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Maternal and Child Health

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Center for Strategic & International Studies
1616 Rhode Island Avenue, NW
Washington, DC 20036
202-887-0200 | www.csis.org

Maternal and Child Health¹

Women and children are increasingly receiving health services that they need—and to which they have a fundamental human right—in numbers unimaginable a generation ago. Fewer are dying from preventable causes. More survive. More are better fed. And more are educated.... However, alongside these successes lies a large portfolio of unfinished business—of unintended pregnancies, babies born too soon, children unvaccinated and chronically malnourished and illnesses untreated; of vast inequities that deprive people of basic health services; of millions upon millions of preventable deaths.

—Graça Machel, Mozambican humanitarian and former politician²

Executive Summary

The United States continues to be the largest bilateral donor in the field of global maternal and child health (MCH)—especially child health—and has expanded its investment in this area under the Obama administration. Increasingly, the United States has become a leading voice in the vibrant global movement to end preventable maternal and child death.

Over the past 25 years there has been a nearly 50 percent decline in the number of maternal and child deaths worldwide. Directly linking this progress to U.S. investments, however, is difficult, given the proliferation of global actors involved, the fact that data systems to track health outcomes are inadequate, and measurement of progress in maternal and child health is complicated by the inability to determine whether particular interventions are responsible for success or if overall improvements in social and economic conditions have contributed.

And despite recent progress in reducing maternal and child mortality, there is still tremendous work to be done to improve the overall health and livelihoods of the world's mothers and children. Political will and financial resources have not sufficiently matched stated priorities, and there has been debate on what constitute the key issues within the MCH field. For many decades, the programmatic emphasis was on reducing child mortality. Only in the past few years has revitalizing stalled progress on reducing rates of maternal death attracted attention; the related challenge of newborn survival has emerged even more

¹ The findings in this paper are based on interviews with 36 experts in women's and family health. Experts include current and former U.S. government officials, senior leaders of multilateral organizations, heads of large NGOs and faith-based groups, academics, and representatives from the private sector. Experts were asked to assess the value of the U.S. role in maternal and child health efforts, which U.S. programs and investments have been most successful (and which have missed the mark), and why. They were also asked to suggest key areas of focus for the incoming administration in the field of global maternal and child health. The CSIS Global Health Policy Center thanks Julie Becker, Maria Schneider, Jeffrey L. Sturchio, and Caitlin Williams for their research assistance and Sara Allinder, Katherine E. Bliss, and Aishwarya Raje for their help reviewing and finalizing the paper.

² "Countdown to 2015, Maternal, Newborn & Child Survival, Forward," UNICEF, World Health Organization, http://www.countdown2015mnch.org/documents/2015Report/CDReport_2015_ex-profiles_final.pdf.

recently. Looking ahead, achieving greater and more sustained impact will require reaching the most vulnerable women and children: those living in remote areas, conflict zones, and humanitarian assistance settings.

For the next administration to truly move the needle on maternal and child health, greater innovation in programming and collaborations will be required. The United States should intensify its efforts in several priority areas:

- **Scale up success:** The U.S. government is strongly positioned to leverage existing tools, knowledge, and experience to scale up the U.S. Agency for International Development's (USAID) high-impact, evidence-based interventions. Scaling up what works will deliver much better results than simply trying to do more.
- **Integrate by creating a more holistic approach:** Scale-up of programs and strengthening of existing systems create new opportunities for program integration. The U.S. government can be the pioneer in developing integrated models for global health that streamline MCH into other essential development activities.
- **Reinforce efforts to reach the most vulnerable:** Sixty percent of maternal deaths in the world occur in 10 countries, 9 of which are currently in a state of conflict or emerging from conflict. Women and girls who live in refugee camps or are escaping war in their home countries are more susceptible to sexual assault, forced marriage, and unsafe abortions. Unless the administration devotes more resources to the hardest-to-reach mothers and children, it risks a slowdown in progress.
- **Address roadblocks and prepare for new challenges:** "Going the last mile" to eradicate preventable maternal and child deaths will entail a sharper focus on removing the roadblocks to progress and expanding proven, low-cost solutions. The incoming administration has multiple opportunities to build on the United States' track record of success in many areas.
- **Initiate and sustain public-private partnerships focused on maternal and child health,** such as Saving Mothers, Giving Life (SMGL), drawing on expertise from multiple sectors to support countries' efforts to improve women's and children's access to high-quality health services.

Progress on Global Goals

Global maternal mortality has dropped by 43 percent since 1990, while child mortality has decreased by 54 percent in the same timeframe. The adoption of the Millennium Development Goals (MDGs) in 2000 marked a leap forward in placing maternal and child health issues at the forefront of global attention, mobilizing country action and accountability.³ Since 2000, declines in maternal mortality accelerated in 125 countries, with

³ MDG 4 called for reducing child mortality by two-thirds and MDG 5 called for reducing maternal mortality by three-quarters, as well as for universal access to reproductive health. In addition, MDG 6 (combat infectious

particularly strong progress between 2005 and 2011.⁴ These improvements demonstrate what can be achieved with increased funding, effective partnerships, international alignment on targets and the means to achieve them, and strong political will at the country level. The Sustainable Development Goals (SDGs), adopted by the global community in 2015, envision reducing global maternal mortality to less than 70 per 100,000 live births by 2030.⁵

Maternal Mortality

Pregnancy and childbirth represent the origins of life, as well as life's most dangerous moments. In 2015, roughly 303,000 women died during pregnancy and childbirth—830 women a day—and millions suffered from debilitating and long-term consequences of poor-quality care, such as infections, fistula, and other disabilities.⁶ Most maternal deaths (99 percent) occur in developing countries, more than half in sub-Saharan Africa and nearly a quarter in South Asia. Nigeria and India account for over one-third of all maternal deaths.⁷ Sixteen million adolescent girls (15–19) give birth each year, accounting for 11 percent of all births worldwide; the majority of adolescent mothers live in low- and middle-income countries.⁸ Complications in pregnancy and childbirth are the second leading cause of death among adolescent girls in developing countries, and infants born to adolescent girls are more likely to have low birth weight and die as newborns.⁹

Postpartum hemorrhage and hypertensive disorders, such as preeclampsia, account for over 40 percent of maternal deaths. Obstructed labor, sepsis, and unsafe abortion are also among the leading killers. Underlying health conditions (including anemia, malnutrition, and infectious and chronic diseases) increase the likelihood of these life-threatening complications.¹⁰

diseases) helped pull together resources for the large numbers of women and children who contract HIV/AIDS, malaria, tuberculosis, and other life-threatening diseases. The MDGs also prompted an accountability effort to track and measure country progress toward these goals. The Countdown to 2015, a multidisciplinary, multi-institutional collaboration, reported regularly on the 75 countries that account for 95 percent of maternal, newborn, and child deaths. See "Countdown to 2015: Tracking Progress in Maternal, Newborn and Child Survival," Countdown 2015, <http://www.countdown2015mnch.org/about-countdown>.

⁴ "Progress Towards Millennium Development Goals 4 and 5 on Maternal and Child Mortality: an Updated Systematic Analysis," Institute for Health Metrics and Evaluation, <http://www.healthdata.org/research-article/progress-towards-millennium-development-goals-4-and-5-maternal-and-child-mortality>.

⁵ "SDG 3: Ensure Healthy Lives and Promote Well-being for All at All Ages," *UN Women*, N.p., 2015, <http://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-3-good-health-well-being>.

⁶ "Maternal Mortality, Fact Sheet No. 348," World Health Organization, last modified November 2015, <http://www.who.int/mediacentre/factsheets/fs348/en/>.

⁷ "Trends in Maternal Mortality: 1990 to 2015," World Health Organization, UNICEF, UNFPA, World Bank, and UNPD, http://apps.who.int/iris/bitstream/10665/193994/1/WHO_RHR_15.23_eng.pdf.

⁸ World Health Organization, "Factsheet: Adolescent Pregnancy," <http://www.who.int/mediacentre/factsheets/fs364/en/>.

⁹ "What Can We Learn from Mortality Data?" World Health Organization, <http://apps.who.int/adolescent/second-decade/section3/page2/mortality.html>; see also Norwegian Agency for Development Cooperation, "Adolescent Pregnancy," <https://www.norad.no/en/front/thematic-areas/global-health/sexual-and-reproductive-health/adolescent-pregnancy/>.

¹⁰ Lale Say et al., "Global Causes of Maternal Death: A WHO Systematic Analysis," *The Lancet Global Health* 2, 6 (2014): e323–e333.

Unlike other “diseases,” childbirth complications cannot be predicted and the usual notion of “high risk” does not apply. For this reason, the World Health Organization (WHO) recommends that all women deliver in a health facility with a skilled birth attendant. Nevertheless, half of women in South Asia and sub-Saharan Africa give birth without the aid of a skilled health attendant—often at home.¹¹ Cultural, financial, and geographic barriers are all obstacles to women seeking facility-based care. When women do seek care and experience poor quality or disrespectful services, they—and the women they know—are unlikely to return.

The problem is multifaceted: lack of knowledge, agency, or funds to seek care; inadequate antenatal care; poor nutrition; limited transportation; stock-outs of critical commodities; limited blood supply; and infections from unsafe abortion practices all contribute to persistently high maternal mortality. Most important, perhaps, is that many health facilities, especially those outside of capital or regional cities, are ill-equipped to manage life-threatening childbirth complications and health providers lack the skills to perform essential procedures.

However, these issues can be addressed to end preventable maternal deaths. Satisfying unmet need for modern contraceptives alone could avert nearly 30 percent of maternal deaths.¹² Creation of a supportive environment and well-functioning health care system that can respond around the clock to any medical crisis is critical. Low-cost medicines are effective in managing hemorrhage and preeclampsia, and Cesarean-sections (C-sections) are a lifesaving surgery for women experiencing obstructed labor. SMGL, the U.S. government’s public-private partnership to reduce maternal mortality rates in Zambia and Uganda, successfully decreased the number of maternal mortalities in its facilities. In Zambia, SMGL increased the rates of C-sections by 32 percent, allowing for mothers to have safer births given new technologies provided to the health facilities. Women’s access to emergency obstetric and newborn care increased by 30 percent in Uganda, thanks in part to improved rural transport and the electrification of some surgical units. Zambia and Uganda have seen a 53 percent and 45 percent decline in maternal mortality, respectively, since SMGL launched in 2012.¹³

Child Mortality

In 2015, 5.9 million children worldwide died before they reached their fifth birthday. Children in sub-Saharan Africa are more than 14 times more likely to die before the age of five than children in developed regions.¹⁴ A child’s risk of dying is highest in the neonatal period, the first 28 days of life. Newborns (0–28 days of age) make up 45 percent of all

¹¹ “Maternal Health: Delivery Care: Current Status + Progress,” UNICEF, last modified July 2015, <http://data.unicef.org/maternal-health/delivery-care.html>.

¹² Saifuddin Ahmed et al., “Maternal Deaths Averted by Contraceptive Use: An Analysis of 172 Countries,” *The Lancet* 380 (2012): 111–125.

¹³ “Saving Mothers, Giving Life’s Mid-Initiative Report Showcases Sharp Declines in Maternal Mortality in Target Districts,” Saving Mothers, Giving Life, 2015, <http://www.savingmothersgivinglife.org/our-work/reports.aspx>.

¹⁴ “Children: Reducing Mortality, Fact Sheet,” World Health Organization, last modified January 2016, <http://www.who.int/mediacentre/factsheets/fs178/en/>.

deaths among children under the age of five globally. Up to one-half of all deaths occur within the first 24 hours of life, and 75 percent occur in the first week. Additionally, an estimated 2.6 million stillbirths occur annually, 98 percent of which are in low- and middle-income countries.¹⁵

Premature birth, complications such as asphyxia, and infections cause most newborn deaths. The main causes of death beyond the neonatal period through the first five years of life include pneumonia, diarrhea, and malaria. Malnutrition is an underlying contributing factor in about 45 percent of all child deaths.¹⁶ To address the issue of “under 5” deaths, the WHO is using SDG 3 as a way to set frameworks to prevent as many child deaths as possible. The goal is to achieve an under 5 mortality rate of 25 or less per 1,000 births by 2030. The frameworks set forth by the WHO include providing universal coverage of maternal and newborn care, creating a global action plan for the prevention and treatment of pneumonia and diarrhea, and creating a global initiative to prevent under 5 deaths through vaccination.¹⁷

Safe childbirth and effective neonatal care are essential to prevent newborn deaths. Most deaths could be prevented through the use of proven, affordable interventions that already exist, such as breastfeeding, keeping babies warm, kangaroo mother care (mother/child skin-to-skin contact for preterm and low-birth-weight infants), and hygienic birth practices. Effective interventions for combating child mortality include prevention (largely through immunization) and treatment of infectious and noncommunicable diseases, as well as good nutrition.¹⁸

Like maternal health, the problems and solutions in child survival are more complex to manage and treat than technological interventions targeted to a particular disease. According to the Guttmacher Institute, improved access to and use of family planning methods would enable women to reduce risk factors for child mortality through safer birth spacing (more than two years apart) and delaying childbearing until a woman is in her 20s. As children born in rural areas, into poor households, or to mothers lacking basic education are more likely to die before the age of five, improving child health also depends on improving access to education, clean water and sanitation, and importantly, empowering healthy caregivers to make decisions for their children’s welfare.¹⁹ Infants whose mothers die in childbirth are far less likely to survive and this risk continues well into childhood.²⁰

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ “Children: Reducing Mortality,” Children: Reducing Mortality, January 2016, <http://www.who.int/mediacentre/factsheets/fs178/en/>.

¹⁸ “Children: Reducing Mortality, Fact Sheet,” World Health Organization, last modified January 2016, <http://www.who.int/mediacentre/factsheets/fs178/en/>.

¹⁹ Ibid.

²⁰ Jocelyn E. Finlay et al., “The Effects of Maternal Mortality on Infant and Child Survival in Rural Tanzania: A Cohort Study,” *Maternal and Child Health Journal*, 19, 11 (2015): 2393–2402, <http://www.ncbi.nlm.nih.gov/pubmed/26100131>; Carine Ronsmans et al., “Effect of Parent’s Death on Child Survival in Rural Bangladesh: A Cohort Study,” *The Lancet* 375 (2010): 2024–2031, [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(10\)60704-0/ppt](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)60704-0/ppt); Corrina Moucheraud et al., “Consequences of Maternal Mortality on Infant and Child Survival: A 25-Year Longitudinal Analysis in Butajira Ethiopia (1987–2011),” *Reproductive Health* 12, Supplement 1 (2015): S4, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423767/pdf/1742-4755-12-S1-S4.pdf>; Brian Houle et

Persistent and Emerging Challenges

According to the WHO, 47 countries will need to significantly increase the pace of their efforts to reach the new SDG target of 25 child deaths per 1,000 live births by 2030; 34 of these countries are in sub-Saharan Africa. An estimated 30 countries must at least double their current rate of decline, and 11 of those 30 countries must at least triple their rate.²¹ However, improving the rates will require countries to address existing vulnerabilities affecting women and children.

While pregnancy-related complications and infectious disease are often the focus of efforts to address maternal mortality, globally, noncommunicable diseases (NCDs)²² together constitute the leading cause of death for women, responsible for 65 percent of all female deaths. Perhaps surprisingly, NCDs are a major cause of mortality and morbidity among women of reproductive age and the rates of NCD-related mortality are higher in African countries than in high-income countries. Women's and girls' low socio-economic, legal, and political status in many developing countries make them particularly vulnerable to NCD risk factors: tobacco use, especially through second-hand smoke; poor diet and nutrition; physical inactivity; and harmful use of alcohol.²³

Geographical and economic disparities also contribute to women's and children's mortality vulnerability. Rural outcomes are typically less compared to urban environments. Rural areas have seen improvements; however, rapid population growth in urban areas is straining resources and contributing to poor MCH outcomes in many places. One-third of urban residents in the developing world now live in urban slums. Economic disparities can be stark in urban areas and lead to different health outcomes. For example, research shows that the poorest urban Kenyan children are now four times more likely to die than the richest urban children, whereas in 1993 they were only twice as likely to die.²⁴ Countries with the biggest inequities show the slowest progress in lowering maternal deaths. Many developing countries are reducing maternal and child mortality rates overall, but their poorest of the poor are slipping through the net.

Many women and children also are vulnerable because they are part of growing numbers of refugees and migrants; lacking key health services and at high risk for sexual exploitation, they are often the hardest to reach. Sixty percent of maternal deaths in the world occur in 10 countries, 9 of which are currently in a state of conflict or emerging from conflict. Women

al., "The Impacts of Maternal Mortality and Cause of Death on Children's Risk of Dying in Rural South Africa: Evidence from a Population Based Surveillance Study (1992–2013)," *Reproductive Health* 12, supp. 1 (2015): S7, <https://reproductive-health-journal.biomedcentral.com/articles/10.1186/1742-4755-12-S1-S7>.

²¹ "Children: Reducing Mortality, Fact Sheet," World Health Organization, last modified January 2016, <http://www.who.int/mediacentre/factsheets/fs178/en/>.

²² The four main types of noncommunicable disease are cardiovascular disease, cancer, chronic lung disease, and diabetes.

²³ "Non-Communicable Diseases: A Priority for Women's Health and Development," UICC and International Diabetes Federation, http://www.who.int/pmnch/topics/maternal/2011_women_ncd_report.pdf.pdf.

²⁴ "State of the World's Mothers 2015: The Urban Disadvantage," Save the Children, <http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/STATE%20OF%20THE%20WORLD'S%20MOTHERS%202015.PDF>.

and girls who live in refugee camps or are escaping war in their home countries are more susceptible to sexual assault, forced marriage, and unsafe abortions. The lack of social structure during times of war and conflict creates an unsafe environment for women and children, which is why providing maternal and child health care in those areas is particularly important.²⁵

The effects of natural disasters can also cause the collapse of the health infrastructure systems of developing countries. Humanitarian emergencies are linked to food insecurity and poverty, as well as an increased vulnerability to contracting HIV. Complications from pregnancy is the leading cause of deaths for adolescents aged 15–19 worldwide, and these young women become more likely to suffer from these complications in the absence of a structured health system in their home countries.

The Case for Investment

Children who lose their mothers before the age of two are more likely to die prematurely. But enabling women and children to survive childbirth and the first few years of life is just the beginning. Investing in women's and children's health reaps significant economic dividends. Children who are born healthy avoid permanent disability and spend more time in school. They grow into healthy adults who miss fewer days of work and earn more money.

As more children survive the first five years of life and fewer women die in the prime of life from complications in pregnancy and childbirth, communities in developing countries become stronger. More stable communities are better equipped to form more stable national governments and national economies. Indeed, the U.S. government's Political Instability Task Force (a CIA project previously known as the State Failure Task Force) has used infant mortality rates as a key indicator for modeling state crises and conflict across several of its predictive models.ⁱ

An MCH investment case developed by experts from a group of 10 global, multilateral organizations working in the field concluded that 30–50 percent of Asia's economic growth between 1965 and 1990 could be attributed to reductions in infant and child mortality, fertility rates, and improvements in reproductive health.ⁱⁱ Another study focused on Africa underscored the investment case for MCH, suggesting that one extra year of life raises GDP by 4 percent.ⁱⁱⁱ

i. Monty G. Marshall, "Fragility, Instability, and the Failure of States: Assessing Sources of Systemic Risk," Council on Foreign Relations, October 2008, <http://www.cfr.org/conflict-prevention/fragility-instability-failure-states-assessing-sources-systemic-risk/p17638>.

ii. "Investing in Maternal, Newborn and Child Health: The Case for Asia and the Pacific," World Health Organization, May 2009, http://www.who.int/maternal_child_adolescent/news_events/news/2009/09_05_03/en/.

iii. David E. Bloom, David Canning, and Jaypee Sevilla, "The Effect of Health on Economic Growth: A Production Function Approach," *World Development* 32 (January 2004): 1–13.

²⁵ "Sexual and Reproductive Health," Women's Refugee Commission, 2010, <https://www.womensrefugeecommission.org/srh/maternal-and-newborn-health>.

Investments in Maternal and Child Health to Date

U.S. Architecture for Investment

The U.S. government has been engaged in efforts to improve maternal and child health in developing countries since the 1960s, with several key maternal/newborn and child survival initiatives launched under the USAID Child Survival and Health Grants Program in the mid-1980s. By the end of that decade, the still unacceptably high global maternal mortality ratio of 442 per 100,000 led to the expansion of U.S.-supported programs focused on cost-effective approaches to improve pregnancy and reproductive health services, increasing the utilization of obstetric services, and training midwives and nurses.²⁶ Yet high-level diplomatic outreach about and significant investment in global MCH programs are relatively recent. The past 15 years have brought increased attention, funding, and focused programs, with interventions including community mobilization and birth planning, access to care, training health workers and skilled birth attendants, and data and measurement.

Multiple U.S. Agencies at Work

A number of federal departments and agencies support global MCH activities. The U.S. Agency for International Development (USAID) leads operations through its Office of Maternal and Child Health and Nutrition for most U.S. government global MCH programs. Funding is provided through the Global Health Programs account and Economic Support Fund at USAID. The office also provides input into the MCH activities addressed or leveraged by interagency initiatives such as the President's Malaria Initiative (PMI) based at USAID and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), a multi-agency program led by the Department of State. USAID also operates family planning and reproductive health programs through its Office of Population and Reproductive Health. At the programmatic and country levels, USAID has attempted to integrate MCH activities through its Maternal and Child Health Integrated Program, launched in 2008, and then followed in 2014 by the Maternal and Child Survival Program. The focus is now on shifting investment to countries with the greatest needs with priority given to 24 countries (see appendix) with high maternal and child mortality rates.

Within the U.S. Department of Health and Human Services (HHS), the National Institutes of Health's (NIH) National Institute for Childhood Development conducts global MCH research, including research and development (R&D) of new tools. Additionally, the Centers for Disease Control and Prevention (CDC) helps to build capacity in many areas that directly relate to MCH, such as disease surveillance.

HHS and USAID also are key partners, along with State, Peace Corps, and the Department of Defense, in PEPFAR operations that improve MCH through efforts to eliminate mother-to-child transmission of HIV, reduce pediatric infection, and improve health systems through activities such as lab improvements, health worker training, and improved data systems. Finally, the State Department's International Organizations and Programs account funds the

²⁶ USAID, Fifty Years of Global Health, <https://www.usaid.gov/what-we-do/global-health/50-years-global-health>.

U.S. contribution to the WHO and to UNICEF, a leader in providing health services to children around the world.

Moves toward Integration: Problems and Pitfalls

A Multifaceted Space

Tackling mortality and morbidity among women and children requires interventions that are broader than those used in single-disease programs, even those dealing with complex diseases such as HIV. Large-scale initiatives such as PEPFAR and PMI, as well as the Global Fund and Gavi, have produced impressive and important outcomes, which can be tied directly to the investments made in them. Narrow scopes, simplicity of targets, and tangible outcomes make it easy to tell the success stories to donor audiences, which has been valuable in maintaining support for global health.

In some ways it can be more challenging to drum up support and articulate clear examples of success regarding the way routine care is delivered to a child who has diarrhea or pneumonia, or to a woman who is anemic and pregnant or needs an emergency C-section.

PEPFAR

PEPFAR's emphasis on prevention of mother-to-child transmission of HIV (PMTCT)—a significant cause of new HIV infections among children worldwide—represents an important MCH investment. PMTCT has virtually eliminated HIV/AIDS in certain countries and globally, the number of children born annually with HIV dropped from an estimated 350,000 in 2009 to 199,000 in 2013.ⁱ

PMI

The PMI to reduce malaria deaths in Africa has had an enormous impact on child mortality since malaria accounts for about one in six of all childhood deaths there. As of 2012, 12 of the original 15 priority countries had reduced child mortality rates.ⁱⁱ

i. "The Gap Report 2014," UNAIDS, http://www.unaids.org/sites/default/files/media_asset/09_ChildrenandpregnantwomenlivingwithHIV.pdf.

ii. "Global Health Programs: Progress Report to Congress FY 2012," USAID, <https://www.usaid.gov/sites/default/files/documents/1864/CSH-finalwebready.pdf>.

A Failed Attempt at Integration

There has been progress over the last eight years in thinking more comprehensively about health. The Obama administration tried to take on the challenge of integration at a high level and in a very public way. Launched in 2009, the Global Health Initiative (GHI), with an emphasis on the entire life-cycle of women and children, promised to strengthen health systems, increase investment, and promote integration at all levels by encouraging synergies among and between U.S. agencies, funders, programs, and other global health actors.

Experts interviewed for this report agreed that the U.S. intentions in creating GHI were positive. In fact, GHI was hailed initially for its focus on women, girls, and gender equality. A core objective was improving health outcomes among women and girls and "elevating the

U.S. Public-Private Partnerships

Recent, noteworthy U.S.-led initiatives reflect the Obama administration's interest in collaborating more broadly with the private sector and other private and government donors to maximize reach and impact.ⁱ

Saving Lives at Birth

Saving Lives at Birth, a partnership with the Bill & Melinda Gates Foundation, USAID, government of Norway, Grand Challenges Canada, and the World Bank identifies smart, simple, low-cost, integrated technology solutions for maternal and newborn mortality in resource-poor settings. The partnership has provided more than \$47 million in funding to 81 new tools and approaches over its first four rounds.ⁱⁱ

Saving Mothers, Giving Life

This five-year public-private partnership has had impressive results in Uganda and Zambia, greatly increasing the proportion of women delivering in health facilities and halving, or almost halving, maternal mortality in target facilities in both countries at the initiative's half-way point. Numerous experts named Saving Mothers, Giving Life a success story but warned about cost, implementation, and potential for scale.

Helping Babies Breathe

Another public-private partnership mentioned repeatedly is Helping Babies Breathe, which has been credited with saving the lives of newborns on a large scale. The program, which teaches neonatal resuscitation techniques, has been implemented in over 70 countries.ⁱⁱⁱ Numerous experts applauded the partnership's success in leveraging private-sector engagement, funding, and innovations in combination with clear, focused goals and evidence-based, culturally sensitive training.

Global Financing Facility—A New Payment Plan

In 2015, the United Nations, the World Bank Group, and the governments of Canada, Norway, and the United States launched the GFF for mothers and children in support of the SDGs and Global Strategy for Women's and Children's Health (described above). The GFF, housed at the World Bank, provides capital for poor countries to develop their health care systems. It is intended to help close the \$33.3 billion annual funding gap for essential reproductive, maternal, newborn, child, and adolescent health services by mobilizing private- and public-sector resources. Specifically, the GFF is partnering with the World Bank Group's International Bank for Reconstruction and Development to raise funds from capital markets to support improved countries' efforts to improve health outcomes.

The GFF is considered one of the major new initiatives to support accelerated progress in maternal and child health outcomes through new financing structures. It is an ambitious effort with the goal of supporting 62 high-burden low- and lower-middle-income countries within five years. Although experts expressed optimism, there are many questions about its feasibility and impact.

i. "Acting on the Call: Ending Preventable Child and Maternal Deaths—June 2014," USAID, https://www.usaid.gov/sites/default/files/documents/1864/USAID_ActingOnTheCall_2014.pdf.

ii. Karen Clune, "Saving Lives at Birth: A Grand Challenge for Development," Grand Challenge for Development, last modified July 23, 2015, <https://savinglivesatbirth.net/news/15/07/23/saving-lives-birth-grand-challenge-development-announces-round-5-award-nominees-innova>.

iii. George A. Little et al., "International Perspectives: Helping Babies Breathe: Evolution of a Global Neonatal Resuscitation Program for Resource-Limited Areas," *NeoReviews* 15, 9 (2014): 369–80.

importance of women and children's health by including MCH and gender equality as a central focus for U.S. government engagement in global health and by making ending preventable child and maternal death one of its three primary health goals."²⁷

But by many accounts, the attempt failed due to unrealistic funding projections and lack of strong White House leadership sufficient to overcome the entrenched interests of agencies and large initiatives. It was poorly structured and poorly resourced, did not define roles and responsibilities among agencies, and the executive director lacked political and budgetary authority. Further, the absence of a coherent strategy, agenda, or measurable outcomes undermined its objectives, according to the experts consulted. As a result, GHI was quietly dismantled just three years after it was launched.

Opportunities for the Incoming Administration

The incoming administration can benefit from lessons learned through the GHI experience. These lessons on integration are simple in theory but complex to implement: define a clear mandate with strategic, measurable, and realistic outcomes; clearly define roles and responsibilities among agencies; provide sufficient resources; and ensure White House leadership. The challenges are avoiding the multiplication of bureaucracies, achieving significant donor coordination, and stepping out of a "silo mentality."

An unprecedented alignment of global attention and mobilization today creates opportunities for the United States to strengthen its impressive leadership and transform maternal and child health. The U.S. government, together with NGOs, governments, and industry, can build on the significant progress made in reducing maternal and child mortality and morbidity and continue to bring broader social determinants of MCH, such as gender equality and female empowerment, to the forefront of policy discussion.

The next administration should:

- Scale up success and maintain existing programs
- Integrate by creating a more holistic approach
- Get to the most vulnerable
- Address roadblocks and prepare for new challenges
- Create and sustain more public-private partnerships, such as SMGL

Scale Up Success

The U.S. government is strongly positioned to leverage existing tools, knowledge, and experience to build on USAID's efforts to scale up high-impact, evidence-based interventions. Scaling up what works will deliver much better results than simply trying to do

²⁷ "The U.S. Government and Global Maternal & Child Health," Henry J. Kaiser Family Foundation, <http://kff.org/global-health-policy/fact-sheet/the-u-s-government-and-global-maternal-and-child-health/>.

more. Proven, often inexpensive, interventions can significantly decrease maternal mortality. For example, providing modern contraceptives to those women who do not want to become pregnant can cut maternal mortality by nearly 30 percent.²⁸ Deploying additional skilled birth attendants and administering relatively inexpensive drugs to prevent hemorrhage, the leading cause of maternal death, will save more lives.

Given progress made in reducing older infant and child deaths, newborns now account for almost half of all under-five deaths. The following relatively low-cost interventions could be significantly scaled up to curb neonatal deaths: promoting Helping Babies Breathe techniques to respond to asphyxia; treating infections with antibiotics; using sterile blades to cut umbilical cords; promoting kangaroo mother care (or skin-on-skin contact) to warm up premature babies and help them thrive; and educating mothers on the need for prompt and exclusive breastfeeding.²⁹

In addition, the U.S. government should sustain and scale up its other health programs that contribute to improvements in maternal, newborn, and child health. These include PEPFAR, PMI, as well as programs aimed at improving nutrition and family planning/reproductive health.

Create a More Holistic System

Improving global maternal and child health outcomes requires investing in a strong health workforce, health commodity supply chain, physical infrastructure, and governance and financing structures as well as meeting other development challenges like poverty, inadequate sanitation, violence, and malnutrition.

The SDG framework that will guide the next 15 years of global health policy calls for more integrated development approaches—related to poverty, the environment, health, equity, etc.—to achieve “prosperity for all.” Scale-up of programs and strengthening of existing systems create new opportunities for program integration. The U.S. government can be the pioneer in developing integrated models for global health that streamline MCH into other essential development activities. Programs that offer immunization, nutrition, family planning, and other MCH services in a holistic, “one-stop shop” can be more efficient in saving time and money and reach more women and children.

In addition to aligning MCH closer to other health interventions, attention must be given to all aspects of MCH. For example, newborn health is still too often tangential to maternal health, although there has been significant progress. Likewise, reducing the 2.6 million stillbirths each year must be part of a broad MCH—and indeed public health—approach. Currently it is a “silent epidemic,” which has not attracted sufficient attention from the global community.

²⁸ Saifuddin Ahmed et al., “Maternal Deaths Averted by Contraceptive Use: An Analysis of 172 Countries,” *The Lancet* 380 (2012): 111–125.

²⁹ “Every Newborn: An Action Plan to End Preventable Deaths,” WHO/Every Woman, Every Child, http://apps.who.int/iris/bitstream/10665/127938/1/9789241507448_eng.pdf?ua=1.

Reach the Most Vulnerable

Maternal and child deaths have declined globally largely because recent efforts targeted “the low-hanging fruit”—women and children who were accessing the health system for various reasons. Unless the administration devotes more resources to reaching and providing services to the hardest-to-reach mothers and children, it risks a slowdown in progress. As noted earlier, the countries making the most limited progress are home to the poorest and most marginalized populations: women and children in remote rural areas, burgeoning urban slums, and conflict or disaster zones.

Address Roadblocks and Prepare for New Challenges

“Going the last mile” to eradicate preventable maternal and child deaths will entail a sharper focus on removing the roadblocks to progress and expanding proven, low-cost solutions. This will require new strategies, partnerships, and innovations. Although bilateral funding has been curbed by budget constraints, multilateral funding mechanisms allow the United States to leverage funding for greater impact. With a track record of success in many areas, and in an enabling environment of public-private partnerships, the new administration has multiple opportunities.

Limitations due to Data and Metrics

In spite of the growing interest in tracking improvements, as of 2015, only 51 percent of countries have data on maternal cause of death,³⁰ let alone information on the nonfatal yet debilitating consequences of poor quality care during pregnancy and childbirth, which are 15 to 30 times more common than death in pregnancy.³¹ Data-collection mechanisms throughout the developing world are weak, and many countries have yet to establish civil registration systems for recording births, deaths, and causes of death.

A lack of reliable data is undoubtedly an impediment to progress on maternal and child health. It is also a sign of fragile health systems and inadequate attention to effective health care delivery. Unavailable or poor data affect the ability to measure the problem, evaluate the impact of interventions, and hold countries accountable to their commitments to shift those numbers.

Part of the problem is that donors are unwilling to invest in appropriate measurement systems—which are expensive to establish and maintain—when they could be investing in programs. The global health field’s emphasis on easy-to-collect metrics to persuade donors of the impact of their investment does not foster an integrated approach. It is much easier to measure inputs and desired endpoints of siloed health interventions. For example, a malaria program measures whether a child died of malaria, but may not necessarily measure whether

³⁰ “Improve Maternal Health,” UNDP, http://www.undp.org/content/undp/en/home/mdgoverview/mdg_goals/mdg5.html.

³¹ Phillip Nieburg, *Improving Maternal Mortality and Other Aspects of Women’s Health: The United States’ Global Role* (Washington, DC: CSIS, October 2012), http://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/121003_Nieburg_MaternalMortality_Web.pdf.

there were other contributing factors. Thus the program can track changes in mortality from malaria, but may not provide a good picture of whether child mortality has declined.

Clearly there is a need for stronger data. But the pursuit of better metrics should not override the desire to better integrate maternal and child health services into broader health and development efforts. The challenge is to develop systems of measurement that can accommodate, and even support, increased integration in the interest of improved overall health for women and children.

Measurement of maternal and child health gains has suffered from insufficient attention partly because MCH is connected to almost every other aspect of health and development and is therefore challenging to measure. Most experts interviewed argued for *more* integration not less, but this will create headaches for those requiring data to lobby donors and Congress for ongoing funding and scaling up of successful initiatives. In the absence of reliable data, it is hard to make the case for continued funding and to demonstrate good stewardship of congressional funds. Clearly, new metrics that measure overall health and wellness must be developed.

Conclusion

The next administration has a strong foundation on which to build even more-robust engagement to improve global maternal and child health. The global community is mobilized, and interventions with the potential to prevent millions more unnecessary deaths are proven and affordable. With a long history of bilateral and multilateral support for global MCH activities, the United States is poised to further transform the field in 2017 and beyond by harnessing established global frameworks for action, continuing to support successful programs, and explicitly prioritizing women, and children in global health efforts.

Appendix A. USAID Maternal and Child Health: 24 Priority Countries

<ul style="list-style-type: none"> • Afghanistan Under-5 Mortality Rate: 91/1,000 Maternal Mortality Ratio: 396/100,000 • Bangladesh Under-5 Mortality Rate: 38/1,000 Maternal Mortality Ratio: 176/100,000 • DRC Under-5 Mortality Rate: 98/1,000 Maternal Mortality Ratio: 693/100,000 • Ethiopia Under-5 mortality Rate: 59/1,000 Maternal Mortality Ratio: 353/100,000 • Ghana Under-5 Mortality Rate: 62/1,000 Maternal Mortality Ratio: 319/100,000 • Haiti Under-5 Mortality Rate: 69/1,000 Maternal Mortality Ratio: 359/100,000 • India Under-5 Mortality Rate: 48/1,000 Maternal Mortality Ratio: 174/100,000 • Indonesia Under-5 Mortality Rate: 27/1,000 Maternal Mortality Ratio: 126/100,000 • Kenya Under-5 Mortality Rate: 49/1,000 Maternal Mortality Ratio: 510/100,000 • Liberia Under-5 Mortality Rate: 70/1,000 Maternal Mortality Ratio: 725/100,000 • Madagascar Under-5 Mortality Rate: 50/1,000 Maternal Mortality Ratio: 353/100,000 • Malawi Under-5 Mortality Rate: 64/1,000 Maternal Mortality Ratio: 634/100,000 	<ul style="list-style-type: none"> • Mali Under-5 Mortality Rate: 115/1,000 Maternal Mortality Ratio: 587/100,000 • Mozambique Under-5 Mortality Rate: 79/1,000 Maternal Mortality Ratio: 489/100,000 • Nepal Under-5 Mortality Rate: 36/1,000 Maternal Mortality Ratio: 258/100,000 • Nigeria Under-5 Mortality Rate: 109/1,000 Maternal Mortality Ratio: 814/100,000 • Pakistan Under-5 Mortality Rate: 81/1,000 Maternal Mortality Ratio: 178/100,000 • Rwanda Under-5 Mortality Rate: 42/1,000 Maternal Mortality Ratio: 290/100,000 • Senegal Under-5 Mortality Rate: 47/1,000 Maternal Mortality Ratio: 315/100,000 • South Sudan Under-5 mortality Rate: 93/1,000 Maternal Mortality Ratio: 789/100,000 • Tanzania Under-5 Mortality Rate: 49/1,000 Maternal Mortality Ratio: 398/100,000 • Uganda Under-5 Mortality Rate: 55/1,000 Maternal Mortality Ratio: 33/100,000 • Yemen Under-5 Mortality Rate: 42/1,000 Maternal Mortality Ratio: 385/100,000 • Zambia Under-5 Mortality Rate: 64/1,000 Maternal Mortality Ratio: 224/100,000
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Note: Under-5 Mortality Rates are taken from *A Promise Renewed Report*, 2015. Maternal Mortality Ratios are taken from *Trends in Maternal Mortality: 1990 to 2015*.

Appendix B. Glossary of Key Acronyms

CDC	U.S. Centers for Disease Control and Prevention
CIA	U.S. Central Intelligence Agency
GAVI	Global Alliance for Vaccines and Immunizations
GDP	Growth domestic product
GFF	Global financing facility
GHI	Global Health Initiative
MCH	Maternal and child health
MDGs	UN Millennium Development Goals
MNCH	Maternal newborn child health
NIH	U.S. National Institutes of Health
NGO	Nongovernmental organization
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PMI	U.S. President's Malaria Initiative
PMTCT	Prevention of mother-to-child transmission
R&D	Research and development
SDGs	UN sustainable development goals
UNICEF	UN Children's Emergency Fund
USAID	U.S. Agency for International Development
WHO	World Health Organization