

2015 MID-INITIATIVE REPORT

REDUCING MATERNAL MORTALITY IN SUB-SAHARAN AFRICA

DELIVERING RESULTS



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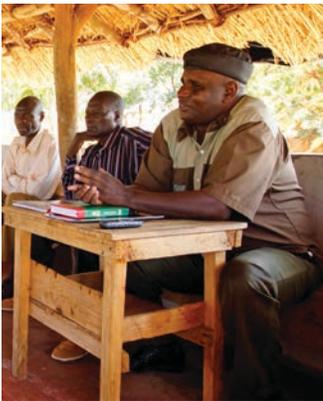
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Saving Mothers, Giving Life is a public-private partnership to dramatically reduce maternal and newborn mortality in sub-Saharan African countries.

Launched in 2012, the five-year initiative seeks to improve health services in countries facing high numbers of maternal and newborn deaths by increasing demand for services, facilitating access to lifesaving care, and strengthening health systems at the district level. The initiative's founding partners include the governments of Uganda, Zambia, the United States, and Norway, as well as *Merck for Mothers**, Every Mother Counts, Project C.U.R.E., and the American College of Obstetricians and Gynecologists.

Saving Mothers, Giving Life's "proof-of-concept" phase (June 2012-June 2013) delivered remarkable results. Following this highly successful first year, the initiative is now at its midpoint and continues to deliver impressive results. Over the last year and a half, the initiative has expanded to 16 additional districts in

Uganda and Zambia, as well as to Cross River State in Nigeria.

Working in close alignment with the Ugandan and Zambian governments' national health plans, *Saving Mothers, Giving Life* has put in place interventions to make high-quality, safe childbirth services available and accessible to women and their newborns in more than two dozen districts in both countries. *Saving Mothers, Giving Life* emphasizes the critical period of labor, delivery, and the first 48 hours postpartum, when most maternal deaths and approximately half of newborn deaths occur. To that end, the partnership focuses on the three delays that prevent women from receiving lifesaving maternal health services: the delay in seeking services, the delay in reaching services, and the delay in receiving high-quality services.

16 NEW DISTRICTS

UGANDA

- + Nwoya + Lira
 - + Gulu + Apac
 - + Pader + Dokolo
-

ZAMBIA

- + Samfya + Chipata
 - + Lunga + Petauke
 - + Kabwe + Sinda
 - + Chomo + Vubwi
 - + Pemba + Mambwe
-



NIGERIA

- + Cross River State

*known as *MSD for Mothers* outside of the U.S. and Canada

A MESSAGE FROM THE SECRETARIAT



“At midpoint, we’ve seen maternal mortality decline by 45% in Ugandan and 53% in Zambian target facilities...

The audacious 50% reduction of maternal deaths in both countries now seems not only possible, but probable.”



**Dear Health and Development
Colleagues,**

I am pleased to share an update on the progress we’ve achieved with *Saving Mothers, Giving Life* as the initiative reaches its halfway point.

When *Saving Mothers, Giving Life* was created, the bar was set high: we made it our goal to reduce maternal mortality in the target regions of Uganda and Zambia by 50%. Those of us in the global health community knew this was a bold aspiration. But we also knew how important it was to show the world that it could be done — because saving women’s lives during pregnancy and childbirth is one of the most complex health challenges we face.

Yet fewer than three years after its launch, *Saving Mothers, Giving Life* is well on its way to living up to its ambition. At midpoint, we’ve seen maternal mortality decline by a total of 45% in our target facilities in Uganda and 53% in our target facilities in Zambia — already eclipsing our goal. Perhaps more remarkable, community maternal deaths in the original *Saving Mothers, Giving Life* districts in Uganda have declined by 41%. The audacious 50% reduction of maternal deaths in both countries now seems not only possible, but probable.

The strides we’ve made over the past few years are a testament to the impact a strategic public-private partnership can have. The Ugandan and Zambian governments have been the engine fueling *Saving Mothers, Giving Life*’s success. At the national and district levels, both governments have demonstrated the power of true country engagement: taking ownership of *Saving Mothers, Giving Life*’s



interventions; supporting them with enabling policies, financing, and political will; and paving the way for a seamless and sustainable handover at the end of the initiative. Their commitment to improving maternal and newborn health has been steadfast, even during periods of inconsistent funding.

Ugandan and Zambian community members and health workers also deserve credit for their leadership in translating ambitious goals into on-the-ground realities. They have worked diligently to help ensure that women can overcome the three delays in receiving lifesaving care: 1) delay in seeking appropriate care; 2) delay in reaching care in a timely manner; and 3) delay in receiving quality care at a facility from a skilled birth attendant. I've marveled at the results achieved by empowering local communities to find their voice and take action to save women's and newborns' lives. In fact, these outcomes are so encouraging that we've decided to expand the initiative to Nigeria, where we've begun to engage the government and communities to adapt the *Saving Mothers, Giving Life* approach.

Saving Mothers, Giving Life is not immune to the complexities of global public-private partnerships: funding



streams have been erratic; management has often been challenging; and partners have had to answer to their constituencies and achieve their own bottom-lines. But we've shown that by mobilizing governments, communities, outstanding NGOs, and business leaders around a shared mission, we can harness distinct capabilities and resources to help end preventable maternal and newborn deaths.

As we transition to our second half of programming, we have a lot to be proud of, but challenges remain. The remarkable reductions in maternal mortality have not been replicated for the newborn. Midterm results mirror what we saw at the end of our first year: a drop in stillbirths but non-significant changes in the newborn mortality rates in Zambia and in Uganda. We will be undertaking special studies to help us understand why these deaths are so resistant to

change even in the face of evidence-based interventions.

In closing, I am pleased to share these substantial results while acknowledging that our true test will come the day after the initiative ends. On behalf of *Saving Mothers, Giving Life's* partners, I look forward to working toward that day with the zeal and commitment necessary to bring about lasting improvements in maternal and newborn health.

With best regards,

Claudia Morrissey Conlon, MD, MPH
U.S. Government Lead,
Saving Mothers, Giving Life
Senior Maternal Newborn Health
Advisor, USAID

PARTNER VOICES



“ We have seen remarkable progress in driving down maternal and newborn mortality. We are saving more women and newborns every year, and

the world is contemplating for the first time in history the possibility of ending preventable child and maternal death

so we are working with national governments to expand *Saving Mothers, Giving Life*.”

– DR. ARIEL PABLOS-MENDEZ, ASSISTANT ADMINISTRATOR FOR GLOBAL HEALTH, CHILD AND MATERNAL SURVIVAL COORDINATOR, USAID

“*Saving Mothers, Giving Life* continues to show remarkable progress in increasing the uptake of antenatal care and facility delivery as well as in reducing maternal mortality. By building on the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and maternal and child health platforms, *Saving Mothers, Giving Life* successfully integrates antenatal and HIV care, and saves lives. PEPFAR is proud to be a *Saving Mothers, Giving Life* partner.”

– AMBASSADOR DEBORAH BIRX,
U.S. GLOBAL AIDS COORDINATOR
& U.S. SPECIAL REPRESENTATIVE
FOR GLOBAL HEALTH DIPLOMACY

“The U.S. Department of Defense (DoD) is committed to improving the health and wellness of those we serve. In partnership with the Zambia Defence Force (ZDF), and in close collaboration with efforts from the Zambian Ministry of Health and other partners, *Saving Mothers, Giving Life* is making significant progress towards increasing facility deliveries, reducing maternal and infant complications, and improving overall maternal and child health. We look forward to supporting *Saving Mothers, Giving Life* to expand these benefits to more Zambian women and children.”

– DR. JONATHAN WOODSON,
ASSISTANT SECRETARY OF
DEFENSE, HEALTH AFFAIRS,
U.S. DEPARTMENT OF DEFENSE

“We are thrilled with the results of *Saving Mothers, Giving Life*, a demonstration of the effectiveness of organizations when we work together. The education, training, transportation, management and tools have all been focused on the essential goal of saving mothers, and it is working. It is an important model for the future of healthcare in Africa and beyond.”

– DR. W. DOUGLAS JACKSON,
PRESIDENT & CEO, PROJECT C.U.R.E.

“*Saving Mothers, Giving Life* has demonstrated that with active community participation and ownership from the outset, remarkable things can happen. Peace Corps Volunteers around the world are uniquely positioned to support communities’ capacity to apply lifesaving health interventions. During my own Peace Corps service, I saw first-hand how a lack of access to maternal healthcare nearly cost my host mother her life. It means so much to me that Peace Corps is a part of *Saving Mothers, Giving Life*, working towards our goal of ensuring that not one more woman’s life is lost during pregnancy or childbirth.”

– CARRIE HESSLER-RADELET, DIRECTOR, PEACE CORPS

“The first phase of *Saving Mothers, Giving Life* demonstrated that a comprehensive set of interventions could dramatically and rapidly reduce maternal mortality in low resource settings. The task for Phase 2 was to build on those accomplishments to demonstrate that mortality reductions could be sustained and expanded to additional high mortality areas. The findings from Phase 2 are promising: maternal mortality has continued to decline and there have been sustained improvements in access to lifesaving obstetric surgical services.

– DR. THOMAS FRIEDEN, DIRECTOR, CENTERS FOR DISEASE CONTROL AND PREVENTION

“The results of *Saving Mothers, Giving Life* speak for themselves: setting a high bar to save women’s lives was the right approach for this ambitious public-private partnership.

Making sure women receive high quality services wherever they seek care

is the key to a healthy pregnancy and a safe childbirth. And, as we’ve learned from other successful initiatives, a comprehensive effort that goes beyond any single intervention is our best bet to achieve substantial and sustainable gains in maternal health. – DR. NAVEEN RAO, LEAD, MERCK FOR MOTHERS

“*Saving Mothers, Giving Life* is a great example of how a dedicated and visionary partnership can end preventable deaths. We have shown that by working with country governments, the private sector, and civil society, we can quickly and drastically reduce maternal mortality. In 2014, we added an increased focus on preventing newborn mortality. Trends in perinatal deaths are already improving in both countries.”

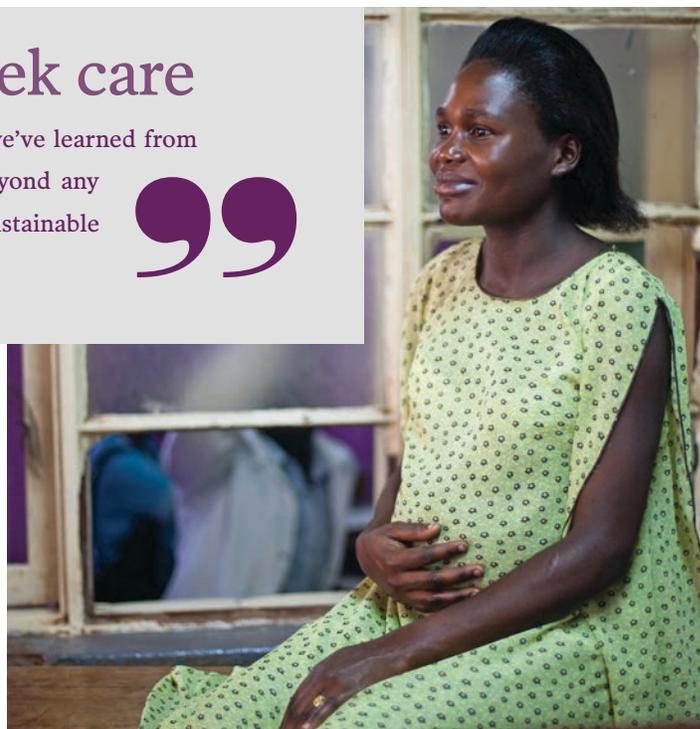
– KATIE TAYLOR, DEPUTY, CHILD AND MATERNAL SURVIVAL COORDINATOR, USAID

“For countless pregnant women, the distance to a health facility can mean the difference between life and death. Since 2012, Every Mother Counts and Baylor College Children’s Foundation Uganda have provided transport vouchers to women so that more mothers have access to critical care during pregnancy and labor, and after they deliver. We are proud to work in partnership through *Saving Mothers, Giving Life* to make pregnancy and childbirth safer for mothers in Uganda.”

– CHRISTY TURLINGTON BURNS, FOUNDER, EVERY MOTHER COUNTS

“Expanding *SMGL*’s lifesaving interventions requires cultivating the skills and capacity of frontline health workers who help and care for women every day. ACOG is committed to assisting our fellow professional societies as they work to make that possible. These efforts currently include training in the use of uterine balloon tamponade for the treatment of postpartum hemorrhage, which has become the leading cause of maternal death in Sub-Saharan Africa.”

– DR. BERT PETERSON, FACOG, ACOG GLOBAL HEALTH CONSULTANT AND CHAIR OF THE ACOG GLOBAL OPERATIONS ADVISORY GROUP



INITIATIVE TIMELINE

Initiative Planning
DEC 2011-MAY 2012



DECEMBER Operational plans for Uganda and Zambia developed with USG Interagency Team and country government officials



AUGUST Partners establish end date for initiative and plans for Phase 2

MAY SMGL Secretariat established

JULY Partnership announced by Secretary Clinton in Oslo



JUNE Year 1 health facility assessments in Uganda and Zambia completed

2011

2012

2013

MARCH Partnership formed (Norway, Merck for Mothers, Every Mother Counts, American College of Obstetricians and Gynecologists)



JULY Project C.U.R.E. joins the partnership; Merck for Mothers launches MSD for Ugandan Mothers (MUM) project

APRIL Phase 2 Launch meeting, Livingstone, Zambia



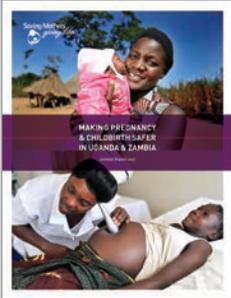
JUNE Baseline health facility assessments conducted in Uganda and Zambia; planning completed for project implementation



 Phase 1 Implementation Period
JUNE 2012-JUNE 2013

 Phase 2 Planning
JULY 2013-SEPT 2013

 Phase 2 Implementation
OCT 2013-SEPT 2017



JANUARY Swedish International Development Cooperation Agency begins work in Zambia

First annual report shows one-third decrease in maternal mortality ratio in Phase 1 of initiative



JUNE-JULY Delegation visits Nigeria and Leadership Council approves Nigeria at third SMGL country



MAY Lusaka Technical Meeting

Leadership Council agreed that the Secretariat would stay with USAID to the end of SMGL

2014

2015

JULY Partners reaffirm commitment at Oslo Partners Meeting; Secretariat role assumed by USAID



AUGUST Phase 2 Program Update announces expansion of initiative into 16 new districts in Uganda and Zambia



DECEMBER Baseline health facility assessments completed in Nigeria



APRIL Anonymous donor approves Baylor proposal to support and expand newborn interventions

Baseline health facility assessments completed in six Uganda scale-up districts



OCTOBER Baseline health facility assessments completed in 10 Zambia scale-up districts

UGANDA UPDATE

LEARNING DISTRICT RESULTS

At the midpoint of *Saving Mothers, Giving Life*, its ambitious goal of reducing maternal mortality by 50% in the four learning districts of Uganda is within reach. The community maternal mortality ratio has fallen by 41% since June 2012, and the institutional ratio by 45%. In addition, the initiative has strengthened its interventions specifically designed to save newborns' lives in all 10 learning and scale-up districts.



KEY HIGHLIGHTS



KABAROLE



KIBAALE



KAMWENGE



KYENJOJO



-41%*

REDUCTION IN COMMUNITY MATERNAL MORTALITY RATIO ACROSS ENTIRE DISTRICTS' POPULATION

452

BASELINE

264

MIDPOINT

Overall, the learning districts have experienced a 41% reduction in the maternal mortality ratio since the start of the initiative, a mere nine percentage points shy of the overall goal of a 50% reduction in the maternal mortality ratio by 2017. Of note, this 41% drop in the maternal mortality ratio occurred across the entire districts' population, not just among women who went to facilities to give birth, indicating that pregnancy outcomes are improving for all women in the district.

+30%

INCREASE IN RATE OF DELIVERY IN FACILITIES PROVIDING EMERGENCY OBSTETRIC AND NEWBORN CARE

28%

BASELINE

37%

MIDPOINT

The rate of institutional delivery remains high across the learning districts, and rate of delivery in facilities providing Emergency Obstetric and Newborn Care (EmONC) increased by 30% (from 28% to 37%). At the same time, *Saving Mothers, Giving Life* has helped improve the quality of care offered at these facilities so that women with serious complications are able to get the lifesaving care they need.

*mid-initiative district data from 2014 MDS-R; baseline data from RAMOS study



“The first phase of *SMGL* showed a significant and impressive 30% reduction in the maternal mortality ratio in the four learning districts, and we are excited to see this progress continuing at the midpoint of the initiative. There are many lessons we have learnt from *SMGL*, some of which the Government of Uganda is now adopting.

The Government has absorbed most of the health workers recruited during Phase 1 and has made a commitment to recruit 3,000 more by the end of 2015, has renovated a number of health facilities, and has procured modern operating theatre and general medical equipment. We are glad the *SMGL* initiative is expanding to six districts in Northern Uganda, and the Government of Uganda is committed to coordinating health development partners in scaling up the core interventions to reduce maternal mortality throughout the country.”

– DR. JANE RUTH ACENG
DIRECTOR GENERAL HEALTH SERVICES,
MINISTRY OF HEALTH-UGANDA

87%

WOMEN WHO TESTED HIV+ THAT RECEIVED TREATMENT TO PREVENT TRANSMISSION TO THEIR INFANTS

4708 of 5509
BASELINE

6888 of 7876
MIDPOINT

Facilities in *Saving Mothers, Giving Life* districts are making tremendous gains in diagnosing and treating HIV in mothers and newborns. Nearly 90% of women who test HIV+ are now receiving treatment to prevent the spread of HIV/AIDS to their newborns, and the number of infants born to HIV+ mothers receiving HIV prophylaxis has risen by 42% since the start of the initiative.

-45%

DECREASE IN INSTITUTIONAL MATERNAL MORTALITY RATIO

534
BASELINE

295
MIDPOINT

The institutional maternal mortality ratio (MMR), or the number of maternal deaths per 100,000 live births in facilities, is an indicator of obstetric risk. Since the launch of the initiative, the institutional MMR has fallen by 45% in *Saving Mothers, Giving Life* facilities in Uganda.

QUALITY OF FACILITY-BASED CARE IS STEADILY IMPROVING

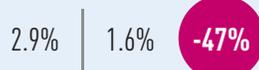
The rate of maternal death in facilities has decreased by 45% since the inception of *Saving Mothers, Giving Life*. The institutional maternal mortality ratio, or the number of maternal deaths per 100,000 live births in a health facility, is an indicator of the risk associated with pregnancy for women who deliver in a facility. Reductions in the institutional maternal mortality ratio outpaced those in the district maternal mortality ratio because women who gave birth in facilities were less likely to die than those who gave birth at home or did not make it to a facility in time.

Institutional Maternal Mortality Ratio



In addition, the direct obstetric case fatality rate, or the proportion of women with major obstetric complications who die before discharge in EmONC facilities has decreased by 47% over the course of the initiative. Given the rise in demand for maternal services, this reduction indicates that facility upgrades, improved availability of lifesaving interventions, increased supplies, and investments in health worker training contributed to quality improvements in *Saving Mothers, Giving Life* facilities.

Direct Obstetric Case Fatality Rate



Simultaneously, Cesarean section rates have risen from 5.3% to 6.9% of all births due to increased availability of comprehensive emergency obstetric care. There is no absolute percentage of necessary Cesarean sections, but the World Health Organization estimates that approximately 5-10% of pregnant women will develop complications requiring this surgery. The current Cesarean section rate in Uganda *Saving Mothers, Giving Life* districts suggests that many women in need of this potentially lifesaving intervention are now able to access it.

Cesarean section rate



CROSS-COUNTRY COLLABORATION



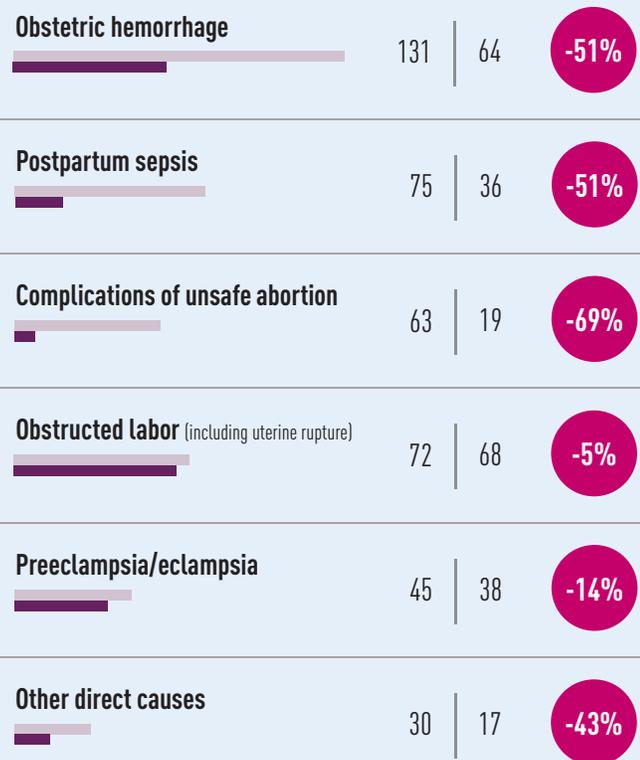
Ugandan epidemiologists who measured health indicator data in the Uganda learning districts spent over a week in Nigeria — the next *Saving Mothers, Giving Life* country — to provide technical assistance in conducting health facility assessments. These assessments examine the state of infrastructure, such as availability of electricity, running water, equipment, medicine, and skilled staff available to help women give birth. The results help inform the design of appropriate interventions. In addition, the Ugandan team traveled to Zambia to help measure progress to date in the four Zambia learning districts. *Saving Mothers, Giving Life* is proud to have helped catalyze this cross-country collaboration — a clear example of how country teams are taking the lead in improving maternal and newborn health outcomes across the region.



The number of maternal deaths due to obstetric hemorrhage, postpartum sepsis, and complications of unsafe abortion — three of the four leading killers in the learning districts — dropped significantly over the first half of the initiative (51%, 51%, and 69% reductions, respectively). Specific efforts that helped achieve these gains include: promoting active management of the third stage of labor among health workers, ensuring the availability of needed procedures and medicines, and recruiting additional midwives.

However, more work is needed to reduce maternal deaths due to obstructed labor and uterine rupture. Rates of uterine rupture in facilities in the learning districts are surprisingly high; *Saving Mothers, Giving Life* partners are currently exploring why this is the case. Additional efforts to reduce the delay in reaching care in a timely manner and to recruit more clinicians able to administer anesthesia will help to reduce deaths from obstructed labor.

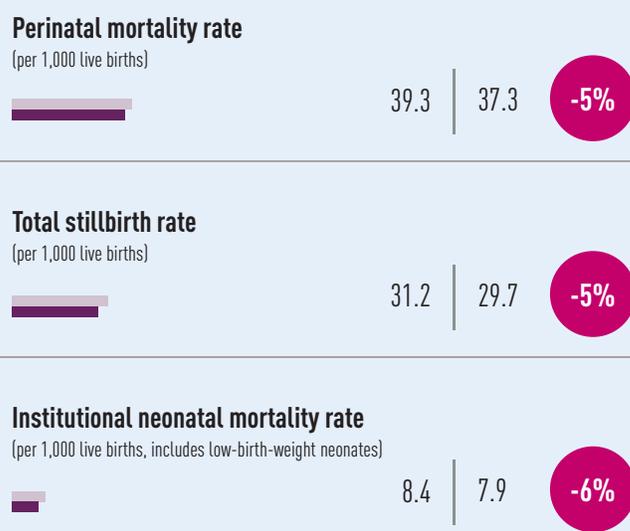
PROGRESS IN REDUCING INSTITUTIONAL MATERNAL MORTALITY RATIOS



PROGRESS IN NEWBORN HEALTH NOT YET REALIZED

Despite the impressive gains in maternal survival, reductions in newborn deaths have been elusive. In response, in late 2014, facilities in the four learning districts began to heighten efforts to strengthen providers' ability to prevent stillbirths and save newborn lives (more detail on page 12). The enhanced focus on newborn care should help to accelerate newborn health improvements through the end of the initiative.

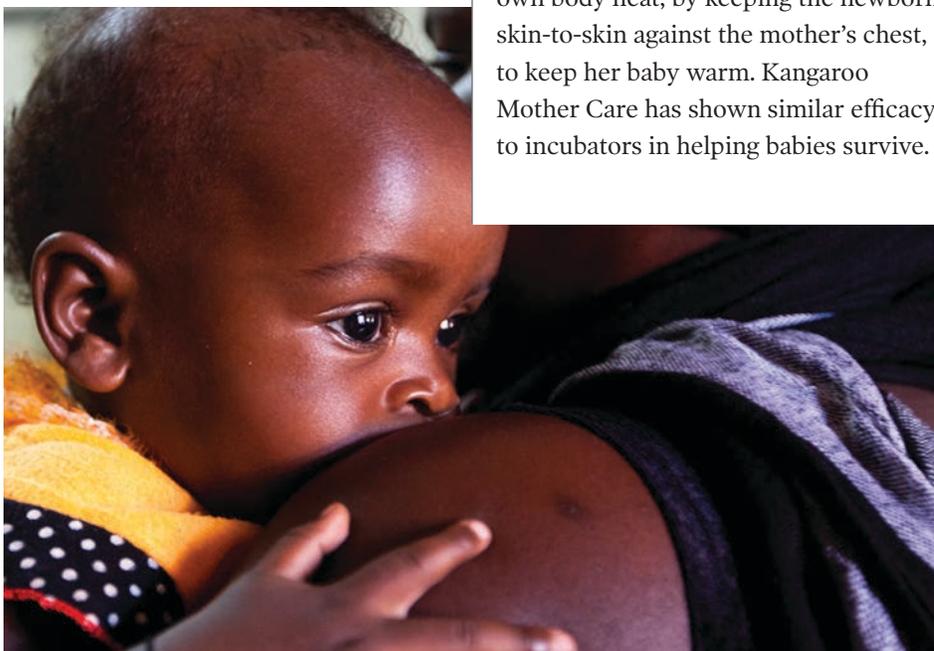
PROGRESS IN IMPROVING NEWBORN HEALTH



SAVING NEWBORN LIVES IN UGANDA

In Uganda, *Saving Mothers, Giving Life* has built on its success in maternal health by strengthening its focus on newborn survival. Providers in some facilities began using a new system, the BABIES matrix, to classify stillbirths and newborn deaths to better understand why they occur and prevent them in the future. The Association of Obstetricians and Gynaecologists of Uganda and the Uganda Paediatric Association have also committed to training and mentoring providers in lifesaving newborn care.

In addition, an anonymous donor provided \$3 million (USD) over three years to further strengthen *Saving Mothers, Giving Life's* work to improve newborn health. With this funding, Baylor Uganda and the Infectious Disease Institute have upgraded the newborn intensive care unit at the Fort Portal regional hospital, created dedicated areas for newborn care in all EmONC facilities, and trained staff in Kangaroo Mother Care (KMC) to improve health outcomes for premature and low-birth-weight infants.



Some key newborn interventions currently underway include:

+ HELPING BABIES BREATHE

Helping Babies Breathe is a training curriculum for resource-limited settings that teaches providers how to resuscitate newborns who are not breathing, all within the “golden minute” immediately following birth.

+ KANGAROO MOTHER CARE

In many resource-limited settings, providers lack access to incubators for premature and low-birth-weight babies. Kangaroo Mother Care uses the mother's own body heat, by keeping the newborn skin-to-skin against the mother's chest, to keep her baby warm. Kangaroo Mother Care has shown similar efficacy to incubators in helping babies survive.

USE OF THE BABIES MATRIX FOR MONITORING INSTITUTIONAL PERINATAL DEATHS

The Birth weight and Age at death Boxes for an Intervention and Evaluation System (BABIES) is a simple method for analyzing data on perinatal deaths. It uses a matrix to reveal trends in data so providers can determine why newborns are dying and implement changes to save their lives. As part of *Saving Mothers, Giving Life's* program monitoring, the BABIES tool was introduced in 28 high-volume facilities.

The matrix captures the weight of newborns, along with the pregnancy outcome (stillbirth, pre-discharge newborn death, or healthy infant sent home), to help health workers focus their monthly perinatal death audits and identify interventions to reduce newborn mortality. Data from the matrices can be used to estimate key indicators such as the rate of low-birth-weight, early newborn mortality rate, and perinatal mortality rate.

The use of the BABIES matrix has already caught the attention of other organizations working to reduce newborn mortality, including a team from Malawi that traveled to Uganda in 2014 to learn about the tool.

ENGAGING THE LOCAL PRIVATE HEALTH SECTOR

Local private health providers (e.g., for-profit, non-profit, and religious entities) are often an overlooked component of the healthcare system, even though they deliver a substantial proportion of healthcare in low- and middle-income countries, including Uganda. Private physicians and midwives offer a range of maternal health services, from antenatal care to childbirth care to family planning; in addition, private pharmacists provide a variety of lifesaving products.



However, the quality of care that private providers deliver can vary, and weak linkages between the public and private sectors can create major challenges for referrals. That is why *Saving Mothers, Giving Life* partners are strengthening the whole health system — both government and privately operated healthcare — so women receive high-quality services wherever they seek care.



MARIE STOPES UGANDA

Until November 2014, Marie Stopes Uganda (MSU), supported by USAID, developed a subsidized maternity care voucher that eligible women received from private, community-based distributors. The vouchers covered the cost of four antenatal visits, transportation for delivery services (and referral if a complication arises), and one postpartum visit. Private providers were only paid once MSU verified that women received the full range of services offered.

The program proved more popular than expected, with far more women redeeming the vouchers than anticipated. Of the more than 22,000 vouchers provided, 75% were redeemed, allowing thousands of mothers to deliver safely at private facilities.

PACE

Saving Mothers, Giving Life partner *Merck for Mothers* is working with the Program for Accessible health, Communication and Education (PACE) — Population Services International's local affiliate — on a comprehensive program to improve maternal healthcare through PACE's ProFam network of private social franchises.

Additional elements of PACE's program include:

- + **Training and mentoring** of franchisees in clinical services, quality assurance, and business operations
- + **Community-based health workers** who help women plan for childbirth and access care

+ **Drug shops** that provide information about safe pregnancy, make referrals to health providers, and sell childbirth-related supplies

+ **Community insurance and savings schemes** to help make care more affordable

+ **Emergency transport** via private motorcycle taxis that safely transfer women to facilities during labor

The ProFam network has expanded to include nearly 120 clinics across more than 40 districts, training more than 200 private providers in essential maternal healthcare and reaching more than 75,000 women thus far.

UGANDA EXPANSION

ACCESS TO CARE EXPANDS TO SIX NEW DISTRICTS

In 2014, *Saving Mothers, Giving Life* began expanding to six new districts in northern Uganda, providing more than 160,000 pregnant women in over 240 facilities with improved access to quality care.

PHASE 1

- KABAROLE (1)
- KIBAALE (2)
- KYENJOJO (3)
- KAMWENGE (4)

PHASE 2

- NWOYA (5)
- GULU (6)
- PADER (7)
- LIRA (8)
- APAC (9)
- DOKOLO (10)



CRITICAL COMPONENTS

TWO-HOUR TRAVEL TIME

Saving Mothers, Giving Life is committed to ensuring that no woman must travel more than two hours to reach lifesaving care, in case a complication arises. This applies to both a woman's travel time to a facility, and the time it takes to transfer her to a higher-level facility, if needed. In the scale-up districts, *Saving Mothers, Giving Life* is commissioning the development of two-hour travel-time maps to help ensure that all women have timely access to appropriate care. This will be a major priority in the scale-up districts, where transportation between facilities is poor.

ALL MARKET APPROACH

Saving Mothers, Giving Life takes an "all-market" approach to designing new interventions, which means that in-country teams work to fully understand the entire ecosystem of care, whether provided by public, private, or faith-based institutions. The teams analyze the full range of barriers to women's access to care, from poor transportation to too few skilled providers, to determine how to best complement existing efforts to improve pregnancy outcomes.



BASELINE HEALTH FACILITY ASSESSMENT RESULTS

Prior to designing interventions in the new Uganda districts, *Saving Mothers, Giving Life* conducted baseline health facility assessments to identify areas for improvement.

They found that obstetric and neonatal care services are generally available 24/7, and all facilities have at least one skilled provider on staff. However, fewer than 15% of facilities have motorized transportation available in the event that a woman requires transfer to a higher-level facility. Critical medications, such as oxytocin and magnesium sulfate, are often out of stock and unavailable to women who need them, when they need them. Facilities in scale-up districts also require infrastructure investments to enable access to clean water and electricity.



86%
Facilities with electricity



100%
Facilities with at least one skilled attendant on staff



88%
Facilities with water



13%
Facilities with motorized transport available



94%
Lower-level health centers with obstetric and neonatal care available 24/7



94%
Higher-level health centers with obstetric and neonatal care available 24/7



69%
Facilities with oxytocin always in stock



47%
Facilities with magnesium sulfate always in stock

ZAMBIA UPDATE

LEARNING DISTRICT RESULTS

Since the start of *Saving Mothers, Giving Life*, the maternal mortality ratio has decreased by over 50% in health facilities in the four learning districts of Zambia — surpassing the goal of reducing maternal mortality by up to 50% in five years. Although the newborn mortality rate has not changed significantly, the institutional stillbirth rate is down by nearly 40%, as compared to the start of the initiative.



KEY HIGHLIGHTS



KALOMO



MANSA



NYIMBA



LUNDAZI

~90%

WOMEN IN TARGET DISTRICTS GIVING BIRTH IN A FACILITY

62.6%
BASELINE

89.5%
MIDPOINT

Saving Mothers, Giving Life's focus on increasing facility-based delivery in Zambia has yielded tremendous results. Nearly 90% of women in target districts gave birth in a facility last year, compared to just 63% at the start of the initiative. Radio ads, Safe Motherhood Action Groups' community outreach efforts, and village chiefs' active engagement as "Change Champions" all contributed to the dramatic rise in institutional delivery.

+32%

INCREASE IN RATE OF CESAREAN SECTION IN TARGET DISTRICTS

2.7%
BASELINE

3.6%
MIDPOINT

Obstructed labor and uterine rupture accounted for a significant percentage of maternal deaths in 2014, making access to high-quality Cesarean section a critical intervention. In *Saving Mothers, Giving Life's* learning districts, the rate of Cesarean sections in target districts increased by 32% (from 2.7% to 3.6%), meaning more women now have access to this lifesaving procedure.



-53%

**DECREASE IN
INSTITUTIONAL
MATERNAL
MORTALITY RATIO**



The institutional maternal mortality ratio (MMR), or the number of maternal deaths per 100,000 live births in facilities, is an indicator of obstetric risk. Since the launch of the initiative, the institutional MMR has fallen by 53% in *Saving Mothers, Giving Life* facilities in Zambia.

+81%

**INCREASE IN WOMEN RECEIVING
TREATMENT TO PREVENT THE SPREAD
OF HIV/AIDS TO THEIR INFANTS**



In the *Saving Mothers, Giving Life* learning districts, the number of HIV+ women receiving treatment to prevent transmission of HIV/AIDS to their infants has increased by 81%. The number of children born to HIV+ mothers receiving treatment to prevent transmission of HIV has more than doubled.

**mUBUMI: USING
mHEALTH TO INCREASE
FACILITY DELIVERY**

In Zambia, *Saving Mothers, Giving Life* is piloting an mHealth effort (a project that uses mobile phones to improve health) to increase attendance at antenatal and postnatal care visits, as well as women's use of facilities to give birth.

When a pregnant woman goes to her first antenatal visit, a health worker uploads information about her pregnancy into mUbumi, which keeps track of when she is due for her next visit. When that time comes, mUbumi sends a text message to the community health worker assigned to the woman throughout her pregnancy, with an alert to remind her to go to the clinic for a check-up.

Toward the end of the woman's pregnancy, mUbumi reminds the community health worker to inform the woman about the importance of giving birth in a facility and help her make the necessary arrangements in time. After she gives birth, mUbumi sends a final message to the community health worker about planning for a postnatal visit. This system has helped increase attendance of antenatal and postnatal visits, as well as generate demand for facility delivery.

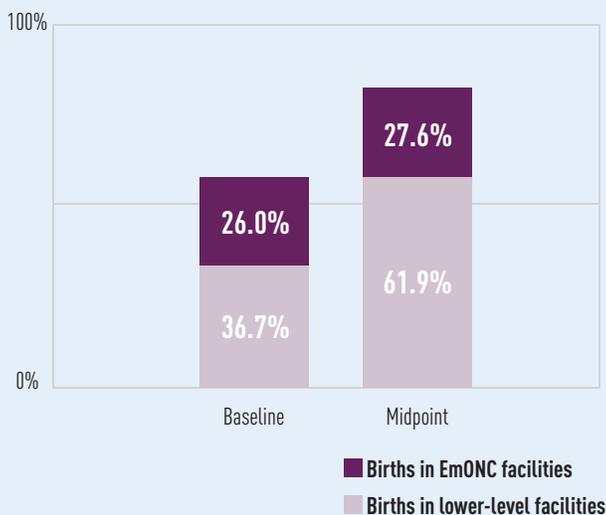
NEARLY ALL BIRTHS NOW OCCUR IN HEALTH FACILITIES

Although the vast majority of births occur without incident, when complications do arise, a woman needs the immediate attention of providers who are equipped to manage the emergency appropriately. The chances of survival for a woman and her infant increase dramatically when she gives birth in a health facility with skilled providers who have lifesaving equipment and medicines on hand.

Thanks to strong community outreach efforts in the *Saving Mothers, Giving Life* learning districts, nearly all women are giving birth in facilities, even though that may mean traveling long distances prior to delivery.

Some debate exists as to whether it is safe for women to give birth in facilities that are not able to provide emergency obstetric and newborn care (EmONC) services, since complications can arise unexpectedly and providers at other facilities may not have the skills or equipment to respond appropriately. *Saving Mothers, Giving Life* has placed a particular emphasis on ensuring that providers at all facilities, including lower-level facilities, are able to correctly diagnose obstetric complications, stabilize the patient, and secure adequate transport to a higher level of care, if needed. This model is allowing women to give birth safely in Zambia, even in lower-level facilities, which has encouraged more women to seek care.

PROPORTION OF BIRTHS OCCURRING IN FACILITIES



OVERCOMING THE DISTANCE BARRIER

Maternity waiting homes — residences near facilities where women can stay until they are ready to give birth — can help women who live far from health facilities overcome the distance barrier to reaching quality care. Research conducted in *Saving Mothers, Giving Life's* learning districts confirmed that many maternity homes were in poor physical condition and lacked quality services and amenities, as well as mechanisms for oversight, management, and general governance. In spite of these problems, communities are generally supportive of maternity waiting homes and value their role in facilitating access to care.

Efforts are currently underway to improve the physical condition of these structures and enhance the services they offer to better meet women's needs. To date, 49 maternity waiting homes have been renovated or refurbished while 13 are still under construction to accommodate women who live in remote areas. The initiative has prioritized maternity homes located next to facilities that offer Comprehensive Emergency Obstetric and Newborn Care (CEmONC). Refurbishment has included installation of water pumps, solar generators, latrines, roofing, painting, and installation of windows and doors for privacy.

In addition, *Saving Mothers, Giving Life's* partner, *Merck for Mothers*, and other donors are supporting two partnerships (Africare with the University of Michigan and Boston University with the Zambia Center for Applied Health Research and Development) to implement new, entrepreneurial models of maternity homes, linked with high-functioning health facilities across the learning districts in Zambia. *Merck for Mothers* is also supporting an evaluation to determine how effective these maternity homes are in helping the poorest women receive timely, high-quality obstetric care and whether they can become self-sustaining.

QUALITY OF FACILITY-BASED CARE CONTINUES TO IMPROVE

Since its inception, *Saving Mothers, Giving Life* has had a dual focus on encouraging women to deliver in a facility and improving providers' ability to offer quality care at every facility in the learning districts. The result is an unprecedented 53% reduction in the maternal mortality ratio in facilities.

Improved quality has lowered the direct obstetric case fatality rate, which measures the proportion of women with direct obstetric complications who die of those complications, by 46%. This is perhaps the most definitive indicator that the quality of maternal healthcare in *Saving Mothers, Giving Life* facilities has improved since the start of the initiative.

Direct obstetric case fatality rate 3.1% | 1.7% **-46%**

Part of that improvement is due to increased access to medically-indicated Cesarean sections, thanks to upgrades to operating theaters and staff training in operative care, including the administration of anesthesia. While there is no specific recommendation for the percentage of infants who should be delivered by Cesarean section, the WHO estimates that approximately 5-10% of pregnant women will develop complications that may require this lifesaving intervention. By this standard, Zambia still needs to significantly increase women's access to Cesarean sections, but the progress thus far is a step in the right direction.

Population cesarean section rate 2.7% | 3.6% **+32%**

GREAT STRIDES IN REDUCING STILLBIRTHS

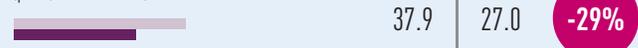
At the midpoint of *Saving Mothers, Giving Life*, the perinatal mortality rate decreased by over a third, entirely due to the sharp reductions in the rate of stillbirth. Comparable reductions in the neonatal mortality rate have not been attained (over the course of the initiative, the neonatal mortality rate increased by 2%, which is not statistically significant).

In late 2014, *Saving Mothers, Giving Life* implemented a new package of interventions for newborns that should help drive reductions in newborn mortality in the second half of the initiative.

PROGRESS IN IMPROVING NEWBORN HEALTH

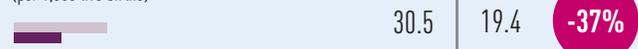
Perinatal mortality rate

(per 1,000 live births)



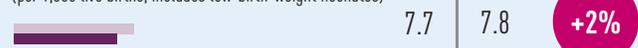
Total stillbirth rate

(per 1,000 live births)



Institutional neonatal mortality rate

(per 1,000 live births, includes low-birth-weight neonates)



ZAMBIA EXPANSION

ACCESS TO CARE EXPANDS TO 10 NEW DISTRICTS

In 2014, the four learning districts in Zambia split to form six districts and the initiative expanded to 10 additional districts, including some in urban/peri-urban areas. With these new districts, *Saving Mothers, Giving Life* is covering nearly all of Eastern Province and improving access to quality care to more than 140,000 pregnant women in over 400 facilities across the country.



PHASE 1

- KALOMO (1)
- ZIMBA (2)

- MANSA (3)
- CHEMBE (4)
- NYIMBA (5)
- LUNDAZI (6)

PHASE 2

- SAMFYA (7)
- LUNGA (8)

- KABWE (9)
- CHOMA (10)
- PEMBA (11)
- CHIPATA* (12)

- PETAUKE* (13)
- SINDA* (14)
- VUBWI* (15)
- MAMBWE* (16)

* Zambia district borders are changing; map represents approximate coverage



CRITICAL COMPONENTS

STRENGTHENING SUPPLY CHAINS

There are a total of 67 commodities that should be available at each labor and delivery facility, including 10 that are imperative for providing emergency obstetric care. *Saving Mothers, Giving Life* is supporting government efforts to improve forecasting, quantification, and commodity management at national and facility levels through a combination of training and technical support. These efforts have helped reduce stock-outs and wastage of needed commodities.

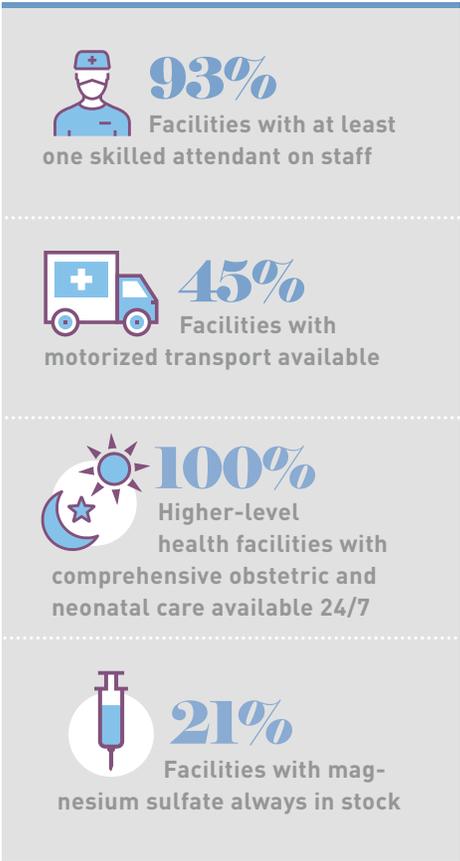
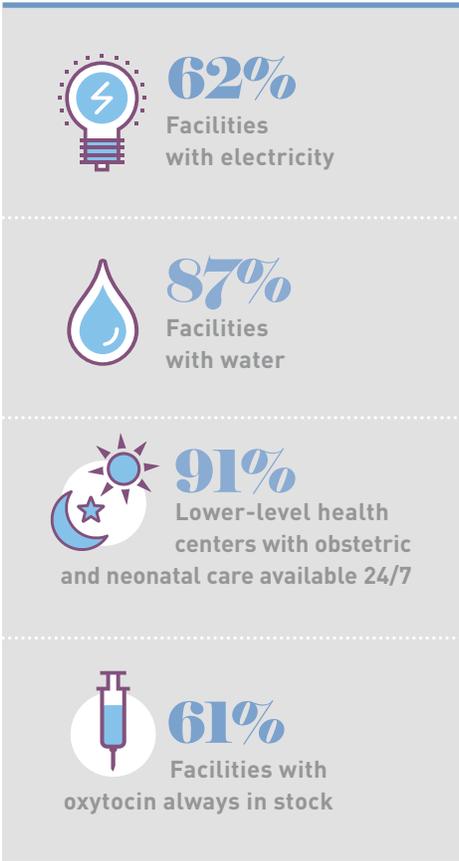
QUALITY IMPROVEMENT

Quality improvement initiatives enhance the ability of facilities to provide high-quality care for mothers and newborns. In 2012, Zambia developed National Quality Improvement Guidelines for maternal and newborn health. *Saving Mothers, Giving Life* health workers partnered with the Ministry of Health Quality Improvement team to implement these guidelines throughout their districts. Using a “Performance Improvement Approach,” they developed two efforts: one to improve documentation of maternal deaths and complications, and another to ensure consistent partograph use during labor and delivery care.



BASELINE HEALTH FACILITY ASSESSMENT RESULTS

Before starting work in the Zambia scale-up districts, *Saving Mothers, Giving Life* conducted baseline health facility assessments to understand the gaps that future interventions needed to address. These assessments showed that in the scale-up districts, nearly all facilities can provide obstetric and newborn care services 24/7, and most facilities have at least one skilled clinician on staff. However, critical medications like oxytocin and magnesium sulfate are not always readily available, and less than two-thirds of facilities have electricity. Less than half of all facilities have motorized transport available in the event that a woman needs to be transferred to another facility.



NIGERIA

NEW COUNTRY EXPANSION

Inspired by *Saving Mothers, Giving Life's* success in Uganda and Zambia, the initiative has expanded to Nigeria, a country that accounts for 14% of the world's maternal deaths and a quarter of all newborn deaths.

CROSS RIVER STATE



MATERNAL AND NEWBORN HEALTH IN NIGERIA

Approximately 40,000 women in Nigeria died from complications of pregnancy and childbirth in 2013, making Nigeria the second highest contributor to maternal deaths globally. In addition, deaths of newborns represent one-third of all deaths of children under the age of five in the country.¹

As of 2013, the maternal mortality ratio in Nigeria stood at 560 maternal deaths per 100,000 live births² — among the highest in the world. Low levels of facility delivery, skilled attendance at birth, and use of modern contraceptive methods all contribute to poor maternal and newborn outcomes. Newborn mortality is very high, with 37 newborn deaths for every 1,000 live births, and 42 of every 1,000 pregnancies resulting in stillbirth.³

IN CROSS RIVER STATE



40%

Pregnant women give birth in a facility



14%

Women use a modern contraceptive method



7%

Adults aged 12-49 are living with HIV/AIDS

¹ Countdown to 2015: Maternal, Newborn & Child Survival, UNICEF and WHO. *Fulfilling the Health Agenda for Women and Children: The 2014 Report.*

² WHO. *Trends in Maternal Mortality, 1990-2013.* | ³ The Demographic and Health Surveys Program. Nigeria, Standard DHS, 2013.



BASELINE HEALTH FACILITY ASSESSMENT RESULTS

Saving Mothers, Giving Life is beginning its work in Cross River State, located in the southeastern part of the country on the border with Cameroon. USAID has been active in strengthening the health system in Cross River State for several years, resulting in a strong foundation for *Saving Mothers, Giving Life* to improve maternal and newborn outcomes. By employing a systems approach to strengthening maternal healthcare, *Saving Mothers, Giving Life* aims to demonstrate substantial improvements in saving women's and newborns' lives over the next two and a half years.

Baseline health facility assessments have shown that rates of antenatal care, skilled attendance at birth and facility delivery lag behind WHO recommendations. The modern contraceptive prevalence rate (the percentage of married women of

reproductive age using some form of modern contraceptive) is a mere 14.4%.

Cross River State comprises 18 Local Government Areas (LGA). The initial round of health facility assessments focused on the lower nine LGAs, which have a total of 271 health facilities, ranging from health posts to hospitals. Most of the facilities assessed offer 24/7 obstetric and newborn care services. However, many do not have consistent electricity and running water or adequate supplies of lifesaving medicines. Only 26% of facilities have transportation available in case a patient needs to be transferred.



66%
Facilities with electricity



66%
Facilities with water



90%
Lower-level health centers with obstetric and neonatal care available 24/7



51%
Facilities with oxytocin always in stock



89%
Facilities with at least one skilled attendant on staff



26%
Facilities with motorized transport available



88%
Higher-level health facilities with comprehensive obstetric and neonatal care available 24/7



21%
Facilities with magnesium sulfate always in stock

IMPLEMENTING PARTNER UPDATES

USAID/Uganda Private Health Support Program

The USAID/Uganda Public Health Support Program trained health workers from private health facilities in PMTCT Option B+, an integrated program that covers prevention of mother-to-child transmission of HIV, maternity care, management of obstetric and newborn emergencies, and postnatal care. Providers were also trained to manage data, using tools from the Ugandan Ministry of Health.

USAID Applying Science to Strengthen and Improve Systems (ASSIST) Program

The USAID ASSIST Program supported maternal and newborn quality improvement efforts in five hospitals and 25 health centers in the four learning districts in Uganda. Interventions included promoting consistent use of Active Management of the Third Stage of Labor (AMTSL) to reduce postpartum hemorrhage, ensuring routine screening for preeclampsia/eclampsia, institutionalizing provision of a complete package of essential newborn care before discharge, and training providers in resuscitation of newborns with birth asphyxia. The program also worked to integrate family planning into routine maternal, newborn, and child health services, and to ensure that all maternal and perinatal deaths were reviewed to develop action plans to prevent such deaths in the future.



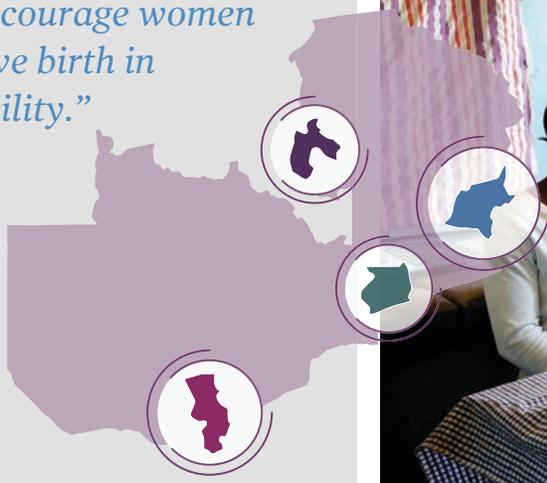
Infectious Disease Institute

The Infectious Disease Institute oversaw key demand generation activities in communities in Kibaale district, Uganda. These efforts included managing Village Health Teams and integrated community clinic outreach activities, organizing community dialogue meetings on the importance of giving birth in a facility, and media engagement to promote facility delivery.

This work helped contribute to the dramatic 30% increase in facility delivery seen across the learning districts (more on page 10).

Maternal and Child Survival Project (MCSP) and Zambia Integrated Systems Strengthening Program (ZISSP)

“These projects also helped train more than 1,000 Safe Motherhood Action Group members to conduct demand generation activities to encourage women to give birth in a facility.”



The MCSP and ZISSP supported trainings for Zambian healthcare providers in emergency obstetric and newborn care, and developed clinical mentorship programs to support ongoing quality improvement efforts. These projects also helped train more than 1,000 Safe Motherhood Action Group members to conduct demand generation activities to encourage women to give birth in a facility. These efforts were critical in increasing facility delivery in learning districts in Zambia.



Baylor College of Medicine Children's Foundation — Uganda (Baylor-Uganda)



With support from UNICEF, an anonymous donor, and the Kabarole local government, Baylor-Uganda helped build and staff a new maternity ward at Kibiito Health Center IV to improve access to quality care for women living in Bunyangabu health sub-district. Baylor-Uganda worked with the obstetrics and pediatric

professional associations to train and mentor healthcare workers, procured supplies and equipment for the new maternity ward, and supported the implementation of a functional ambulance system that transported more than 3,000 women with complications to high-functioning facilities.

Efforts are currently underway to expand maternity wards and build newborn intensive care units at Bukuuku health center (Kabarole district), Kyenjojo hospital (Kyenjojo district), and Ntara health center (Kanwenge district).



Saving Mothers, Giving Life is a public-private partnership between the U.S. Government, the Government of Norway, *Merck for Mothers**, Every Mother Counts, Project C.U.R.E. and the American College of Obstetricians and Gynecologists, committed to saving women's lives from complications of pregnancy and childbirth.

www.savingmothersgivinglife.org



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

everymothercounts



* known as *MSD for Mothers* outside of the U.S. and Canada