives*	*Key Safe Motherhood Components*
Philippines	*Women's Health and Safe Motherhood Project* Project cost: $136.44 million FY 95-FY 02	• Improve women's health, focusing on women of reproductive health, thereby supporting the government's long-term goals of reducing fertility • Improve the quality and range of maternal health and safe motherhood services • Strengthen the capacity of local government units to manage the provision of these services, and the Department of Health to provide policy, technical, financial, and logistical support • Enhance the effectiveness and sustainability of health interventions through the participation of local communities and nongovernment organizations in the project • Expand the knowledge base upon which to draw policy and technical guidance for women's health programs	• Strengthening maternal health care services, including family planning, diagnosis and treatment of reproductive tract and sexually transmitted infections, and detection and treatment of cervical cancer • Training health workers in providing new services, information, education and communication techniques, and in using the new logistics system • Fostering community partnerships with nongovernment and local government organizations • Conducting policy and operations research on women's health.
Romania	*Health Services Rehabilitation Project* Project cost: $207.5 million FY 92-FY 99	• Assist the government in rehabilitating and upgrading the primary health care delivery system • Lay the groundwork for a major restructuring of health system financing, and management in the medium term	• Procurement and distribution of contraceptives • Support and training in identification and treatment of high-risk pregnancies, neonatal intensive care, and cervical cancer screening • Establishing a family planning and sex education unit • Establishment and provision of equipment and training for a network of family planning reference centers • Provision of equipment and training of maternities • Rehabilitation of rural dispensaries
Yemen	*Health Sector Development Project* Project cost: $19.1 million FY 90-FY 99	• Improve health services and facilitate their extension to underserved communities by strengthening the administrative, human resources, and support services	• Building three new regional nursing and midwifery institutes, expanding an existing one, and rehabilitating another. • Developing a maternal and child health emergency unit and blood bank to support ongoing efforts to improve essential obstetric services.

Country	*Project Name and Cost*	*Project Objectives*	*Key Safe Motherhood Components*
Yemen	*Family Health Project* Project Cost: $30.2 million FY 93-FY 01	• Reduce maternal mortality, morbidity and fertility • Improve management effectiveness in the health sector	• Strengthen management of obstetrical emergencies, blood banking and operating theaters at the district hospitals • Improving patient referral system • Providing fellowships for midwifery training
Zimbabwe	*Family Health Project* Project cost: $52.6 million FY 87-FY 94	• Increase the availability and use of maternal and child health care and family planningservices • Improve the health status of mothers and children • Strengthen the government's institutional capacity to plan	• Training for health workers in family planning and midwifery • Raising the contraceptive prevalence rate • Increasing the percentage of women receiving antenatal care and having attended deliveries
Zimbabwe	*Second Family Health Project* Project cost: $116.9 million FY 91-FY 99	• Improve maternal and child health and nutrition status • Reduce the population growth rate • Ensure that target district households have access to basic health services • Improve training for health workers in family planning, midwifery, nutrition, and management skills • Enhance management capacity of the Ministry, Zimbabwe National Family Planning Council, and select nongovernment organizations	• Increasing the percentage of women receiving antenatal care and delivering in health facilities • Increasing the percentage of women of reproductive age using modern contraceptives and the percentage of married women using permanent or semipermanent methods of contraception • Training doctors and nurses in family planning • Training nurses in midwifery in district and rural areas

Source: Staff Appraisal Reports, Project Appraisal Documents, and Discussions with Task Team Leaders.

Annex 8 Importance of Areas of Sectoral Emphasis for Different Income Groups, 1990
(Percent of total deaths in different income groups attributable to diseases indicated)



Note: WHO current estimates of overall AIDS deaths have increased since 1990. How this increase has been distributed among rich and poor is unknown.
Source: World Bank. HNP Poverty Thematic Group Analysis. May 1999.

Annex 9 Removing Barriers to Progress in Safe Motherhood

Problems	*Strategic Objectives*	*Interventions*	*Indicators*
Unplanned and poorly timed pregnancies			
Poorly timed and unplanned pregnancies contribute to maternal mortality and morbidity.	Reduce unwanted fertility by ensuring access to high-quality, client focused family planning information and services.	Expand family planning services through community-based distribution, social marketing, and health facilities.	Total fertility rate. Contraceptive prevalence rate.
Complications and death from unsafe abortions contribute to a high risk of injury or death.	Reduce complications from unsafe abortion by providing timely and appropriate treatment of abortion complications, as well as providing postcoital contraception and safe termination of pregnancy, where not against the law.	Ensure safety of abortion where permitted and provide post-abortion care and family planning information and services.	Total admissions for abortion-related complications. Case fatality rate for post-abortion complications.
Family planning services are available but quality of services is likely to remain poor.	Improved women's access to a full range of family planning services and broader reproductive health services. Improved the quality of family planning services and method choice.	Strengthen providers' skills and establish quality assurance approach for family planning.	Percent of women who receive contraceptive counseling.
Poor maternity care, especially for obstetric complications			
Large number of preventable deaths continue to occur among women during childbirth.	Reduce maternal morbidity and mortality through skilled attendance at delivery and management of obstetric complications, including emergencies.	Ensure prompt detection, management, and referral of complications. Train staff in midwifery skills at all levels of the health system.	Maternal mortality ratio. Percent of deliveries with skilled attendant. Maternal and perinatal death reviews.
Access to maternal health services is limited. Obstetric services at health centers are unavailable or of poor quality.	Strengthen institutional capacity of health system to increase access to and availability of maternity care services. Ensure appropriate micronutrient supplementation and management of malaria, tuberculosis, STIs.	Ensure early contact with health provider for appropriate care, counseling, and birth planning. Improve skills and supervision of community-based and health center staff in routine maternal and neonatal care, managing or referring complications, and first aid. Adopt competency-based training approach.	Percent of pregnant women receiving antenatal care at least once. Percent of pregnant women who are anemic. Number and distribution of basic essential obstetric care facilities.
Poor women most needing maternity care are least likely to get it.	Ensure that public spending on maternity care benefits the poorest women.	Promote private services for those who can afford it and assure public funds are used to finance care for the poor.	Percent of poor women who deliver with skilled attendant.

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Annex 9 *(continued)*

Problems	*Strategic Objectives*	*Interventions*	*Indicators*
District hospitals lack capacity—skills, equipment, and supplies—to respond to obstetric complications.	Strengthen institutional capacity of health system to link community-based maternity care services and health centers with functional district hospital obstetric services.	Staff and equip district hospitals to manage obstetric complications, assure 24-hour service, and accountability.	Number and distribution of district hospitals which can appropriately manage postpartum hemorrhage and cesarean section. Ratio of complicated cases to all obstetric admissions. Institutional case fatality rate.
Referral is difficult because of lack of transportation and/or communications from the community to the referral facility.	Organize an effective alarm and transport system, by improving roads, transport, and communication.	Mobilize communities to organize for transport and referral for emergencies.	Percent of women with complications referred to essential obstetric care services in a timely manner.
Risky/harmful practices that undermine maternal health			
Unwanted pregnancies and unsafe sexual practices among adolescents jeopardize their health.	Increase awareness of knowledge of family planning services among youth.	Educate women and youth about family planning and provide a variety of methods that can be obtained at community level.	Proportion of pregnancies not intended. Percent of sexually active adolescents who use family planning.
Limited services are available to address prevention and treatments of STIs, including HIV/AIDS, elimination of harmful practices such as female genital mutilation, and other women's health services.	Use maternity care as an entry point to provide broader reproductive health services, such as services for RTIs/STIs/AIDs and infertility as well as other health conditions such as tuberculosis, malaria, etc.	Ensure availability of services for RTIs/STIs and treatment for other health conditions. Provide appropriate laboratory equipment and drugs.	Percent of pregnant women screened and treated for STIs. Percent of pregnant women seropositive for HIV infection.
Lack of political commitment to Safe Motherhood			
National and community leaders do not promote safe motherhood.	Increase political awareness and commitment to address safe motherhood.	Prepare sector work or local research on safe motherhood for national leaders and program managers. Conduct national and local level meetings to raise interest and commitment.	Demonstration of national and local commitment to safe motherhood. Existence of a safe motherhood strategy.
Low status of women in society			
Women's status in society is limited by low education levels, limited employment opportunities, and other sociocultural factors.	Reduce high desired fertility by increasing child survival, education girls, and reducing gender bias in employment, credit, laws, etc.	Improve education for girls and better employment opportunities for women. Improve health communications capacity. Support involvement of women's groups.	Percent of females enrolled in secondary school.

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