into good hands

progress reports from the field

UNFPA

SAFE

contents

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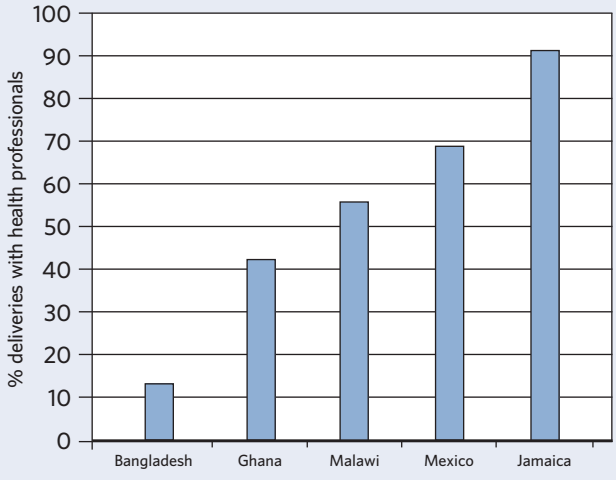
introduction

This booklet, a companion to the Maternal Mortality Update 2004, documents research and interventions to improve skilled care at birth throughout the developing world. It includes an overview of efforts by UNFPA and its partners in policy and advocacy, training, health system improvements and community mobilization as well as summaries of SAFE strategies developed in five countries.

Highlights of UNFPA's efforts also reveal the range of approaches and entry points required to address the various constraints to providing skilled delivery care that arise in different contexts. UNFPA interventions in this area include technical and financial support for training programmes, procurement of equipment and supplies for obstetric care, and collaboration with governments in the development of policy and protocols regarding skilled care. These interventions have been integrated into national programmes to ensure optimal levels of support and coordination. SAFE's research in Bangladesh, Ghana, Jamaica, Malawi and Mexico clearly illustrates the range of problems that may be encountered in different contexts. These studies also emphasize the need to identify strategies to overcome specific barriers and constraints.

PROPORTION OF DELIVERIES WITH HEALTH PROFESSIONALS IN SAFE COLLABORATING COUNTRIES



SOURCE: SAFE, University of Aberdeen

Taken together, the examples in this report show that making skilled attendance universally available is a complex process involving health-care systems as a whole. To meet the challenge of saving mothers' lives, the lessons learned and evidence captured from these ongoing projects should be used to refine future efforts. Moreover, successful projects should be scaled up to become national programmes.

skilled attendance at birth: UNFPA country support in 2002-2004

Ensuring skilled care for all births is a prerequisite for making sure that those women who develop complications can get timely emergency obstetric care.

Skilled care can be provided in a variety of settings: at home and in health centres and public or private hospitals. While the setting for skilled care may vary from place to place, the support of a reliable health system is essential for safe deliveries. Shifting births to facilities has generally been a reliable strategy for reducing maternal deaths, but for some countries, especially those with large rural populations and few health professionals, this may not be feasible in the short term. Regardless of the approach, the key to saving lives is the presence of a skilled provider backed by a health system that facilitates successful treatment of obstetric complications.

UNFPA is committed to collaborating with its partners – NGOs, donors, country governments and civil society – in developing and implementing a joint vision and strategy regarding skilled attendance at birth for all regions of the world where safe motherhood is not yet a reality. In all regions, UNFPA supports strategies and activities to increase skilled care at birth. The following section describes policies, strategies and activities to improve delivery care that have been adopted by countries and supported by UNFPA Country Programmes in 2002 and 2003. The range and combination of approaches reflect the diversity of economic, social and political contexts among regions and within countries. A few countries have adopted an interim approach that includes the training and deployment of community health workers who can provide a limited number of life-saving skills during home deliveries at the village level. Additionally, some countries are establishing close partnerships with traditional birth attendants and drawing upon their important social roles in the community to encourage women to deliver with health professionals in health facilities. The local context – which takes into consideration such things as the availability of resources, political commitment and cultural norms and practices – plays a crucial role in shaping strategies to improve delivery care. While there is no single correct approach, we need to maintain our focus on increasing access to skilled attendance at birth.

This report draws upon UNFPA Country Office annual reports from 2002 and 2003 as well as information obtained directly from Country Offices. Although many countries have made significant achievements, we were able to include just a fraction of them in this report. UNFPA's geographic divisions assisted in selecting these examples of our work.

africa division

In sub-Saharan Africa, a region that accounts for nearly half of the 529,000 maternal deaths each year, the need for skilled attendance is acute. Between 1990 and 2000, the percentage of deliveries with skilled attendants in the region only increased from 40 per cent to 43 per cent, according to population-based surveys. Many factors complicate women's access to skilled care in this region. Often women give birth at home because of the prohibitive cost of medical care or cultural beliefs that promote home-based delivery. Some simply lack confidence in the health system. Difficult geographic terrain and limited transportation may present obstacles to reaching a skilled attendant. The dearth of skilled providers is another constraint. The situation is exacerbated by resource-strapped health systems that offer few incentives for skilled providers to practice in rural or isolated areas. The devastating impact of HIV/AIDS on the health workforce further limits the pool of skilled providers. In certain contexts, traditional birth attendants are more trusted than medical professionals since they are familiar and respected members of the community.

In February 2004, many global partners – including EngenderHealth, Family Care International, Family Health International, the Global Partnership for Safe Motherhood and Newborn Health, JHPIEGO, UNFPA, UNICEF, USAID and WHO – convened in Harare, Zimbabwe to develop a road map for meeting the Millennium Development Goals in the region. Improving skilled attendance at birth was identified as a primary goal. Strategies to attain this goal include strengthening the referral system, advocacy to secure political commitment and resources (including human resources) for maternal health, and increasing partnerships among government agencies, NGOs, educational establishments and professional associations. Many countries have already adopted numerous strategies to address skilled care at birth. Health sector reform, in the context of sector-wide approaches, is emerging as an opportunity to fund and deploy human resources more equitably among urban and rural regions. Training is another crucial strategy employed by many countries. Recognizing the important role played by traditional birth attendants within the community, many countries make efforts to include them in safe motherhood interventions as points of referral to health-care facilities and sources of information. Ideally, continuing dialogue among stakeholders will foster a regional consensus on strategies and activities to improve delivery care and reduce maternal death and disability.

Policy and Advocacy

Botswana, **Burundi**, **Senegal**, **Uganda** and **Zimbabwe** have developed policies defining a skilled attendant and strategies to increase the proportion of deliveries they attend. In **Burundi** in 1995, only 9.5 per cent of deliveries occurred in health facilities. Since then, Burundi's reproductive health programme has designated strategies to increase the proportion of attended births, such as enhancing the technical capacity of personnel and facilities and promoting the use of partographs during labour. With support from UNFPA, standards for reproductive health services, including those related to skilled attendance, were developed by Burundi's Ministry of Health. In **Senegal**, the National Action Plan for Maternal Mortality specifies that only physicians, midwives or nurses are qualified skilled attendants. Regional training schools were opened for midwives with financial support from

the Japan International Cooperation Agency. **Uganda's** National Health Policy, developed in 1999, limits its definition of a skilled attendant to formally trained health providers such as doctors and nurse midwives. For the last 20 years, however, fewer than 40 per cent of births have had skilled attendants. In response, the Government of Uganda, in collaboration with UNFPA, is focusing on training personnel, upgrading infrastructure, providing emergency obstetric care and strengthening the referral system for obstetric emergencies. In **Zimbabwe**, the National Safe Motherhood Policy defines skilled birth attendance as essential obstetric care (including emergency obstetric care and ante- and post-natal care) provided by a nurse-midwife, clinical officer or medical doctor at a health facility. This definition specifies that basic and comprehensive emergency obstetric care, the availability of blood and blood products, and a reliable referral system for obstetric emergencies should be in place. In 2003, Zimbabwe's Ministry of Health integrated reproductive health care with maternal and child health programmes into its strategy for increasing skilled care at birth. In **Botswana**, the Safe Motherhood Protocols refer to skilled care as supervised deliveries attended by a doctor or trained midwife. Strategies to improve delivery care include the development of infrastructure, investment in health personnel and community outreach. This focused response contributed to an increase in supervised deliveries from 66 per cent in 1984 to 87 per cent in 1996.

Training for Skilled Attendants

Training of health personnel continues to be one of the most important regional strategies to increase the proportion of women receiving skilled care during delivery. UNFPA has actively supported this through the development of training protocols and curricula as well as financing personnel to attend national training sessions. In 2003, the Ministry of Health in Burundi initiated training of a cadre of midwives in the provision of sexual and reproductive health services including obstetric care. UNFPA also supported the training of physicians at primary and provincial-level hospitals. In **Senegal**, UNFPA has supported training of health providers at various levels. In UNFPA's two pilot provinces of Tambacounda and Kolda, 89 providers from the health-post level received training in basic obstetric care. At the health-centre level, 25 providers received training in post-abortion care, blood management, neonatal resuscitation and obstetric echography. Senegal's Ministry of Health has leveraged resources from external donors for training and emergency obstetric care to Zinguichor, a neighbouring province. **Uganda's** policy on training reflects the Ministry of Health's priority on skilled attendance. While nurses and midwives were previously trained separately, all nurses are now required to have midwifery training. The Ministry of Health also mandates regular in-service training as a part of continuing education for promotion. The number of medical schools in the country has increased from one to three, and doctors are increasingly specializing in obstetrics and gynaecology. In **Zimbabwe**, UNFPA supported training of trainers in post-abortion care. Nurses and midwives are the main providers of maternity care in **Botswana**. UNFPA supported training of nurses in midwifery skills as well as in-service life-saving skills training for midwives and doctors. UNFPA also contributed to refresher training for doctors on Caesarean sections.

Building an Enabling Environment

In **Burundi**, UNFPA provided maternity kits and equipment and supplies for obstetric care to health centres and primary-level hospitals, some of which serve internally displaced persons. UNFPA also supported the enhancement of data collection tools and the supervision of 25 facilities that perform deliveries. In **Senegal**, providing equipment for basic emergency obstetric care has become an important strategy for enhancing the working environment. In **Uganda**, a total of 961 health centres have been staffed with doctors and nurses and upgraded to perform emergency obstetric care. UNFPA also supported creation of a referral system for obstetric emergencies called RESCUER. This includes a radio communication system, ambulance services and improved quality of care at health units. Piloted in one district in 1997, RESCUER now covers ten districts, and four more are preparing to implement the programme. UNFPA procured and distributed equipment for basic emergency obstetric care in rural health centres in **Zimbabwe**. Although nearly 86 per cent of **Botswana's** people live within 15 kilometres of a health facility, access to services is still problematic in some remote areas. As part of an ongoing, multi-sectoral approach, Botswana is developing new health units and upgrading existing ones. UNFPA has supported this process through the procurement of equipment. Most facilities have been equipped with radio communication equipment and a vehicle for emergency transport.

Community Mobilization

Involving the community is another strategy many countries are adopting to improve skilled care at birth. In **Burundi**, community activists have sensitized people about the need for skilled care and getting women to health centres for delivery. In **Senegal**, imams are promoting the importance of safe motherhood. Communities in **Uganda** participate in a system that refers and transports women to centres offering emergency obstetric care. Recognizing the important role played by traditional birth attendants in communities, UNFPA supported a community-based programme in **Zimbabwe** aimed at building their capacity to recognize the symptoms of obstetric complications and refer women to the nearest health clinics when necessary. Family welfare educators in **Botswana** have played an important role in educating the community regarding safe motherhood and encouraging women to deliver in health facilities. UNFPA also supported information, education and communication campaigns to raise awareness and promote use of services within the community.

latin america and the caribbean division

At 190 deaths per 100,000 live births, maternal mortality in Latin America and the Caribbean is low compared to other regions of the world. However, most of the region's 23,000 maternal deaths each year could be avoided. The disparities in maternal death among countries are striking. High maternal mortality rates are found in Haiti (550 deaths per 100,000 live births) and Bolivia (390 deaths per 100,000 live births), while Chile, Costa Rica, Cuba, Mexico and Panama have maternal mortality rates below 100 per 100,000 live births. Disparities exist within countries as well, with poor and indigenous populations often having the highest rates of maternal death. In 2002, the Pan-American Health Organization (PAHO) launched a Regional Task Force to develop an inter-agency consensus on reducing maternal mortality in the region. Collaborating with organizations such as Family Care International, the Inter-American Development Bank, the Population Council, UNFPA, UNICEF, USAID and the World Bank, the Task Force is developing a joint vision on addressing maternal death in a cohesive and unified manner within countries and among agencies. The five priority areas of action identified by the Task Force are supporting national and municipal actions, making quality maternal health services available, increasing public demand for services, building partnerships and ensuring financial support and sustainability of maternal health-care programmes. Using lessons learned from developed and developing countries, the Regional Interagency Strategic Consensus in 2004 in Santa Cruz, Bolivia, has identified skilled attendance at birth as a priority. This emphasis on skilled care was echoed at a regional UNFPA workshop on maternal mortality reduction in Tegucigalpa, Honduras in May 2004. Twelve UNFPA Country Offices, as well as representatives from the Fund's regional and technical support divisions, worked toward a plan for implementing the strategy in each country.

Advancing maternal health through partnerships at the regional, national and local levels is being promoted as an essential way to increase the proportion of women who receive skilled care at birth. This process has been facilitated by strong political commitment at national and regional levels to address maternal mortality reduction. The strategy calls for working with broad coalitions, including governments, universities, professional associations, teaching institutions, NGOs and consumer associations. Regional characteristics are also shaping strategic approaches. Since 1990, the region has experienced a 12 per cent increase in skilled attendance, a 26 per cent increase in deliveries performed by doctors and a 54 per cent increase in Caesarean section deliveries. However, high rates of institutional delivery, as high as 79 per cent on average, do not necessarily mean women are actually receiving good care. High rates of Caesarean section, up to 40 per cent of deliveries in some urban areas, suggest the overuse of this procedure. Quality of care has thus emerged as a crucial issue. To address the lack of skilled providers, some countries are considering investing in the creation of a cadre of professional midwives and expanding the range of functions that midwives can legally perform. Policy makers are also exploring ways to integrate safe motherhood services into existing reproductive health programmes.

Policy and Advocacy

Bolivia, **Ecuador** and **Peru** are implementing maternal health coverage through various forms of health insurance policy. **Bolivia** is one of the first countries in the region to provide free skilled care at birth for all women. Under the Mother-Child Universal Insurance scheme, free medical care is guaranteed for pregnancy, delivery and the post-partum period. The National Programme of Sexual and Reproductive Health, strongly supported by UNFPA, includes a plan on safe motherhood with specific measures to improve skilled attendance at birth and emergency obstetric care. Since 1998, skilled care in rural areas has increased from 40 per cent to 48 per cent. The percentage of deliveries at health facilities has increased from 56 per cent to 57 per cent. **El Salvador**, **Honduras** and **Nicaragua** have also developed specific policies for addressing this issue. **El Salvador's** policy focuses on training health care personnel and developing national protocols for managing pregnancy and delivery. In the last 10 years, Honduras has reduced maternal mortality by 40 per cent through strategies such as upgrading institutional and staff capacity, organizing communities and improving infrastructure. Skilled attendance at birth increased from 42 per cent in the mid-1980s to 55 per cent in the mid-1990s. In **Nicaragua**, all pregnant women have the right to care before, during and after delivery. Through its Maternal and Child Health Programme, the government has developed regulations to ensure that all deliveries are attended by trained personnel. The government has also issued protocols for obstetric care as part of the national response to reduce maternal mortality.

Training for Skilled Attendants

In **Bolivia**, **El Salvador**, **Honduras** and **Nicaragua**, UNFPA actively supported obstetric training. In **El Salvador**, UNFPA contributed to training doctors and nurses in public and private facilities in nine out of 14 health districts. In two districts, UNFPA supported the training of midwives. In **Ecuador**, community workers received safe motherhood training and midwives received training on high-risk pregnancy.

Building an Enabling Environment

In **Bolivia**, UNFPA conducted a needs assessment in 2003 of accessibility, availability and utilization of emergency obstetric care in 85 referral facilities. UNFPA has provided critical support in the region through the procurement of equipment and supplies for maternal health care. In **El Salvador**, UNFPA supported a situation analysis of obstetric emergencies at 28 maternity centres. In collaboration with Columbia University's Averting Maternal Death and Disability (AMDD) programme, UNFPA established a pilot emergency obstetric care intervention in three districts of **Nicaragua**. By 2003, the need for emergency obstetric care was met in all three pilot districts.

Community Mobilization

Recognizing that maternal death is most concentrated among poor and indigenous populations, many countries in the region are developing strategies to improve health-care services in underserved and rural areas. In addition to addressing the accessibility of facilities, these strategies also address the cultural acceptability of service protocols and staff behaviour and attitudes. In **Bolivia**, UNFPA supported an important study on provider and community perceptions of cultural barriers to skilled care. This information will inform future strategies to increase the proportion of attended births, particularly among underserved and indigenous communities.

asia and pacific division

The Asia and Pacific region is characterized by striking differences in skilled attendance at birth among countries. Nearly all births (98 per cent) in Sri Lanka are attended by a skilled provider. In Malaysia, almost 90 per cent of births take place in health institutions. In many of the larger countries, however, the proportion of births attended by skilled providers is lower: 42 per cent in India and 13 per cent in Nepal. In Afghanistan, only 8 per cent of births are attended by a skilled provider. With such variation among and within countries, developing a consensus on appropriate strategies is an ongoing process. In October 2003, WHO hosted a regional workshop on the progress of maternal mortality reduction in Asia and the Pacific in Manila, Philippines for country representatives and partner organizations including the Asia Development Bank, Japan International Cooperation Agency, UNFPA, UNICEF and USAID. The purpose was to review lessons learned in the last four years and to draft national plans of action for safe motherhood. The low level of skilled birth attendance in the region was a central part of the agenda. Participants discussed strategies to improve skilled birth attendance, including the replacement of traditional birth attendants. Defining the roles and competencies of skilled providers according to the local context was identified as an important component of such strategies. Political commitment in upgrading providers' skills and referral capacity was also emphasized.

In April 2004, a UNFPA regional workshop on skilled birth attendants in South and West Asia was held in Islamabad, Pakistan to develop a joint vision for improving skilled care in the region. Many countries insisted on flexibility in defining a skilled birth attendant depending on local context and scope of practice. The length and quality of training necessary to prepare a skilled birth attendant for obstetric care emerged as important issues. Defining appropriate roles of traditional birth attendants was also discussed. Home deliveries predominate in much of Asia. For countries with large rural populations that have limited access to quality services, providing skilled attendants with the competencies required to perform deliveries at home has emerged as an important area of strategy and policy. Bangladesh, India, Indonesia, Nepal and Pakistan are engaged in interim approaches to institutional delivery that support home delivery by community-based birth attendants. While more skilled than traditional birth attendants, community-based birth attendants cannot perform all of the lifesaving skills that professional midwives or nurses with midwifery skills can provide in an enabling environment. In response, country teams have proposed lists that distinguish between emergency obstetric care functions that can be performed by community midwives at home and those requiring referral to a higher level of care. In this context, developing partnerships between skilled birth attendants and communities (including traditional birth attendants and community leaders) has emerged as a way to enhance access to skilled care and institutional delivery. Many countries are also working at the health system level to offer a higher quality of care, upgrade facilities, improve staffing practices and standardize training and supervision systems.

Policy and Advocacy

In **Bangladesh**, increasing the number of skilled providers at all levels of the health system is one of the primary aims of the government's National Maternal Health Strategy. In 2002, the Ministry of Health collaborated with WHO and UNFPA to launch a six-month programme to train community health workers in midwifery. In **India**, the success of an emergency obstetric care pilot programme spearheaded by UNFPA in the state of Rajasthan has been instrumental in charting the maternal mortality reduction strategy for the government's Reproductive and Child Health II programme. In addition, the pilot programme prompted the Rajasthan government to improve blood availability by establishing sub-district-level blood storage centres and initiating anaesthesiology training for doctors. With $105 million from the World Bank, the government is considering the replication of this programme in several other states. The "Making Pregnancy Safer" initiative in **Indonesia** aims to ensure that every delivery is assisted by a trained health provider and that obstetric and neonatal compli-

ISLAMABAD CONFERENCE CONSENSUS ON EMERGENCY OBSTETRIC CARE FUNCTIONS TO BE PERFORMED BY SKILLED ATTENDANTS AT HOME OR IN A FACILITY

Emergency obstetric care functions to be performed by a skilled attendant during home delivery (life-saving skills):

- IV infusion of serum, antibiotics, anticonvulsants (first load of MgSO4) and oxytoxics;
- Active management of third stage of delivery;
- Management of post-partum haemorrhage;
- Recognize incomplete evacuation of placenta and refer to higher level;
- Recognize cervical tears/uterine rupture – stabilize and refer to higher level;
- Recognize bleeding during labour (for example, placenta praevia) – stabilize and refer to higher level;
- Manage convulsions in pre-eclampsia or eclampsia – stabilize and refer to higher level;
- Refer dystocias/malpresentations/prolonged labour;
- Basic neonatal resuscitation (airway, warming, mouth-to-mouth).

Emergency obstetric care functions to be performed by skilled attendant in facility delivery include all of the above, plus:

- Repair of tears;
- Manual removal of placenta;
- Preparation for blood transfusion (refer to higher level);
- Management of eclampsia (refer to higher level);
- Assisted vaginal delivery (vacuum extraction);
- Preparation for Caesarean section (refer to higher level);
- Advanced neonatal resuscitation—management of low birthweight.

cations are managed adequately. Up to 60 per cent of births in Indonesia occur at home, many of them attended by traditional birth attendants. In response, the government has developed an approach called "supervised delivery," in which traditional birth attendants are allowed to help village midwives in normal deliveries. The proportion of births attended by skilled providers has increased from 41 per cent in 1992 to 68 per cent in 2002. In order to improve access to emergency obstetric care, the government initiated a programme to increase the capacity of selected primary health care centres. In **Lao People's Democratic Republic**, the Maternal and Child Health Policy has focused on safe motherhood, including safe delivery and neonatal care, since 1997. UNFPA also supported the development of a core package of reproductive health services that will be available in selected districts of three southern provinces. This package addresses safe motherhood through ante- and post-natal care as well as training in emergency obstetric care for district-level service providers. In 1997, **Nepal** launched a safe motherhood programme as one of its priority areas of action. In 2002, the country introduced a 15-year safe motherhood plan that includes training for providers and important information, education and communication strategies. In **Pakistan**, the Ministry of Health is developing a national maternal health strategy that would address skilled care at birth. UNFPA has also supported the National Committee on Human Development in the finalization of the National Midwifery Project that has been submitted for government approval. In addition, the government is planning a new $45 million reproductive health project that would offer both emergency obstetric care and skilled attendance at birth at the community level.

Training for Skilled Attendants

A training programme for skilled birth attendance in **Bangladesh** aims to place at least one community health worker in each community for at least five years. Under this programme, community health workers receive six months of competency-based training that includes in-class learning and practice in clinical and community settings. In the pilot project that began in 2002, 90 birth attendants were trained and are now working in the field. Since then, the government scaled up the training initiative into a national programme.[1] The programme is under way in 19 districts, and 295 birth attendants have been trained. Another 270 health workers will begin attending births by the end of 2004. In **India**, the pilot programme in Rajasthan has trained 59 teams of doctors and paramedics in basic emergency obstetric care. As a result, there are now 40 facilities in the state with trained medical providers and a supporting paramedic. An infection-prevention training programme was also designed and implemented in Rajasthan. In **Indonesia**, UNFPA collaborated with UNICEF, WHO and the World Bank to support the Ministry of Health in assessing its in-service training programme and developing a training plan for community midwives. UNFPA also supported the government in providing in-service training for more than 800 community midwives working in 43 districts. In **Lao PDR**, UNFPA has played a leading role in training providers to handle obstetric

1 In 1993, the Government of Bangladesh collaborated with UNFPA in a pilot project that integrated emergency obstetric care services into the reproductive health care agenda. Launched in the largely rural Rajshahi District, with an estimated population of 27.5 million people, the project addressed the quality and availability of services within the existing health-centre system through improvements in training, infrastructure, management information systems, supervision for quality assurance and linkages among facilities. This intervention was met with increased utilization of services. Due to the success of the original pilot programme, the government decided to scale up activities to a national level. By 2003, all 64 maternal and child welfare centres in the country had upgraded their services. For more information, read: Gill Z and Ahmed JU (2004). Experience from Bangladesh: implementing emergency obstetric care as part of the reproductive health agenda. International Journal of Gynecology and Obstetrics 85: 213-220.

complications at district hospitals. Training of trainers is anticipated to cover all 17 provinces and one special zone by the end of 2004. In collaboration with Khonkaen University in neighbouring Thailand, the Ministry of Health conducted follow-up training in emergency obstetric care with providers. In **Nepal**, 3.5 months of basic training plus six weeks of refresher training is provided for maternal and child health workers who serve as skilled attendants at the sub-health-post level. In addition to basic training, a six-week curriculum has been developed for in-service midwifery training for staff nurses and auxiliary nurse-midwives who serve as attendants at hospitals, primary health-care centres and health posts. UNFPA supported basic and refresher training for health workers through the provision of obstetric care kits nationwide. In 2003, the Fund also supported basic emergency obstetric care training for doctors and nurses in six pilot districts. In **Pakistan**, UNFPA supported the Women's Health Project, a government initiative that trains community midwives. Still ongoing, this project operates in 20 out of 105 districts. UNFPA has also been active in the development of curricula for midwifery training and the procurement of training equipment.

Building an Enabling Environment

To ensure back-up support and supervision at the community level in **Bangladesh**, the government trains health workers posted at family welfare centres in midwifery skills. In **India**, management information system (MIS) registers and formats were revisited and changes were made to generate information that could be used to assess progress against the UN process indicators. The revised formats have resulted in uniformity in the reporting of these indicators, which will facilitate the monitoring of regional progress in maternal mortality reduction. In **Indonesia**, UNFPA supported the implementation of clinical standards and protocols to promote quality services. UNFPA provided safe delivery kits for the general population as well as for internally displaced persons. Additionally, UNFPA provided reproductive health equipment including blood bank support for some district hospitals. In **Lao PDR**, UNFPA continues to provide equipment and supplies to health facilities in support of the safe motherhood initiative. Special efforts are also being made to improve the referral systems that connect communities to health facilities. In **Nepal**, UNFPA is upgrading and equipping

service facilities and training centres at regional, district and health-post levels. In addition, UNFPA participated in the development of strategies and guidelines for skilled attendants. In **Pakistan**, UNFPA advocates for and funds the deployment of medical staff to very remote areas to provide back-up support.

Community Mobilization

Many countries in the region are committed to fostering a good relationship between communities and health institutions. The importance of traditional birth attendants and the social support they can offer to mothers and families have been emphasized. In **Bangladesh**, locally recruited health workers are often well accepted by communities as skilled attendants. In **India**, workshops with media groups were held to highlight the issue of safe motherhood, generate concern and awareness and mobilize support in rural areas. In addition, local elected leaders have been sensitized to safe motherhood issues, including danger signs in pregnancy and labour, the need for timely referral and the need for blood donation within the community. By December 2003, nearly 1,500 leaders had been oriented. In **Indonesia**, UNFPA supported the government in providing communities with mini-grants to develop emergency transport systems for women with obstetric complications. Several districts have replicated the mini-grants programme because of its success at the village level. UNFPA has also participated in raising awareness about safe motherhood in communities.

division of arab states and europe

Reducing maternal mortality remains a significant challenge for many countries in this region, where increasing poverty and deteriorating health infrastructures limit the availability and quality of maternal health care. In some countries, political crises and natural disasters complicate women's access to skilled care at birth, especially among refugee, mobile and internally displaced populations. Although a regional consensus on strategies and activities to improve skilled care at birth has yet to be developed, individual countries are already taking important steps.

Policy and Advocacy

In **Azerbaijan**, the national reproductive health strategy specifies that only certified medical staff are permitted to provide obstetric services. Still, in the last five years, untrained birth attendants have attended 11 per cent of births and 26 per cent of deliveries have taken place at home. To encourage institutional births, the government has established a network of 26 reproductive health centres. In addition to assisting in the development of the national reproductive health strategy, UNFPA supported the establishment of a national agency to implement and review the strategy. In **Kyrgyzstan**, the frequency of unattended births is increasing, particularly in remote villages with poor transportation systems. Cost of medical care may also be a barrier to institutional care for many women. As of 2004, pregnant women are required to make a co-payment for all medical care received during pregnancy and delivery. Under the national policy on skilled attendance in **Sudan**, the minimum qualification to be a skilled birth attendant requires having completed the 12-month basic midwifery training programme, including examination and certification. A 1999 Safe Motherhood Survey indicated that 57 per cent of births were attended by providers with these credentials, including doctors, midwives and village midwives. With assistance from UNFPA, the government has developed a strategy to place at least one skilled birth attendant in each village. In addition, in response to advocacy from UNFPA, the government has added professional midwives to the Ministry of Health staff payroll. In **Tajikistan**, the National Reproductive Health Strategic Plan addresses skilled attendance at birth. In 2003, UNFPA advocated strongly for and supported the development of the Law on Reproductive Health and Reproductive Rights, which also addresses skilled care at birth. Although **Yemen's** maternal

health policy refers to skilled attendants as doctors, nurses and midwives, nearly 21 per cent of births are attended by traditional birth attendants. UNFPA has supported the government in the development of policy, strategies and standards regarding maternal health, including skilled care at birth. With a maternal mortality rate that ranges between 828 and 921 deaths per 100,000 live births, **Somalia** lacks a clearly defined policy related to skilled care at birth. Only 10 per cent of women received skilled care during either pregnancy or childbirth.

Training for Skilled Attendants

UNFPA has provided critical support for training of medical personnel in **Azerbaijan**. In the 26 reproductive health centres established by the government, UNFPA has assisted in training 568 gynaecologists and 89 midwives. In **Kyrgyzstan**, UNFPA provides technical and financial support in expanding the capacity of the Social Patronage System, comprising trained paramedical personnel who provide various reproductive health services. In 2002, UNFPA trained 425 Social Patronage System workers in counselling pregnant women on safe motherhood issues and provided 385 of them with financial support. In 2003, training medical personnel to manage pregnancy and delivery was initiated. Between 2002 and 2003 in Sudan, a total of 2,220 midwives were certified from the country's 39 midwifery schools, 15 of which were newly established institutions. UNFPA provided scholarships for 800 midwives to attend the training and supported refresher-training courses to improve quality of care. In 2003, UNFPA supported training for gynaecologists and midwives in **Tajikistan**. In **Yemen**, midwives' training has proven to be crucial in improving maternal health care and increasing the number of female service providers. By 2002, 12,000 community midwives had been trained.

Building an Enabling Environment

In **Azerbaijan**, UNFPA supported the establishment of 26 government-funded reproductive health centres with medical equipment and technical support. UNFPA supported seminars for medical personnel in **Kyrgyzstan** on the introduction and implementation of clinical protocols for managing pregnancy and delivery. By 2003, 33 types of clinical protocols regarding safe motherhood were introduced to health workers. In **Sudan**, UNFPA provided safe delivery kits for midwives and assisted in equipping health facilities around the country. UNFPA upgraded the capacity of medical personnel in **Tajikistan** through the provision of medical equipment and literature and audio-visual equipment for training. In **Yemen**, activities have been aimed at enhancing referral and supervision systems. With support from UNFPA, two major maternity wards were rehabilitated in **Sudan**. In addition, UNFPA procured basic medical equipment and drugs for nine health facilities and safe maternity kits for 11 facilities.

Community Mobilization

Identifying barriers to skilled care at birth has been an important part of **Kyrgyzstan's** efforts to reduce maternal mortality. UNFPA supported a national survey on live births registration that also evaluated skilled care services and cultural and financial barriers to these services experienced by women. In **Sudan**, UNFPA assisted in safe motherhood advocacy missions in high-risk districts. UNFPA supported community awareness-raising activities in **Yemen**.

SAFE research: strategies for action

SAFE's research aimed to provide new knowledge on the identification, implementation and evaluation of effective, affordable and equitable strategies to increase skilled attendance at delivery in developing countries. It was undertaken over a two-and-a-half year period in collaboration with five countries – Bangladesh, Ghana, Jamaica, Malawi and Mexico.

SAFE did not implement intervention strategies. Rather, it conducted research on how evidence could be collected and used to devise strategies for improving skilled attendance. The research formulated a systematic methodology to identify the strengths and limitations of a particular country or setting and to fill gaps and address problems.

The involvement of programme planners and policy makers in the process helped generate awareness and interest in the subject and the findings. Already the research has fostered mutual capacity-building and partnerships across developed and developing country institutions involved in safe motherhood activities, especially in policy relevant research.

A SAFE product, the Strategy Development Tool,[2] was used to collect and interpret information and formulate detailed proposals for demonstration projects on skilled attendance. Steering group and stakeholder meetings were held in each country to determine the components of the demonstration projects. In many cases, ministries of health conducted some of the research, and in all cases they were represented in the steering group. This facilitated endorsement of the proposed demonstration protocols by the ministries.

Full support for implementing the proposed strategies at the country level are still anticipated, although many of the strategies developed are being taken up within national programmes. It is only with this vital phase of implementation that the planning efforts can result in action to reduce pregnancy-related deaths.

A model for skilled attendance at delivery in Bangladesh

In Bangladesh only 14 per cent of deliveries are assisted by health professionals, 22 per cent by relatives and almost half by traditional birth attendants. Factors affecting skilled attendance at delivery include a mother's age and education, religion, residence, poverty status and child's birth order. Wealthy women are more likely to deliver in a facility than poor women. Demographic and Health Survey data from 1999 and 2000 revealed that women who used health facilities for other services, such as immunization, contraception and antenatal care, were more likely to deliver in facilities.

Women face barriers to skilled care at different levels. At the individual level, women avoid institutional delivery due to shame, fear of Caesarean sections and death. At the family level, economic constraints are a major barrier. The main decision makers (mothers-in-law and husbands) in the family were the least knowledgeable about different obstetric services available, which actually increased their ultimate expenditures on obstetric care. At the facility level, unfriendly health-care providers, a lack of female doctors and referral problems limit access to formal delivery care.

A number of problems were identified. At the community level, there are few motivational

2 The SAFE Strategy Development Tool is freely available to public health practitioners in developing countries at: immpact@abdn.ac.uk

activities and major financial constraints. At the health system level, qualified health providers are concentrated in urban areas. A lack of specialized obstetric training further limited the pool of skilled providers. Comprehensive emergency obstetric care is available only at divisional and district levels. Shortages of supplies, drugs and equipment prevent health workers from performing their duties and often contribute to the imposition of informal costs. Referral systems are poor due to disorganized and costly transportation between communities and facilities. In addition, facilities lack standardized practices for decision-making, referral and follow-up.

In response, BRAC (formerly the Bangladesh Rural Advancement Committee) developed a strategy to overcome these barriers and complement ongoing activities to:

- Motivate communities to use professional delivery services;
- Encourage community support for getting women to emergency care by increasing knowledge of obstetric services, back-up transportation planning and delivery care insurance schemes;
- Improve the quality of clinical care in facilities through improved record-keeping;
- Increase the pool of skilled attendants in the community.

A detailed three-year demonstration project has been planned to accomplish these objectives.

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Improving delivery care in the Dangbe West District of Ghana

Located in Ghana's coastal savannah zone, the Dangbe West district is one of three national research stations created by the Ministry of Health in the late 1980s to research diseases and inform government health-policy formulation. The station is engaged in a community registration exercise for health insurance that has provided the opportunity to create a database of community residents. This initiative has great potential for longitudinal monitoring of demographic dynamics of the population.

About 44 per cent of Ghanaian women deliver with health professionals. Consultation with key health professionals and community members identified three major problems with the maternal care they receive: lack of staff, poor attitudes among health workers and lack of community preparedness. The first two issues demand long-term and more comprehensive programme strategies. The third could be tackled in a relatively short period of time through adequate and appropriate information, education and communication interventions. The proposal developed for Ghana focuses on better delivery preparedness of women in the community and improvement of the quality of delivery care in facilities.

The Dangbe West District director of health services and her team have agreed to a district-wide trial for the implementation of the proposal. A 24-month demonstration study is planned. Key components will consist of a baseline study, the introduction of several community communication strategies and periodic monitoring of clinical criteria for skilled attendance in facilities. Objectives of the project include increasing community knowledge of obstetric danger signs and encouraging women to develop a birth plan for delivery. The project also aims to increase the number of nurse-midwives trained in essential

obstetric care and ensure that district medical officers can perform comprehensive essential obstetric care. Quality of care will be addressed by focusing on documentation in delivery facilities. Establishing a referral system is another important objective.

Implementation is planned in two subdistricts, with the remaining two subdistricts serving as controls. At the end of two years, a post-test will be conducted to identify if significant improvements in baseline indicators of skilled attendance have occurred in the implementation districts. For further information, please contact the SAFE collaborators in Ghana:

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Strategies for improving delivery care in Jamaica

In Jamaica, 93 per cent of all deliveries take place in hospitals.[3] Nevertheless, the hospital maternal mortality ratio has remained unchanged – at 106 per 100,000 live births – since 1986.[4] The government aims to reduce this to 80 per 100,000 by 2015.

Key problems include staff shortages (with vacancy rates for midwives from 45-70 per cent), inconsistent supply of essential items and client dissatisfaction with long waiting times. The problems all relate to weak institutional capacity. Efforts have been made in the past to address this, but the government only recently instituted a comprehensive strategic framework for reproductive health.[5]

The SAFE Strategy Development Tool was used to assess the level of skilled attendance in Jamaica. Barriers to skilled care were identified and strategies were developed to address them. Instead of developing discrete demonstration projects, country collaborators found it more useful to develop activities and outputs that fit into existing programmes.

Based on consultation with obstetric providers, improvements should address policy, professional training, referral systems, providing an enabling environment and identifying client needs. Main objectives to overcome barriers to skilled care and make the environment more enabling include:

- Improving policies, including guidelines and protocols dictating staff mix, procurement of equipment, space and infection-control mechanisms;

3 Jamaica Ministry of Health. Hospital Monthly Statistical Report. 2001. Kingston, Ministry of Health, 2002.

4 McCaw-Binns A. Access to Care and Maternal Mortality in Jamaican Hospitals: 1993-1995. International Journal of Epidemiology 30 (2001): 796-801.

5 Jamaica Ministry of Health. Strategic Framework for Reproductive Health within the Family Health Programme 2000-2005. Kingston, Ministry of Health, 2000.

- Designing human resource strategies to address low staffing levels and high vacancy rates;
- Improving referral systems with clearer guidelines and feedback mechanisms;
- Addressing client needs by creating an appointment system for outpatient clinics, educating women on reproductive health issues and training staff to improve competencies and quality of care.

Technical Coordinating Committees will be formed at the national and regional levels to ensure the achievement of each objective. Surveillance systems will be set up to provide information and to facilitate monitoring and evaluation of the programme. Operations research will also be conducted where necessary to guide the process of implementation and to evaluate the success of the programmes.

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Overcoming barriers to obstetric care in Malawi

Access to skilled care at delivery in Malawi is limited. Although nearly 55 per cent of births take place in health facilities, there is no guarantee that assistance will be provided by a skilled attendant. Self-delivery or deliveries by ward attendants or guardians are common. Despite significant efforts by the government, maternal mortality ratios for Malawi are alarmingly high and on the increase.[6]

Among the many barriers to Malawian women's access to health-care service are lack of information, poor interest in or disapproval of services, financial constraints, transportation problems, and discomfort with male service providers.[7]

The cultural promotion of home deliveries with traditional birth attendants limits the acceptability of professionally trained birth attendants. Compounding this problem is a severe lack of nurses, midwives and anaesthetists nationwide. Poor attitudes towards work and patients among staff are exacerbated by inadequate supervision systems and deteriorating health standards. The crumbling of the health infrastructure is evident in lengthy procurement procedures, communication problems and mismanagement that results in constant shortages of drugs and supplies. Despite government efforts to procure more ambulances, lack of petrol and misuse of vehicles inhibit effective transport use.

Detailed problem identification exercises were completed in Malawi to identify the root causes of these factors and to generate ideas on how to solve them. The inadequate number of nurse/

6 Malawi Demographic and Health Survey 2000. National Statistical Office, Zomba, Malawi/ORC Macro, Maryland, USA, August 2001.

7 Malawi Social Indicators Survey 1995, Ministry of Economic Planning and Development/National Statistical Office/Centre for Social Research.

midwives, for instance, was seen to have multiple causes, including poor pay and resources, a small pool of candidates for training and high mortality of professionals due to HIV/AIDS. A series of activities was proposed to address these problems, including changes in recruiting and training procedures, salary increases, a change in the retirement age and free antiretroviral drugs for nurse-midwives living with HIV/AIDS.

Recommendations to address other factors influencing skilled care at birth were also developed. Information, education and communication activities were proposed to address the preference for home deliveries. Establishment of transportation committees, procurement of more ambulances and mobilization of communities were proposed to deal with transport problems. Higher pay, better supervision and lower workloads were recommended to deal with bad attitudes and deteriorating health standards. Specific procedures for improved management were suggested to deal with shortages of drugs and supplies. The proposed interventions have been forwarded to the Ministry of Health and Population for possible inclusion into the national strategy for safe motherhood.

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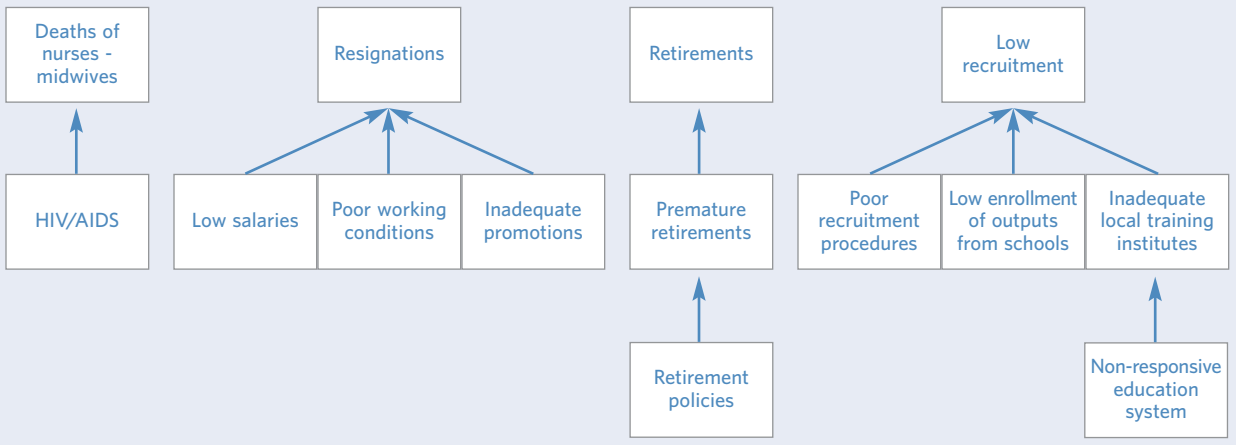
INADEQUATE NUMBER OF NURSE/MIDWIVES: A PROBLEM IDENTIFICATION EXERCISE



Skilled attendance demonstration proposal for Mexico

In 2001, Mexico had a maternal mortality ratio of 45 per 100,000 live births and a total of 1,253 maternal deaths.[8] Although maternal mortality has been decreasing in Mexico since the 1930s, this trend has reached a plateau, with maternal mortality ratios remaining at around 50 per 100,000 live births over the last 10 years.[9] More important, many of the maternal deaths in Mexico could be prevented if women had access to quality health services during pregnancy, delivery and the post-partum period.[10]

Guerrero, in the south of the country, is one of Mexico's poorest states. It has a maternal mortality ratio of 51 per 100,000 live births, and 20 per cent of deliveries are attended by traditional birth attendants.[11] Chilapa is a community of 113,218 inhabitants, many of them indigenous, and is located 40 miles from Chilpancingo, the capital of Guerrero. Chilapa was identified as a good location to conduct SAFE activities by staff from the Ministry of Health in Guerrero. With 600 births a year, Chilapa's public hospital covers most of the deliveries in the community.

Using the information collected from the Strategy Development Tool, it was possible to identify a variety of problems related to skilled delivery attendance, including:

- Too few qualified personnel are available to attend deliveries, especially during the night shift;
- Obstetric skills among various levels of staff need upgrading;
- Health workers need to be sensitized to the needs and cultural practices of women;
- Supervision and monitoring and evaluation systems are inadequate;
- Space, equipment and supplies in the hospital are limited.

Based on these findings, the National Institute of Public Health of Mexico proposed the creation of a collaborative group, including the Ministry of Health and NGOs in Guerrero, to implement specific actions to improve the quality of care in Chilapa. Staff workshops will be organized to discuss and develop technical norms for obstetric care. They will also address the technical and human dimensions of quality of care. Periodic certification of medical personnel will be promoted and delivery attendance teams will be organized to ensure the presence of qualified staff at all times. Mechanisms for supervision and accountability will also be implemented in the hospital and linked with outlying health centres to track problems in the chain of treatment for women. The implementation of these strategies will be organized collaboratively by state and local Ministry of Health workers and hospital staff in Chilapa.

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8 Secretaría de salud. Mortalidad 2001. Mexico City, 2002.

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11 SISPA: Sistema de información en salud para población abierta. Secretaría de Salud, 2000.

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