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**USAID ASSIST PROJECT**

*Applying Science to Strengthen and Improve Systems*

USAID ASSIST Project Five-year Cooperative Agreement in the USAID Office of Health Systems

# IMPROVING OUTCOMES FOR MOTHERS, NEWBORNS, AND CHILDREN

In the last 20 years great strides have been made in reducing child and maternal deaths. However, rates of child and maternal deaths still remain unacceptably high. In 2013, 6.3 million children died before their fifth birthday, and even now some 800 women and girls die each day in the process of giving life.

Strengthening essential system functions to reliably deliver high quality, life-saving interventions for leading causes of maternal, newborn, and child mortality is a major part of USAID's Ending Preventable Child and Maternal Deaths (EPCMD) strategy.

The USAID Office of Health Systems' **Applying Science to Strengthen and Improve Systems (ASSIST) Project** is a five-year global project that supports Millennium Development Goals (MDGs) and Post-MDGs by:

- Testing and implementing innovative, cutting-edge quality improvement and service delivery approaches in maternal, newborn, and child health (MNCH), such as collaborative improvement, process redesign, and integrating routine and complications care across system levels
- Developing, testing, and disseminating technical frameworks, approaches, and tools that can increase the efficiency, effectiveness, cost-effectiveness and sustainability of health system strengthening and quality improvement initiatives in support of the USAID EPCMD strategy, including strategies to integrate gender considerations in care delivery



A birth champion together with a mother and her baby, delivered at Musulwa Dispensary, Kwale, Kenya. USAID ASSIST is supporting county governments and service delivery partners to improve and strengthen maternal, neonatal, child health and reproductive health services in Kenya. Photo by Esther Kahinga, URC.

- Building government and implementing partner capacity to apply improvement methods across health system levels (community, clinic, hospital, district, regional, central) to improve, scale up, and sustain high-impact, low-cost, people-centered MNCH and family planning (FP) services for leading causes of maternal newborn and child morbidity and mortality in USAID priority countries
- Strengthening frontline health worker and manager skills, motivation, and performance through integrated clinical and quality improvement (QI) capacity building and through engagement of health workers in making improvements in their local health care systems and processes
- Supporting the development and testing of MNCH quality of care indicators, strengthening routine health information systems to enable regular tracking of quality measures at service delivery level, and promoting accountability at global, national, and sub-national levels

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Currently operating in 20 countries, the project supports the application of modern improvement methods by host country providers and managers in USAID-assisted countries and seeks to generate new knowledge to increase the effectiveness and cost-effectiveness of applying improvement methods in low- and middle-income countries. These activities seek to implement evidence-based practices, not only for antenatal, intra- and post-partum, postnatal, and early childhood care, but also to prevent and treat the leading causes of death across the life course at all levels of health service delivery system. The project also works to strengthen community-based services and community linkages with facility-based care as well as continuity of care across different levels of health service delivery.

All project activities are planned and supported in close collaboration with Ministry of Health (MOH) and district-level managers and coordinated with the efforts of other USAID implementing partners. In order to promote ownership and institutionalization, ASSIST supports local providers to make changes in care processes that are not dependent on external resources and that can be sustained after ASSIST support ends.

## Selected Results from USAID ASSIST Country Programs

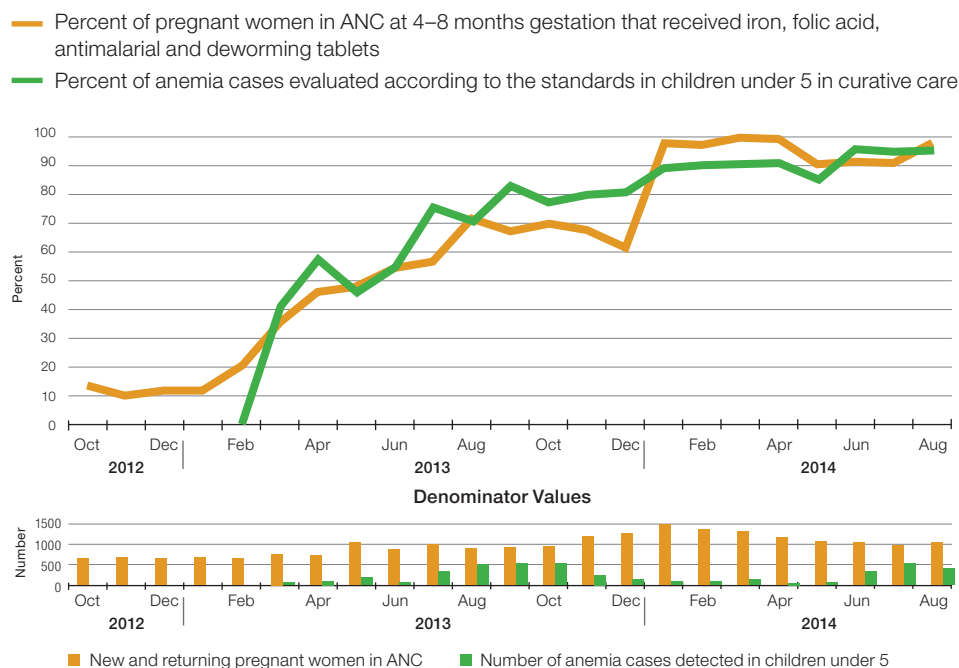
### Mali

In Mali, ASSIST is supporting over 150 facility QI teams in Kayes Region to improve the quality of essential obstetric and newborn care, addressing prevention of obstetric hemorrhage, a leading cause of maternal deaths. Since beginning work with facilities in two districts in late 2009, gains have been spread to sites throughout the region. Improvements achieved in Kayes from the baseline assessment in November 2009 to August 2014 include:

- Increased active management of the third stage labor (AMTSL) for post-partum hemorrhage prevention from 0% of deliveries (17 sites) to 99% (144 sites)
- Increased compliance with post-partum monitoring standards for both mothers and newborns, from 39% (17 sites) to 99% (144 sites)

**Figure 1. Preventing anemia among pregnant women, October 2012–August 2014**

Percent of pregnant women in ANC at 4–8 months gestation who received iron, folic acid, antimalarial, and deworming and percent of anemia cases in children under 5 in curative care, Bougouni District, October 2012–August 2014



#### Key Changes

- Provision of prescription drugs & routine reporting of anemia prevention in pregnant women according to gestational age.
- Systematic classification by providers of anemia detected
- Increased compliance with eclampsia treatment standards from 0% (17 sites) to 85% (33 sites)

Anemia increases child mortality, impairs physical and cognitive development, and has long-term impacts on individual and even national economies. ASSIST is also working on improving anemia prevention and control among pregnant women and children under five in 25 of the 37 facilities in Bougouni District, one of nine districts in Sikasso Region of Mali. As shown in Figure 1, since baseline, the percentage of pregnant women in antenatal care (ANC) at 4–8 months gestation who received iron, folic acid, antimalarial, and deworming increased from 21% to 100%, while the percentage of newborns who benefitted from immediate breastfeeding increased from 27% to 100%.

Reflecting Mali's high neonatal mortality rate, a new activity for ASSIST in FY14 focused on prevention and management of newborn asphyxia in Yélimane and

Kayes districts of Kayes Region. From the beginning of the intervention in July 2013, the percentage of newborns resuscitated according to standards increased from 13% of cases in July 2013 to 98% in July 2014 in Kayes District and from 0% in November 2013 to 100% in July 2014 in Yélimane District.

At national level, ASSIST works in collaboration with the MOH and other partners on the implementation and scale-up of integrated MNCH and nutrition intervention packages that are centered on the needs of patients and their families and communities—people-centered care. To add, the project has achieved two major results: 1) the integration of the post-partum family planning (PPFP) parameters into local information system registers; and 2) the elaboration and validation at the regional level of a technical note to allow other non-physician skilled providers to administer MgSO<sub>4</sub> for the prevention of eclampsia before referring the women to the next level of care.

## India

In India, USAID ASSIST was asked to help demonstrate how improvement methods could improve care quality in the Reproductive, MNCH and Adolescent Health (RMNCH+A) continuum. ASSIST was asked to work in six USAID-supported states and at least one block in each of 27 USAID-supported districts to build improvement capability by enhancing the commitment and capability of leaders at the national, state and district levels to lead health care improvement. Since December 2013, ASSIST has supported some 349 QI teams in the 27 districts, covering care for some 15,000 deliveries per month. Key results achieved across these sites from July 2013 to September 2014, shown in Figure 2, include:

- Increased regular measurement of hemoglobin from 58% to 79% of antenatal care visits
- Increased administration of oxytocin at delivery for post-partum hemorrhage prevention from 1% of deliveries to 98%
- Increased provision of Vitamin K to the newborn from 45% to 96%

The ASSIST-supported teams' focus on improving newborn care and postnatal monitoring has yielded measurable gains in newborn outcomes. As shown in Figure 3, in 2014, perinatal mortality decreased 11.8% across all ASSIST-supported sites. This equates to 42 babies' deaths being prevented each month compared to baseline, or 500 deaths averted per year. If these gains were scaled up across India, the approach could save 75,000 lives per year.

## Uganda

To address the leading causes of maternal and newborn death in Uganda, USAID ASSIST has supported quality improvement within the 20 highest volume sites in the four Saving Mothers Giving Life (SMGL) districts in Western Uganda. Since 2013, the project has supported facility QI teams to improve use of the partograph for labor management, practice of AMTSL during delivery, and provision of the essential newborn care (ENBC) package and has systematically documented emerging best practices and lessons learned (see Figure 4). ASSIST is now supporting the MOH to

Figure 2. Improvement in obstetric and newborn care in 27 project-support districts in India 2014

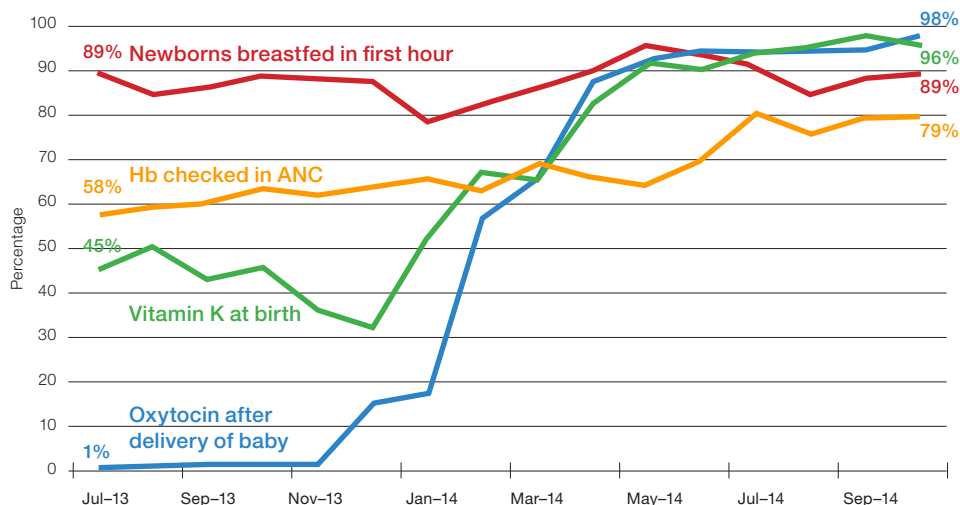


Figure 3. Decrease in perinatal mortality across ASSIST-supported sites in India, December 2013 – January 2015 (15,000 deliveries per month)

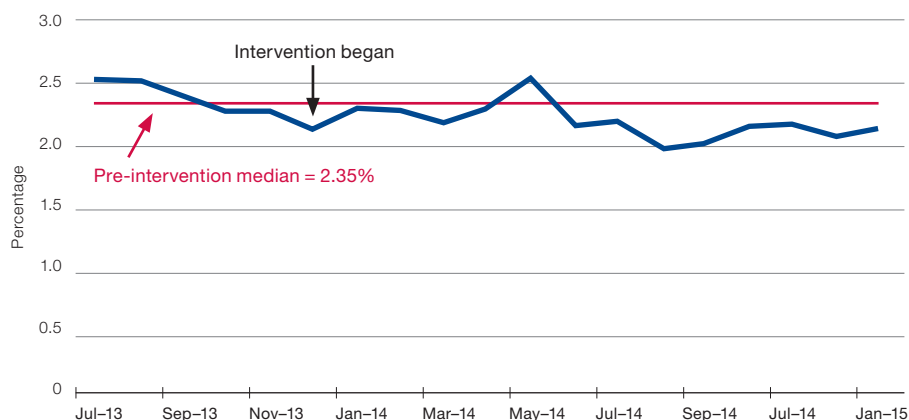
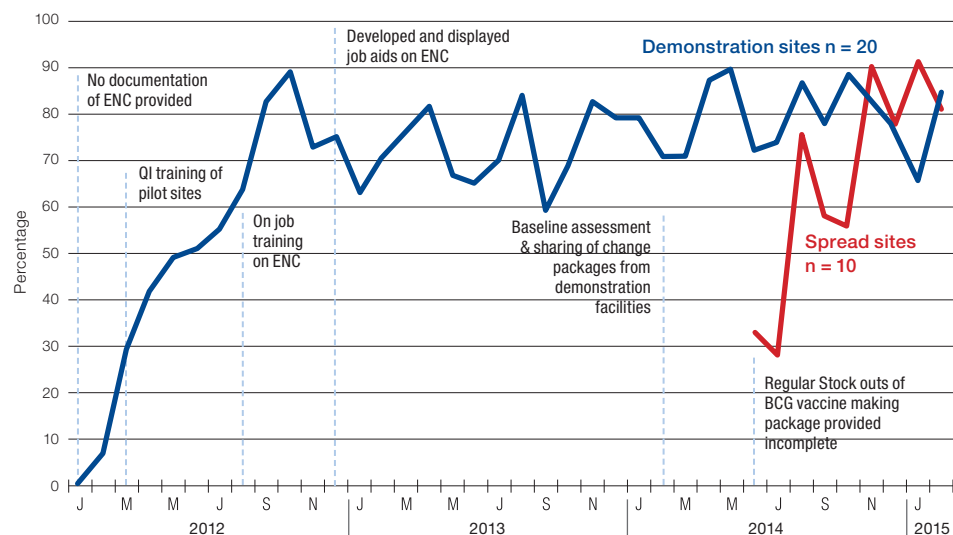


Figure 4. Scaling up essential newborn care in the four SMGL priority districts in Western Uganda

Percent provision of a complete package of ENBC in 20 demonstration and 10 spread sites in the 4 SMGL districts of Western Uganda (Jan 12–Feb 15)





scale up lessons learned to an additional 10 facilities in the original four SMGL learning districts and to 20 facilities in six new districts of Northern Uganda.

ASSIST also worked in close collaboration with the National Newborn Steering Committee to define and adapt the “Helping Babies Breathe-Plus/Uganda” package to improve newborn health, developing and supporting the national roll-out of HBB-plus in terms of geographic coverage and achievements of partners.

## Tools and Innovations to Support EPCMD

Country programs developed under USAID ASSIST systematically address key questions related to the evidence base for achieving improvements in the focus area of the work and the implementation strategy for the work planned. This deliberate design of country improvement programs under USAID ASSIST also addresses:

- USAID ASSIST is supporting Survive and Thrive Global Development Alliance (GDA) partners to build integrated clinical and QI competencies of providers, managers, and professional associations to continuously improve Helping Mothers Survive (HMS) and Helping Babies Survive (HBS) best practices in USAID priority countries. For this purposes, the project is leading the QI technical working group for the multi-partner Survive and Thrive GDA, and together with American Academy of Pediatrics (AAP) is working to develop, test, and support use of a QI workbook and QI materials in low- and middle-income countries.
- In 2014, USAID ASSIST collaborated with the Newborn Resuscitation Working Group of the UN Commission



on Life Saving Commodities to develop a quality framework to help managers and providers understand common gaps and improvement approaches for achieving and sustaining effective resuscitation care for every baby in need in the golden minute after birth. The framework reviews common system weaknesses, including weak local data systems, and proposes indicators to track and help improve newborn resuscitation services and essential system functions (e.g., supply chain) as part of facility and district health information systems. The framework is also contributing to development of a global metrics framework for the Essential Newborn Action Plan (ENAP).

- The project has also developed a framework to improve the quality of post-partum family planning (PPFP) in low-resource settings, exploring key system barriers and quality of care gaps that impede delivery of PPFP services. The framework describes how improvement approaches can be leveraged to

strengthen system functions, measure and close quality of care gaps, and scale up effective, safe, and client-centered PPFP services.

- The project is supporting the implementation of evidence-based practices to reduce newborn infections in 10 Latin American countries through an internet-based “virtual improvement collaborative” to engage 25 participating hospitals in putting in place best practices to reduce newborn infections. Hospital teams learn and share results through webinars and a web-based data sharing platform.

## Key Learning

Through implementation of quality improvement initiatives to improve a broad spectrum of MNCH and FP services across different levels and settings, USAID ASSIST has generated important lessons to contribute to global learning:

- Improvement initiatives focusing on different domains of maternal and newborn health should be targeted to assess, continuously improve, and monitor care within context of the health system and local settings.
- Improvement should focus on identifying barriers both in process and content of care and implement low-cost, high-impact, gender-sensitive, and evidence-based supply- and demand-side interventions to fill gaps in the prevention, early diagnosis, and treatment of leading causes of maternal, newborn, and child mortality.
- Working with all key partners simultaneously at all levels of health systems is crucial to build local capacity and ensure ownership and accountability to sustainably improve quality of MNCH and FP services.

## USAID Applying Science to Strengthen and Improve Systems

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