



Photo by Debbie DeVoe for CRS

“No women do home births now.”
— Justina Alechana, midwife, Presbyterian Health Center, Langbensi community

Improving maternal and child survival in rural Ghana

EIGHT CRS MATERNAL AND CHILD HEALTH INNOVATIONS

When a mother chooses to deliver her baby outside of formal health facilities, she puts her own life and that of her newborn in jeopardy, particularly if complications arise. Catholic Relief Services aimed to reduce such preventable deaths through a high-impact, evidence-based child survival project in Ghana that helped to change the behavior and beliefs of pregnant women and their family members across the East Mamprusi district in the northeast part of the country.

The four-year, \$2.2 million Encouraging Positive Practices for Improving Child Survival (EPPICS) project, funded by the United States Agency for International Development (USAID), sought to improve the quality and availability of health services in all East Mamprusi communities and bridge the gaps preventing pregnant women and mothers from using these services. Thanks to eight promising CRS maternal and child health innovations, the project contributed to significantly improved MCH outcomes across the district.

“Our assisted deliveries keep increasing, and maternal and infant mortality keeps going down.”

— Justina Alechana, midwife, Presbyterian Health Center, Langbensi community

PROJECT BACKGROUND

At project start, maternal and infant mortality and morbidity was high in East Mamprusi district, largely due to limited physical access to health facilities and traditional practices that put mothers and newborns at risk. Residents live in small settlements of 200 to 500 people¹, with 60 percent of the communities falling outside an eight-kilometer radius of the nearest health facility². The long distances restrict access to the facilities and limit outreach by GHS.

The project faced the additional challenge of persuading some decision makers at the household level to allow women to give birth in health facilities for safer deliveries. Traditionally, Ghanaian women have little say regarding their pregnancies and childrearing. Husbands and parents-in-law make the majority of family-related decisions, including if and when to use formal health services. At project inception, 43 percent of women living in East Mamprusi still opted to give birth outside of formal health facilities³.

CRS INNOVATIONS

The EPPICS project aimed to contribute to sustainable maternal and newborn morbidity and mortality reduction in East Mamprusi district by 2015. The project's two primary strategic objectives were to improve maternal and neonatal health outcomes and increase access to quality maternal and neonatal services for all families in the district. The project design—determined in collaboration with Ghana Health Service, research partner University for Development Studies and community stakeholders—coupled improvements in delivery of facility-based health services with innovative community-led strategies to close the gaps preventing care-seeking at the community and household levels.

Areas of intervention included maternal and newborn care (60 percent), nutrition (30 percent) and malaria prevention in pregnancy (10 percent). Each project activity aimed to tackle one or more of the three delays contributing to preventable maternal and newborn mortalities:

- 1) delay in making a quick decision to seek care due to harmful cultural beliefs or an inability to recognize a problem
- 2) delay in reaching the point of care due to long distances and transportation challenges
- 3) delay in receiving appropriate and quality care due to inadequate health services, referrals or staff skills

The EPPICS project addressed these delays in two primary ways: by improving service delivery at each of the 12 health facilities in East Mamprusi district and by fostering a sense of responsibility on the part of individual community members toward contributing to positive health outcomes. More than 2,000 community volunteers helped to implement project activities, with a strong focus placed on removing cultural barriers to positive health-seeking behaviors. Project volunteers repeatedly encouraged all community members—especially parents-in-law and husbands—to choose healthier birthing practices and to include their daughters-in-law and wives in MCH decisions.

EPPICS' two-pronged approach also served to build strong links between the health facilities and each of East Mamprusi's 240 rural communities—relationships that promise to sustain project gains and provide a foundation for future improvements. By implementing activities in a holistic manner across East Mamprusi communities, EPPICS compounded the overall impact of the eight CRS maternal and child health innovations:

Partner engagement: EPPICS took a unique approach to project administration by making Ghana Health Service the lead implementer of all project interventions, with CRS serving in an advisory and facilitative role. The project also fostered enormous community participation, with more than 2,000 volunteers assisting with the execution of project activities for lasting sustainability.

Capacity building: Numerous trainings and continual mentoring increased the capacity of GHS district officers, frontline health workers and community volunteers, building the skills needed to continue MCH activities after the project end. By making community members an integral part of project implementation, EPPICS was also able to promote a high sense of community ownership and extend the project reach down to the household level.

Councils of Champions: As part of an operational research initiative in two subdistricts, EPPICS invited custodians of practices, rituals, attitudes and beliefs to form MCH councils to discuss health issues, determine needed behavior changes and use their strong community influence to sway public opinion and behaviors toward healthier beliefs and practices.

Traditional birth attendants (TBAs) repositioned as link providers: The project trained traditional birth attendants to serve instead as link providers responsible for linking pregnant women to health facilities for MCH services and for helping women in labor to get to the

nearest health facility to reduce home births and resulting maternal and neonatal deaths.

Modified motor tricycles as rural ambulances: Four modified motor tricycles provided 20 of East Mamprusi district's most isolated communities with readily available transportation to the local health facility for women in labor and their link providers, increasing access to health facilities for skilled assisted deliveries and subsequently reducing deaths occurring from home deliveries.

Community giant scoreboards: Large walls built in prominent public spaces in each of the 240 communities across the district continue to serve as visual awareness-raising tools that rally residents by publicly tracking community performance against key maternal and child health indicators.

Community pregnancy surveillance and education sessions (C-PrES): The project recruited model mothers to lead education sessions for pregnant women and nursing mothers to promote early antenatal visits, institutional deliveries, postnatal care, and appropriate infant and young child feeding practices.

Mentoring health facility staff: Six mentors visited each of the 12 health facilities in East Mamprusi to provide hands-on coaching and mentoring to less experienced health staff to increase their knowledge and skill levels.



EPPICS modified motor tricycles to serve as rural ambulances to transport women in labor living in remote villages to the closest formal health facility for skilled assisted deliveries, reducing home births. Photo by Karen Kasmauski for CRS

SUCCESSFUL OUTCOMES

Together, these strategies made powerful and lasting impacts. During the project timeframe from October 2011 through September 2015, East Mamprusi advanced from being the worst-performing district in the Northern Region in 2010 to the best-performing district overall in the region in 2014 and the best-performing district for MCH indicators in 2015⁴. Institutional maternal mortality reduced 131 percent from 295 deaths per 100,000 live births in 2011 to 81 deaths per 100,000 live births in 2015⁵, with skilled assisted deliveries increasing from 43 percent at baseline to 76 percent at endline⁶.

EPPICS innovations contributed significantly to these districtwide gains by moving community members away from harmful rural health practices and toward use of formal health services. EPPICS served 58,634 beneficiaries in East Mamprusi district, including 30,713

POSITIVE RESULTS

East Mamprusi district showed statistically significant increases in numerous maternal and child health indicators from project baseline to endline⁷.

Number 1 district—Advanced from worst-performing to best-performing district

76.7% increase in skilled assisted deliveries—from 43% to 76.7% ($p<0.005$)

231.8% increase in clean cord care at birth—from 22% to 73% ($p<0.001$)

48% increase in registration and use of antenatal care in first trimester—from 50% to 74% ($p<0.001$)

28% increase in four or more antenatal visits—from 63.9% to 82% ($p<0.001$)

156% increase in birth preparedness—from 16% to 41% ($p<0.005$)

50% increase in early initiation of breastfeeding—from 50% to 75% ($p<0.005$)

162.5% increase in postnatal care within two days of delivery—from 32% to 84% ($p<0.001$)

65% increase in mothers sleeping with babies under long-lasting insecticidal nets—from 42% to 71% ($p<0.001$)

48.9% increase in exclusive breastfeeding of infants for the first six months—from 47% to 70% ($p<0.005$)

41.8% increase in appropriate complementary feeding of children age 6-23 months—from 55% to 78% ($p<0.001$)



Community members in Samini village celebrate 100 percent coverage communitywide for exclusive breastfeeding of newborns, with 10 green sticks placed at the top of their community giant scoreboard. Photo by Debbie DeVoe for CRS

women of reproductive age and 27,921 children under 5 years of age⁸. The project also assisted an additional 79,616 beneficiaries indirectly through assistance to family members and activities that helped to remove cultural barriers to positive health behaviors by modifying harmful practices, rituals, attitudes and beliefs. In addition, the project helped all 12 local health facilities in East Mamprusi to improve service delivery and establish strong links with each of the 240 communities, building a powerful foundation for sustaining project gains and achieving future MCH improvements.

Due to these documented achievements, Ghana Health Service and CRS are rolling out EPPICS innovations in

other districts and regions in Ghana in hopes of achieving similar maternal and child health outcomes. CRS has also incorporated community giant scoreboards into child survival programs in Burkina Faso, Myanmar and Niger.

"EPPICS strategies are sustainable because community members have seen that the strategies have really improved their health," says former East Mamprusi district Director of Health Services Paulina Bayiwasi. "Healthy Mothers and Newborn Care Committees, C-PRES, TBAs as link providers, community emergency transport committees, Councils of Champions, community giant scoreboards—all of these structures are still intact."

No.1 PERFORMING NORTHERN REGION DISTRICT IN HEALTH OVERALL IN 2014	240 EAST MAMPRUSI COMMUNITIES FORMALLY CONNECTED WITH HEALTH FACILITIES	480 TBAs REPOSITIONED AS LINK PROVIDERS TO LINK PREGNANT WOMEN WITH HEALTH FACILITIES	240 HEALTHY MOTHERS AND NEWBORN CARE COMMITTEES ESTABLISHED	480 MODEL MOTHERS TRAINED TO SHARE KEY MCH MESSAGES
240 COMMUNITY GIANT SCOREBOARDS CONSTRUCTED	12 HEALTH FACILITIES PROVIDED WITH NEEDED EQUIPMENT AND SUPPLIES	240 COMMUNITY EMERGENCY TRANSPORT COMMITTEES FORMED OR STRENGTHENED	12 QUALITY IMPROVEMENT TEAMS FORMED OR STRENGTHENED	44 COUNCILS OF CHAMPIONS FORMED IN SAKOGU SUBDISTRICT

1 Ghana Health Service web site, May 2016

2 CRS Rapid Health Facility Assessment in East Mamprusi District, 2011

3 CRS Ghana Encouraging Positive Practices for Improving Child Survival Knowledge, Practice and Coverage survey, 2011

4-8 CRS Ghana Evaluation of Encouraging Positive Practices for Improving Child Survival, East Mamprusi, Ghana, West Africa, November 2015

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