



Saving Mothers, Giving Life

# Monitoring and Evaluation Overview

Phase 1 Report



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# Saving Mothers, Giving Life: Monitoring and Evaluation Overview



Phase 1 Report  
2014

## Acknowledgements

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### Uganda

Government of Uganda	Health Care Improvement Project (HCI)
Ministry of Health of Uganda	Uganda Health Marketing Group (UHMG)
District Medical/Health Officers	Uganda Episcopal Conference (UEC)
Uganda Village Health Teams	Health Initiatives for the Private Sector (HIPS)
Centers for Disease Control and Prevention (CDC) Country Office	Capacity Project
US Agency for International Development (USAID) Mission in Uganda	Stop Malaria Project (SMP)
Baylor Children's Foundation	Johns Hopkins University
Uganda Infectious Diseases Institute (Makerere University)	Strengthening Decentralization for Sustainability (SDS)
Marie Stopes Uganda (MSU)	Uganda Blood Transfusion Services (UBTS)
STRIDES for Family Health	Makerere University School of Public Health
	Securing Uganda's Right to Essential Medicines (SURE)

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### Zambia

Government of Zambia	Center for Infectious Disease Research in Zambia (CIDRZ)
Zambia Ministry of Community Development, Mother and Child Health (MCDMCH)	Zambia Center for Applied Health Research and Development (Boston University) (ZCAHRD)
Zambia Central Statistics Office	Maternal and Child Health Integrated Program (MCHIP)
District and Provincial Medical/Health Officers	Zambia Integrated Systems Strengthening Program (ZISSP)
Community Health Workers and Safe Motherhood Action Groups (SMAGs)	Communication Support for Health (CSH)
Centers for Disease Control and Prevention (CDC) Country Office	University of Zambia (UNZA)
US Agency for International Development (USAID) Mission in Zambia	Department of Population Studies

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### Global Partners

American College of Obstetricians and Gynecologists	US Government Agencies: Centers for Disease Control and Prevention (CDC)
Every Mother Counts	US Agency for International Development (USAID)
Merck for Mothers	Peace Corps
Government of Norway	US Department of Defense (DOD)
Project CURE	Office of US Global AIDS Coordinator

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### **List of Acronyms**

<b>BEmONC</b>	Basic Emergency Obstetric and Newborn Care
<b>CDC</b>	Centers for Disease Control and Prevention
<b>CEmONC</b>	Comprehensive Emergency Obstetric and Newborn Care
<b>EmONC</b>	Emergency Obstetric and Newborn Care
<b>HMIS</b>	Health Management Information System
<b>ICD-10</b>	<i>International Classification of Diseases, 10th Revision</i>
<b>M&amp;E</b>	Monitoring and evaluation
<b>MDG</b>	Millennium Development Goals
<b>MOH</b>	Ministry of Health
<b>PEPFAR</b>	President's Emergency Plan for AIDS Relief
<b>PMTCT</b>	Prevention of Mother-to-Child Transmission
<b>RAMOS</b>	Reproductive Age Mortality Study
<b>SMAG</b>	Safe Motherhood Action Group
<b>SMGL</b>	Saving Mothers, Giving Life
<b>USAID</b>	United States Agency for International Development
<b>VA</b>	Verbal Autopsy
<b>VHT</b>	Village Health Team
<b>WHO</b>	World Health Organization

# Introduction

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Saving Mothers, Giving Life (SMGL) is a 5-year initiative designed to rapidly reduce deaths related to pregnancy and childbirth by implementing multiple evidence-based interventions in high-mortality settings. The initiative was launched by Secretary of State Hillary Clinton in 2012 as a public-private partnership<sup>1</sup> to prevent maternal and newborn deaths as part of the Global Health Initiative (GHI) and to support achievement of the United Nations' Millennium Development Goals (MDG).

The SMGL partnership aspired to reduce maternal mortality by 50% in targeted districts of Uganda and Zambia. To achieve this goal, SMGL interventions focused on the critical period of labor, delivery, and 48 hours postpartum, when most maternal deaths and about half of newborn deaths occur.

SMGL strived to improve access to, demand for, and the quality of Emergency Obstetric and Newborn Care (EmONC).<sup>2</sup> It also sought to strengthen links to other essential services for women and children, including HIV prevention, care, and treatment and family planning. SMGL began in eight districts, four each in Uganda and Zambia.

Phase 1 (the pilot phase) activities took place from June 2012 through May 2013. SMGL Country Teams, with multiple implementing partner organizations, conducted

routine monitoring during the first year of the project, and performed baseline and endline assessments before and after Phase 1. The first year of SMGL was designed to provide “proof of concept” that the package of interventions was effective in achieving better health outcomes for women and their babies.

Phase 1 was based on the premise that existing program platforms could be leveraged to improve maternal and neonatal health outcomes during labor, delivery, and 48 hours postpartum. The SMGL platform built on existing host country government programs and systems-strengthening efforts to address maternal and child health and to achieve MDGs 4 and 5. Additional existing platforms included those established through the Presidents Emergency Plan for AIDS Relief (PEPFAR), US Agency for International Development (USAID), CDC, and other global health initiatives.

Leveraging these existing efforts, SMGL was able to implement proven interventions for EmONC and accessible, high-quality obstetric care and essential newborn care. SMGL was designed to strengthen the existing health network within each district to ensure that women could receive quality facility-based care within 2 hours of the onset of labor or obstetric emergencies. SMGL's essential components and concepts are shown in Box 1.

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1. Current partners are the American College of Obstetricians and Gynecologists, Every Mother Counts, Merck for Mothers, the Government of Norway, Project CURE, and the US Government [Centers for Disease Control and Prevention (CDC), US Agency for International Development (USAID), Peace Corps, US Department of Defense, and US Office of the Global AIDS Coordinator (OGAC)]. The governments of Uganda and Zambia were central to the partnership and all activities.
  2. Emergency Obstetric and Newborn Care (EmONC) includes a set of 9 life-saving interventions, known as “signal functions” that the World Health Organization has recommended to reduce maternal and neonatal mortality. Basic Emergency Obstetric and Newborn Care (BEmONC) facilities are those that performed at least 6 of 7 functions in the 3 preceding months (administered parenteral antibiotics; parenteral oxytocic drugs; parenteral anticonvulsants for pre-eclampsia and eclampsia; performed manual removal of placenta; removal of retained products; and performed assisted vaginal delivery). Comprehensive Emergency Obstetric and Newborn Care (CEmONC) facilities are those that performed BEmONC signal functions and two additional functions: Cesarean sections and blood transfusions.



## Box 1. The SMGL Model

To save mothers' lives, SMGL uses a health district network strengthening strategy to provide timely, high-quality obstetric care to all pregnant women and newborn care to babies. The strategy promotes adequate coverage of Emergency Obstetric and Newborn Care (EmONC), a package of life-saving interventions designed to manage direct obstetric complications that cause the majority of maternal deaths.

SMGL's essential components and concepts include the following:

**A comprehensive approach.** Women's lives cannot be saved by any one intervention alone. Reducing maternal mortality requires a solution that addresses multiple health system issues at multiple levels. SMGL uses evidence-based interventions that are designed to address three dangerous delays that pregnant women face in childbirth: delays in deciding to seek care for an obstetric emergency, delays in reaching a health facility in time, and delays in receiving quality care at health facilities.

**An adequate number of high-quality delivery facilities, including EmONC, which are accessible within 2 hours** of the onset of labor or obstetric emergencies.

**An integrated communication-transportation system** that functions 24 hours a day/7 days a week to encourage and enable pregnant women to use delivery care facilities. This system should include community outreach and interventions that increase awareness of these facilities.

**An adequate number of skilled birth attendants** who can provide quality care for normal delivery and who are able to identify and refer obstetric emergencies.

**A functional supply chain system** to ensure that facilities have the equipment, supplies, commodities, and drugs they need to deliver high-quality obstetric care.

**A system that accurately records** every birth and maternal and neonatal death.

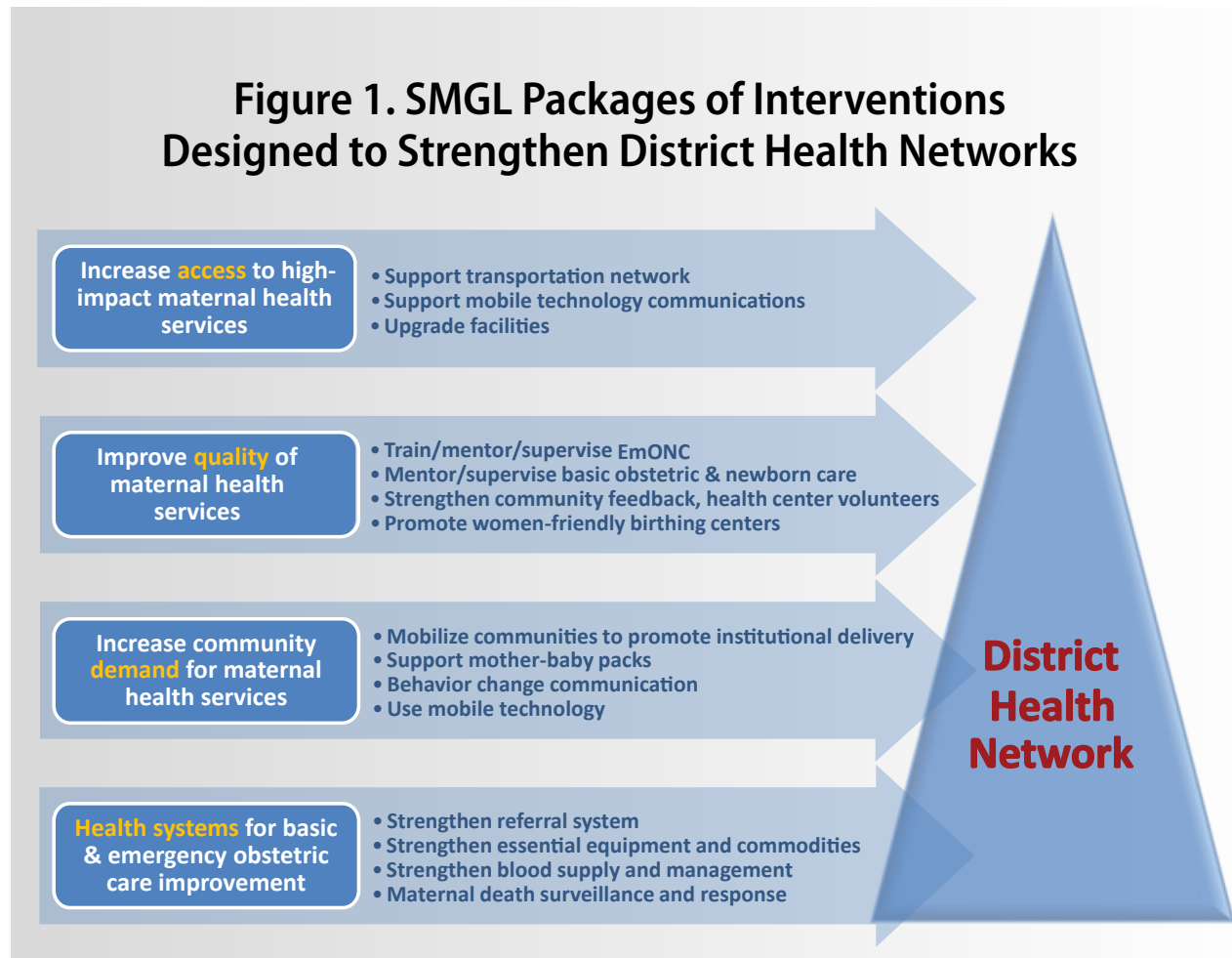


The governments of Uganda and Zambia were already investing in the development of district health network models. SMGL packages of interventions were designed to capitalize on and expand these efforts (Figure 1).

SMGL was conceived as a phased initiative, with the first interventions introduced in eight districts (four each in Uganda and Zambia). In subsequent Phases, SMGL would apply

lessons learned in the pilot districts, and expand to new districts and countries. Although Phase 1 officially began in June 2012, needs assessments and program planning activities were conducted during the preceding 18 months. Preparation for SMGL interventions took place in early 2012, with most interventions fully operational beginning in June 2012.

**Figure 1. SMGL Packages of Interventions Designed to Strengthen District Health Networks**



# Monitoring and Evaluation for SMGL

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Extensive monitoring and evaluation (M&E) of SMGL during Phase 1 was essential to assess potential changes in the key indicators closely related to maternal and neonatal mortality. SMGL M&E efforts drew upon the experience of existing global initiatives designed to standardize data-collection methods for monitoring interventions, making decisions, and developing health policies related to maternal and neonatal outcomes and care.

SMGL M&E sought to contribute to routine registration of pregnant women, births, and maternal and newborn deaths by improving existing data systems in facilities and communities. In addition,

SMGL tracked indicators closely related to maternal and neonatal mortality, including

- The availability of health facility delivery and EmONC.
- Access to and use of these services.
- Provision of additional essential services, such as HIV testing and treatment for women and newborns, and postpartum family planning.

Data systems that documented maternal and neonatal health outcomes accurately and completely were needed to document SMGL indicators. Since the necessary data systems were only partially in place, SMGL required intensive efforts to scale up or establish community and facility-based data collection.

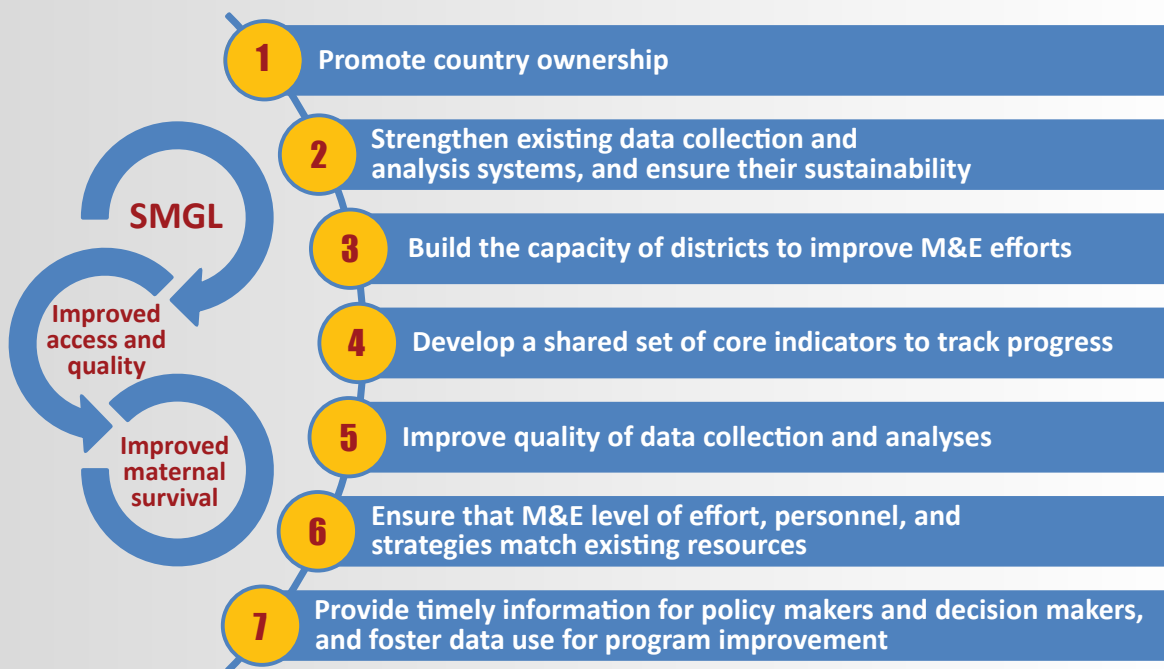
# Guiding Principles of SMGL M&E

Early in the development of SMGL M&E activities, the two pilot country teams along with Ministry of Health (MOH) officials, identified the goal of harnessing SMGL M&E efforts to improve existing data systems or establish community and facility-based data collection, build capacity in data collection and analysis, and extract information that could be useful beyond the SMGL Phase 1 effort.

To ensure that M&E efforts were aligned with the country's existing data needs and priorities, the M&E teams adopted guiding principles for M&E (Figure 2).

SMGL collaborating partners and governments were committed to employing existing data systems for SMGL to the greatest extent possible, avoiding the establishment of new parallel data collection. Nevertheless, enhancement of existing systems and creation of some data collection mechanisms were necessary to capture information needed for SMGL M&E. Because of the lack of systematic maternal mortality surveillance in the pilot districts before SMGL, documenting maternal deaths was the most resource-intensive and complex aspect of the M&E plan.

**Figure 2. SMGL Guiding Principles**



# SMGL Phase 1

## Monitoring and Evaluation Framework

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Prior to SMGL implementation, each country team developed an M&E framework. In order to harmonize indicators for the whole SMGL initiative, a headquarters (primarily in Washington, DC and Atlanta) M&E team comprised of representatives from CDC, USAID, and other SMGL partners worked with the country teams to review their frameworks.

These initiative-wide SMGL indicators drew upon the experience of existing major global initiatives aimed at standardizing and harmonizing data collection for monitoring, decision-making, and health policy in maternal and neonatal health care. They include the UN's Interagency Group on Indicators that recommends measures to track progress on MDGs 4 and 5 across countries, the Countdown to 2015 for Maternal, Newborn and Child Survival, the United Nations Commission on Information and Accountability (COIA) for Women's and Children's Health, and the United States' Global Health Initiative and its President's Emergency Plan for AIDS Relief (PEPFAR).

The SMGL M&E Results Framework included a range of indicators designed to measure program achievements in Phase 1. The indicators can be grouped into four broad categories:

**Impact**—such as changes in the number of maternal and newborn deaths.

**Outcomes**—such as percentage of deliveries in health facilities and rates for Cesarean sections.

**Outputs**—such as the number of EmONC signal functions performed, HIV tests conducted, and PMTCT (prevention of mother-to-child HIV transmission) services provided.

**Processes**—such as hiring and training personnel, upgrading facilities, and stockpiling life-saving medicines.

From the outset of SMGL, the partnership adopted an aspirational goal to reduce maternal mortality by 50% in districts where

SMGL was implemented. Targets were not established for each SMGL indicator, but the SMGL initiative generally aspired to reach goals established by the World Health Organization (WHO), including availability of EmONC, met need for EmONC, and an appropriate range of the percentage of deliveries performed by Cesarean section (5–15%).

To collect and analyze the necessary data for reporting on the variables in the SMGL Results Framework (Box 2, Page 7), country and headquarters M&E teams developed indicator guidance that specified

- How to measure indicators.
- How often to report.
- The available data sources.

The teams attempted to articulate these specifications clearly from the outset of SMGL. However, more extensive guidance on indicator specifications at the outset, as well as standard data collection tools and approaches, would have benefitted subsequent efforts to harmonize SMGL M&E results across the two countries.

Some SMGL indicators could not be collected through either the existing or the new data systems put into place by SMGL. Community-level data proved to be the most challenging and resource-intensive information to capture, because of the lack of existing data collection infrastructure. Additionally, some facility-based information was not readily available or easily obtainable, including information such as the incidence of specific maternal complications and the frequency of use of specific medications or interventions.

These “aspirational” indicators were set aside, with the expectation of expanding abilities to report on them in future phases of SMGL. The SMGL indicators list for Phase 1 reporting shown in the Appendix demonstrates how the list of M&E indicators was expanded and refined over the course of Phase 1.

## Box 2. SMGL Monitoring and Evaluation Results Framework

### **SMGL Impact: Reduce maternal deaths by up to 50% in targeted SMGL districts**

Reduced maternal mortality ratio  
Reduced number of maternal deaths  
Increased number of maternal lives saved  
Reduced neonatal mortality rate  
Reduced number of neonatal death

### **Intermediate Outcomes**

Increased availability/met need for Emergency Obstetric and Newborn Care (EmONC)  
Increased % of deliveries taking place in health facilities  
Increased Cesarean section Rate  
Reduced Postpartum Hemorrhage Rate  
Reduced Mother-to-child HIV transmission during delivery  
Reduced EmONC Case Fatality rate (cause-specific)

#### **Increase the availability of quality institutional delivery, including EmONC**

# of new health care workers who graduated from a pre-service training institution  
% of women delivering in EmONC facilities who are provided with prophylactic post-partum Oxytocin/ Uteronics  
% of facilities where the 7 signal functions that constitute Basic EmONC (BEmONC) are functional\*  
% of facilities where the 9 signal functions that constitute Comprehensive EmONC (CEmONC) are functional\*

\* Compare to WHO standards

#### **Increase utilization of quality institutional delivery and met need for EmONC services**

% of women delivering in a facility  
% of communities with functional health groups that promote institutional delivery  
% of communities where pregnant women have access to functional transportation system or scheme for emergency referral

#### **Ensure women and their newborns are provided other necessary services**

% of women delivering in a facility that receive postpartum counseling on family planning  
% of women delivering in a facility that receive postpartum family planning method  
% of pregnant women who were tested for HIV and know their result  
% of HIV-positive pregnant women who received antiretrovirals to reduce risk of mother-to-child transmission  
% of infants born to HIV-positive pregnant women who are started on Cotrimoxazole (CTX) prophylaxis within two months of birth

An independent evaluation of SMGL Phase 1 was conducted by Columbia University Mailman School of Public Health, commissioned by Merck for Mothers. This activity, completed in two waves of data collection, provided additional valuable information to monitor and evaluate SMGL, such as the numbers of health workers hired and trained, transportation vouchers

distributed and redeemed, health care facilities upgraded, ambulances acquired, and other similar indicators of SMGL inputs and selected outputs. Although these indicators were not originally captured in the SMGL M&E Results Framework, they provide an additional and valuable source of information to evaluate SMGL.

## SMGL M&E Measurement Approaches

Activities to capture the SMGL indicators were implemented in both Uganda and Zambia from the onset of the initiative. The central objective was to assess the impact of the SMGL strategies to reduce maternal and neonatal deaths in the pilot districts during Phase 1. As indicated in Figure 3, the M&E methods and data systems employed by the two countries can be divided into two main categories:

- Community-based data collection.
- Facility-based data collection.

Within each of these categories, efforts focused on establishing baseline levels of key indicators before SMGL implementation began, and measuring the changes that occurred during Phase 1. Community-level data collection focused on

- First, establishing baseline maternal mortality ratios/numbers during the period immediately before SMGL implementation began.

**Figure 3. SMGL M&E Approaches Used**

M&E Methods						
Community-based data collection to identify potential maternal deaths			Facility-based data collection to capture facility status and health outcomes			
	Census and verbal autopsy	RAMOS <sup>a</sup> and verbal autopsy	Prospective tracking of maternal deaths	Health Facility Assessment (baseline and endline)	Prospective tracking of outcomes in facilities (aggregate)	Facility Pregnancy Outcome Monitoring (individual)
Uganda		✓	✓	✓	✓	✓
Zambia	✓		✓	✓	✓	

**HMIS<sup>b</sup> and PEPFAR<sup>c</sup> Data Collection**

<sup>a</sup>Reproductive Age Mortality Study      <sup>c</sup>President’s Emergency Plan for AIDS Relief  
<sup>b</sup>Health Management Information Systems

- Subsequently identifying maternal deaths prospectively during SMGL Phase 1 in order to document change.

Facility-based data collection included

- Baseline and endline health facility assessments to document change in infrastructure, human resources, supplies/equipment, and services. Baseline assessments were conducted in the months preceding the June 2012 beginning of the Phase 1 year, and endline assessments were carried out one month after the conclusion of the pilot year (June 2013).
- Prospective tracking of maternal and neonatal outcomes documented in facilities in the form of tallies of events (aggregate) or more intensive facility outcome monitoring using individual-level records.

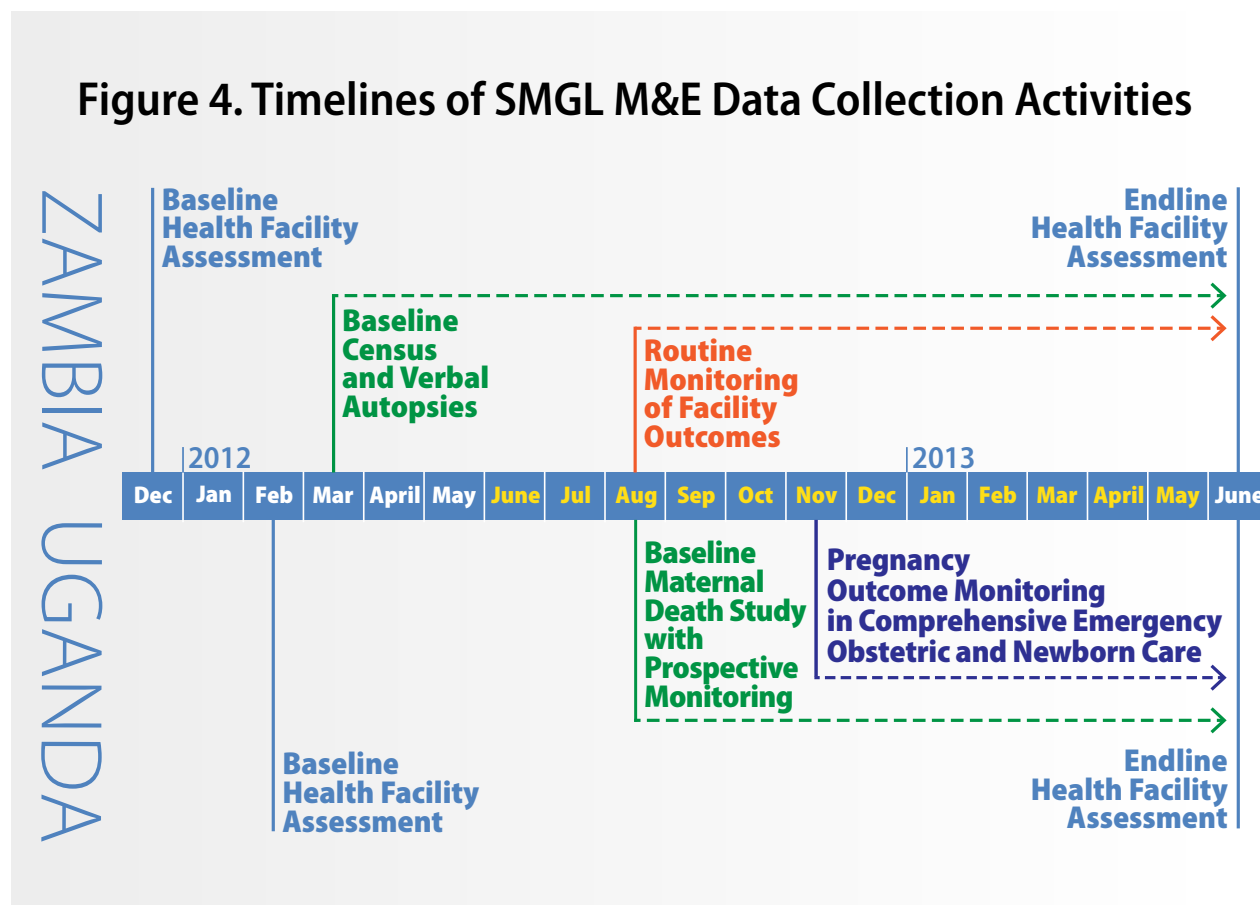
To the greatest extent possible, SMGL used data already being collected at the district level

through existing Health Management Information Systems (HMIS) employed by the country government, or through PEPFAR. A timeline overview for the implementation of SMGL data collection activities is shown in Figure 4.

Results from additional data collection efforts carried out by SMGL partners will be summarized in separate reports. These include

- An ethnographic study conducted in Zambia to examine the socio-cultural norms and practices around pregnancy, childbirth, and accessing and using maternal care services.
- An expenditure study conducted by USAID and the Futures Group in both pilot countries to obtain data about the level and types of investment needed to strengthen maternal and newborn health services within the eight districts that implemented SMGL.
- Data gathered by private-sector partners on their SMGL-related activities.

**Figure 4. Timelines of SMGL M&E Data Collection Activities**





# SMGL Phase 1 Topic-Specific Reports

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In addition to this report, which describes the SMGL Phase 1 M&E efforts, three accompanying technical reports provide in-depth data analysis of findings from the main components of the SMGL community-based and facility-based evaluations. Each contains an introductory section that describes the data sources and methods on which the results are based, as well as background information of importance to the specific topic. The Saving Mothers Giving Life Phase 1 Monitoring and Evaluation Reports are:

- *Maternal Mortality* focuses on results from baseline and prospective maternal mortality identification activities and summarizes the impact of SMGL on maternal mortality levels in the pilot districts during Phase 1. Results for Uganda reflect population-based changes in maternal mortality, whereas results for Zambia are restricted to changes in maternal deaths that occurred in facilities.
- *Emergency Obstetric and Newborn Care Access and Availability* summarizes findings from the baseline and endline Health Facility Assessments that were conducted in all facilities that provided delivery services.

The health facility assessments documented change in maternity care and EmONC, facility infrastructure, human resources, and other aspects of health service between pre-intervention and end of Phase 1. Additionally, the report incorporates information from the Uganda District Health Information System (DHIS2) and the Health Management Information System (HMIS) in Zambia.

- *Maternal and Perinatal Outcomes in Health Facilities* focuses on the results of facility-based maternal and perinatal health outcome monitoring. Data were derived from routine reporting of aggregate numbers of maternal and infant health outcomes in health facilities (Zambia) and individual-level data extracted from health facility records (Uganda, 16 CEmONC facilities).

The three reports highlight findings derived from the priority indicators reported by each of the SMGL pilot countries shown in the SMGL M&E Results Framework and more detailed list of SMGL Reporting Indicators in the Appendix.

# Data Limitations

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Measurement of SMGL M&E indicators required the pilot districts to redouble their efforts to address longstanding challenges in monitoring the health outcomes of mothers and infants that persist in low-resource settings around the world, including the lack of existing vital records systems. Therefore, the data underlying the four SMGL reports have limitations. For each data source, the reports outline specific data quality or coverage issues that should be taken into account when interpreting the results of SMGL Phase 1.

The overarching goal of reducing maternal mortality by 50% implied the need to measure district-level maternal mortality at baseline and then track progress over the pilot year. Because of weak existing infrastructure in Uganda and Zambia for tracking maternal mortality through community-based data collection, extensive training, monitoring, and logistics were necessary to accomplish the goal of documenting every maternal death.

Carrying out these activities in a short timeframe proved to be a major challenge in timing of data availability. Nevertheless, Uganda successfully produced robust

community-level mortality information; Zambia established baseline maternal mortality data and documented deaths in facilities. These SMGL efforts to improve maternal mortality identification have led to heightened awareness and strengthened capacity. They also have laid the groundwork for ongoing Maternal Death Surveillance and Response (MDSR) systems.

Similarly, the quality and completeness of both baseline and routine health facility data proved to be insufficient for SMGL monitoring and evaluation. Thus, SMGL put extra effort into increasing the quality of the existing routine data collection, and collected supplemental facility-level data, which had not been anticipated when SMGL began. However, the benefits of this intensified attention to data quality in facilities are likely to be sustainable, and they should result in overall improvements in completeness and use of routine health facility data. Moreover, these efforts support the two governments' priorities to strengthen their HMIS systems, such that increased quality of routine facility data is likely to result in improvements to the larger health information system.

# Achievements of Phase 1 M&E Systems Strengthening Approach

SMGL brought about an unprecedented intensity of focus on documenting maternal deaths and on maternal and perinatal health outcomes in facilities and communities. SMGL M&E activities were instrumental in building capacity, strengthening existing data systems, and providing data for action. There are numerous examples of the benefits of SMGL Phase 1 M&E activities, including the following results.

## Activating Community-Based Surveillance

SMGL trained Village Health Team (VHT) workers in Uganda to identify and report potential maternal deaths at the community level. This resulted not only in data for SMGL, but also in a nascent community-based system of surveillance of pregnancies and maternal deaths that could contribute to the Ugandan government's goal of establishing a vital records system.

Similarly in Zambia, community health workers and Safe Motherhood Action Groups were activated to track pregnancies and identify potential maternal deaths. Zambia, with continued US Government support in the districts that implemented SMGL, has improved maternal death reviews and implemented the WHO-recommended MDSR system. The lessons learned from implementing SMGL are being used to strengthen the community surveillance reporting system of maternal deaths.

## Implementing International Classification of Diseases, Tenth Revision (ICD-10) Classification of Deaths

An essential capacity that was missing in both countries was the ability of health providers to correctly identify the cause of death (COD). As a result, CDC trained several doctors on ICD-10 to help with the certification of causes of death, coding, and analyses of mortality data. Trained physicians were instrumental in certifying causes of death using information from verbal autopsies. They worked in pairs, independently assigning a COD for each death from the verbal autopsy questionnaires.

## Strengthening Health Management Information Systems

As much as possible, SMGL sought to strengthen existing country government data systems rather than develop parallel data systems. SMGL helped to improve the quality of maternal health indicator tracking in Uganda's District Health Information System 2 (DHIS2). Prior to SMGL, DHIS2 only collected data on maternal complications and deaths from the maternity registers, which were often incomplete.

When the individual-level facility outcome data were collected through SMGL efforts, more maternal deaths and complications were found by triangulating information from several other registers with maternal death notifications and audits. This revealed that DHIS2 had substantially under-reported the number of maternal complications and deaths in these health facilities, and thus the information that health decision makers were using to assess facility performance was inaccurate. Based on this information

- The records clerks and health workers responsible for reporting national data in the four districts were trained in HMIS expectations, which greatly improved data collection.
- Two districts hired additional biostatisticians and records clerks.

These actions are expected to have lasting improvements in the quality of HMIS information.

In Zambia, SMGL M&E activities strengthened the government HMIS' ability to measure and report delivery and outcomes of maternal and newborn health care services, which facilitated decision making. Data extraction and documentation to capture maternal health indicators improved, and documentation of maternal deaths and complications increased.

## Producing Data Useful for Action

The Health Facilities Assessments provided a relatively low-cost mechanism to obtain useful information for policy and decision-makers

to prioritize health facility needs and to begin addressing them. In Phase 1, this information was used to inform the procurement of essential supplies and equipment that were

lacking in the health facilities. Because of the rapid start-up in Phase 1, the valuable information in the Health Facility Assessments was not used as fully as it could be in Phase 2.

## Lessons Learned from SMGL Phase 1 M&E and Recommendations for Phase 2

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At the conclusion of SMGL Phase 1 in May, 2013, SMGL M&E teams conducted a thorough review of

- How the M&E activities rolled out in each country.
- The main lessons learned from the pilot year.
- How these lessons could be applied to improve and streamline M&E for Phase 2 of SMGL.

These findings are summarized in two internal reports, titled the “Phase 1: Monitoring and Evaluation Lessons Learned and Phase 2 Recommendations and Phase 2: Monitoring and Evaluation Approaches.” These documents capture the key data collection and analysis processes and the timing employed in Phase 1, as well as the challenges encountered and the lessons learned. They also provide recommendations for refining the M&E approaches in Phase 2.

Examining the accomplishments of M&E efforts through a critical lens allows SMGL to build on the knowledge and experiences gained during Phase 1. It will also allow SMGL to apply lessons learned to M&E approaches for Phase 2 in both the new expansion districts and countries and in the original eight pilot districts.

Selected lessons and key recommendations from the “Phase 2: Monitoring and Evaluation Approach” report are outlined in this section.

### **Lesson Learned from the Accelerated Start-Up**

Launching so many activities in a short time required a huge organizational effort and the focused participation of many partners. A key challenge was insufficient time at the outset to coordinate and standardize M&E methods, processes, and data collection tools. This hampered coordination among partners and resulted in delays in data availability. It also hindered involvement by the MOH and district staff. In Phase 2, SMGL countries have the opportunity to plan more deliberately.

### **Recommendation for Phase 2 — Adopt a Phased Approach**

SMGL should use a more phased approach in new districts, collecting baseline data well ahead of launching SMGL interventions, so that the information can be used to refine intervention approaches. Partners need to negotiate the SMGL data needs, and data collection guidelines and frequency before interventions begin.

### **Lesson Learned About Measuring Maternal Deaths**

Establishing baseline and endline maternal mortality levels for the two countries was essential to documenting the “proof of concept” for SMGL. Implementing routine maternal mortality identification required significant training and logistics, and involved the collaboration of multiple organizations. The endeavor built capacity and produced valuable information to examine change in maternal mortality, but not within the optimistic timeframes established early on in the SMGL pilot initiative.

### **Recommendation for Phase 2 — Invest in Long-Term Strategies to Achieve Maternal Mortality Surveillance and Response**

SMGL Phase 1 efforts created a foundation for continued monitoring and reporting of maternal deaths. Sustaining these efforts will require commitment by the MOHs and ongoing investments, particularly in supporting community health workers and their supervision. In Phase 2, data on maternal and newborn deaths should be collected from both facility and community levels from the onset of the project, with a more explicit focus on establishing a MDSR system, as well as on improved perinatal mortality surveillance.

### **Lesson Learned About Harmonizing SMGL M&E Indicators, Methods, and Tools**

Because of the rapid start-up, the countries had to develop their operational and M&E plans before there was an overall agreement on a core set of indicators. The lack of standardization (e.g., indicators, tools, data collection approaches) made data comparability challenging, and limited SMGL's ability to fully articulate the initiative's progress across the pilot districts and countries.

### **Recommendation for Phase 2 — Coordinate around a unified M&E plan**

In Phase 2, SMGL countries should strive for greater harmonization of monitoring and evaluation activities. Phase 2 M&E partners should adopt a core set of indicators and agree upon more specific procedures for data collection and reporting. New partner organizations joining SMGL should receive clear and consistent M&E guidance prior to implementation.

### **Lesson Learned About Building on District Systems**

Phase 1 had promising strategies for helping districts to strengthen facility-level data and HMIS systems, maternal death identification and review (including verbal autopsies), and private sector data. SMGL M&E activities strengthened health information systems and built district capacity in data collection. Perhaps more importantly, SMGL data are now available to help improve quality of care and inform programmatic decisions. In Phase 1, SMGL activities were not always accounted for in the regular work flow and job descriptions. Making these systems sustainable will require dedicated resources.

### **Recommendation for Phase 2 — Invest in Information Systems and Build M&E Capacity to Achieve Lasting Improvements**

In order for SMGL M&E activities to achieve lasting improvements in district information systems, the efforts need to be provided with adequate training and staffing. Sustaining improvements in community-based and facility-based data systems, and harmonizing SMGL efforts with government priorities, will require early and continued involvement and the buy-in of local, district, and national governments.

# Appendix:

## SMGL Phase 1 Reporting Indicators

Category	SMGL Reporting Indicator
District Population Data	District population Number of communities in each SMGL district Number of births in each SMGL district
Mortality	Number of maternal deaths in district Number of maternal deaths in district facilities Number of maternal deaths by cause: Postpartum hemorrhage Sepsis Obstructed labor Eclampsia Unsafe abortion complications HIV/AIDS (indirect) TB (indirect) Malaria (indirect) Facility maternal case fatality rate in Emergency Obstetric and Newborn Care (EmONC) facilities (cause-specific) Number of neonatal deaths (in a facility)
Availability and Quality of Obstetric and Newborn Care	Met need for EmONC Number of deliveries taking place in an EmONC health facility Number of facilities where the 7 signal functions that constitute Basic EmONC (BEmONC) are functional Number of facilities where the 9 signal functions that constitute Comprehensive EmONC services (CEmONC) are functional Number of women within 2 hours of EmONC Number of women delivering in a facility (any) Number of women who stayed in a mother's shelter prior to delivery in a facility Number of women who deliver in a facility that receive counseling on family planning Number of women who deliver in a facility that receive immediate postpartum contraception Number of women provided with prophylactic postpartum uterotonics Number of direct obstetric complications by cause: Postpartum hemorrhage Obstructed labor Eclampsia Unsafe abortion complications Number of Cesarean sections performed Number of newborns successfully resuscitated Number of infants breastfed within one hour of birth

Category	SMGL Reporting Indicator
HIV Testing and Treatment for Women and Infants	<p>Percentage of pregnant women tested for HIV and know their result</p> <p>Number of HIV-positive pregnant women who receive antiretroviral drugs or antiretroviral therapy to reduce mother-to-child transmission</p> <p>Number of HIV-exposed infants receiving early infant diagnosis within 2 months</p> <p>Percentage of infants born to HIV-positive pregnant women who are started on Cotrimoxazole (CTX), prophylaxis within 2 months of birth</p> <p>Percentage of infants born to HIV-positive women who receive virological testing in the first 2 months</p>
Staffing and Training	<p>Number of newly hired health care workers:</p> <ul style="list-style-type: none"> <li>Doctors</li> <li>Nurses</li> <li>Midwives</li> </ul> <p>Number of health care workers trained on:</p> <ul style="list-style-type: none"> <li>EmONC</li> <li>Newborn resuscitation</li> <li>Maternal death reviews</li> <li>Surgical Obstetric care</li> <li>Anesthesia</li> </ul> <p>Number of new health care workers who graduated from a pre-service training institution within the reporting timeframe</p> <p>Number of health facility staff trained in data collection or Health Management Information System</p>
Community Demand Creation	<p>Number of communities that have trained volunteers to promote institutional delivery</p> <p>Number of community members/volunteers trained to promote delivery in a facility and to report maternal deaths</p>
Transportation and Vouchers	<p>Number of communities where pregnant women have access to a functional transportation system or scheme for emergency referral</p> <p>Number of ambulances provided to a district</p> <p>Number of ambulance motorcycles provided to a district</p> <p>Number of ambulance bicycles provided to a district</p> <p>Number of vouchers for transportation to a health facility distributed to women</p> <p>Number of vouchers for transportation to a health facility redeemed</p> <p>Number of vouchers for labor and delivery services distributed to women</p> <p>Number of vouchers for labor and delivery services redeemed</p>
Other	<p>Number of clean birth kits distributed</p> <p>Number of radio spots promoting delivery in a facility broadcast</p> <p>Number of times any SMGL radio spots were broadcast</p> <p>Number of maternity wards refurbished/expanded</p> <p>Number of mothers' shelters renovated</p>







**For more information, please contact**

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