

PROGRESS IN THE FACE OF INSECURITY

IMPROVING HEALTH OUTCOMES
IN AFGHANISTAN



POLICY BRIEF

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ABBREVIATIONS

AHS	Afghanistan Household Survey
ANC	Ante-Natal Care
ARI	Acute Respiratory Infections
BCG	Bacillus Calmette-Guerin
CO	Contracting-out
CI	Contracting-in
CPR	Contraceptive Prevalence Rate
DPT3	3rd dose Diphtheria Pertussis Tetanus
KPK	Khyber Pakhtunkhwa Province (Pakistan)
MDGs	Millennium Development Goals
MICS	Middle-Income Countries
MMR	Maternal Mortality Ratio
MOPH	Ministry of Public Health
NGO	Non-Governmental Organization, used consistently to also include CSOs (Civil Society Organizations)
NMR	Neonatal Mortality Rate
ORS/ORT	Oral Rehydration Salts/Oral Rehydration Therapy
RMNCH	Reproductive Maternal Neonatal and Child Health
SBA	Skilled Birth Attendant
SDGs	Sustainable Development Goals
TT	Tetanus Toxoid
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World Health Organization

CONTEXT

The Afghan government has achieved substantial improvements in the health of its women and children over the last 15 years. These health gains have come about in the face of ongoing insecurity and instability. Afghanistan's investments and innovations in the health sector have provided a foundation for the continued socio-economic development of the country and the achievement of Afghanistan's National Development Goals. While the improvements in health have been impressive given the context, there are some critical remaining challenges, including high levels of malnutrition and stunting, a persistently high fertility rate, and a deficit of health services in rural communities. This paper documents what has been learned over the last decade and half in Afghanistan.

In recent years, armed conflict in Afghanistan has intensified. Since 2010, there has been a clear uptick in instability and insecurity in Afghanistan (figures 1a and 1b), and more and more people now live in areas that are affected by high levels of insecurity. Maintaining service delivery and responding to intensified health needs under these circumstances is a key challenge facing Afghanistan's health system. Scaling up service-delivery strategies that adapt well to situations of insecurity will be critical to maintaining and expanding coverage with high-quality services.

Afghanistan has been at the forefront of establishing a large-scale, public-private model for service delivery. All of the publicly funded health services in Afghanistan today involve some form of contracting with non-governmental, non-profit entities or individuals. Two models predominate:

- ◆ **Contracting-out (CO), or service-delivery contracts with NGOs.** Most services are delivered by Non-Governmental Organizations (NGOs) under service-delivery contracts with the Ministry of Public Health (MOPH). As time has progressed, an increasing proportion of contracts have been awarded to Afghan NGOs: out of 49 contracts awarded for service delivery, 72 percent are now with local NGOs. All NGO contracts first focus on the delivery of standardized packages of services defined by the ministry; second, they assign clear geographical responsibility to the NGOs (typically for whole provinces with populations ranging from about 150,000 to one million); and third, they employ competitive selection of NGOs.
- ◆ **Contracting-in (CI) managers.** In addition, in three provinces near Kabul, namely Parwan, Panjshir and Kapisa, the MOPH contracts in managers to help strengthen services delivered by

FIGURE IA. Provinces by level of insecurity, 2003–2010

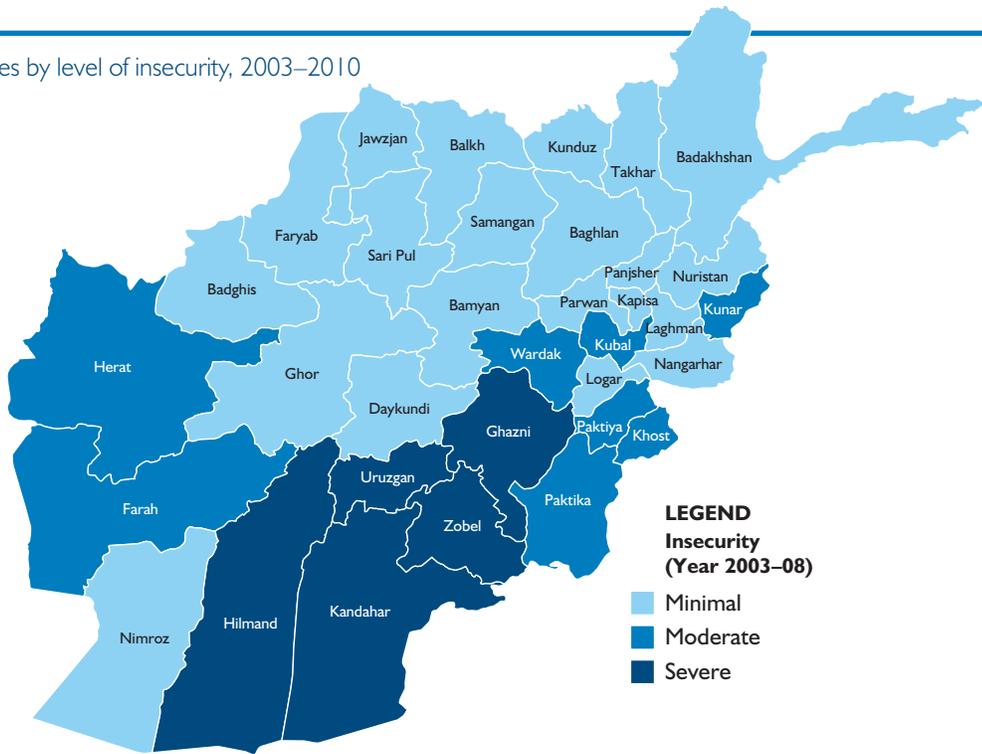
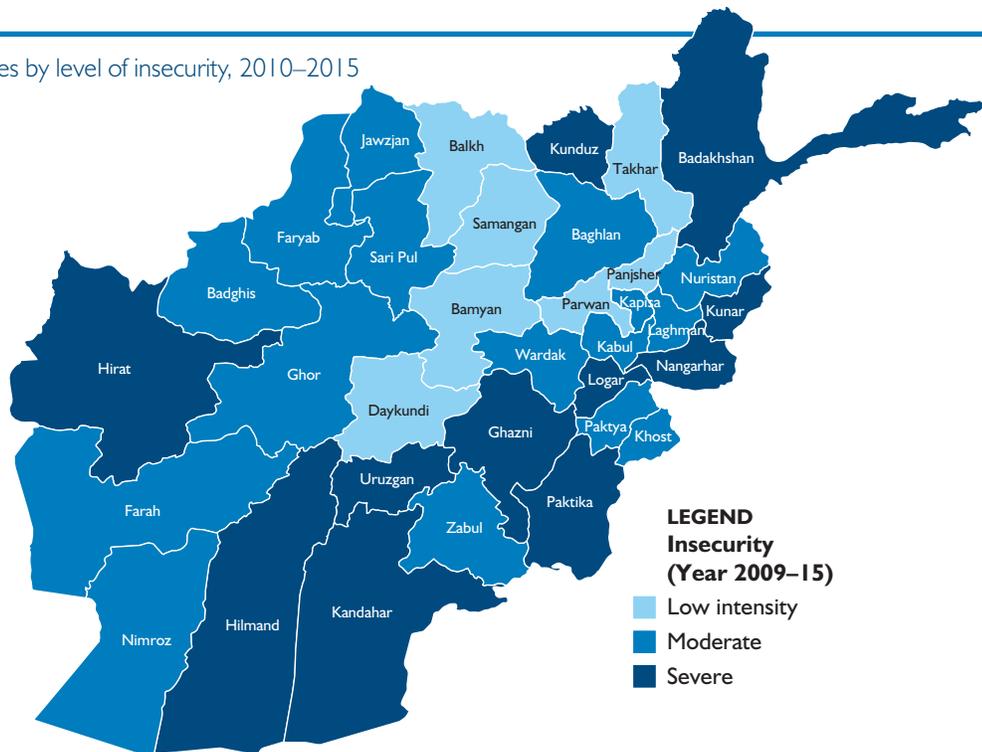


FIGURE IB. Provinces by level of insecurity, 2010–2015



Note: Provinces were classified into low, moderate, and severe insecurity zones based on the number of battle-related deaths in each period, using data on battle-related deaths from the Uppsala Conflict Program.

MOPH staff. This model involves the competitive recruitment of managers who are paid market-based salaries; a procedure for selectively increasing the salaries of MOPH health workers and field managers; provision of a level of funding similar to that provided to the NGOs; and the use of the same monitoring and evaluation mechanisms as in other provinces. All the CI provinces are close to Kabul and are less affected by insecurity than the CO provinces, which gives them a systematic advantage in improving service delivery performance for which this analysis cannot control.

OBJECTIVES AND METHODOLOGY

This policy note is motivated by four main questions:

- ◆ Is the Afghan health system delivering good results to women and children in terms of service coverage and health systems performance?
- ◆ How has the escalating insecurity influenced these trends?
- ◆ Which model—CO or CI—delivered better results?
- ◆ How can service delivery in Afghanistan be improved and made resilient to insecurity and instability?

Survey data are used to answer these questions. This note presents key findings and conclusions from the Afghanistan Health Services Study and focuses mainly on quantitative analyses of household surveys. These include the Multiple Indicator Cluster Surveys 2003 and 2010, as well as the Afghanistan Health Surveys of 2012 and 2015, and health facility surveys (Afghanistan Balanced Scorecard Datasets 2004–2016). In addition, sensitivity analyses were conducted with data from the Demographic and Health Survey 2015.

The service coverage outcomes that were examined include those in the standard ‘essential package of services,’ spanning the continuum of care for women and children. These include contraceptive coverage, antenatal care, skilled birth attendance, measles immunization, and use of oral rehydration salts for diarrhea.

The health-systems performance indicators studied here correspond to performance domains used by the MOPH to monitor NGO contracts. These include:

- ◆ Degree of client satisfaction and community involvement;
- ◆ Human resources;
- ◆ Physical capacity to deliver quality care;
- ◆ Quality of services provisioned, or process measures of quality;
- ◆ Management systems at health facilities, and
- ◆ Measures of equity, in use and in client satisfaction.

More details on these indicators are in the Appendix to this note.

Levels of insecurity over time were measured using battle-related deaths from the Uppsala Conflict Data Program, the international gold standard in this area. The quantitative analyses focus on two main windows, from 2003 to 2010 and from 2010/2011 to 2015/2016. The number of battle-related deaths in each period was used to classify provinces into three categories:

- ◆ Minimal insecurity: less than 300 battle-related deaths in any three consecutive years
- ◆ Moderate insecurity: 300–1,000 in any three consecutive years, and
- ◆ High insecurity: 1,000 or more in any three consecutive years in each window of analysis.

The study analyzed the potential impact of contract mechanisms, degree of insecurity and NGO types on change in selected Reproductive, Maternal, Neonatal and Child Health (RMNCH) indicators for the 2003 to 2010 and 2010 to 2015 periods, and health facility performance systems indicators for 2004 to 2010 and 2011 to 2016 through panel data, linear and logistic regression methods. The coverage models were adjusted for female illiteracy, percent of rural population, and battle-related deaths. Health-system outcome models were adjusted for patient volume, facility type, distance from provincial center, and region

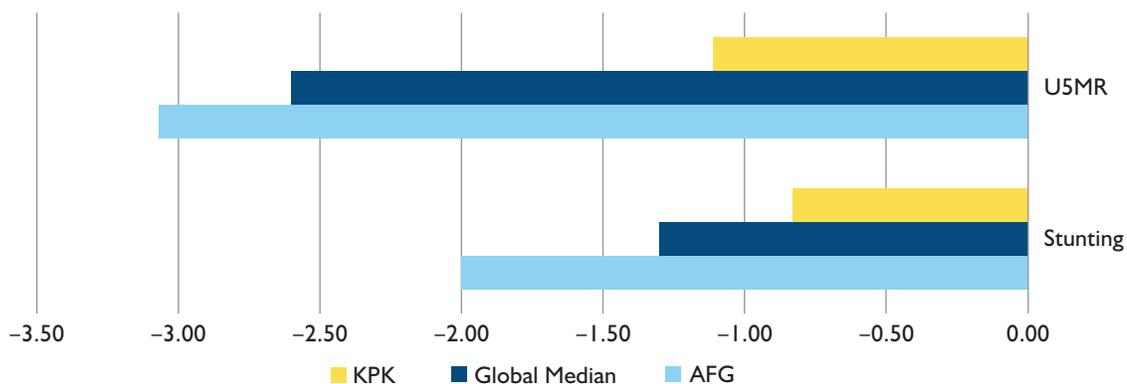
KEY FINDINGS

Afghanistan has made strong gains in health outcomes, health service coverage and health systems performance since 2003, with a particular impact on women and children's health.

All told, Afghanistan has made notable progress towards achieving the Millennium Development Goal (MDG) targets for improving maternal (MDG5) and child health (MDG4). According to United Nations estimates, maternal mortality rates (MMR) declined from 1,100 to 396 deaths per 100,000 live births from 2000 to 2015 (Alkema and others 2016), and under-5 child mortality rates (U5MR) fell 34 percent (from 137 to 91 deaths per 1,000 live births). Newborn mortality rates (NMR) dropped 32 percent (from 53 to 36 deaths per 1,000 live births) (You and others 2016). Nevertheless, it is important to emphasize that in absolute terms there is considerable room for progress.

Improvements achieved in health outcomes compare very favorably with improvements achieved by comparators. Afghanistan has achieved more improvements in key maternal and child health outcomes than has a key regional comparator (Figure 2), Khyber Pakhtunkhwa province

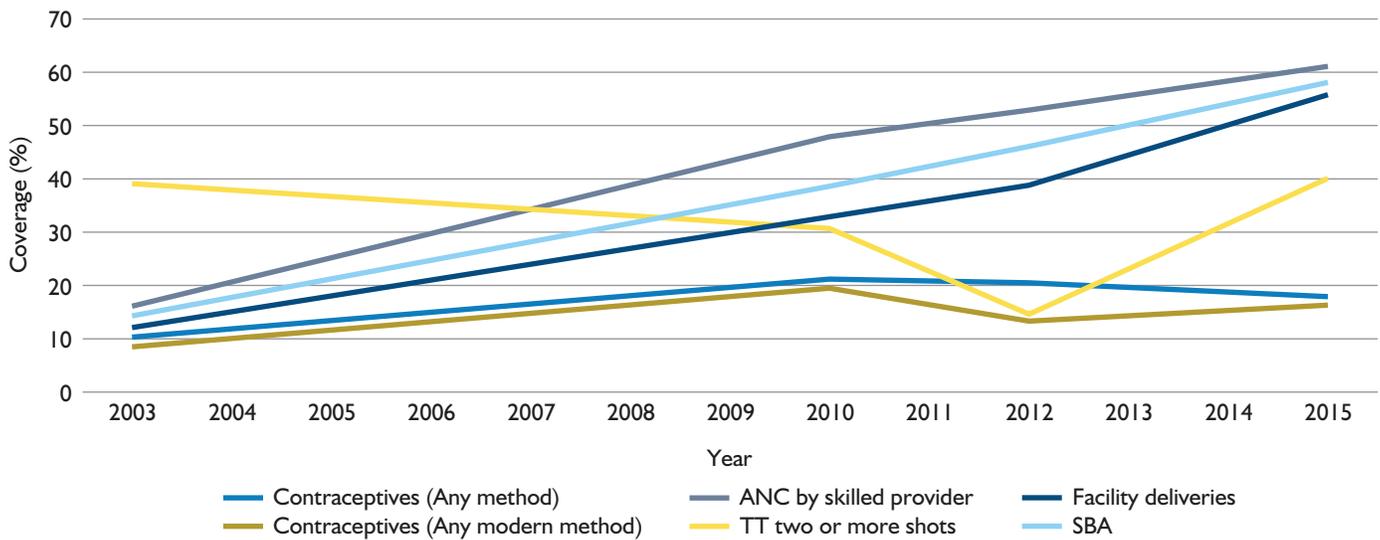
FIGURE 2. Rates of change in health outcomes, percentage points per year¹



Note: U5MR = Under-5 Mortality Rate; AFG = Afghanistan (2000–2015); KPK = Khyber Pakhtunkhwa Province (2000–2015)²; Global Median (1980–2010).

¹This is a conservative estimate for Afghanistan, based on Akseer et al., 2016, *Lancet Global Health*; Global median is for countries with Afghanistan levels at baseline based on Arur, A. et al., 2011, HNP Discussion Paper, World Bank.

FIGURE 3. National trends in coverage for key reproductive and child health services, 2003–2015³



(KPK). Improvements over time have also exceeded the global median for 75 low and lower-middle income countries (Akseer and others 2016; Arur and others 2011).

Mirroring improvements in outcomes, there have been good improvements since 2003 in the coverage of maternal and child health services. Coverage of contraceptives, for example, increased until 2010. However, they have declined though at a slower rate, between 2010 and 2015—showing the need for a greater focus in this area. All other maternal and child health-service coverage indicators examined showed improvements across the 2010–2015 period, barring Tetanus Toxoid (TT) coverage, which declined over 2003–2010, but increased thereafter.

Almost all provinces registered improvements in coverage between 2003 and 2015. Virtually all provinces achieved improvements in coverage between 2003–2015 except for Nimroz and Nuristan during the years 2003–2010 and Khost and Zabul in 2010–2015. This overall assessment of coverage was based on improvements in the WHO’s composite coverage index.⁴

The pace at which service coverage improved in Afghanistan compares very favorably to that of other countries and regions in similar situations. The annual rate of improvement in maternal

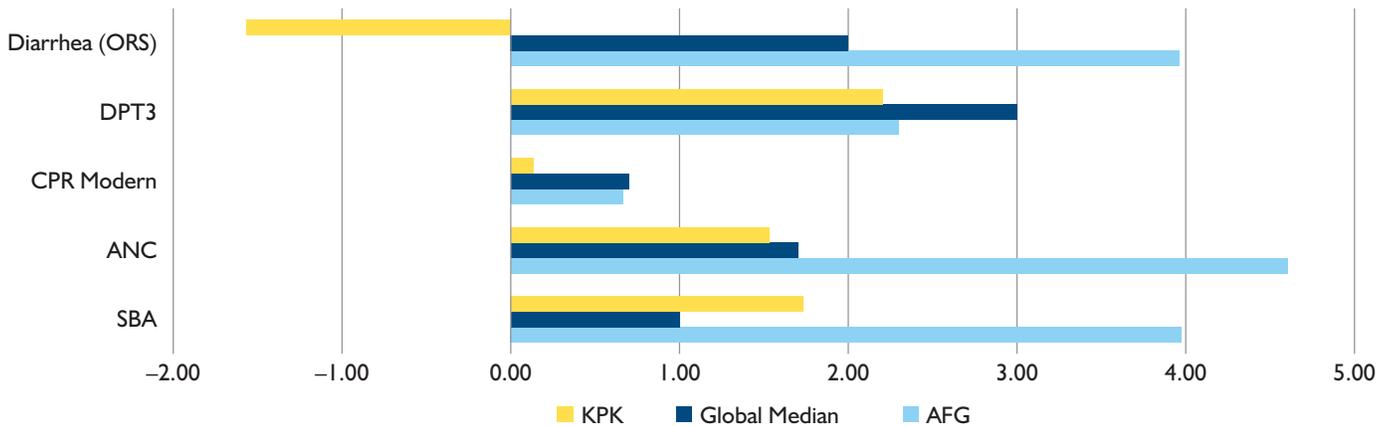
²Regional comparator chosen for geographic proximity and other contextual similarities, including security constraints.

³Data sources include MICS 2003, 2010 and AHS 2015.

⁴The Composite Coverage Index (CCI) is a composite of overall health coverage and includes both curative and preventative child and maternal health interventions (Boerma et al, 2008). This measure is calculated as a weighted coverage mean of eight essential interventions that represent broad categories of the continuum of care. The service categories included in the CCI are as follows: family planning, maternal and newborn care, immunization, and case management of sick children. Each continuum stage is given equal weight and the CCI is then calculated, as below. Note that FPS indicates family planning needs satisfied (related to contraceptive use) and CPNM refers to care seeking for ARI while MSL refers to Measles vaccination.

$$CCI = \frac{1}{4} \left(FPS + \frac{SBA + ANCS}{2} + \frac{2DPT3 + MSL + BCG}{4} + \frac{ORT + CPNM}{2} \right)$$

FIGURE 4. Rates of change in service coverage in percent per year, 2004–2010⁵



Note: ORS = Oral Rehydration Salts; DPT3 = diphtheria, pertussis, tetanus 3rd dose; CPR = Contraceptive Prevalence Rate; ANC = Antenatal Care; SBA = Skilled Birth Attendance.

and child health service coverage (figure 4) exceeds that of the regional comparator, KPK, as well as the global median for 75 low and lower–middle income countries. Progress on Diphtheria Pertussis and Tetanus (DPT3) coverage in Afghanistan lagged behind the global median, but not behind regional comparators.

Between 2004 and 2010, health systems improved their performance considerably across the six indicators measured, though at varying rates (figure 5). The client and community performance domains show the most remarkable improvements. Successes were noted in the physical capacity to deliver care, as well. Management systems and human resources for health domains also improved considerably, while overall mission and quality-of-service provision remained relatively stable.

Through 2011 to 2016, health systems performance continued to improve, although at a slower pace, with the exception of large improvements in the physical capacity to deliver high-quality care. As figure 6 shows, while health systems performance continued to improve over 2011–2016, the pace of improvements is slower than over the 2004–2010 period, but, most importantly, shows no sign of decelerating. The main exception is the physical capacity to deliver quality care, which continued to improve at a fast pace. These trends were visible at the provincial level, as well. All provinces, except Zabul, made progress on health systems domains during 2004–2010, while all provinces, except Kapisa, Kunar, and Badghis, achieved health systems improvements during 2011–2016.

⁵Akseer et al. 2016. *Lancet Global Health*; Global median is for countries with Afghanistan levels at baseline based on Arur, A. et al. 2011. *HNP Discussion Paper*, World Bank.

FIGURE 5. Change in health-systems performance domains in Afghanistan, 2004–2010

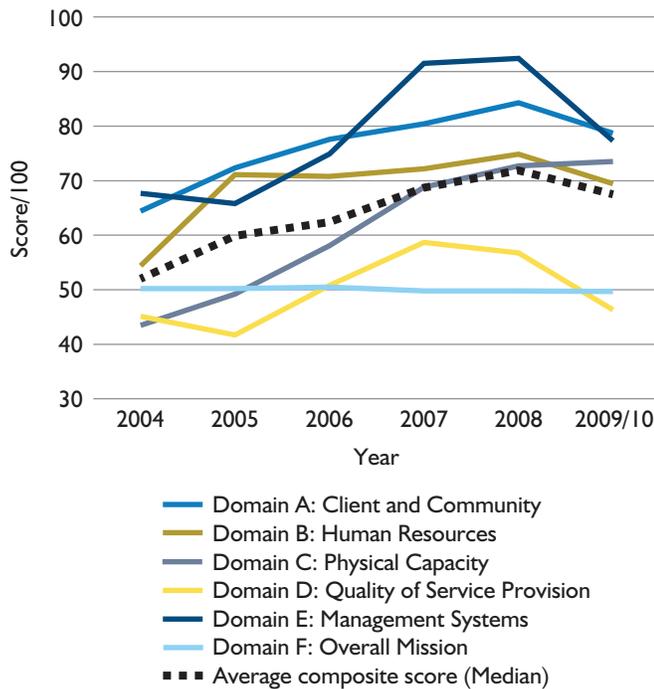
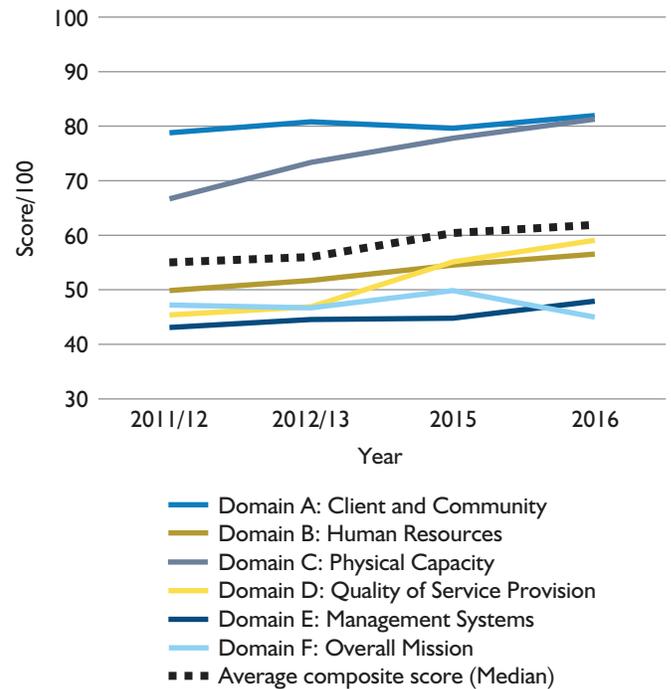


FIGURE 6. Change in health systems performance domains in Afghanistan, 2011–2016*



Note: Definition of domains were changed after 2010 to raise the bar on performance; hence trends assessed separately for 2004–2010 and 2011–2016.

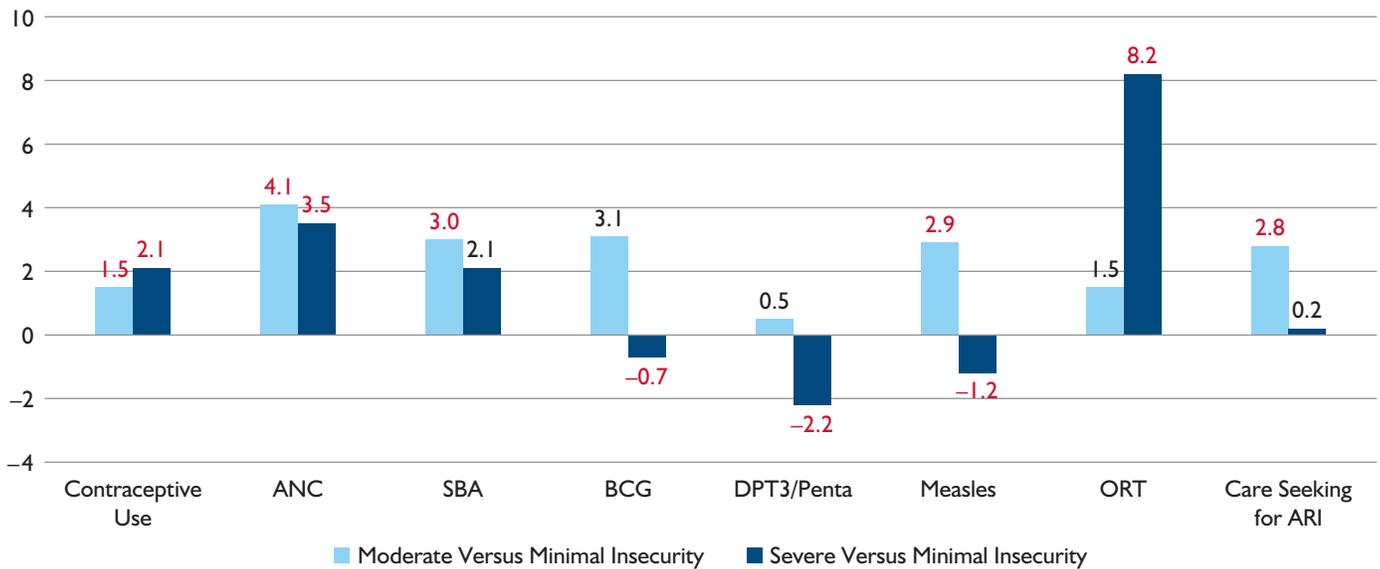
Health service delivery and health systems have remained resilient to Insecurity

A constant and growing state of insecurity and instability clearly presents a challenge to health service delivery. As can be expected, in descriptive analyses, health facilities in provinces with low insecurity typically achieved greater increases in service coverage. However, improvements in coverage were apparent in high as well as moderate insecurity areas, as well, with a few exceptions.

For service coverage, differences in improvement between provinces with higher and lower levels of insecurity are small. Highly insecure provinces showed striking resilience over 2003–2010 and made significantly greater gains relative to provinces with lower levels of insecurity: they improved coverage of contraceptive use, Ante-Natal Care (ANC), Skilled Birth Attendant (SBA), care-seeking for ARI (Acute Respiratory Infections), and ORT (Oral Rehydration Therapy) use during this period, even after adjusting for maternal literacy, contracting type and rural residence. However, relative progress in scaling up childhood vaccines coverage was lacking in the highly insecure provinces (figure 7a).

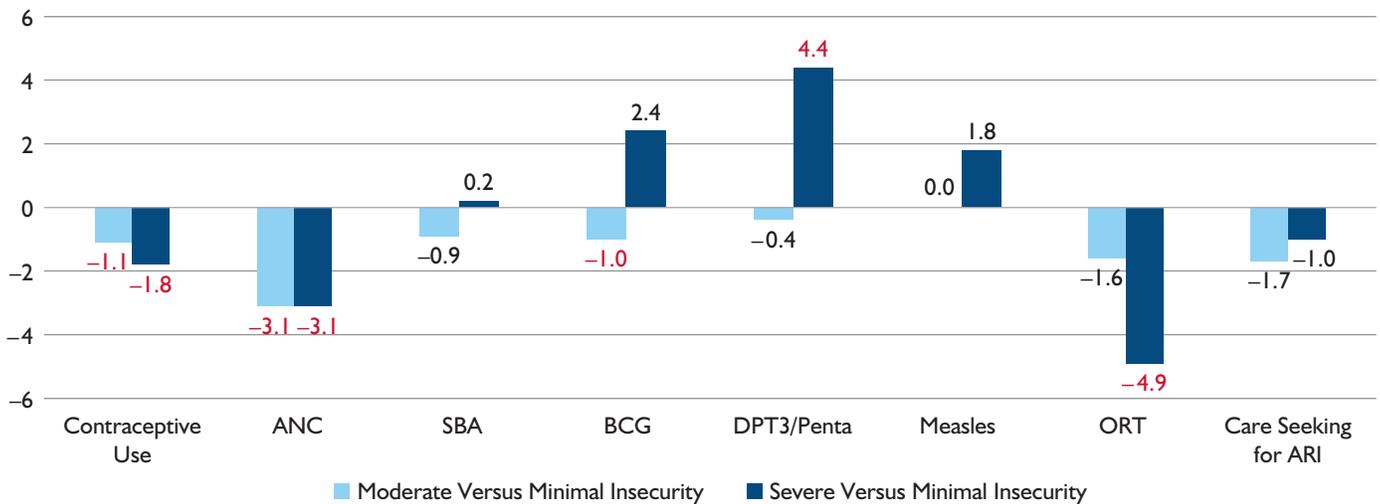
During 2010-2015, gains in contraceptive coverage, ANC, Bacillus Calmette-Guerin (BCG) vaccination, and ORT were significantly smaller in the highly insecure provinces compared to those with minimal insecurity after controlling for confounders (figure 7b). However, highly insecure areas achieved similar improvements in SBA, DPT3, and measles coverage, along with care-seeking for ARI, as compared to those areas with minimal insecurity. ORT coverage was most affected by insecurity, as improvements in coverage for this indicator were 4.9 percent lower in highly insecure provinces compared to minimally insecure provinces over a period of 5 years.

FIGURE 7A. Percentage of average annual change in service coverage by severity of insecurity, 2003–2010 (Reference: Insecurity)*



Note: *Red values indicate statistical significance at $p = 0.10$ or less. Model adjusted for the main effects of insecurity and time; and covariates, including maternal illiteracy, contracting type, and rural residence. Positive numbers mean that facilities in areas of severe or moderate insecurity achieved greater improvements than did facilities in minimally insecure zones.

FIGURE 7B. Percent in average annual changes in service coverage by severity of insecurity, 2010–2015 (Reference: Minimal insecurity)*



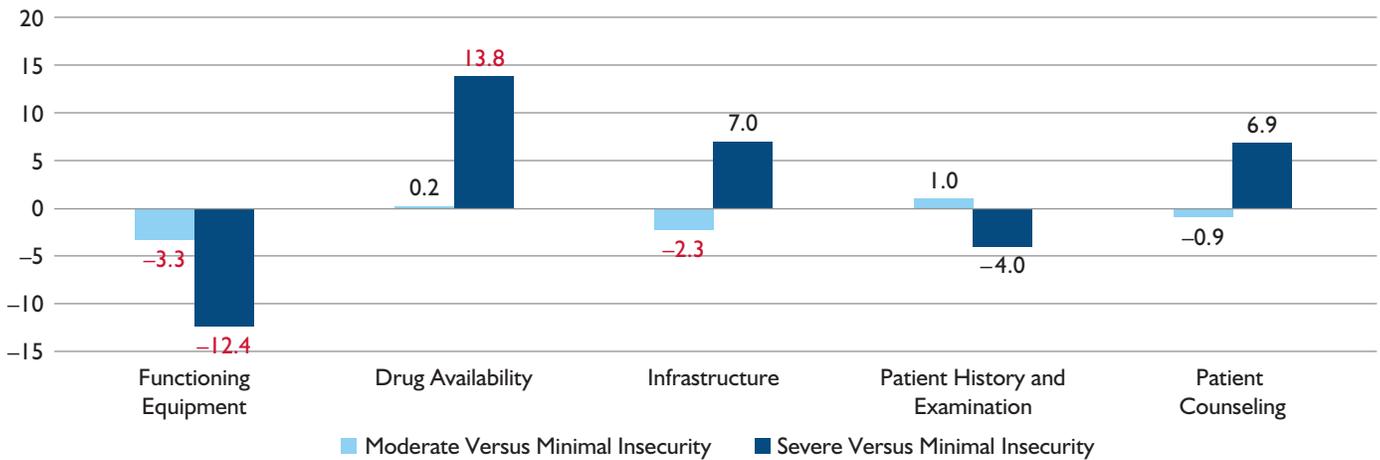
Note: Red values indicate statistical significance at $p = 0.10$ or less. Model was adjusted for the main effects of insecurity and time; and for covariates, including maternal illiteracy, contracting type, and rural residence. Positive numbers mean that facilities in areas of severe or moderate insecurity achieved greater improvements than did facilities in minimally insecure zones.

Health-systems performance improvements have also been achieved across the spectrum of insecurity. In some health systems performance domains between 2003 to 2010, facilities in areas with low insecurity achieved greater improvements than did those in areas with high insecurity. However, in the period between 2011 and 2015, there was no detectable difference in unadjusted improvements in health systems performance between facilities located in areas of low, medium, and high insecurity.

Evidence of resilience to conflict remains even after the analysis adjusts for confounders, which vary by analysis and are listed under each relevant figure.

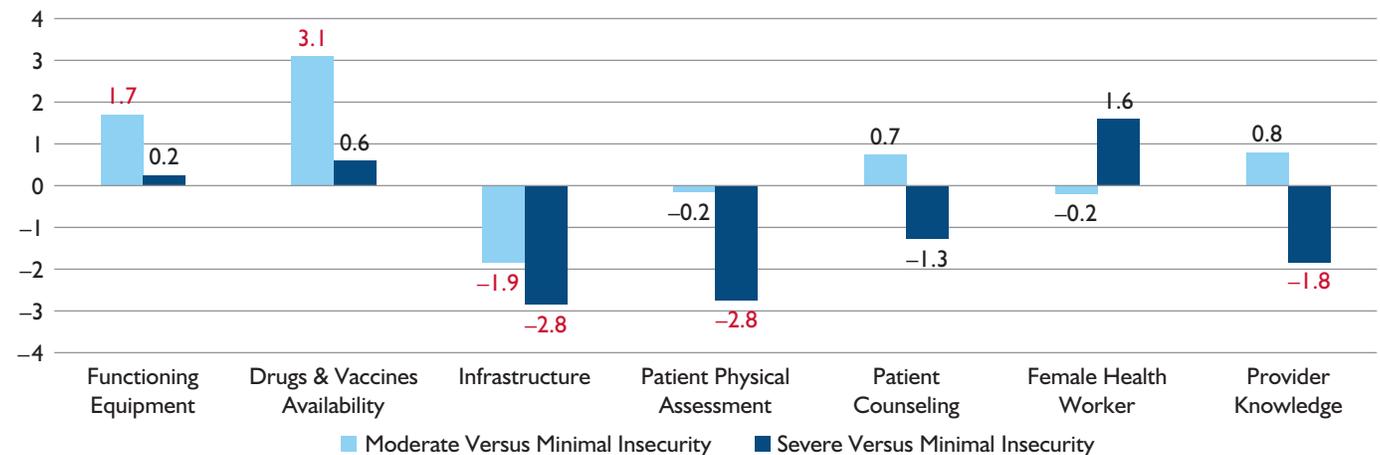
Differences in health-system performance between provinces with high and low insecurity were minimal, as well. Adjustments for confounders found that insecurity negatively impacted improvements in functioning equipment, infrastructure, client assessment, and provider knowledge in higher-conflict facilities during 201–2016 (figure 8b). However, improvements in health systems performance were only slightly smaller in severely insecure areas as compared to minimally insecure areas

FIGURE 8A. Percent of average annual changes in health-systems performance by severity of insecurity, 2004–2010
(Reference: Minimal insecurity)*



Note: *Red values indicate statistical significance at $p = 0.10$ or less. Model was adjusted for the main effects of insecurity and time; and for covariates, including patient volume, facility type, region, and contracting type. Positive numbers mean that facilities in areas of severe or moderate insecurity achieved greater improvements than did facilities in minimally insecure zones.

FIGURE 8B. Percent of average annual changes in health-systems performance by severity of insecurity, 2011–2016
(Reference: Minimal insecurity)*



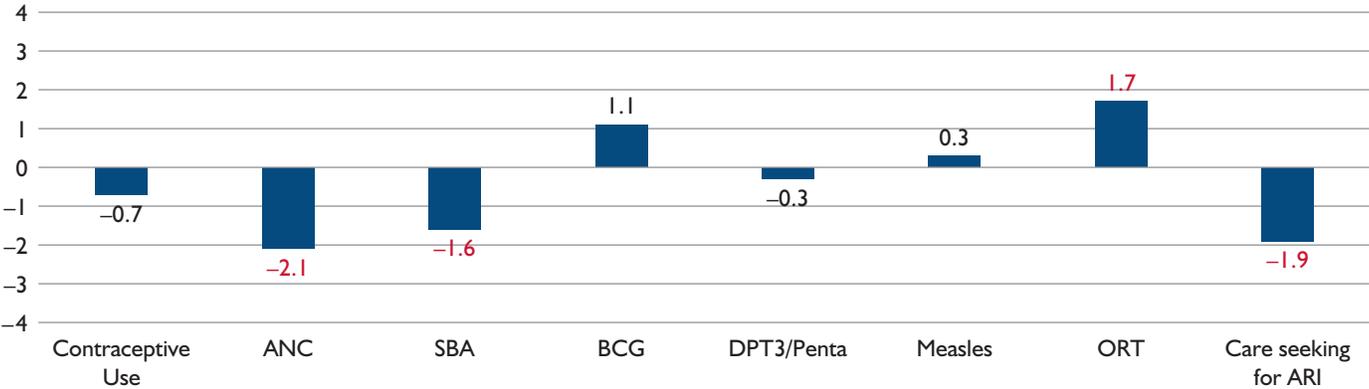
Note: *Red values indicate statistical significance at $p = 0.10$ or less. Model adjusted for the main effects of insecurity and time and for covariates, including patient volume, facility type, region, and contracting type. Positive numbers mean that facilities in areas of severe or moderate insecurity achieved greater improvements than did facilities in minimally insecure zones.

(between 1.8 and 2.8 percentage points lower over 5 years). Other health-systems performance domains for 2011–2016 demonstrated no statistically significant difference in improvement between facilities in severe, moderate, and minimally insecure areas.

Contracting-in (CI) and Contracting-out (CO) Models deliver comparable results

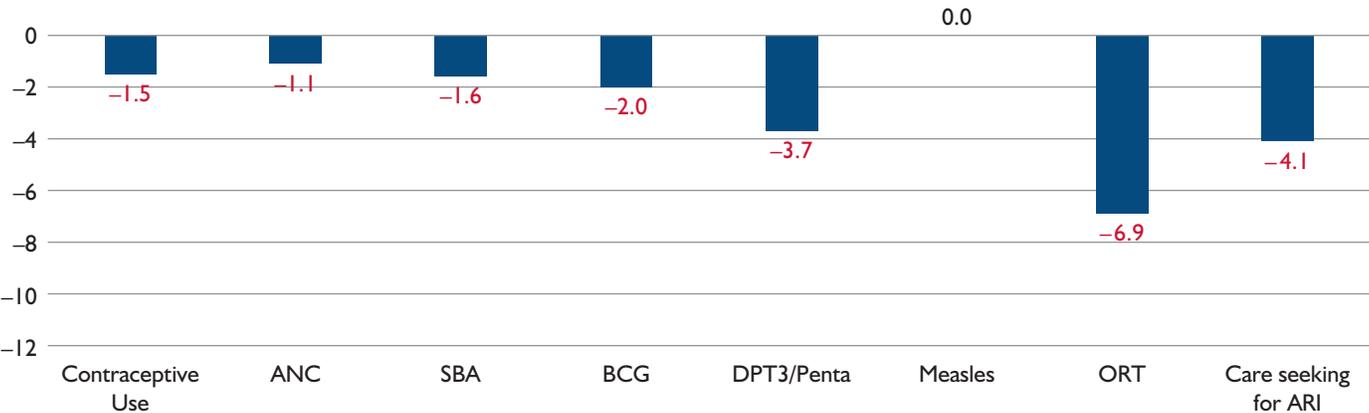
CI provinces achieved greater improvements in mother and child health coverage relative to CO provinces, but the difference in pace of improvements was small, suggesting comparable performance, with the exception of ORT use. Both CO and CI provinces achieved improvements in maternal and child health coverage during 2003 to 2010, as well as over 2010 to 2015 with a few exceptions. Unadjusted comparisons of *relative* improvements in coverage over time found that CI provinces made greater gains during 2003–2010 and 2010–2015 as compared to CO provinces. After adjusting for confounders, CI provinces still achieved significantly greater improvements on most service coverage indicators relative to CO provinces during 2003-2010 and 2010-2015 (figures 9a and 9b). However,

FIGURE 9A. Percent of average annual change in service coverage by type of contracting, 2003 and 2010 (Reference: Contracting-In)*



Note: *Red values indicate statistical significance at p = 0.10 or less. Model adjusted for the main effects of contracting type and time and covariates, including maternal illiteracy, conflict, and rurality of residence. Positive numbers mean the CO provinces achieved greater improvements than did CI provinces.

FIGURE 9B. Percent of average annual changes in service coverage by type of contracting, 2010–2015 (Reference: Contracting-In)*

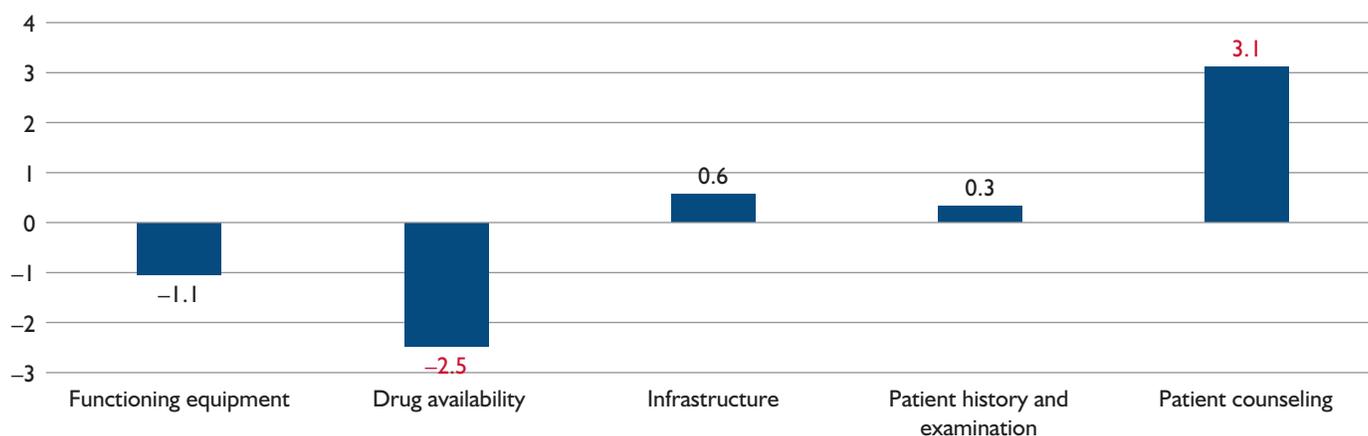


Note: *Red values indicate statistical significance at p = 0.10 or less. Model adjusted for the main effects of contracting type and time and covariates, including maternal illiteracy, conflict, and rurality of residence. Positive numbers mean the CO provinces achieved greater improvements than CI provinces

the difference in the pace of improvements achieved by the two approaches was relatively small. Improvements in ORT use was an exception, which were 6.9 percent points lower in CO provinces over 2010–2015 than in CI provinces during the same period.

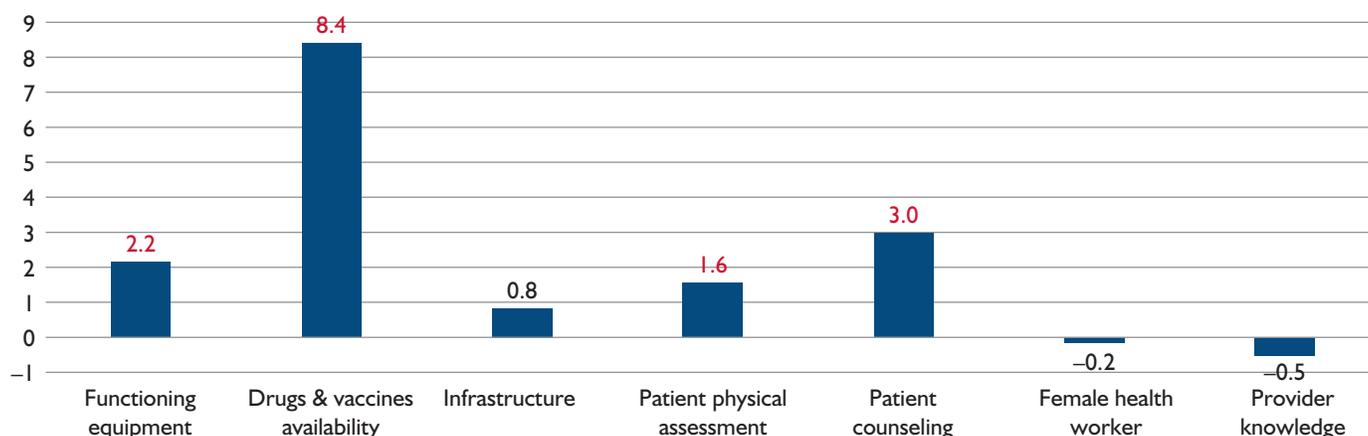
The two contracting approaches deliver similar results in terms of improvements in health-systems performance, except in the case of drug availability, where CO facilities showed much greater improvements during 2011–2016. Adjusted comparisons of improvements over time show that CO facilities achieved similar or greater results in health systems performance during 2004–2010, with the exception of drug availability (figure 10a). By contrast, during 2011–2016, CO facilities achieved greater improvements over time relative to CI comparators on several indicators, including functioning equipment, availability of drugs and vaccines, client physical assessment, and client counseling (figure 10b). The

FIGURE 10A. Percent of average annual changes in health-systems performance, by type of contracting, 2004–2010
(Reference: Contracting-In) *



Note: *Red values indicate statistical significance at $p = 0.10$ or less. Model was adjusted for the main effects of contracting type and time and covariates, including patient volume, facility type, distance of facility from province center, region, and conflict. Positive numbers mean the CO facilities achieved greater improvements than did CI facilities.

FIGURE 10B. Percent of average annual changes in health-systems performance by type of contracting, 2011–2016
(Reference: Contracting-In) *



Note: *Red values indicate statistical significance at $p = 0.10$ or less. Model adjusted for the main effects of contracting type and time and covariates, including patient volume, facility type, distance of facility from province center, region, and conflict. Positive numbers mean the CO facilities achieved greater improvements than did CI facilities.

availability of drugs increased to a far greater extent in CO facilities than in CI facilities over this same period. Even after controlling for confounders, drug availability increased on average 8.4 percent higher per year over 2011-2016 in CO facilities as compared to CI facilities.

All findings from the contracting-model comparisons must take on board an important caveat: that CI provinces are much closer to Kabul and they are smaller than most CO provinces. This makes CI facilities easier to staff, supply, and manage than CO facilities and, thus, it is also easier to improve coverage in these provinces. The analysis methods cannot control for these advantages, which are likely to bias findings in favor of CI provinces.

The CO model performed well in highly insecure and remote settings, and may present benefits over CI for such settings.

Resilience of service delivery to insecurity seems to reflect NGO strategies, notably links with local communities and stakeholders. NGOs assess local situations and develop strategies to maintain service delivery in insecure areas. In the health-services study, links with local communities and stakeholders were identified as a key potential driver of resilience to insecurity in service delivery. NGOs recruit staff from local communities and build relationships with local powerbrokers. Such strategies enable them to continue delivering services in difficult contexts where there might be few alternative sources of medical services.

The CO approach has clearly performed well in settings of high and escalating insecurity, and the ability of NGOs to respond quickly and with flexibility may explain good CO performance. Since CI provinces are generally more secure than CO provinces, no evidence is currently available on the resilience of the CI model in highly insecure settings. The CO approach may have intrinsic benefits that explain these findings, notably nimble recruitment, timely salary payments, flexibility with staff pay, and flexible/decentralized procurement. In addition, NGOs may be better able to access and deliver services in more insecure areas and may have better mobility.

International reviews of CO on the use of health services also find that the CO approach is effective in low and middle-income countries, particularly in underserved areas and post-conflict settings. A recent systematic Cochrane review of the impact of CO in low and middle-income countries (Lagarde and others 2009) finds that CO is an effective option, particularly in settings where governments may have had difficulty reaching populations. A literature review focused on contracting for primary care and nutrition services with broader inclusion criteria (Loevinsohn and others 2005) also concludes that contracting approaches, whether contracting for service delivery (or CO) or management contracting (or CI), have achieved impressive and rapid results in terms of scaling up service delivery.

POLICY RECOMMENDATIONS: THE WAY FORWARD

Afghanistan's investments in health have largely shown good results, especially as compared to other similarly placed regions and countries. Health is a foundational investment in a nation's human capital and in sustainable and inclusive economic growth: healthy children do better in school and healthy adults can more effectively participate in economic activity. Maintaining progress on health outcomes in Afghanistan will require building and expanding on the approaches that have already been tried successfully, as well as innovating further to account for continuing and often escalating insecurity. Below are some learnings and recommendations based on this research.

Both the Contracting-Out and Contracting-In models can be improved to increase performance and resilience. The CO approach has clearly performed well in settings of high and escalating insecurity, as well in remote provinces. This review found, as have others on Afghanistan, that the most successful approaches tend to maximize provider autonomy. This experience also suggests that going forward, embedding services closer to communities and strengthening ties with and accountability to local communities would be of great benefit.

Prior research in Afghanistan on the impact of the Contracting-out model on service utilization and quality, using health-facility survey data, indicates three key factors in delivering results. These include robust and independent monitoring, coupled with a high degree of provider autonomy and credible links between payments to NGOs and performance. (Arur 2008). These previous studies into the differences among contracting-out models, as implemented with funding from the World Bank, the European Union, and the United States Agency for International Development (USAID) in Afghanistan, found that, by contrast, additional resources without these elements failed to deliver greater improvements than in areas without any additional interventions.

The Afghanistan health sector generates a wealth of data, which could be better used to drive performance improvements. These include third-party evaluation, survey data, and data generated by routine reporting systems, which could be used more extensively by the MOPH and the Provincial Health Departments to actively drive improvements in performance in both CO and CI areas. Greater effort could be put into ensuring better data quality and survey representativeness. There is also the potential to expand the role of Provincial Health Departments to provide technical support to improve service delivery and decision-making, rather than limiting themselves to their more narrowed current focus on coordination and monitoring. In addition, the involvement of MOPH technical departments in monitoring service delivery could be strengthened.

Effective purchasing of health services is key: this involves a greater focus on outputs and outcomes. In general, effective purchasing of health services is more critical to delivering better health results and improving value from health spending than the question of public or private ownership of health service providers. The fundamental building block for this is the availability of good performance data and purchaser capacity to use the data to better oversee provider performance.

Strengthening citizen accountability and monitoring could improve both CO and CI performance. Findings on the trends of health-systems performance improvement indicate that the Afghan health system has done very well at the level of client and community engagement. A key finding from this study is that links to communities may explain conflict resilience: increasing citizen involvement in monitoring the delivery of services may be a promising approach, both to build conflict resilience in service delivery and as a part of a broader agenda of state-building. Rigorous research from other settings also points to the demonstrated value of community scorecards and citizen engagement in improving service delivery (Nyqvist and others 2017). For example, going forward, it may be worthwhile to test innovative approaches that enable service beneficiaries to collect performance data as a complement to existing monitoring data sources, particularly in highly insecure areas.

All reviews discussed here underscore the importance of robust evaluation and of results monitoring, as well as a focus on outputs and outcomes, rather than inputs, tends to yield better results. In light of this, it is important to shift back to true lump-sum budgets for contracted NGOs. The current contracts given to NGOs are lump-sum in theory; however, in practice, many NGOs say they often have to seek permission from the MOPH to transfer funds between line items, a cumbersome and time-consuming process. This is troubling, given the known benefits of provider autonomy to deliver good results, as long as providers are held accountable for their performance, as is the case with current contracting models in Afghanistan.

Substantially greater improvements in pharmaceutical and vaccine availability in CO facilities points to the importance of continuing decentralized procurement and supply chains. At the same time, there is a need to oversee the quality of medical drugs through surveys and other approaches, such as spot checks to independently assess whether drugs available at service delivery points meet quality standards.

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APPENDIX: HEALTH SYSTEMS PERFORMANCE DOMAINS

The health systems performance domains examined in this study correspond to those used by the Ministry of Public Health to monitor the Basic Package of Health Services delivered by contracted NGOs. They include the following:

AFGHANISTAN HEALTH SECTOR			
Balanced Scorecard 2004 – 2016		2004–2010	2011–2016
Domain A: Client and Community			
	Overall Patient Satisfaction	xx	
1	Patient Perception of Quality Index	xx	
	Overall Client Satisfaction and Perceived Quality-of-Care Index		xx
2	Written Shura-e-sehie activities in community	xx	
	Community Involvement and Decision-Making Index		xx
3	Health Post-Status Index (New)		xx
Domain B: Human Resources			
4	Health-Worker Satisfaction Index	xx	
	Revised Health-Worker Satisfaction Index		xx
5	Health-Worker Motivation Index		xx
6	Salary Payment Current	xx	xx
7	Staffing Index — Meeting minimum staff guidelines	xx	
	Revised Staffing Index — Meeting minimum staff guidelines		xx
	Provider Knowledge Score	xx	
8	Revised Provider Knowledge Score	xx	
	Revised Provider Knowledge Score	xx	
	New Provider Knowledge Score		xx
9	Staff received training in last year	xx	
	Revised Staff received training (in last year)		xx

(continues on next page)

AFGHANISTAN HEALTH SECTOR			
Balanced Scorecard 2004 – 2016		2004–2010	2011–2016
Domain C: Physical Capacity			
10	Equipment Functionality Index	xx	
	Revised Equipment Functionality Index		xx
11	Drug-Availability Index	xx	
	Pharmaceuticals and Vaccines-Availability Index		xx
12	Laboratory-Functionality Index (Hospitals & CHCs)	xx	
	Laboratory-Functionality Index (CHCs only)		xx
13	Clinical-Guidelines Index	xx	
	Revised Clinical-Guidelines Index		xx
14	Infrastructure Index	xx	
	Revised Infrastructure Index		xx
Domain D: Quality of Service Provision			
15	Patient-History and Physical-Exam Index	xx	
	Client-Background and Physical-Assessment Index		xx
16	Patient-Counseling Index	xx	
	Client-Counseling Index		xx
17	Proper sharps disposal	xx	
	Universal Precautions		xx
18	Time Spent with Client	xx	xx
Domain E: Management Systems			
19	HMIS-Use Index	xx	
	Revised HMIS-Use Index		xx
20	Financial Systems		xx
21	Health-Facility-Management-Functionality Index		xx
Domain F: Overall Mission			
22	Outpatient visit concentration index	xx	
	New Outpatient visit concentration index	xx	xx
23	Patient satisfaction concentration index	xx	
	New Patient satisfaction concentration index	xx	xx

Note: XX indicates availability of indicator in the respective time period; indicators highlighted in yellow are the same for both periods.

