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Maternal Health in Afghanistan

Improving Health and Strengthening Society

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Isobel Coleman Gayle Tzemach Lemmon

Introduction

In the decade since the toppling of the Taliban in November 2001, the United States has spent more than half a trillion dollars waging war and counterinsurgency in Afghanistan, an amount that increases by nearly \$7 billion every month.¹ Included in the spending figure is more than \$70 billion for Afghan reconstruction.² Still, Afghan stability, let alone development, remains elusive. The country suffers from many challenges: deep and widespread corruption; a central government undermined by illegitimacy; a determined, violent insurgency terrorizing large parts of the country; and grinding poverty exacerbated by drought, lawlessness, and ineffective government. Understandably, Americans are frustrated that they have so little to show for their efforts. A June 2011 CNN opinion poll reveals America's war weariness: 62 percent are opposed to the war.³

President Barack Obama has begun to withdraw American forces from Afghanistan after authorizing the addition of over forty-five thousand troops.⁴ The hope is that Afghan forces will be able to take responsibility for their own security, but the effectiveness of those forces—despite a roughly \$25 billion U.S. investment in their training and equipmentremains a question.⁵ Nevertheless, a gradual U.S. troop drawdown is now inevitable, forcing a reevaluation of American policy. The Obama administration has asserted that it will seek a "responsible end" to the war, an acknowledgment that the cut-and-run approach of the past resulted only in failure.⁶ Ambassador Ryan Crocker, Washington's ambassador to Kabul, has rightly stated the need for "sustainable stability"—investing in projects with high returns that can be sustained over time even as the international community scales back its engagement.⁷ To be successful, these investments must not only improve the lives of ordinary Afghans across multiple dimensions but also enjoy high levels of community support and demonstrate the effectiveness of government.

Top on the list of sustainable development initiatives is maternal health, an area in which U.S. development efforts have already achieved significant gains. Maternal health investments save lives and are a cost-effective way to improve the overall health of the country. Because health care is one of the few interactions that Afghan citizens have with their government, improving delivery of health-care services could be a stabilizing factor in a country that will continue to face severe security challenges from antigovernment forces. Maternal health also enjoys broad community support and has the added benefit of empowering women, an important dimension in a society in which biases against women still run strong and a resurgent Taliban threatens women's gains of recent years. The conflict in Afghanistan clearly will not be resolved by military means alone. Rather, the U.S. approach going forward must be based on a prudent combination of the three Ds: defense, diplomacy, and development. Building on the gains already achieved in maternal health through continued investment should be part of a responsible drawdown in Afghanistan.

Maternal Health in Afghanistan: A Dire Situation

After nearly three decades of war, civil war, and Taliban rule, Afghanistan at the end of 2001 suffered from one of the worst health situations in the world.⁸ One-fifth of the population of twenty-three million had become refugees, 50 percent of children suffered chronic malnutrition, Kabul alone had an estimated thirty thousand to sixty thousand widows, and the entire country was left with only eight psychiatrists, twenty psychologists, and three mental health facilities for a population severely scarred by years of fighting.⁹

The situation was particularly grim for maternal health. In the fall of 2002, the United Nations Children Fund (UNICEF), the U.S. Centers for Disease Control and Prevention (CDC), and the Afghan Ministry of Public Health (MoPH) visited almost 14,000 households, representing over 90,000 people in four districts of the country selected by the MoPH as representative of the maternal health situation in Afghanistan. Researchers sometimes rode on horseback to reach the most remote segments of the population to collect information from approximately 85,000 women, conducting over 350 "verbal autopsies" to determine causes of death among women of reproductive age. Their report estimated that between 1,600 and 2,200 women were dying in Afghanistan for every 100,000 live births.¹⁰ The lifetime risk of maternal mortality was one in seven, compared with a lifetime risk of maternal mortality in the United States at that time of one in 3,500.11 Roughly two-thirds of Afghanistan's districts lacked maternal and child health services, and even in Kabul the majority of women gave birth at home without a skilled attendant.¹² Only 9 percent of women were assisted by a skilled birth attendant, 8 percent of women received prenatal care, and 10 percent of hospitals provided caesarean sections.13 The reported maternal mortality ratio in the northern province of Badakshan in 2002 was 6,500 maternal deaths per 100,000 live births—the highest maternal mortality ratio ever recorded.14

Today the situation remains dire, but the foundations are being laid for improvement. Afghan women still have one of the lowest ages of female life expectancy, at approximately forty-eight years, but that is up from only forty-two years a decade ago.¹⁵ Afghanistan's fertility rate of more than six children per woman—the second highest in the world, trailing only Niger—is beginning to trend downward.¹⁶ While prenatal coverage is low and often of questionable quality, and a significant majority of Afghan births occur without a skilled birth attendant present, both of these measures have shown improvement in the past decade.¹⁷ With prenatal care expanding and improving, and female literacy rising, the potential for significant gains is large.

Several structural factors, for which there are no "quick fixes," affect maternal mortality in Afghanistan. First, there is limited access to quality health services and, in particular, obstetric care. There are only two midwives per 1,000 births in Afghanistan and only ninety comprehensive emergency obstetric and newborn care facilities to provide services for 1,250,000 total births per year.¹⁸ Effectively training personnel and developing expertise to expand access takes years of investment.

Access to care is especially limited in rural areas. According to UNICEF, there is a strong "urban bias" in health care, yet roughly 77 percent of Afghans live in rural areas.¹⁹ Of the nearly five hundred

birth complications per day in Afghanistan, more than 60 percent occur in rural areas.²⁰ Access to maternal care is extremely limited in areas such as Panjshir, a mountainous region in northeastern Afghanistan with six hundred thousand residents, which in 2009 had only one maternal health doctor.²¹ Panjshir residents live in villages that are largely inaccessible by roads, and floods and avalanches frequently obstruct the few transportation paths that are available. As Dr. Forough Malalai explains, in rural areas such as Panjshir, "some women have to walk for hours, even days, to reach a clinic ... [and] it is quite difficult to transport emergency cases to a clinic."²²

More broadly, significant social and cultural barriers contribute to poor maternal health in Afghanistan.²³ Although women's rights have improved since the fall of the Taliban, a June 2011 Thomson Reuters poll of 213 gender experts ranked the country as the most dangerous in the world to be a woman.²⁴ Between 40 and 55 percent of girls under the age of sixteen are married (even though Afghanistan's legal age for marriage is sixteen), and by some estimates, between 60 percent and 80 percent of all marriages are forced.²⁵ Women still have minimal economic and educational opportunities, and, despite the provision of gender equality in Afghanistan's constitution, the gap between rhetoric and practice is large. Community and religious leaders often resist women's employment and education. Insurgent attacks—which include acid attacks and assassinations—against female students, teachers, and administrators are not uncommon.²⁶ Despite gains in girls' education, fewer than 15 percent of Afghan women aged fifteen or older are literate and only 6 percent of women twentyfive years old or older have a formal education.²⁷

Additionally, decision-making authority within individual Afghan households is typically held by the eldest male, and control over decisions regarding maternal and child health is shared by older men and mothers-in-law, who can be resistant to modern contraceptive techniques and birthing procedures due to a lack of education.²⁸ Mothers-in-law can pose a significant barrier for pregnant women seeking institutional care. For example, older, illiterate women are often resistant to the concept of institutional delivery; they think it is expensive, unnecessary, and potentially unsafe if travel is involved. Many of them gave birth outside a medical facility and view institutional delivery as an unwarranted cost.²⁹

The challenges of improving maternal health are also exacerbated by a strong cultural preference for women to be seen and treated only by other women, despite a severe shortage of trained female health workers in Afghanistan. Under Taliban rule, female doctors could practice medicine, but women were prohibited from attending school. This policy prevented any training of new female health workers, helping to create Afghanistan's current high unmet demand for female doctors, nurses, and midwives.

Maternal Health: A High Return on Investment

Despite significant cultural and structural obstacles, the potential to improve maternal health in Afghanistan cost-effectively is considerable. Through a host of interventions, the United States has already laid the critical building blocks to reduce Afghanistan's staggering maternal mortality ratio. Realizing these gains in coming years will produce myriad benefits, not only for public health, but also for women's empowerment, economic development, security, and stability.

First, increased investment in maternal health saves lives. Today in Afghanistan, some eighteen thousand women die in childbirth every year.³⁰ Yet studies show that nearly 80 percent of these deaths are preventable with small, targeted interventions.³¹ If 80 percent of pregnant women in Afghanistan were assisted by skilled birth attendants and had access to emergency obstetric care, an estimated ten thousand maternal deaths could be avoided.³² In addition, many more neonatal deaths could also be averted, because infants and even young children of mothers who die are also far more likely to die. Evidence from rural areas in Afghanistan shows that from 1999 to 2002 roughly 75 percent of "infants born alive to mothers who died also died."³³ Research from other developing nations suggests that this relationship also exists between mothers and older children.³⁴ The World Health Organization predicts that children whose mothers die face a three- to ten-times greater risk of death than their peers with living mothers.³⁵ Maternal mortality can also negatively affect children's development, given that mothers are more likely to invest in nutrition, health care, and schooling than fathers are. Data from multiple countries show that when a mother dies, school enrollment is typically delayed for younger children and older children often leave school early to perform household tasks or earn an income from external jobs.³⁶

Improving maternal health is cost-effective in comparison with other development and health interventions.³⁷ For example, community-based midwives can be trained and supported at relatively low cost and typically earn less than medical doctors; according to research from the Center for Global Development, investments in midwives are one of the most effective ways to "save mothers' lives within a modest budget."³⁸ Their cost-effectiveness is magnified when viewed in the context of the health benefits they provide.³⁹ Put simply, maternal health is a marker for the overall health of a country. Strengthening the capacity of the health system to manage obstetric complications enables the system to "respond more adequately to other health complications as well, including accidents, trauma, and other medical emergencies."⁴⁰ Improving maternal health also provides both short- and long-term financial benefits for the national health sector. Reductions in pregnancy-related death and disability and decreases in infant and child mortality and morbidity generate important cost savings for health-care services that can be applied to other areas of social and economic development.⁴¹

Maternal health is also a vehicle for women's empowerment. Efforts to educate communities including both men and women—about the benefits of maternal health and related topics, such as family planning, improve women's access to health care and increase their decision-making ability within households. Interventions such as midwifery education programs economically empower women and increase women's access to higher education and employment. Frequently, midwives are seen as role models within their communities, challenging traditional barriers against women's education and employment.⁴² Not surprisingly, improving maternal health is a high priority for Afghan women. U.S. Army female engagement teams consistently report that the greatest fear among Afghan women is "death in pregnancy or loss of children, families, and futures for lack of simple things like midwifery care, diarrhea medicine, and antibiotics."⁴³ Their fears match the statistics: in Afghanistan, women are more than two hundred times more likely to die giving birth than by a bomb or a bullet, and a 2011 Save the Children report ranked Afghanistan the worst country, out of 155 countries surveyed, to be a mother.⁴⁴

Health care is also one of the only touch points that Afghan citizens have with their government, so improving it can improve governance. Roughly three-quarters of Afghans live in rural areas and struggle with poor security, unreliable transportation, and treacherous roads.⁴⁵ These geographic barriers inhibit civic engagement. Government-provided health care is an important contact point that connects citizens with their government. It is also a consistently high priority for Afghan citizens. According to a 2010 survey, issues related to health care dominate local concerns: 80 percent of the population cites health care as one of the top five biggest problems facing their communities.⁴⁶ Health-care improvements in general, and maternal health improvements in particular, can be stabilizing factors in a country that will continue to face severe security challenges from antigovernment forces.

Making Progress, with Midwifery at the Center

Over the past decade, access to maternal health services across Afghanistan has steadily increased. In 2002, Afghanistan had fewer than 500 midwives, and less than 10 percent of pregnant women received any prenatal care.⁴⁷ Now, the country has more than 2,400 midwives and approximately 20 percent of pregnant women receive prenatal care.⁴⁸ The result is a positive trend line across all indicators in maternal health. The statistics are still dismal, but they appear to be improving. Exact numbers vary, but according to data from the UN and WHO, the maternal mortality ratio has declined from 1,600 to 1,400 per 100,000 births, suggesting an improvement of nearly 13 percent.⁴⁹ The lifetime risk of dying from pregnancy-related complications has decreased from one in seven to one in eleven—still among the highest in the world but a step in the right direction.⁵⁰ Given the almost complete lack of a health system in Afghanistan in 2001, improving maternal health demanded across-the-board investments—both in supplying safe maternal health services and in increasing demand for those services. Those investments, particularly around improving human capital, require long lead times, and their benefits are only now beginning to be realized. Studies under way will better evaluate what progress has been made in reducing maternal mortality in Afghanistan in recent years, but there is strong anecdotal evidence suggesting gains.⁵¹

At the heart of maternal health improvements in Afghanistan is a successful, thriving, and costeffective midwifery program. The number of midwifery schools in Afghanistan has increased from five in 2002 to thirty-two serving all thirty-four provinces today.⁵² These programs are run by national and international NGOs and fall into two categories: those administered by the Institute of Health Sciences (IHS, five programs), and those administered by Community Midwifery Education (CME, twenty-nine programs).⁵³ In the past ten years, approximately 2,200 midwives have graduated from these programs, and the majority is now employed by the MoPH and nongovernmental organizations in health centers across the country.⁵⁴ Today, close to eight hundred midwifery students are enrolled in a program.⁵⁵

Central to the success of the midwifery programs has been the community support they have garnered, even in Taliban-heavy areas. Indeed, not one case of an attack against a midwifery program in Afghanistan has been reported.⁵⁶ Experienced aid workers have found that men with deeply conservative and even extremist views understand that health is necessary and want their wives and daughters to receive care from another woman rather than from a man. The advantage of the Community Midwifery Education program in particular is that it selects students from the community and redeploys them to the same community after they graduate.⁵⁷ According to Denise Byrd, country director in Afghanistan for Jhpiego and chief of party of the Health Services Support Project, deployment for midwives is planned at recruitment and in close coordination with communities and MoPH authorities.⁵⁸ No student is recruited without a clear deployment plan being agreed on at the start, and students are required to have evidence of demonstrated community support, such as a letter from a *shura* council, father, or husband.⁵⁹

Building this program took significant time and effort. The midwifery school in Bamiyan did not receive a single application for months after opening in 2004. But, gradually, the school "created a reliable learning environment for women and assured their men that women are totally safe and protected," according to past coordinator Saleha Hamnavazada.⁶⁰ Feroza Mushtari, former acting president of the Afghan Midwives Association, tells a similar story, saying that they had to sit down with *shura* councils and advocate extensively for the CME programs. Now, when they say they have twenty openings for midwives, they receive hundreds of applications, even in places like Kandahar, Khost, Paktia, Farah, and Helmand, locations known for an active antigovernment insurgency presence.⁶¹ People have come to see that trained midwives can help support their families and communities in terms of improving health and providing salaries.⁶² In fact, midwives have reported instances where community leaders and senior officials at the MoPH praise their work by bestowing letters of appreciation. One community midwife explained, "They know me as a women's specialist and they respect me and say that I solve their women's problems."⁶³

The midwives are already having a positive effect on health outcomes. It is estimated that in parts of the country, Afghanistan's infant mortality rate has dropped as much as a quarter, partially because of better midwifery.⁶⁴ Although maternal health services have improved overall in Afghanistan, the greatest changes have been seen in provinces with midwifery programs. In areas with midwifery schools that had graduated students by 2007, prenatal care visits increased proportionally by 17 percent and the number of deliveries with skilled birth attendants by 40 percent.⁶⁵ Additionally, roughly 61 percent of health centers in Afghanistan are now staffed with at least one midwife.⁶⁶

Evidence from maternal health experts in the field confirms the transformative potential that midwifery programs have in realms beyond health. Most importantly, midwifery programs offer an entry point for girls and women to obtain an education, earn an income, contribute to their communities, and enhance their mobility. As one director of the community midwifery program explains, the importance of educating and deploying midwives is not just that they return to their communities with life-saving skills sets, but also that they return with a sense of empowerment and status.⁶⁷ In midwifery programs, students learn the health skills necessary to protect mothers and deliver healthy children, and also a more general set of professional and interpersonal skills through classroom work, case studies, and clinical training.⁶⁸ Midwives who have come from disadvantaged educational backgrounds often receive supplementary literacy education in addition to their health training. Once these educated women are deployed in local communities, their presence produces numerous and wide-ranging benefits. Even in rural and deeply conservative communities, the introduction of midwifery training programs has been followed by "a trend toward seeing more women outside their homes" and other cultural changes.⁶⁹ One midwife said, "At first, when I wanted to study midwifery my mother-in-law didn't want to allow me, but later she was so impressed that she sent her own daughter to midwifery school."70

Midwifery programs are also an important driver of women's economic empowerment. Dr. Nasratuallah Ansari, former technical director for Jhpiego in Afghanistan, explains that trained midwives take pride in their ability to care for a whole village and receive a salary. A community midwife in a rural area can earn up to \$350 per month, a significant salary in Afghanistan.⁷¹ Some also receive gifts from villagers appreciative of their services. One midwife reported, "Now I am able to support my family and they are motivated to help me."⁷² According to Dr. Nasrin Oryakhil, administrative director of the Malali Maternity Hospital in Kabul, "an increasing number of husbands are proud when their wives work and bring money home."⁷³ Afghan midwives challenge barriers and serve as role models in their communities for other women and girls aspiring to go to school and earn an income.

With access to a growing range of interventions, midwives and community health workers in Afghanistan are poised to become more effective despite their low-resource setting. With appropriate education of pregnant women and their families, the drug misoprostol, for example, holds enormous potential for treating postpartum hemorrhage (PPH), which is the leading cause of maternal death in Afghanistan, accounting for nearly 40 percent of maternal deaths.⁷⁴ The drug's growing popularity in the developing world is due in large part to its low cost (an effective dose costs approximately \$0.70) and heat stability.⁷⁵ Unlike other PPH drugs, such as oxytocin, misoprostol does not need to be refrigerated. It can also be taken as a pill and administered without an injection or skilled birth attendant.⁷⁶ A 2009 study found that community-based education and distribution of misoprostol by semiliterate community health workers (CHWs) in Afghanistan was safe and effective.⁷⁷ In the case study areas, all 1,421 Afghan women who took misoprostol as part of the study took it correctly after birth, and more than 90 percent said they would use it during their next pregnancy.⁷⁸

Mobile technology is another intervention improving maternal health in Afghanistan by increasing the quality of care that health workers provide, even in remote areas. In 2008, Jhpiego, in partnership with Roshan—the largest mobile provider in Afghanistan—launched its SMS4Learning program.⁷⁹ This initiative uses short message service (SMS) to provide direct follow-up with doctors, nurses and midwives who receive health-care training from Jhpiego. The project reinforces best practices and maintains skills acquired by participants during trainings. For example, community health workers receive text messages reminding them to wash their hands with soap and water between patients to reduce spreading germs. A preliminary survey conducted in 2010 of project participants showed that roughly 80 percent were satisfied with the initiative and over 50 percent forwarded the messages to their colleagues to improve levels of service.⁸⁰

Over the longer term, midwives in Afghanistan will only continue to be successful if there is adequate emergency obstetric care available to which they can refer patients. Midwives are the first link in a chain that must include access to safe, reliable emergency care, since approximately 15 percent of births require emergency care well beyond the capabilities of midwives.⁸¹ A lack of access to quality emergency care could erode community trust in midwives and diminish the gains that have been made in increasing demand for institutional care.

Building Demand for Maternal Health Services: An Equal Challenge

Addressing the supply side of maternal health is a daunting task in a country such as Afghanistan, where rural areas lack even the most basic infrastructure and have few schools for training and few literate women to be trained. But addressing the demand side of maternal health is an equally daunting task, given the country's low levels of education for men and women, its deeply traditional society, the powerful role of religious and tribal leaders, widespread biases against women, and suspicion of foreigners. These challenges are great but not insurmountable, and several programs are already showing strong potential.

One successful initiative, Opportunities for Mother and Infant Development (OMID)—an acronym that means *hope* in Dari—works specifically with family and community decision-makers (such as mothers-in-law, husbands, community elders, and mullahs) to modify their attitudes and behaviors related to encouraging and supporting women and children to seek appropriate health-care services.⁸² With funding and support from the CDC and CARE, OMID has established forty-five (forty-three women's and two men's) community support *shuras* in four districts of Kabul to educate family decision-makers about the importance of maternal health and family planning.⁸³ Community support *shuras* are led by OMID's Community Based Educators (CBEs), who live and work in the localities they serve. Their counseling and advice is generally welcomed in their communities. CBEs are now seen as integral to local public health efforts, and, in fact, some communities contribute non-cash resources to support the work of CBEs, such as donating space so that *shuras* can be held without having to pay rent.⁸⁴

Since the *shura* program's implementation in 2008, participants have established savings funds for women to use for emergency needs during pregnancy, delivery, and the postpartum period. Women are able to access these funds to pay for transportation to health facilities or to purchase medicine.⁸⁵ Men who have participated in community support *shuras* explain that they now understand why maternal health and family planning are "more than just women's issues."⁸⁶ Husbands have told deputy manager of OMID Dr. Zohra Shamszai that the *shuras* helped them recognize their responsibility to contribute to the health of their wives and children. Additionally, the program has increased support among mothers-in-law for institutional-based deliveries, prenatal care, and family planning, which has encouraged household communication about maternal and reproductive health.⁸⁷ Community support *shuras* are low-cost, effective maternal health interventions that also play an important role in changing cultural attitudes.

Midwifery programs have also promoted demand at the local level. Dr. Ansari points out that Afghan communities are aware of midwifery education programs around the country and increasingly accept that it is a good thing when families send their girls to be trained in such programs. The MoPH's collaborative relationship with the Ministry of Religious Affairs and local mullahs and health *shuras* has facilitated this shift in mindset. So too has the MoPH's distribution of educational health materials throughout the country, which focus on maternal and child health, prenatal and postnatal care, delivery, and how best to utilize community health services.⁸⁸ According to Dr. Ansari, Afghan's growing acceptance of, and demand for, maternal health care has been a great accomplishment in the past several years. ⁸⁹ Thanks to these and other efforts, people like Dr. Ansari hope to see a decline in maternal mortality when survey results are published in the coming months.

Jhpeigo and OMID, with funding from U.S. and other sources, are also administering communitybased postpartum programs to stimulate and address demand for family planning.⁹⁰ Afghanistan's high maternal mortality rate cannot be sufficiently reduced without providing family planning services for women who want to postpone or limit childbearing. Given that Afghan women have on average more than six children, the odds of death in childbirth will remain stubbornly high.⁹¹ Cultural barriers to family planning also remain high. A survey of approximately 13,000 households conducted by OMID from September 2010 to February 2011 found that although "poor access to health facilities" was one inhibitor of family planning, other leading factors included the "fear of side effects, insufficient knowledge on contraception, and husband's denial."⁹² To address these barriers, OMID counsels women in their postpartum period about their family planning choices. In female community health *shuras* and during home visits, women can request to receive birth control. Additionally, men are educated about family planning and maternal health through male community health *shuras*, where they can also receive male condoms. According to community-health specialist Ibrahim Parvanta, male participants are grateful to learn about their family planning options because they were unaware that birth control and birth spacing were even possible.

Jhpeigo also runs a similar community-based postpartum family planning initiative to orient and train community leaders and staff of various Afghan ministries to address misconceptions about family planning, highlighting consistencies between Afghan culture and family planning.⁹³ It also works to increase awareness about options and benefits through household counseling sessions that target pregnant women and their mothers-in-law to increase household support for family planning methods, such as birth spacing and lactational amenorrhea method—which is based on the natural postnatal infertility that occurs when a woman is fully breastfeeding. Jhpiego reports that through its efforts, family planning has been accepted in rural Afghanistan's traditional culture.⁹⁴

Recommendations

The benefits of improving maternal health in Afghanistan stretch far beyond women's health: the impact is felt in community health, in women's empowerment, in economic development, and in more secure communities. Indeed, few other interventions provide such broad-based returns for society. U.S. efforts to improve maternal health in Afghanistan, particularly in the area of midwifery, are one of its great unsung development success stories. However, although much hard work has been done, continued investment is required to realize the long-term potential of these initiatives. The United Nations Population Fund estimates that Afghanistan still needs roughly 7,400 additional midwives to attain 95 percent skilled birth attendance by 2015.⁹⁵ If graduation and deployment levels remain at the current rate, there will be a shortage of approximately 4,000 midwives—a shortage that could unnecessarily jeopardize the lives of thousands of Afghan women.⁹⁶ The U.S. government should continue its commitments to midwifery education and other maternal health programs so that the advances made in women's health since 2001 are not squandered, but instead Wbgc []M.fed and accelerated.

To reinforce the gains achieved so far, the United States should pursue the following policies:

- Increase funding for midwifery programs to expand their scope and, as possible, increase the number of future trainees and their graduation rates. (We recognize that utilization rates must increase first, to provide sufficient access to patients for midwife training.) If Afghan midwifery education programs remain at their current size, Afghanistan will face a significant shortage of midwives by the scheduled withdrawal of international troops in 2014.⁹⁷ Increasing the rate of training should be considered to get a larger number of midwives in the field, not only to frontload the health benefits but also to increase local stability and women's empowerment.
- Expand low-cost efforts to engage community leaders and family decision-makers to build support for maternal health and family planning and increase demand. The entire annual budget for OMID, for example, is only \$800,000.98
- Increase emphasis on voluntary family planning to achieve widespread delivery of services acceptable to and desired by women.
- Support continued education and supervision programs for midwives, including annually at the national level, to maintain their skills and ensure high standards of care.
- Ensure the continuation of efforts to improve referral systems and emergency obstetric care
 in low-resource settings, including availability of medical supplies and additional skilled staff
 with obstetric surgery skills (general surgeons and/or obstetricians), so that, when emergencies do occur, women have a safe and reliable place to go. Without that, trust for midwives
 will decline because their ability to help in true emergencies will be limited.

- Invest in continuing education of midwifery faculty to enhance their skills in managing obstetric complications, support a continuous learning ethos, and prepare them for involvement in health-care policy in their own geographic areas.
- Develop a live registry of licensed midwives to foster communication, support continuous learning, and encourage best practices.
- Build the capacity and quality of medical education in general and with a focus on maternity care in order to graduate more medical doctors with maternal care knowledge and skills.
- Test and expand access to new interventions and approaches, including m-health, drugs such as misoprostol to prevent postpartum hemorrhage during homebirths, and task shifting to improve quality and accessibility of care.

Endnotes

8. John Maurice, "WHO Heads Efforts to Restore Afghanistan's Shattered Health," *Bulletin of the World Health Organization*, vol. 79, no. 12 (2001), p. 1174.

9. Ibid. The number of widows varies because of contradicting estimates collected in Afghanistan's turbulent postwar environment.

14. Bartlett et al., "Where Giving Birth," p. 867.

 United Nations, World Population Prospects: The 2010 Revision, 2011, http://esa.un.org/unpd/wpp; United Nations, World Population Prospects: The 2002 Revision, vol. 3, 2004, http://www.un.org/esa/population/publications/wpp2002/WPP2002_VOL_3.pdf, pp. 85, 88, 108.

16. Ibid.

17. Reliable and consistent statistics are a challenge to come by in Afghanistan. Different sources yield quite different data. For prenatal coverage, current statistics range from 16 percent to 36 percent of pregnant women. For percent of deliveries with a skilled birth attendant (SBA), the data ranges from 14 percent to 25 percent. Where possible, we try to use a range to reflect this data discrepancy. 18. UNFPA, *State of World's Midwifery: 2011 Report*, p. 41.

UNICEF, "Afghanistan's Community Midwives," December 8, 2008, http://www.unicef.org/devpro/46000_46782.html.
 UNFPA, State of World's Midwifery: 2011 Report, p. 41.

^{1.} Spending/appropriation estimates as of March 2011 include U.S. military expenses, amount to train Afghan forces, additional procurement costs, and aid levels, among other costs. Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11* (Washington, DC: Congressional Research Service, March 29, 2011), pp. i, 1, 9, http://www.fas.org/sgp/crs/ natsec/RL33110.pdf.

^{2.} Exact figure is \$72.67 billion. Special Inspector General for Afghanistan Reconstruction (SIGAR), "Twelfth Quarterly Report to Congress," p.138, Appendix B, http://www.sigar.mil/pdf/quarterlyreports/Jul2011/LoresPDF/07Q2011SIGAR_lores.pdf.

^{3. &}quot;CNN Opinion Research Poll, June 3–7," CNN, http://i2.cdn.turner.com/cnn/2011/images/06/14/rel10b.pdf (accessed June 11, 2011).

^{4.} The exact figure is 47,000 troops. On February 17, 2009, President Barack Obama approved a 17,000-troop surge, and on December 1, 2009, he approved a 30,000-troop surge. Barack Obama, "Address to the Nation on the Way Forward in Afghanistan and Pakistan," December 1, 2009, http://www.whitehouse.gov/the-press-office/remarks-president-address-nation-way-forward-afghanistan-and-pakistan; Barack Obama, "Statement on United States Troop Levels in Afghanistan," February 17, 2009, http://www.whitehouse.gov/the_press_office/Statement-by-the-President-on-Afghanistan; Army Staff General Michael J. Carden, "Afghanistan Commander Welcomes Additional Troops," *American Forces Press Service*, February 19, 2009, http://www.defense.gov/news/newsarticle.aspx?id=53143.

^{5.} Belasco, *The Cost of Iraq*, p. 30; Special Inspector General for Afghanistan Reconstruction (SIGAR), "Twelfth Quarterly Report to Congress," pp. 55, 138, Appendix B. (The U.S. Congress has appropriated \$39.5 billion to the Afghan Security Forces Fund to "build, equip, train, and sustain" the Afghan National Security Force. Of that \$39.5 billion, "approximately \$31.2 billion has been obligated and \$27.6 billion disbursed as of June 30, 2011.")

^{6.} Barack Obama, "Speech on Afghanistan Troop Withdrawal," June 22, 2011, http://abcnews.go.com/Politics/transcript-obama-afghanistan-troop-withdrawal-full-speech/story?id=13906420.

^{7. &}quot;Remarks by Ambassador Ryan Crocker at Swearing-in Ceremony," Kabul Embassy, July 25, 2011, http://kabul.usembassy. gov/crocker-remarks-07-25-11.html.

^{10. &}quot;Afghanistan: Study Shows Alarming Rates of Maternal Mortality," EurasiaNet.org, November 9, 2002, http://www.eurasianet. org/departments/insight/articles/eav111002.shtml (accessed November 14, 2010); Linda Bartlett et al.., "Where Giving Birth Is a Forecast of Death: Maternal Mortality in Four Districts of Afghanistan, 1999–2002," *Lancet*, vol. 365, no. 9476 (2005), pp. 864–70.

^{11.} Save the Children, State of the World's Mothers: Mothers and Children in War and Conflict, 2002, pp. 6, 45, http://repository. forcedmigration.org/pdf/?pid=fmo:2829.

^{12.} Linda Bartlett et al., "Where Giving Birth Is a Forecast of Death: Maternal Mortality in Four Districts of Afghanistan, 1999–2002."

^{13.} Skilled birth attendants are doctors, nurses, or midwives trained in safe care during delivery (Maureen Mayhew et al., "Determinants of Skilled Birth Attendant Utilization in Afghanistan: A Cross-Sectional Study," *American Journal of Public Health*, vol. 98, no. 10 (2008), pp. 1849–56, http://ajph.aphapublications.org/cgi/reprint/98/10/1849.

21. UNICEF, "Midwife Training Programme Aims to Reduce Maternal Mortality in Afghanistan," January 18, 2009, http://www.unicef.org/infobycountry/afghanistan_47120.html.

22. Ibid.

23. UNICEF, "Afghanistan's Community Midwives," December 8, 2008, http://www.unicef.org/devpro/46000_46782.html (updated July 2, 2009).

24. Lisa Anderson, "TrustLaw Poll: Afghanistan Is Most Dangerous Country for Women," Thomson Reuters, June 15, 2011, http://www.trust.org/trustlaw/news/trustlaw-poll-afghanistan-is-most-dangerous-country-for-women.

25. UNDP, Afghanistan Human Development Report: Bridging Modernity and Tradition : The Rule of Law and the Search for Justice, 2007, p. 26; and UNIFEM, Women and Men in Afghanistan: Baseline Statistics on Gender, 2008, p. 39, as cited in Afghan Women's Network, Gender-Based Violence in Afghanistan: Annual Report , 2009, p. 4, http://www.afghanwomennetwork.af/Gender%20based%20 Violence%20in%20Afghanistan.pdf.

26. "Taliban Kill Head of Afghan Girls' School," Reuters, May 25, 2011, http://www.guardian.co.uk/world/2011/may/25/taliban-kill-head-girls-school.

27. Afghanistan Central Statistics Office, "Summary of the National Risk and Vulnerability Assessment Afghanistan 2007/8," 2008, http://ec.europa.eu/europeaid/where/asia/documents/afgh_brochure_summary_en.pdf; Ashley Jackson et al., *High Stakes: Girl's Education in Afghanistan*, Oxfam, 2011, p. 7.

28. Dr. Zohra Shamszai (deputy manager, Health Unit HAWA Program, CARE International: Afghanistan), interview with Ashley Harden, June 23, 2011.

29. Ibid.

30. WHO, Trends in Maternal Mortality, p. 17.

31. Mayhew et al., "Determinants of Skilled Birth Attendant," p. 1849; Bartlett et al., "Where Giving Birth," p. 868.

32. Mayhew et al., "Determinants of Skilled Birth Attendant," p.1849.

33. Bartlett et al., "Where Giving Birth," p. 868.

34. Carine Ronsmans, et al., "Effect of a Parent's Death on Child Survival in Rural Bangladesh: A Cohort Study" *Lancet*, vol. 375, no. 9730 (2010), pp. 2024–31, http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60704-0/fulltext.

35. WHO, *Make Every Mother and Child Count*, 2005, as cited in Jo Borghi et al., "Mobilising Financial Resources for Maternal Health" *Lancet*, vol. 368, no. 9545 (2006), pp. 1457–1465.

36. Anne Tinker as cited in Ann Stars, *The Safe Motherhood Action Agenda*, Family Care International, 1997, p. 24, http://www.givewell.org/files/DWDA%202009/Interventions/Maternal%20Mortality/SafeMotherhoodActionAgenda.pdf.

37. Matthew Jowett, "Safe Motherhood Interventions in Low-Income Countries: An Economic Justification and Evidence of Cost-Effectiveness," *Health Policy*, vol. 53, no. 1 (2000), pp. 201–28.

38. Ruth Levine and the What Works Working Group, "Saving Mothers' Lives in Sri Lanka," in *Millions Saved: Proven Success in Global Health*, Center for Global Development, 2007, p. 4, http://www.cgdev.org/doc/millions/MS_case_6.pdf.

39. Matthew Jowett, "Safe Motherhood Interventions in Low-Income Countries: An Economic Justification and Evidence of Cost-Effectiveness." Jowett also explains that maternal health services can reduce costs of health-care service delivery because to improve a facility's capacity to respond to obstetric emergencies, it is necessary to "have the skills and supplies to deal with trauma" (p. 221). 40. Anne Tinker, *The Safe Motherhood Action Agenda*, p. 18.

41. Jo Borghi et al., "Mobilising Financial Resources for Maternal Health"; UNICEF and Jhpeigo, *Emergency Obstetric and Neonatal Care Needs Assessment Report*, 2010.

42. UNFPA, State of World's Midwifery: 2011 Report, p. 2; "Afghanistan: Midwives Defy Tradition and Save Lives," IRIN: Humanitarian News and Analysis, August 12, 2009, http://www.irinnews.org/Report.aspx?ReportId=85680 (accessed November 15, 2010).

43. Save the Children, *State of the World's Mothers*: 2011, p. 8, http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM2011_FULL_REPORT.PDF.

44. Save the Children, "Press Release: Save the Children's State of the World's Mothers Report Ranks Best and Worst Places to Be a Mom," May 3, 2011, http://www.savethechildren.org/site/apps/nlnet/content2.aspx?c=8rKLIXMGIpI4E&b=6478593&ct=9378 127; Save the Children, *State of the World's Mothers: 2011*, p. 5.

45. UNICEF, "Afghanistan's Community Midwives."

46. Mohammad Osman Tariq, Najla Ayoubi, and Fazel Rabi Haqbeen, *Afghanistan in 2010: A Survey of the Afghan People*, Asia Foundation, 2010, pp. 3, 25, http://asiafoundation.org/resources/pdfs/Afghanistanin2010survey.pdf.

47. The exact figure is 8 percent. USAID Afghanistan, Program Evaluation of the Pre-Service Midwifery Education Program in Afghanistan, 2009, p. 7; Mayhew et al., "Determinants of Skilled Birth Attendant," p. 1849.

48. UNFPA, State of World's Midwifery: 2011 Report, p. 40.

49. Bartlett et al., "Where Giving Birth"; WHO, Trends in Maternal Mortality.

50. Save the Children, State of the World's Mothers: Mothers and Children in War and Conflict, 2002, http://repository. forcedmigration.org/pdf/?pid=fmo:2829, p. 6; WHO, Trends in Maternal Mortality, p. 1.

51. The Reproductive Age Mortality Study (RAMOS) II, to be completed in December 2011, will "determine if maternal mortality has declined since 2002 and if so, which programs or policies contributed to this." "Reproductive Age Mortality Survey (RAMOS) II,"

Johns Hopkins University Afghanistan Office, http://www.jhuafg.org/ramos.html (accessed August 25, 2011). The Afghan Mortality Survey, under way, will assess the progress made in the health sector toward the achievement of the Millennium Development Goals (MDGs) and, in particular, the reduction of maternal mortality.

52. USAID Afghanistan, Program Evaluation, p. 7.

53. Ibid. Certain schools have more than one midwifery program. There are thirty-four midwifery programs, serving all thirty-four provinces in Afghanistan.

54. Ibid; 2,200 midwives is a current estimate provided by Linda Bartlett, scientist, Johns Hopkins Bloomberg School of Public Health.

55. Figure taken from "National Midwifery and Nursing Education Accreditation Board," database, 2011.

56. There have been isolated instances of violence against midwives, including a death in 2008, but it is unclear whether the violence was directed at these women as a result of their midwifery activities. Kim Barker, "Afghans Fight a Killer: Birth," *Chicago Tribune* December 5, 2008, http://articles.chicagotribune.com/2008-12-05/news/0812040919_1_new-midwives-midwife-maternal-mortality-rate).

57. Feroza Mushtari (former acting president, Afghan Midwives Association), interview with Gayle Tzemach Lemmon, October 2010.

58. Jhpiego is an international NGO and the Health Services Support Project is a USAID-funded project led by Jhpiego with partners Save the Children and Futures Group International.

59. Denise Byrd, "Community-Based Interventions: Improving Maternal Health in Afghanistan," presentation, Washington, DC, Council on Foreign Relations, May 25, 2011, http://www.cfr.org/afghanistan/community-based-interventions---improving-maternal-health-afghanistan/p25168; Curren Sheena, Pashtoon Azfar, and Rebecca C. Fowler, "A Bold New Beginning for Midwifery in Afghanistan," *Midwifery*, vol. 23, no. 3 (2007), p. 230.

60. "Afghanistan: Midwives Defy Tradition and Save Lives."

61. Mushtari, interview, October 2010.

62. Ibid. Salaries vary depending on geography and whether the midwife is working for the government or for an NGO, and, if the latter, which NGO.

63. USAID Afghanistan, Program Evaluation, p. 14.

64. The exact figure cited is an infant mortality rate decrease of 22 percent since 2003, which compares data from a 2006 Afghanistan household survey report by Johns Hopkins University and Indian Institute of Health Management Research and UNICEF research from 2002. Benjamin Loevinsohn and Ghulam Dastagir Sayed, "Lessons from the Health Sector in Afghanistan: How Progress Can Be Made in Challenging Circumstances," *Journal of the American Medical Association*, vol. 300, no. 6 (2008), p. 726, http://www.humansecuritygateway.com/documents/JAMA_Afghanistan_LessonsFromHealthSector.pdf; Abby Sugrue, "Afghan Mothers Delivered into Good Hands: Increasingly, Midwives Are to Thank for Successful Births," USAID, January 21, 2011, http://www.usaid.gov/press/frontlines/fLjan11/FL_jan11_AFmothers.html.

65. USAID Afghanistan, Program Evaluation, p. 9.

66. Pashtoon Azfar, "Delivering High Impact Interventions," presentation, Durban, South Africa, International Confederation of Midwives, 29th Triennial Congress, June 2011, http://www.who.int/pmnch/media/membernews/2011/20110620_afghanistan_experience.pdf.

67. Byrd, "Community-Based Interventions."

68. Mushtari, interview, October 2010; Pashtoon Azfar (Jhpiego midwifery adviser and president, Afghan Midwives Association), interview with Gayle Tzemach Lemmon, October 2010. The CME curriculum has recently been increased in length from eighteen to twenty-four months straight, with no vacation. Classroom work is one teacher for fifty students, case studies are one teacher for twelve students, and clinical training is one teacher for four students.

69. USAID Afghanistan, Program Evaluation, p. 15.

70. Ibid.

71. Declan Walsh, "Afghanistan's Midwives Tackle Maternal and Infant Death," *Lancet*, vol. 370, no. 9539 (2007), pp. 13–19, http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2807%2961558-X/fulltext.

72. USAID Afghanistan, Program Evaluation, p. 15.

73. Cornelia Walther, "Defying Odds, A Female Doctor Tackles Maternal Health in Afghanistan," UNICEF, June, 8, 2010, http://www.unicef.org/infobycountry/afghanistan_53815.html; Sugrue, "Afghan Mothers Delivered into Good Hands"; USAID Afghanistan, *Program Evaluation*, p. 15.

74. The exact figure is 38 percent. Harshadkumar Sanghvi, Nasratullah Ansari, Ndola J.V. Prata, Hannah Gibson, Aftab T. Ehsan, and Jeffrey M. Smith, "Prevention of Postpartum Hemorrhage at Home Birth in Afghanistan," *International Journal of Gynecology & Obstetrics*, vol. 108, no. 3 (2010), p. 277, http://www.ijgo.org/article/S0020-7292%2809%2900650-X/fulltext#section10.

75. An effective dosage of misoprostol is 600 micrograms. Jennifer Blum and Ndola Prata, "Proposal for the Inclusion of Misoprostol in the WHO Model List of Essential Medicines," WHO, March 2009, p. 16.

76. Ann LoLordo, "Studies in Afghanistan and Nepal Show Community Education and Distribution of Misoprostol Can Protect Pregnant Women from Bleeding to Death after Giving Birth at Home," Jhpiego, http://www.jhpiego.org/en/content/studies-afghanistan-and-nepal-show-community-education-and-distribution-misoprostol-can-prot (accessed June 10, 2010).

77. The WHO recommends the use of misoprostol in settings "where it is not possible to use oxytocin or another injectable uterotonic such as ergometrine or an oxytocin and ergometrine fixed-dose combination. . . . Health workers who administer misoprostol should be trained in its correct use after birth of the baby and to avoid its administration before birth at incorrect doses, and in identifying and managing its side-effects." "WHO Statement Regarding the Use of Misoprostol for Postpartum Haemorrhage Prevention and Treatment," 2009, http://whqlibdoc.who.int/hq/2009/WHO_RHR_09.22_eng.pdf (accessed September 12, 2011).

78. Harshadkumar Sanghvi, Nasratullah Ansari, Ndola J. V. Prata, Hannah Gibson, Aftab T. Ehsan, and Jeffrey M. Smith, "Prevention of Postpartum Hemorrhage at Home Birth in Afghanistan," p. 276.

79. James Bontempo, "SMS4Learning: Supporting Healthcare Providers through FrontlineSMS: Learn," September 2010, https://edutechdebate.org/meducation-initiatives/sms4learning-supporting-healthcare-providers-through-frontlinesmslearn/.

80. Jhpiego, "Saving Lives: One Mobile Phone @ a Time," http://www.virtualpressoffice.com/JPContentAccessServlet?fileContent Id=1000000014063&source=sd&showId=1551 (accessed June 9, 2010).

81. Luwei Pearson, Margareta Larsson, Vincent Fauveau, and Judith Standley, "Childbirth Care," in *Opportunities for Africa's Newborns*, WHO, 2006, p. 64, http://www.who.int/pmnch/media/publications/aonsectionIII_3.pdf; UNFPA, "Skilled Birth Attendance," http://www.unfpa.org/public/mothers/pid/4383 (accessed September 13, 2011).

82. OMID is an urban community-based maternal and child health project that was established within the Humanitarian Assistance for Women of Afghanistan (HAWA) Program by CARE International in Kabul in 2005. OMID has been implemented in collaboration with the Afghan MoPH and CARE USA, and with funding and support from the CDC. CARE Afghanistan, *OMID Semi-Annual Report: September 2010 to February 2011*, February 29, 2011.

83. CARE Afghanistan, *OMID Semi-Annual Report*; community support *shuras* also target women of reproductive age, lactating mothers, and pregnant women, as well as other community stakeholders. In 2010, there were 910 female participants at community support *shuras*, including 220 mothers-in-law, 170 pregnant women, and 520 lactating women.

84. Shamszai, interview, June 23, 2011.

85. CARE Afghanistan, OMID Semi-Annual Report.

86. Shamszai, interview, June 23, 2011.

87. Ibid.

88. Dr. Nasratullah Ansari (technical director, Jhpiego), interview with Gayle Tzemach Lemmon, October 2010.

90. Some of Jhpiego's work in Afghanistan receives funding from USAID; OMID receives funding from the Centers for Disease Control and Prevention and CARE International. U.S. assistance for international family planning provides women with a range of options for accessing voluntary family planning programs to prevent unwanted pregnancies. Since 1973, the Helms Amendment has prohibited any U.S. foreign assistance funds from being used to pay for the performance of abortion as a method of family planning or to motivate or coerce any person to practice abortion. Other U.S. statutory and policy requirements are aimed at ensuring voluntarism in all U.S.-supported family planning programs and prohibit the use of targets, incentives, and coercion of any kind in such programs.

91. United Nations, World Population Prospects.

92. CARE Afghanistan, OMID Semi-Annual Report, p. 15.

93. Byrd, "Community-Based Interventions."

94. Ibid; evidence is often ancedotal.

95. UNFPA, State of World's Midwifery: 2011 Report, p. 165.

96. Ibid, p. 40.

97. Ibid, pp. 41, 165.

98. This is the suggested operating budget; however, the actual budget for OMID has been around \$400,000 due to funding constraints. CARE Afghanistan, OMID Semi-Annual Report.

About the Authors

Isobel Coleman is a senior fellow for U.S. foreign policy at the Council on Foreign Relations (CFR), where she directs the Women and Foreign Policy program and the Civil Society, Markets, and Democracy initiative. She is the author of numerous publications, including her critically acclaimed book *Paradise Beneath Her Feet: How Women Are Transforming the Middle East.* Prior to joining CFR, Coleman was CEO of a health-care services company and a partner with McKinsey & Co. in New York. A Marshall scholar, she holds a BA in public policy and East Asian studies from Princeton University and MPhil and DPhil degrees in international relations from Oxford University.

Gayle Tzemach Lemmon is a fellow at the Council on Foreign Relations and the deputy director of CFR's Women and Foreign Policy program. She is the author of the *New York Times* best seller *The Dressmaker of Khair Khana* and a contributing editor at large to *Newsweek*/Daily Beast. Prior to joining CFR, Lemmon covered public policy and emerging markets for the global investment firm PIMCO, after working for nearly a decade as a journalist with the ABC News political unit and *This Week with George Stephanopoulos*. Lemmon has reported on entrepreneurs in conflict and postconflict regions for various publications, including the *Financial Times*, *New York Times*, *International Herald Tribune*, Daily Beast, and *Christian Science Monitor*. A Fulbright recipient and Robert Bosch Foundation fellow, Lemmon earned a BA in journalism from the University of Missouri and an MBA from Harvard Business School.