Project Achievements by HIDN Pathways

Over the past five years, ACCESS and its Associate Awards have worked globally, regionally and in 26 countries—often with difficult-to-reach populations—to expand services and increase awareness of maternal, newborn and women's health needs. The Program received $74,990,000 against a ceiling of $75,000,000. Five Associate Awards were granted under ACCESS, one for family planning (FP) at the global level and four at the country level: Afghanistan, Cambodia, Kenya and Tanzania. All Associate Awards, with the exception of Cambodia, will extend beyond the end date of ACCESS.

Afghanistan—Gaining International Recognition through Midwives Association

With ACCESS support, the Afghan Midwives Association (AMA) has celebrated significant progress since its establishment in 2005. In the short time since the association was formed, it has established itself as a credible professional association and gained international recognition as a member of the International Confederation of Midwives (ICM). It now boasts more than 1,000 members, a number that continues to grow as new midwives graduate and awareness of the association spreads.

To meet the enormous need for skilled birth attendants in Afghanistan, the AMA receives considerable technical assistance from the ACCESS Program and the ACCESS Associate Award Health Services Support Project (HSSP). The AMA has worked tirelessly with the Government of Afghanistan and its ministries to promote the use of midwives as the primary provider for pregnant women, and has facilitated the involvement of midwives in the policy development process. The association is now taking a role in providing continuing professional education courses for trained midwives.

Partograph teaching, Afghanistan

The results have been tangible: coverage of evidence-based, high-impact interventions has increased for women and newborns in countries where ACCESS has worked; national maternal and newborn health (MNH) policies have changed; and midwives and doctors across Africa are better prepared to deliver life-saving care. The Program has laid the groundwork for continued improvement in health for mothers and infants, and schooled thousands of providers and community health workers (CHWs) to care and advocate for them. This section of the report presents ACCESS Program achievements in global leadership and results over the life of the program, organized by the four results pathways of the United States Agency for International Development's (USAID) Office of Health, Infectious Diseases and Nutrition (HIDN): skilled birth attendance, antenatal care (ANC), postpartum hemorrhage (PPH) and newborn care. Additional results by country and additional technical areas are presented later in the report and in the annexes.

GLOBAL LEADERSHIP

Through its global and local alliances, ACCESS global leadership has increased international and national attention and commitment to improve MNH across the continuum of maternal and newborn care. Partners with which the Program has allied in these efforts include: the World Health Organization (WHO), including Roll Back Malaria's (RBM) Malaria in Pregnancy Working Group (MIP WG); the United Nations Children's Fund (UNICEF); the United Nations Population Fund (UNFPA); the Partnership for Maternal, Newborn and Child Health; the Healthy Newborn Partnership; the White Ribbon Alliance (WRA); the International Confederation of Midwives (ICM); the International Federation of Gynecologists and Obstetricians (FIGO); and local organizations, including many faith-based organizations (FBOs).

In 2006, ACCESS supported the U.S. launch of the *Lancet Maternal Survival Series*, and the seminar was webcast worldwide. ACCESS also supported the Partnership for Maternal, Newborn and Child Health by providing a technical advisor to help the Partnership implement their global activities, strategic planning and fundraising.

Through collaboration with partners such as Saving Newborn Lives (SNL), the Program improved access to knowledge of newborn health with the development and dissemination of tools and materials. It worked with global partners to launch the *Lancet Neonatal Survival Series* in Nepal and Indonesia, and the *Lancet Child Survival Series* in Washington, D.C. With partners, ACCESS staff co-authored several chapters in *Opportunities for Newborns in Africa*, a regional review of newborn health in Africa, and supported the dissemination of the report. The Program is also providing technical input to revise the resource manual *Managing Newborn Complications* in collaboration with WHO.

In 2008, ACCESS increased awareness of USAID's contributions to MNH through its presentations at a Congressional briefing on MNH accomplishments in Nigeria and Afghanistan. In addition, Global Health TV developed a five-minute, widely-broadcast film on the Program's community midwifery work in Afghanistan.

ACCESS facilitated Road Map development in 15 countries in Africa. Between 2005 and 2006, the Program collaborated with the World Health Organization Regional Office for Africa (WHO/AFRO) to assist the Africa Road Map Initiative by supporting Anglophone, Francophone and Lusophone regional workshops on development and use of the Road Map. ACCESS also translated the original WHO/AFRO Road Map guidelines from French to English, and revised the draft guidelines with WHO/AFRO and partners at a meeting in Addis Ababa, Ethiopia. During the same meeting, the Program—along with WHO/AFRO and other partners—also reviewed the framework for the integration of FP, MIP, nutrition and prevention of mother-to-child transmission of HIV (PMTCT) with MNH care.

In 2009, ACCESS co-organized and co-facilitated with WHO/AFRO and the key U.N. Road Map partners the Entebbe regional workshop for the operationalization of the Road Map. The country teams from Malawi, Zambia, Uganda, Kenya, Namibia and Ethiopia participated in the workshop and each team identified bottlenecks and developed responses. In addition, concrete guidance was provided for the operationalization of the Road Maps at district level.

The Program established itself as a global leader in the prevention and control of MIP throughout Africa. In its work with RBM, MIP WG—including as Secretariat for the WG from 2003 to 2006—ACCESS supported the development of a number of important consensus statements, including: sulfadoxine-pyrimethamine (SP) for intermittent preventive treatment in pregnancy (IPTp) in areas with SP resistance, interactions between HIV and malaria and implications for service delivery, insecticide-treated net (ITN) delivery though ANC, and a global monitoring and evaluation guidance document for MIP.

The Program collaborated with and supported WRA and ICM to influence policies and programs. In Year 3, it also helped support WRA's capacity-building workshop, which focused on skilled birth attendants (SBAs), in India for national secretariat representatives from 14 countries. During this conference, a "how to" guide entitled *Building, Maintaining, and Sustaining National White Ribbon Alliances* was developed. This guide documented approaches and lessons learned from existing alliances to provide guidance to new groups. Using the guide as a model, a new Alliance was formed in Yemen and in Pakistan.

After a regional WRA conference in Malawi, members of country-level WRAs from Tanzania, Zambia, Malawi and South Africa developed a plan for a concerted regional effort on the human resources crisis and its effect on MNH. In Tanzania, more than 10,000 people marched to raise awareness about the need for home-based, life-saving skills in the Morogoro District through WRA/Tanzania. ACCESS provided technical assistance to the Mali Midwives Association, an ICM affiliate, to work with SBAs at the community level to prevent PPH. ICM reported on their work in a panel presentation on PPH prevention with SBAs, and at the community level at the ICM conference in Scotland in 2008. Some of the results presented included: integration of active management of the third stage of labor (AMTSL) with Mali's national curriculum for obstetric nurses and midwives; national recognition for AMTSL after its inclusion in the National Day of the Midwife; and a joint statement between the Malian midwifery and obstetrics/gynecology associations for the prevention of PPH. The Program also participated in the 2005 ICM conference in Brisbane by presenting on AMTSL.

ACCESS helped to shape the Women Deliver Conference in London in 2007, and Program staff made presentations and facilitated panel discussions on PPH, SBA, postpartum family planning (PPFP), FBOs and MIP. ACCESS also sponsored more than 20 participants and panelists from several developing countries, and provided leadership for the MNH sessions at the "Scaling up High Impact FP/MNCH Best Practices in the ANE Region" conference in 2007 in Bangkok.

ANTENATAL CARE RESULTS PATHWAY

ACCESS introduced and/or expanded antenatal care services in 15 countries.[8]

The provision of high-quality, basic ANC—safe, simple, cost-effective interventions that all women should receive—helps maintain normal pregnancies, prevent complications, and facilitate early detection and treatment of complications. Focused antenatal care (FANC) services include:

- Health Promotion and Disease Prevention: Tetanus immunization, iron/folate supplementation and, where appropriate, malaria prevention, HIV prevention, presumptive treatment for hookworm, and protection against vitamin A and/or iodine deficiency.
- Early Detection and Treatment of Complications and Existing Diseases: As part of focused assessment, the skilled provider talks with and examines the woman for problems that may harm her health or that of her newborn.
- Birth Preparedness and Complication Readiness (BP/CR): Counseling on danger signs and key preparations for birth, including the importance of delivering with a skilled attendant, saving emergency funds, and identifying emergency transport.

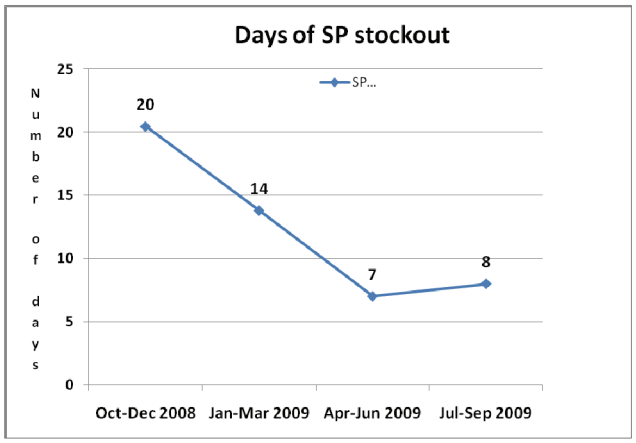
Because so many women, globally, visit an ANC provider at least once during their pregnancy, ACCESS worked to strengthen ANC as an opportunity to prevent and screen for pre-eclampsia, to increase testing and referrals for HIV, as a venue to screen and refer for TB, and as a platform for preventing malaria in pregnancy (MIP).

In Tanzania, ACCESS worked with the Ministry of Health and Social Welfare (MoHSW) to nationally scale up FANC as part of routine maternal and child health services. Through the program, 76% of ANC providers nationally (4,536) had their knowledge and skills updated in FANC, 880 in-service trainers were trained, and 2,633 facilities had at least one provider trained in FANC. In addition, pre-service curriculum

[8] Afghanistan, Burkina Faso, Cameroon, Ethiopia, Haiti, India, Kenya, Madagascar, Malawi, Nigeria, Rwanda, South Africa, Tanzania, Uganda and Zambia

were revised to reflect up-to-date FANC content and performance standards were created to ensure that facilities could monitor their own performance in providing high-quality FANC services. Through training, introduction of facility standards, and advocacy, ACCESS contributed to a reduction in stockouts of SP for the treatment of MIP. (See Figure 1.)

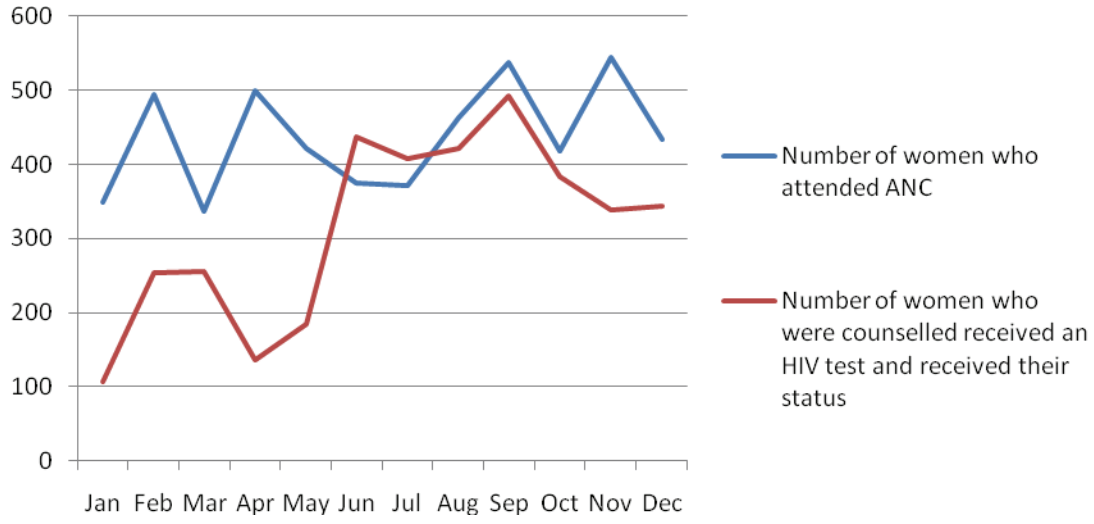
Figure 1: Days of Stock-outs of SP Per Quarter
(Data from 37 sentinel Surveillance sites in Tanzania)



In Malawi, ACCESS worked with the MoH's Reproductive Health and the HIV/AIDS units to strengthen the integration of mother to child transmission of HIV (PMTCT) into ANC. After finding that not all ANC providers had been trained in HIV testing and counseling (HTC)/PMTCT and that patient flow and high ANC volumes resulted in many clients not getting tested, ACCESS revised training packages and introduced facility performance standards to prevent these missed opportunities. ACCESS also revised community MNH training for health surveillance assistants (HSAs) to include more information on the importance of counseling and testing in order to prevent PMTCT.

Figure 2 shows data from Nkhotakota District Hospital from January 2008-February 2009. Beginning in June 2008, Nkhotakota had a surge in the number of ANC clients being both counseled and tested for HIV and receiving their results. The original community MNH package included some content on PMTCT with HSAs primarily referring pregnant women for HTC. Because the implementation of the original community MNH package occurred in early 2008 (at the start of ACCESS), it is possible that the surge in clients was a direct result of the increased community interventions implemented by the Program. Since that time, the majority of ANC clients in Nkhotakota have received HTC and their results. (See Figure 2.)

Figure 2: PMTCT services in ANC, Nkhotakota District, 2008-2009 *(Source: HMIS)*



In Kenya, in collaboration with the Department of Reproductive Health and the Division of Leprosy, TB and Lung Disease, ACCESS strengthened and integrated TB screening, referral, diagnosis and treatment for pregnant women with FANC. ACCESS developed an orientation package for FANC that includes MIP, PMTCT and TB, and trained 50 service providers and 30 supervisors from four pilot sties. During the intervention period, ACCESS saw an increase in TB screenings of new ANC clients increase from 0.4% to 91%.

The Program also focused on the antenatal period by providing community-based services to pregnant women. In Afghanistan and Nepal, ACCESS introduced community-based distribution of misoprostol to women in late pregnancy for the prevention of postpartum hemorrhage. In Nepal, ACCESS initiated the testing of community-based distribution of calcium for prevention of pre-eclampsia and eclampsia. (This work is continuing under MCHIP. See the PPH pathway section for more information on misoprostol in Afghanistan and Nepal.)

Most of the ACCESS work along the ANC pathway supported efforts to prevent and control MIP. Because more than 70% of pregnant women attend ANC at least once during pregnancy, ANC services provide an important platform to address MIP prevention and control. As part of its work in FANC, ACCESS was a committed partner to the RBM Initiative and promoted WHO's three-pronged strategy to address MIP prevention and control in areas of stable transmission. The Program also supported and actively participated in regional coalitions in Africa that contributed to improved coordination and implementation support in 29 countries.[9] At the country level, ACCESS supported the introduction or scale-up of FANC/MIP services in several countries, including Burkina Faso, Madagascar, Malawi, Nigeria, Rwanda, Tanzania and Uganda. These countries—with the exception of Rwanda, where IPTp is not provided—exhibited substantial increases in IPTp uptake. On a global level, ACCESS helped to develop and disseminate evidence-based materials, resources and tools.

POSTPARTUM HEMORRHAGE RESULTS PATHWAY

ACCESS introduced and/or expanded PPH prevention programs in 14 countries.[10]

Most cases of PPH—whether mothers give birth with a skilled provider at home or in a facility—can be prevented using safe, low-cost, evidence-based practices. Knowing how to prevent PPH, however, is not enough. The ACCESS Program worked to translate this knowledge into action when implementing essential maternal and newborn care (EMNC) and BEmONC interventions.

ACCESS established itself as a global resource and leader in the dissemination of evidence-based practices to prevent and treat PPH. These include well-known but underutilized procedures such as AMTSL (which is comprises injection of an uterotonic drug, controlled cord traction and uterine massage) as well as cutting-edge interventions such as use of misoprostol at the community level when an SBA is not available. Dissemination of this knowledge facilitates advocacy for commitment to improve maternal health at national levels, as well as to improve the capacity of the health systems and providers in facilities and communities to offer these programs and services at all levels. In several countries, the Program promoted prevention of PPH at scale by developing and rolling out national-level guidelines (Kenya) and performance-based standards

[9] MIPESA, RAOPAG, EARN and WARN countries are: Bénin, Burkina Faso, Burundi, Cape-Verde, Comoros, Côte d'Ivoire, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Malawi, Mali, Mauritania, Niger, Nigeria, Rwanda, Somalia, Sudan North, Sudan South, Sénégal, Sierra Leone, Tanzania, Togo, Uganda and Zambia.
[10] Afghanistan, Cameroon, DRC, Ghana, Haiti, India, Kenya, Malawi, Mauritania, Nepal, Niger, Nigeria, Tanzania and Togo

(Nigeria, Rwanda and Afghanistan). In India and Ghana, it implemented district-level programs to test program feasibility of selected interventions that will inform scale-up.

In collaboration with other partners such as ICM, FIGO, USAID, WHO and others, ACCESS set the global agenda for prevention and treatment of PPH. Building on the work of the MNH Program that resulted in the development of a CD-ROM on AMTSL for use as an advocacy and teaching tool, ACCESS collaborated with the Prevention of Postpartum Hemorrhage Initiative (POPPHI) Project to translate the CD-ROM into Spanish and French and distribute it globally, along with the PPH Toolkit, outlining the evidence base for use of AMTSL. It also provided support for community-based prevention of PPH using community-based delivery of misoprostol in Nepal and Afghanistan as part of its goal to introduce and scale up this successful approach in multiple countries. ACCESS chaired two of the POPPHI Project working groups—one on community-based PPH and another on training.

In October 2006, ACCESS participated in WHO's expert panel review to examine the evidence for the prevention of PPH. Moreover, it helped to bring these recommendations to the country level by influencing a number of African and Asian countries to revise their national policies. In Asia, ACCESS held technical discussions and advocacy workshops in Afghanistan, which resulted in the approval from the Ministry of Health and Population (MOHP) for a PPH demonstration project. In Nepal, it worked with the Nepal Family Health Program (NFHP) to prepare for scale-up of the use of misoprostol for prevention of PPH.

Along with UNICEF/SNL, ACCESS supported the development of a high-level Joint Statement on community-based care for the newborn. Program staff co-authored chapters in *Opportunities for Newborns in Africa*, a regional review of newborn health in Africa, and supported the publication and dissemination of the report. This review was launched at the African Health Ministers Meeting and at several other events to garner support for addressing neonatal mortality in Africa.

The ACCESS Program piloted community-focused birth preparedness programs as the frontline intervention to prevent PPH, emphasizing obstetric care by an SBA during and immediately after childbirth. In instances when women were unable to access skilled care, use of misoprostol immediately postpartum was advised. Experiences from these programs showed that, in low-resource settings with limited access to skilled attendance, community-based education and distribution of misoprostol is an appropriate strategy for preventing PPH at home births.

Preventing Postpartum Hemorrhage in Afghanistan and Nepal

ACCESS projects in Afghanistan and Nepal expanded life-saving interventions along the Household-to-Hospital Continuum of Care (HHCC), and assessed the safety, acceptability, feasibility and programmatic effectiveness of community-focused birth preparedness programs involving education and distribution of misoprostol to prevent PPH at home births. This included:

- Educating women and their families on BP/CR at the community level;
- Strengthening provider performance through performance improvement strategies to increase quality of care during childbirth at the facility level; and
- Increasing awareness on the urgency of addressing PPH and advocating for policy changes to support an enabling environment for MNH at the national level.

In Afghanistan and Nepal, a convergence of factors created a dismal environment for MNH, including high maternal mortality ratios (1,600 per 100,000 live births in Afghanistan and 281 per 100,000 live births in

Nepal),[11] evidence of hemorrhage as the most common cause of maternal mortality (30% of maternal deaths are related to PPH in Afghanistan[12] and 46% in Nepal[13]), and low rates of skilled attendance at birth (19% in Afghanistan[14] and 18.7% in Nepal). The MOHs in both countries are committed to reducing maternal mortality ratios by 2015 as part of the Millennium Development Goals and had begun interventions aimed to increase and strengthen institutional delivery services. In these scenarios, community-based birth preparedness education and distribution of misoprostol projects were implemented to prevent PPH at home births and complement larger, national efforts to reduce the burden of PPH.

The intervention was adapted to fit the context in both countries; however, there were several key features in each project:

- Educating pregnant women and their support persons through existing networks of CHWs:
  - In both intervention and comparison areas, trained CHWs provided education—with the assistance of culturally appropriate pictorial messages—to women and their support persons (such as husbands and mothers-in law) during home visits on:
    - BP/CR;
    - Recognition of danger signs, particularly PPH, during pregnancy, childbirth and the postpartum period;
    - The importance of a skilled provider at birth, where AMTSL can be offered to prevent PPH; and
    - What to do in case of a complication and where and from whom to seek care.

Women in the intervention area also received education on the purpose and correct timing and use of misoprostol to prevent PPH, the risks of taking misoprostol before birth of the baby and common side effects of misoprostol. Use of misoprostol was advised *only* if a skilled provider was not present at birth.

- Distributing misoprostol to women for use at home births when facility-based services and skilled attendance was unavailable.

After the educational session, women and their support persons were asked to describe the purpose and correct use of misoprostol, and the risks associated with use and misuse of the drug. Education was repeated until women could correctly describe the messages. The CHWs gave the women in the intervention area three 200-mcg tablets of misoprostol in their eighth month of pregnancy. CHWs visited all women postpartum to collect

Educating women, Nepal

[11] Ministry of Health and Population, NewERA and MACRO Inc. Nepal Demographic and Health Survey 2006. Kathmandu, Nepal. 2007.
[12] Bartlett L, Mawji S, Whitehead S, Crouse C, Dalil S, Ionete D, Salama P, and the Afghanistan Maternal Mortality Study Team. 2005. Where giving birth is a forecast of death: Maternal mortality in four districts of Afghanistan, 1999–2002. Lancet 365: 864–870.
[13] Pathak LR, Maternal Mortality and Morbidity Study, Family Health Division, DoHS, Ministry of Health and Population, Kathmandu: Government of Nepal. 1998.
[14] Ministry of Public Health, Afghanistan Health Survey, 2006.

information about exposure to and comprehension of messages, delivery information, reported PPH, experience with side effects, use and timing of misoprostol and other key information. Use of misoprostol was rigorously monitored through stock cards and records to ensure correct use and to prevent use outside the intervention area.

- Holding advocacy and sensitization meetings with stakeholders at various levels to mobilize groups on BP/CR and explain the intervention.

Woman just delivered, India

At the community level, meetings were held where the community health supervisors and CHWs shared information about the intervention. This included provision of education around the purpose of the intervention, mobilization around transport to facilities and how to support the CHW. At the national level, meetings were held with stakeholders to inform on project progress, guide decision making, and ensure that the intervention was complementary within national strategies and policies.

- Promoting institutional delivery and strengthening capacity of providers at the referral health facility.

In Afghanistan, a national government effort is under way to increase the number of skilled providers, and pre-service midwifery education employs use of standards to guide provider performance. ACCESS partnered with projects involved in increasing capacity of skilled providers in emergency obstetric services to ensure that providers were equipped to manage the occurrence of life-threatening complications, including PPH.

Afghanistan results[15]

- Achieved near-universal coverage of a method to prevent PPH: 96% of women in the intervention area received a uterotonic agent compared with 26% in the comparison area.
- Completed identification of pregnant women and the first education messages for 94% of the expected population by the end of the recruitment period. Distribution of misoprostol paralleled the recruitment of women, in that almost every woman identified as pregnant accepted misoprostol from the CHW (96%).
- 1,970 (96%) of the women who took misoprostol used the drug correctly. No women took the drug at the wrong time, or took the drug prior to the birth of the baby.
- Found trained, non-literate CHWs to be an acceptable source of educational messages and misoprostol distribution.
- Contrary to expectations, rates of all reported symptoms (e.g., shivering, nausea, cramping, transient fever) were higher in the comparison areas than the intervention areas: 60% of women in the intervention area who received misoprostol reported experiencing no unpleasant symptoms, compared with only 19% of women in the comparison area. In the comparison areas, women were more likely to use traditional remedies to stop bleeding.

After review of the promising results achieved under the pilot project, the MOPH has approved gradual expansion of the intervention to additional geographic areas of the country where access to emergency

[15] Prevention of Postpartum Hemorrhage at Home Birth in Afghanistan. Sanghvi H., Ansari N., Prata N., Gibson H., Ihsan A., Smith J. International Journal of Gynecology and Obstetrics. 2010; 108(3): 276–281.

obstetric care remains a challenge. This expansion will be implemented under the ACCESS Health Services Support Project (HSSP) in 2010 and 2011 and is projected to protect 20,000 women against PPH.

Nepal results

- Dispensed misoprostol to 18,761 pregnant women by the female community health volunteers with no significant adverse events or incorrect use.
- The proportion of deliveries protected by a uterotonic increased from 10.4% to 72.5%; the largest increases were among the disadvantaged: the poor, the illiterate and those living in remote areas.
- Institutional deliveries increased from 9.9% to 16.0%.
- Maternal mortality ratio among 13,969 misoprostol users was 72 per 100,000 live births, which was significantly lower than among non-users (304 per 100,000 live births) and the national level (281 per 100,000 live births).

Misoprostol can effectively be used without deterring women from seeking care by a skilled attendant at birth. A higher percentage of women in the intervention area received facility-based deliveries than women in the control area in Afghanistan (21.4% versus 18.1% respectively). In Nepal, the intervention area experienced an institutional delivery coverage increase from 11% pre-intervention to 20.4% post-intervention compared to a national increase of 11.3% to 15.3%. Use of AMTSL by a skilled provider remains the most effective method to prevent PPH, and the importance of its provision was emphasized throughout these projects. These results show that the intervention was, in fact, complementary toward efforts to increase rates of facility-based deliveries.

Small Grants to Reduce Postpartum Hemorrhage

In April 2006, ACCESS sponsored a regional PPH conference in Uganda where 22 countries from Africa were represented with more than 250 participants. From this conference, ACCESS awarded small grants to seven local organizations in six countries in Africa in support of their expansion of country-level PPH activities (Burkina Faso, the Democratic Republic of Congo, Ethiopia, Kenya, Madagascar and Mali).

Management of PPH course, Congo

In addition to training health workers, the ACCESS PPH small grant recipients conducted numerous activities, including: work with communities to increase PPH awareness and BP/CR; policy and managerial support for the prevention of PPH; promotion of networking among groups with AMTSL programs; work with pre-service programs to incorporate curricula on AMTSL with midwifery and nursing schools; provision of equipment and basic supplies to target centers for the prevention and management of PPH; and development of support and monitoring systems to track progress.

- For example, the Evangelical Hospital of the Baptist Community of Congo in Vanga, or HEV, is a missionary Baptist community organization in the Democratic Republic of Congo and serves as the referral hospital for the rural Vanga Health District. HEV is also a training and internship center for doctors and nurses in Bandundu Province. HEV developed a five-day training course on prevention and management of PPH, and a community-awareness program using communication channels such as radio, health care providers, community leaders, pastors and leaders of mothers' associations. They also purchased, stored and distributed equipment and supplies.

With an average grant of USD$12,000 to seven organizations,[16] recipients of ACCESS PPH small grants achieved significant successes. For instance, over the 11-month project period, HEV used Program funds to improve Safe Motherhood at both the health center and community level. Specific results include:

- Introduced AMTSL to 38 health centers and 50 maternities—the first facilities in the Democratic Republic of Congo to use the intervention—covering more than 50,000 women of reproductive age.
- Trained 50 health agents (100%) and 28 clinicians (85%) in target centers in AMTSL.
- A reported 4,318 (85%) births in these facilities included AMTSL during the project period.
- Educated community members to correctly identify signs of danger during pregnancy, labor and postpartum; several communities put an emergency plan or financing scheme in place for deliveries.

SKILLED BIRTH ATTENDANCE RESULTS PATHWAY

Most common maternal complications can be prevented, or appropriately managed, by an SBA conducting the delivery at a facility or at home. The ACCESS Program supported government policies in Africa and Asia to increase the availability of SBAs, provided training to improve the skills of SBAs, and mobilized communities to increase demand for delivering with an SBA in most of the countries in which it worked. ACCESS worked with pre-service institutions to update their curricula, to strengthen their tutors and clinical preceptors and to upgrade their training sites. The Program produced a new comprehensive learning resource package, *Best Practices in Essential and Basic Emergency Maternal and Newborn Care*, which provides updates on best practices needed to teach faculty and students the most current evidence-based care. The Program worked with in-service partners to train well over 1,000 providers in essential and basic emergency obstetric care and to improve the quality of obstetric services in hospitals and clinics. Hundreds of communities were mobilized to appreciate the need and prepare for delivery with an SBA.

ACCESS helped the Government of Ethiopia reach new targets for training health officers (HOs) on clinical skills in maternal and newborn care to improve maternal and newborn survival. In Nepal, ACCESS supported the government to roll out its National Skilled Birth Attendants Policy by developing pre- and in-service training materials and strengthening the quality of SBA training sites. In Bangladesh, families were counseled and communities mobilized to create birth plans to increase attendance with a skilled provider. In Malawi, the Program upgraded the skills

From Zulaihat Aminu, Mother of Twin Babies from Dawanau Community, Nigeria

"I am grateful to ACCESS for bringing this program to my village. Before, all women in my village including myself do not go to hospital either for antenatal care, delivery or postpartum visits. But as soon as ACCESS-trained female household counselors began to visit me in my house, telling me what to do when pregnant, I and other women in the village started going to hospital. I want to say that I really feel very happy with what the volunteer nurse-midwives are doing to save lives of women in my village. Another area that touched my life and that of my twin babies positively, is the Tallafin Mata Masu Dubara (TMMD) savings club initiated by ACCESS. When my babies were seriously sick, the TMMD in my village loaned me some money to take them to hospital to seek treatment. That single assistance has saved my children and they are now looking healthy."

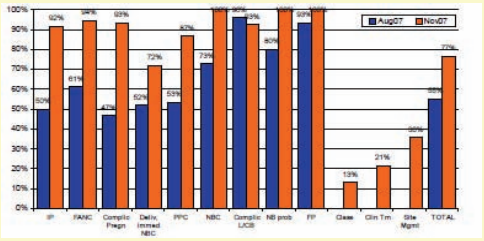
[16] Association du Personnel du Service de Gynécologie – Obstétrique Befelatanana (Madagascar); Midwife Association of Mali (Mali); Society of Obstetrics and Gynecology (Ethiopia); HEV (Democratic Republic of Congo); Organization for Health, Education and Research Services, and Community Capacity Building Initiative (Kenya); Regional Prevention of Maternal Mortality (Burkina Faso); Family Care International (Burkina Faso).

Nepal—Standards Help New Training Sites to Improve Performance

After their selection by the National Health Training Centre as an SBA training site, staff at Baglung District Hospital participated in an ACCESS-led quality improvement (QI) process. An initial assessment using the QI tools yielded a total score of 70% on nine clinical tools, after which staff participated in a workshop to develop action plans to address gaps.

Medical Superintendant Dr. Tarun found the QI tools useful in preparing him and his staff for SBA in-service training. In particular, he cited the verification criteria as helpful in identifying the exact cause of not meeting a standard and in developing action plans to eliminate or reduce the cause. He carried the prepared action plan in his pocket at work and reviewed it regularly with staff to assess progress.

A later assessment using the QI tools showed significant improvements, and the site had reached 91% on the nine clinical tools. In addition, staff had started working on the clinical training tools for a total score of 77%. Staff presented their accomplishments during the November progress sharing workshop, noting they had been able to implement the majority of their action plan.



of midwifery faculty in every pre-service school in the country, and in Nigeria, the Program developed nationally endorsed performance standards for emergency obstetric and newborn care (EmONC) for the hospital and primary health center levels. In Rwanda, ACCESS improved skilled birth attendance by training more than 150 health care providers and CHWs in EmONC. Results of this training demonstrated that 92% of hospital providers in the sample practice all three steps of AMSTL as opposed to 17% at baseline.

ACCESS introduced and/or expanded skilled birth attendance programs in 15 countries.[17]

Most ACCESS achievements along the SBA pathway are presented in the country briefs found later in this report. This section highlights a regional effort in Africa to improve pre-service education and a pilot project in India to demonstrate that delivery of life-saving skills by auxiliary nurse-midwives (ANMs)—combined with community mobilization—improves access to and use of key MNH services.

A Regional Approach to Strengthening Pre-service Education in Africa

Starting in 2006, ACCESS in collaboration with WHO/AFRO implemented a multi-country pre-service midwifery strengthening activity to support efforts to accelerate the reduction of maternal and neonatal mortality and morbidity. Over the lifetime of the project, tutors and preceptors from four countries (Ethiopia, Ghana, Malawi and Tanzania) participated in technical updates and clinical skills standardization courses in BEmONC to improve their knowledge and practices, and in Effective Teaching Skills courses to improve their clinical training skills. In addition, the Program strengthened clinical training sites and supported use of clinical training skills labs. Tutors also participated in curriculum design workshops so they could participate in reviewing and revising curricula in their own countries. Through these efforts, a pool of resources has been built within each country that will strengthen pre-service midwifery education leading to more prepared and qualified midwives graduating from each country's midwifery schools.

[17] Afghanistan, Cameroon, Ethiopia, Ghana, Guinea, Haiti, India, Malawi, Mauritania, Nepal, Niger, Nigeria,, Rwanda, Tanzania and Togo

Specific achievements include:

- 132 pre-service tutors/preceptors from four participating countries updated in BEmONC (22 in Malawi, 38 in Tanzania, 36 in Ethiopia and 36 in Ghana). Each received a follow-up visit to reinforce use of their newly acquired knowledge and skills.
- 34 tutors and preceptors trained in Effective Teaching Skills, approximately eight in each country.
- Five clinical training sites strengthened, one each in Tanzania, Malawi and Ethiopia, and two in Ghana. Strengthening includes supporting facility with basic supplies but also provision of supportive supervision visits and quality improvement using the Standards-Based Management and Recognition (SBM-R) approach.
- 209 hospital providers/staff received BEmONC updates as a part of site strengthening activities.

From Susan Wright, Senior Advisor, HPN, USAID/Ghana

"The midwives [in Ghana] were effusive about the importance of the training they had received, and I noted that they put as much attention on interpersonal communications as on clinical procedures. Infection prevention was also clearly a priority for them."

- A total of 14 stakeholder meetings were held in Ethiopia, Ghana, Malawi and Tanzania. These meetings brought together key midwifery stakeholders, including representatives from respective MOHs, Nurses and Midwives Councils, WHO, UNFPA and ICM.
- Midwifery curriculum revisions undertaken in all four countries.
- Dedication of field funds in Tanzania and Malawi to scale up the initiative in each country.
- Learning resource package, *Best Practices in Essential and Basic Emergency Maternal and Newborn Care*, completed and disseminated to country programs and at stakeholder meetings in Ethiopia, Ghana, Malawi and Tanzania. This package can be adapted for use in pre-service and in-service programs for skilled providers and addresses the continuum of care from ANC through postpartum and postnatal care, including PPFP, MIP and PMTCT.
- An evaluation of the regional approach identified challenges in reaching sufficient numbers of tutors/preceptors and in providing supportive supervision; however the following benefits were noted:
  - There was opportunity for sharing of experiences, so that participants could acquire information about approaches or strategies being implemented in countries other than their own.
  - A platform for cross-country collaboration was established, creating the potential for further cross-fertilization of educational and clinical ideas, and the development and mentorship of midwifery leaders.
  - Regional training activities focused on standardization of practice, which is intended to flow over into country-based approaches to clinical service delivery.

Increasing Skilled Birth Attendance in Underserved Communities in India

In Jaharkhand, India, where skilled attendance at birth is among the lowest in the country, ACCESS worked with the state government and its implementing partners to operationalize new Government of India (GoI) guidelines to expand the skills of ANMs and reposition them as community midwives. ACCESS developed and field-tested competency-based training materials for a 12-week course on the GoI-mandated skills set for ANMs. ANM training centers were strengthened and equipped along with two hospitals and three PHCs as clinical training sites. A total of 58 ANMs were trained in the 12-week curriculum. In parallel, 223 communities and 2,600 community members were mobilized to take action to increase access to skilled care at birth. An evaluation of this approach demonstrated the following results:

- The 12-week training course produced competent SBAs in the experimental group, specifically related to partograph use, AMTSL practice and newborn resuscitation.
- A significant improvement in knowledge and practice of BP/CR for pregnant women and recent mothers—including clean cord care, drying and wrapping, and delayed bathing.
- A significant increase in the proportion of births attended by ANMs from 5% to 13%.

As a result of ACCESS work, the Indian Nursing Council developed a national strategic plan to establish national- and state-level resource centers to support improved capacity of ANM training centers at the district level.

NEWBORN RESULTS PATHWAY

To address the nearly 40% of global child deaths that occur each year during the first month of life, the ACCESS Program worked to expand interventions that prevent and manage the major causes of newborn death: infection, pre-term birth and asphyxia.

Resources and Partnerships

ACCESS laid the groundwork for strengthening newborn health partnerships and future relations through its involvement with MotherNewBorNet and collaboration with the WHO South-East Asia Regional Office (WHO/SEARO). In 2005, the Program collaborated with WHO/SEARO to conduct a "Continuum of Care for Maternal and Newborn Health" workshop in Bangkok, Thailand. The workshop focused on country- and regional-level interventions for MNH, and gave particular attention to newborn health, skilled birth attendance, and the human resource issues and other constraints affecting MNH programming. In attendance were 50 participants from 11 countries, including Cambodia (from the Regional Office for the Western Pacific) and Afghanistan (from the Regional Office for the Eastern Mediterranean). Subsequently, in collaboration with WHO/SEARO and the WHO Regional Office in Bangladesh, ACCESS provided support to develop and help facilitate a five-day training course to strengthen the capacities of trainers so that they can replicate the training. Attendees developed follow-up action plans, including national-level training in Bangladesh and Nepal.

ACCESS introduced and/or expanded newborn care programs in 16 countries.[18]

Nepal—Kangaroo Mother Care Saves Low Birth Weight Twins

At a maternity home in Kathmandu, Mrs. Rai gave birth to low birth weight fraternal twins—the boy weighed just 1.68 kg and the girl 1.98 kg. At four days old, Mrs. Rai and her husband brought the twins to Kathmandu Medical College, where ACCESS-trained staff taught both parents KMC. After 17 days of this care, both babies had gained weight, the boy up to almost 2 kg and the girl to 2.2 kg. When the Rai family returned home, they continued to receive support and advice from hospital staff. Now, at six months old, the Rai boy has reached 7 kg and the girl 6.5 kg, and both are up-to-date on their immunizations (with the exception of the measles vaccination).

In 2005 and 2006, the Program participated in the Asia Region USAID MotherNewBorNet meeting in New Delhi, India. Participants learned about state-of-the-art interventions and research, and shared innovative

[18] Afghanistan, Bangladesh, Cambodia, Cameroon, Ethiopia, Ghana, India, Kenya, Malawi, Mauritania, Nepal, Niger, Nigeria, Rwanda (KMC), Tanzania and Togo

SAVING NEWBORN LIVES BY INCREASING USE OF SKILLED CARE IN RURAL INDIA

For women like 35-year-old Mercila Hembrom in rural Jharkhand state in India, the value of skilled midwifery care is evident—both she and her son are alive and well. For her previous five pregnancies, Mercila sought ANC from the local ANM named Sangita Kumari, but had the local Dai, or traditional birth attendant (TBA), deliver her at home. Sadly, she lost her last child soon after childbirth.

In this pregnancy, Mercila learned that Sangita had received a recent training on pregnancy, childbirth and newborn care. Sangita was one of the 37 ANMs trained by the ACCESS Program in Dumka on maternal and newborn care. During Mercila's sixth pregnancy, she met a community worker—Ms. Mary Mina Hembrom—who gave her friendly advice whenever they would meet. In this way, Mercila and her family learned about the importance of having a trained, skilled provider during birth, and the danger signs for mother and baby.

When Mercila went into labor, her husband called Sangita. Within an hour, she arrived with her equipment and drugs and assessed Mercila's progress. After a long delivery, a baby boy was born; however, he was blue and not breathing. Sangita quickly cleared the mucus from his mouth and nose, and dried and covered him. She then separated the baby by clamping and cutting the cord, and began resuscitating him with a bag and mask. After 20 minutes, the baby was breathing normally and stable. During this time, Sangita had also cared for Mercila, ensuring she took misoprostol and performing active management of the third stage of labor.

Sangita stayed with the mother and baby to provide immediate postpartum care, initiate breastfeeding, and explain the postnatal and newborn danger signs. During the next week, she came back to check on Mercila and her son three times. Mary Mina, the community worker, also visited the mother at home and counseled her on exclusive breastfeeding and family planning.

Today, Mercila is very happy with her seven-month-old son and is thankful for the services provided by Mary Mina and Sangita. Her story highlights ACCESS's work in Dumka and illuminates the numerous opportunities to save lives with SBAs and community mobilization. ANMs, once trained, have been able to provide community-based maternal and newborn care competently and increase access to and use of these services. Moreover, women, families and communities in Dumka have quickly learned about maternal and newborn care, and have been willing and able to seek services, plan for childbirth, and be prepared for complications.

approaches to MNH. Participants also discussed challenges for scaling up evidence-based interventions to address maternal and newborn deaths in the community, and identified gaps in Program work and ways to overcome them. Technical experts joined together to address the issue of prevention and management of low birth weight (LBW) babies in the community, including overviews on global and regional LBW issues, the role of KMC, and findings from a community-based research program in Bangladesh. To follow up on the meeting, ACCESS worked with USAID programs in Asia to accelerate uptake and scale-up of programs for PPH and community-based maternal and newborn care, particularly to address infections.

In Phnom Penh in 2005, the Cambodia MOH joined ACCESS and other partners (USAID, WHO, UNFPA, UNICEF, PATH, Reproductive and Child Health Alliance, Partners for Development, University Research Corporation, Reproductive Health Association of Cambodia, CARE, MEDiCAM and BASICS) to hold a national workshop on MNH for approximately 150 participants. The workshop served as a technical update in evidence-based MNH, and relevant experiences and programs from the region were also highlighted. Participants included policymakers, clinicians and administrators from throughout Cambodia, as well as representatives from the partners cited above. The Program contributed to the Latin America and the Caribbean Regional Strategy and Action Plan on Neonatal Health within the continuum of maternal, newborn and child care through its collaboration with the Pan American Health Organization (PAHO),

USAID, BASICS, the CORE Group and MOHs. ACCESS also served as a member of the Latin American and Caribbean Newborn Health Alliance, an interagency group that promotes newborn health within a reproductive, maternal and child health continuum, with a specific focus on the most vulnerable and marginalized population groups.

In 2007, ACCESS contributed an influential article to *MotherNewborNews* which described the state of the art in facility- and community-based KMC, and also reviewed common concerns and challenges. This widely disseminated article outlined a road map for scaling up a comprehensive KMC program.

The Program worked with host governments in selected developing countries to implement and scale up facility-based KMC in hospitals and health centers, with the overall goal of reducing neonatal mortality through improving care for LBW newborns using KMC. ACCESS either introduced and laid the foundation for expansion of KMC, or built upon existing pilot/demonstration sites to further expand KMC services. This section describes the KMC program approach, results and lessons learned from experience in five countries (Ethiopia, Malawi, Nepal, Nigeria and Rwanda).

KMC Program Approach

While there was some variation from country to country, the general approach, as well as a number of specific inputs, was common to all five programs, namely to:

- Create awareness and local ownership through dialogue with key stakeholders (MOH, professional associations and donors)
- Work in partnership with the MOH and other NGOs to develop an introduction or expansion strategy
- Establish a national KMC technical advisory or working group
- Identify a local pediatrician or neonatologist to serve as KMC champion
- Support development of a national KMC policy and/or service guidelines
- Support adaptation of ACCESS global KMC training manual and associated job aids for in-service training, either as a stand alone training or integrated with the existing national MNH manuals
- Support establishment of a core group of national KMC trainers
- Support establishment of KMC units at selected hospitals by training service providers and providing basic newborn care equipment such as beds, nasogastric tubes, caps and weighing scales

Muhima Hospital, Rwanda

KMC Results

Table 1 below summarizes the Program's key achievements in its effort to introduce and/or expand KMC services in the five target countries. Table 2 shows ACCESS scale-up across the HIDN results pathways.

Table 1: ACCESS Key Achievements

COUNTRY	RESULTS
Malawi[19]	❑ Expanded KMC from three to seven hospitals ❑ Introduced KMC services to five health centers ❑ 414 newborns received KMC ❑ Nearly all central, district and mission hospitals have initiated KMC
Nepal	❑ Incorporated KMC with MOH national LBW care guidelines ❑ Introduced KMC to five hospitals with direct ACCESS funding ❑ Introduced KMC to two central hospitals due to ACCESS awareness creation ❑ Certified seven national KMC trainers ❑ Trained 112 service providers
Nigeria	❑ Established KMC sites in four hospitals ❑ Developed 15 trainers ❑ Trained 62 service providers ❑ Currently, KMC expansion is continuing by other development actors using materials developed by ACCESS
Rwanda	❑ Introduced KMC services to eight hospitals ❑ Developed 15 trainers ❑ Trained 37 service providers ❑ 477 newborns received KMC services ❑ Average daily weight increased from nine to 28 grams ❑ Length of hospital stay decreased from 26 to 19 days
Ethiopia[20]	❑ KMC expanded from one to eight hospitals ❑ Developed 13 trainers ❑ Currently expanding KMC services to 22 health centers and two hospitals in 2010 through Save the Children's SNL Program

[19] KMC service guidelines and training materials were already developed in Malawi prior to the ACCESS Program.
[20] KMC was already a national policy in Ethiopia prior to the ACCESS Program.

Table 2: ACCESS Scale-up across HIDN Pathways

ACTIVITY TITLE	PY 1 & 2 FY05 AND FY06	PY 3 FY07 (FY06 $)	PY 4 & 5 FY08 AND FY09	TOTAL NUMBER OF COUNTRIES INVOLVED
Introduction and/or expansion of focused ANC within EMNC	6- Burkina Faso Cameroon Haiti Madagascar Rwanda Tanzania	8- Haiti India Kenya Madagascar Nigeria Tanzania Uganda Zambia	10- Afghanistan Ethiopia India Kenya Madagascar Malawi Nigeria RSA Rwanda Tanzania	15 Total: Afghanistan Burkina Faso Cameroon Ethiopia Haiti India Kenya Madagascar Malawi Nigeria Rwanda South Africa Tanzania Uganda Zambia
Introduction and/or expansion of PPH prevention programs into countries	3- Cameroon Haiti Nepal	10- Afghanistan Cameroon Democratic Republic of the Congo Mauritania Haiti India Nepal Niger Nigeria Togo	14- Afghanistan Cameroon DRC Ethiopia Ghana India Kenya Malawi Mauritania Niger Nigeria Rwanda Tanzania Togo	14 Total: Afghanistan Cameroon DRC Ghana Haiti India Kenya Malawi Mauritania Nepal Niger Nigeria Tanzania Togo

ACTIVITY TITLE	PY 1 & 2 FY05 AND FY06	PY 3 FY07 (FY06 $)	PY 4 & 5 FY08 AND FY09	TOTAL NUMBER OF COUNTRIES INVOLVED
Introduction and/or expansion of SBA programs into countries	2 Cameroon Haiti	12- Afghanistan Cameroon Ghana Haiti India Mauritania Malawi Nepal Niger Nigeria Togo Rwanda (Safe Birth Africa)	15- Afghanistan Cameroon Ethiopia Ghana Guinea Haiti India Malawi Mauritania Nepal Niger Nigeria Rwanda Tanzania Togo	15 Total: Afghanistan Cameroon Ethiopia Ghana Guinea Haiti India Malawi Mauritania Nepal Niger Nigeria Rwanda Tanzania Togo
Introduction and/or expansion of newborn care into countries	3 new countries with FY 05 core funds and Mission funds	11- Afghanistan Bangladesh Cameroon India Kenya21 Mauritania Nepal Niger Nigeria Rwanda (KMC) Togo	16- Afghanistan Bangladesh Cambodia Cameroon Ethiopia Ghana India Kenya Malawi Mauritania Nepal Niger Nigeria Rwanda Tanzania Togo	16 Total: Afghanistan Bangladesh Cambodia Cameroon Ethiopia Ghana India Kenya1 Malawi Mauritania Nepal Niger Nigeria Rwanda (KMC) Tanzania Togo

[21] Kenya was covered through work under the ACCESS-FP associate award.