

Igniting Change in the Landscape of Health Care for Women and Families



**JHPIEGO'S
FIRST 40
YEARS**

innovating to save lives



an affiliate of Johns Hopkins University

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Jhpiego is an international, nonprofit health organization affiliated with Johns Hopkins University. For more than 40 years, Jhpiego has empowered frontline health workers by designing and implementing effective, low-cost, hands-on solutions to strengthen the delivery of health care services for women and their families. By putting evidence-based health innovations into everyday practice, Jhpiego works to break down barriers to high-quality health care for the world's most vulnerable populations.

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Preface

Every anniversary is an opportunity not only to celebrate, but also to take stock of the period being celebrated. When Jhpiego, an international, nonprofit health organization affiliated with the Johns Hopkins University, celebrated its 40th anniversary in 2012, we reflected on 40 major accomplishments that we've achieved in carrying out our mission to save the lives of mothers and their families in low-resource settings through low-cost, innovative health care solutions.

These 40 accomplishments, all of which are outlined in these pages, did more than save lives: they ignited change in the landscape of health care in many countries and across the globe. Along the way, Jhpiego established itself as a leader in technical and program innovation in a broad range of technical areas in health, including: family planning, maternal health, cervical cancer prevention, HIV/AIDS, education and training, performance and quality improvement, infection prevention and control, innovation, human capacity development, malaria in pregnancy, integration of health services and other key areas.

In its early years, Jhpiego focused on family planning, spurring global interest in family planning among leading medical and nursing professionals through the introduction of laparoscopy for surgical contraception and identification and management of infertility. When introduced in 1994, laparoscopy was ranked as one of the most important advances in obstetrics and gynecology of its time. It provided specialists with a remarkable diagnostic tool for viewing the reproductive organs, as well as an agile therapeutic and surgical instrument for female voluntary sterilization. Jhpiego has also provided global leadership in postpartum family planning, particularly immediate postpartum IUD insertion, and in the area of postabortion care, linking postabortion care services with provision of family planning methods.

Innovations in maternal health ranged from: development of an approach to prevent the leading cause of maternal deaths worldwide, postpartum hemorrhage, by providing misoprostol at the community level; to initiatives to increase the availability of skilled birth attendants, which has a major impact on whether a woman dies or survives a pregnancy in low-resource settings; to the promotion of respectful maternity care.

In cervical cancer, Jhpiego pioneered the innovative “screen-and-treat” approach for the prevention of cervical cancer, the leading cause of cancer deaths in low-resource settings. This approach can be provided by nurses and midwives at low cost in a single visit.

In HIV, Jhpiego pioneered the rapid scale-up of voluntary medical male circumcision in a number of countries in East and Southern Africa with the highest burden of disease. Two million men received circumcision services in Jhpiego-supported programs, resulting in thousands of HIV infections being averted.

To support all of these interventions, Jhpiego helped revolutionize training through the development of competency-based training approaches using Jhpiego's *Clinical Training Skills for Reproductive Health Professionals* manual. Perhaps more than any other accomplishment at Jhpiego, the publication of this

manual changed the direction of clinical training. It introduced competency-based learning guides and checklists and the humanistic approach to training in which service providers have their clinical skills standardized on anatomic models before practicing procedures on live clients. Continuing this tradition, Jhpiego worked with Laerdal Global Health on the Helping Mothers Survive initiative, which includes use of the MamaNatalie maternal simulator to demonstrate best practices and provides workers with a realistic simulated experience in managing postpartum hemorrhage.

To ensure new, highly skilled service providers, Jhpiego pioneered the strengthening of pre-service education in family planning, maternal and child health and HIV in over 68 countries. The goal was—and continues to be—to ensure that students left their schools with the necessary skills to begin to provide services immediately upon graduation.

Knowing that the health workforce in many countries is often strained, Jhpiego pioneered the concept of task shifting—a strategy to optimize the tasks and roles of existing human resources to reach as many people as possible with essential health care services. Examples include strengthening the skills of cadres other than physicians (i.e., nurses and midwives) in certain services like IUD and contraceptive implant insertion and removal, and expanding the role of nurses and midwives to provide antiretroviral therapy.

Knowing that training is never enough, Jhpiego developed and introduced an innovative quality improvement approach, Standards-Based Management and Recognition (SBM-R®), which brought about dramatic improvements in the quality of health care at thousands of service delivery sites worldwide.

The underpinning of our technical work has been collaboration with in-country public and private sector partners to update national policies and guidelines for health care. Another foundation of our work from the beginning has been the recognition that infection prevention and control are integral and essential for all service delivery. Consequently, Jhpiego has worked to strengthen the infection prevention skills of thousands of health workers globally, using Jhpiego's landmark manual *Infection Prevention: Guidelines for Healthcare Facilities with Limited Resources*.

In addition to providing a historical record of our accomplishments and a unique overview of Jhpiego's approaches and innovations, we hope this volume might also spark continued innovations, partnerships and changes over the next 40 years.

Ronald H. Magarick, PhD, and Alena Skeels



Photo by Kate Holt

Laparoscopy Paves the Way for Jhpiego's Work in Reproductive Health

By Ron Magarick and Alena Skeels

“This innovation, and the training in its use and application, allowed other aspects of women’s reproductive health, such as management of infertility, to be addressed.”

The introduction of laparoscopy is ranked as one of the most important advances in obstetrics and gynecology. Laparoscopy provides specialists with a remarkable diagnostic tool for viewing reproductive organs, as well as an agile therapeutic and surgical instrument for tubal ligations. And it was the introduction of laparoscopy as part of our early focus on reproductive health in the late 1970s and early 1980s that helped establish Jhpiego as a world leader in reproductive health and family planning.

Jhpiego trained over 5,000 physicians, nurses and maintenance personnel from more than 1,300 institutions in 108 countries in laparoscopy, and shipped more than 5,000 laparoscopes to numerous medical schools and teaching hospitals around the globe. Some 80 percent of the medical schools in the developing world were recipients of laparoscopic equipment donated by Jhpiego, which helped the staff at these institutions receive a thorough grounding in reproductive and women’s health care.

The individuals who benefited from this early training in reproductive health and laparoscopy emerged as the leaders of Jhpiego’s in-country programs. As Jhpiego ended its laparoscopy training in the early 1980s, many of those who were trained in courses both in the United States and overseas became Jhpiego program directors responsible for leading Jhpiego-supported programs in their own countries, including Tunisia, Kenya, Morocco and the Philippines. Some emerged as world leaders in reproductive health, such as Dr. Gamal Serour, Director of the Reproductive Health Training Center at

Alzhar University in Cairo, Egypt, who later was elected President of the International Federation of Gynecology and Obstetrics (FIGO); Professor O. A. Ladipo from the University of Ibadan in Nigeria, who established the very successful Society for Reproductive Health in Nigeria; and Professor Khunying Kobchitt Limpaphayom, former Secretary General of the Royal Thai College of Obstetricians and Gynaecologists and Professor of Obstetrics and Gynaecology at Chulalongkorn University in Bangkok.

Jhpiego’s work in laparoscopy helped voluntary surgical sterilization become a safer, simpler and less expensive option for thousands of women who chose this form of contraception. This innovation, and the training in its use and application, allowed other aspects of women’s reproductive health, such as management of infertility, to be addressed. Furthermore, Jhpiego’s early work in laparoscopy provided the foundation for our current work with technology transfer and institutionalization.

A Pioneer in the No-Touch Technique for IUD Insertion

By Leslie Koerner

The intrauterine device (IUD) is an effective and long-acting family planning method, with a failure rate of less than 1 percent over the first year of use. In addition, an IUD is convenient, is easy to use—it does not require the user to do anything once it is inserted—has few side effects, and fertility returns promptly after it is removed.

One problem encountered in the early years of IUD usage was the introduction of infection by providers who contaminated the device while inserting it. To address this issue, Jhpiego helped pioneer the “no-touch” technique, which allows the provider to manipulate the device inside its sterile package and to insert the IUD without touching the device itself and without the device touching the walls of the woman’s vaginal canal. This technique greatly reduces the risk of infection and removes the need for sterile gloves, which often is a barrier in providing IUD services.

Using this device, Jhpiego was one of the first organizations to demonstrate that trained, mid-level providers such as nurses and midwives could perform IUD insertion safely and effectively. Jhpiego found that competency-based training with simulated practice in IUD insertion on anatomic models reduced the risk of harming clients and reduced trainees’ performance anxiety, which often hinders learning.

In 1992, Jhpiego published its first IUD reference manual, *IUD Guidelines for Family Planning Service Programs: A Problem Solving Reference Manual*, which was translated

into French. This material and its competency-based training tools made a standardized, safe and efficient approach to training and service provision, using the “no-touch” technique, possible. The second edition of the manual was translated into Spanish, Portuguese and Russian, and many countries adapted these materials to meet their needs. Jhpiego also incorporated the manual into ModCAL®, its Modified Computer-Assisted Learning approach, which allowed trainees to learn about IUD counseling, insertion and removal at their own pace. In response to a resurgence of interest in the IUD, in 2006, Jhpiego revised and updated the reference manual and associated materials to provide the latest essential information to clinicians, clinic managers and clinical trainers to improve the quality of IUD services.¹

More recently, to meet the demand for postpartum family planning services, in 2010, Jhpiego published *Postpartum Intrauterine Contraceptive Device (PPIUD) Services: A Reference Manual for Providers*. This document, which is available in English, French and Arabic, is part of a learning resource package² to prepare a range of qualified service providers to deliver high-quality IUD services as part of a comprehensive postpartum family planning program.

¹ Bluestone J, Chase R, Lu ER (eds). 2006. *IUD Guidelines for Family Planning Service Programs Learning Resource Package*, 3rd edition. Baltimore, MD: Capacity Project and Jhpiego. <http://reprolineplus.org/resources/postpartum-intrauterine-contraceptive-device-ppiud-services-learning-resource-package>.

² Smith JM, Deller B, Ruparella C, Asif R, Tredwell S, Fowler RC (ed). 2010. *Postpartum Intrauterine Contraceptive Device (PPIUD) Services Learning Resource Package*. Baltimore, MD: Jhpiego. <http://reprolineplus.org/resources/postpartum-intrauterine-contraceptive-device-ppiud-services-learning-resource-package>.



“Jhpiego was one of the first organizations to demonstrate that trained, mid-level providers such as nurses and midwives could perform IUD insertion safely and effectively.”

Breaking Down Barriers to Contraception: Policy Change in Kenya on Community-Based Distribution of Injectable Contraceptives

By Stu Merkel

“This policy change will have tremendous, long-term impact on the health and prosperity of Kenyans for years to come and can serve as a model for other countries.”

Women in Kenya face significant barriers to accessing family planning (FP) services, including the most popular method in the country—injectable contraceptives. Learning from the successful experiences of other countries in Africa and around the world, Jhpiego and Kenya’s Ministry of Public Health and Sanitation, in collaboration with Family Health International, led a 1-year demonstration program (2009–2010) in rural Kenya. This initiative aimed to show that trained volunteer community health workers could safely offer injectable contraceptives at the community level. The demonstration program was a great success—not only did use of depot medroxyprogesterone acetate (DMPA) dramatically increase, so did use of other FP methods, along with antenatal care coverage and facility-based deliveries. Bolstered by these results, and with support from the Bill & Melinda Gates Foundation-funded Advance Family Planning (AFP) project, Jhpiego led an intensive advocacy effort to amend the national FP service delivery guidelines. Jhpiego built on its excellent relationships with key individuals in the Kenyan health system and utilized

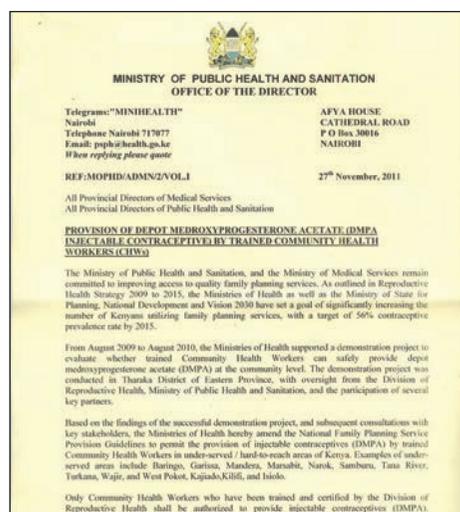
innovative approaches, including a technique in which stakeholders worked together to develop a targeted plan of action, in its advocacy efforts.

As a direct result of this advocacy, the Ministers of Medical Services and Public Health and Sanitation signed a circular amending the guidelines in November 2012 to allow trained community health workers to offer injectable contraceptives at the community level. Through its ongoing programming in Kenya, Jhpiego is working with the Ministry of Health to implement this

new policy. Jhpiego’s lead staff member on the AFP project believes that the new national guidelines will ensure that all women can now benefit from such services, saying, “This truly is a great day for Kenyan women.”

Changing this national policy sets the stage for significant expansion of FP uptake in Kenya, and could have far-reaching impact in strengthening community access to all health care services through improved community-clinic linkages. This policy change will have tremendous, long-term impact on the health and prosperity of Kenyans

for years to come and can serve as a model for other countries.



Global Leadership in Postpartum Family Planning

By Elaine Charurat

Jhpiego's record of achievement in reproductive health and family planning perfectly positioned the organization for its global leadership role in addressing the unmet need for family planning among postpartum women. Committed to the ethos of "no missed opportunities," Jhpiego integrates family planning for postpartum women with existing maternal, neonatal and child health services to ensure that women, from city to village, receive the family planning method they want and need. This approach has yielded impressive results.

As a maternal health issue, postpartum family planning (PPFP) is crucial because pregnancies during the first year after childbirth hold the greatest risk for the mother and her baby. This time period also presents the greatest number of opportunities for contact between new mothers and health care providers.

Jhpiego began its work in PPFP in 2005 with funding from the United States Agency for International Development (USAID), and today, Jhpiego supports more than 20 countries in introducing and implementing PPFP programs. In India, for example,

Jhpiego has played an integral part in the government's strategy to revitalize use of the postpartum intrauterine device (PPIUD). As a result, over 2 million women have received PPIUD services across 19 states since 2008. This work has also been supported by USAID's global Maternal and Child Health Integrated Program and Maternal and Child Survival Program (MCSP), which Jhpiego leads, and several private funders including the Bill & Melinda Gates and Packard Foundations.

Jhpiego's work in PPFP is yielding results in other areas around the world, for example:

- In conservative northern Nigeria, Jhpiego's work resulted in significant improvements in the use of modern family planning methods by postpartum women, which increased from 1 percent in 2007 to 11 percent in 2010.¹
- In Afghanistan, PPFP was introduced at the community level in all 34 provinces, and the contraceptive prevalence rate increased nationally from 10 percent in 2005 to 20 percent in 2010.²

“Jhpiego integrates family planning for postpartum women with existing maternal, neonatal and child health services to ensure that women, from city to village, receive the family planning method they want and need.”

- In Kenya and Liberia, new areas of PPF integration are being piloted with nutrition and immunization programs.

In addition to this work, in July 2012, Jhpiego and MCHIP contributed significantly to the publication of “The Statement for Collective Action for PPF.” The statement is a milestone in global efforts to reach postpartum women with lifesaving services to help them plan their families. Developed in collaboration with USAID and the Department of Reproductive Health and Research of the World Health Organization (WHO), the statement aims to galvanize support for the promotion of integrated PPF programs to reach women in the first year after childbirth. AusAID, the Bill & Melinda Gates Foundation, International Confederation of Midwives (ICM), International Council of Nurses (ICN), International Federation of Gynecology and Obstetrics (FIGO), International Planned Parenthood Federation (IPPF), United Nations Population Fund (UNFPA), World Bank and various other international nongovernmental organizations have also endorsed this statement.

To help translate the statement into strategic guidance, MCSP, in collaboration with WHO members and with the support of USAID, is developing programming strategies for PPF to provide government ministries and program implementers with practical, programmatic strategies for integrating PPF in the context of maternal, newborn and child health programs. By helping its partners provide family planning services to women when they are most at risk, Jhpiego continues its efforts to save the lives of women and families around the world.

Postscript: “In June 2015, Jhpiego and FP2020 cohosted the **Accelerating Access to Postpartum Family Planning (PPFP) Global Meeting**, in partnership with the World Health Organization (WHO), USAID, and UNFPA. This meeting marked the launch of a multilateral effort to fast-track country progress toward FP2020’s goals by reaching postpartum women, whose family planning needs are frequently overlooked. Delegations from 16 countries gathered in Chiang Mai, Thailand, for the five-day conference, which brought together family planning experts and maternal, newborn, and child health (MNCH) experts to discuss the latest technical knowledge and programming experience in PPF. Attendees were briefed on the newly released *WHO Medical Eligibility Criteria for Contraceptive Use*, explored integration points between PPF, maternal health, nutrition, and immunization, and participated in a daylong innovation workshop to reimagine and revolutionize PPF.”³

¹ Rawlins, B, Isiugo-Abanihe U, Ishola G, Charurat E, Otolorin E. 2008. *Safe Motherhood in Northern Nigeria: Results from a Baseline Survey of Women Who Recently Gave Birth in Kano and Zamfara States*. ACCESS Technical Report. Baltimore, MD: Jhpiego.

² Health Services Support Project (HSSP) Final Report, 2006–2012.

³ *FP2020 Commitment to Action 2014–2015*. November 2015. www.familyplanning2020.org.

Promoting Family Planning after Birth: Using Community Platforms to Reach Women in Need

By Elaine Charurat

Jhpiego is a global leader in implementing innovative, community-based approaches to increase the use of modern family planning methods among women who have recently given birth. With these strategies, Jhpiego and its country partners are reaching more women in rural and underserved communities with family planning services.

In Bangladesh, Jhpiego spearheaded an operations research study, the Healthy Fertility Study (HFS), in collaboration with the Johns Hopkins Bloomberg School of Public Health, Shimantik, the Center for Data Processing and Analysis and the government of Bangladesh. It examined the impact of integrating postpartum family planning (PPFP) services within an existing community-based maternal and newborn health program. Results have shown that this model has positively influenced women in adopting a family planning method after the birth of a child. HFS activities were found to be associated with a 27 percent increase in contraceptive uptake in the intervention arm from baseline to 36 months postpartum (18 percent to 45 percent), versus the control arm (21 percent to 39 percent).¹

The study in Bangladesh is but one example of Jhpiego's creative use of alternative service delivery approaches. In Tanzania, Jhpiego established a model for providing

more comprehensive and integrated maternal, newborn and child health (MNCH) and family planning services for both HIV-positive and HIV-negative pregnant women and their infants through strengthening linkages between facilities and communities. Through the Integrated Facility/Community Prevention of Mother-to-Child Transmission program, Jhpiego led the development of national guidelines on postnatal care for health care providers and on MNCH services for community health workers, both endorsed by the Ministry of Health and Social Welfare.

Programs in Afghanistan, Malawi, Nigeria and other countries also effectively incorporated PPFP components with existing community channels, mostly through capacity-building of community health workers. As a result of these community-based approaches, thousands of women are now being reached with family planning services who previously would not have received a family planning method.

¹ *Healthy Fertility Study: Operations Research to Address Unmet Need for Contraception in the Postpartum Period in Sylhet, Bangladesh: Final Report.* <http://www.mchip.net/sites/default/files/Healthy%20Fertility%20Study%20Final%20Report.pdf>.



“As a result of these community-based approaches, thousands of women are now being reached with family planning services who previously would not have received a family planning method.”

Photo by Kate Holt

Empowering Midwives and Nurses to Provide Immediate Postpartum Family Planning

By Elaine Charurat

In low-resource settings, midwives and nurses are often the frontline service providers for women during childbirth. In many countries, however, only physicians are trained and authorized to provide contraceptive services in the immediate postpartum period. As a result, the majority of women whose childbirth is not attended by a physician have no access to immediate postpartum family planning (PPFP).

A strong advocate for task shifting, Jhpiego has supported and empowered midwives and nurses to provide PPFP that includes postpartum intrauterine device (PPIUD) services. Jhpiego has also helped governments and institutions enact policies and guidelines that authorize midwives and nurses to provide these services. In addition, we have developed training courses to teach the necessary skills and provided support in service delivery and quality improvement.

In Kenya, Jhpiego successfully led the effort to revitalize PPIUD services through capacity-building and creation of nurse-midwife champions. Results from an assessment demonstrated that midwives and nurses can confidently provide high-quality PPIUD services that include counseling on all PPFP methods and insertion for those women who choose PPIUDs. Since the program's inception in Embu District in 2007, inclusion of PPIUDs as part of PPFP options was scaled

up to additional provinces in Kenya. A similar model was later introduced in Rwanda, Tanzania, Zambia and other countries.

In India, empowering midwives and nurses to provide immediate PPFP, including PPIUDs, has been especially crucial, as the government has instituted an incentive program to encourage facility births. As the numbers of facility births increased dramatically, the provision of PPIUDs also expanded rapidly over the past few years. Most recently, as a result of Jhpiego's strong and persistent advocacy, the Ministry of Health and Family Welfare in India granted approval for midwives and nurses to provide PPIUDs within 48 hours of delivery. This approval creates a tremendous opportunity for additional women to choose a family planning method that is long-acting, reversible and does not interfere with breastfeeding—before leaving the birthing facility. Currently, more than 1 million women in India accept the PPIUD each year.

By empowering midwives and nurses to provide immediate PPFP services, an ever-increasing number of women have access to family planning services in the vulnerable postpartum period.



“This approval creates a tremendous opportunity for additional women to choose a family planning method that is long-acting, reversible and does not interfere with breastfeeding—before leaving the birthing facility.”

Saving Lives by Pioneering the Implementation of Postabortion Care Services

By Michelle Santoro

Each year, women undergo an estimated 20 million unsafe abortions that result in nearly 70,000 deaths from complications. In 1994, the International Conference on Population and Development identified postabortion care (PAC) as a priority intervention to reduce maternal mortality. After this pivotal conference, Jhpiego, together with other United States Agency for International Development (USAID) Cooperating Agencies, founded the Postabortion Care Consortium to raise awareness about the contribution of incomplete and septic abortions to maternal death and disability, as well as to recognize unsafe abortions as an indicator of a high level of unmet need for family planning. Also in 1994, USAID established the Postabortion Care Working Group to promote high-quality PAC to reduce maternal morbidity and mortality and unplanned pregnancies.

In collaboration with the Consortium, Jhpiego developed a PAC advocacy package containing video resources and statistics, which was sent to almost 100 countries. Jhpiego also contributed to the development of a service delivery model for PAC that integrated three key components: emergency treatment, counseling on family planning methods and linkages to other health services, such as management of sexually transmitted diseases. Using a “no missed opportunities” approach, Jhpiego rolled out PAC as an integral part of reproductive health programs. In doing so, Jhpiego became one of the first organizations to translate research into practice by implementing the new PAC service delivery model

in many countries around the world. Of note, the model broke new ground by systematically incorporating manual vacuum aspiration (MVA) to treat incomplete abortions, a transformational approach within PAC.

Following the start-up of PAC, Jhpiego expanded its global contributions by providing guidance on establishing PAC services in low-resource settings and contributing to the globally disseminated USAID PAC resource package, now available in English, French and Russian.¹

Today, most countries that initiated PAC under Jhpiego’s global Training in Reproductive Health Project, which ended in 2004, continue to offer PAC services. Guinea and Burkina Faso, for example, have leveraged funds from multilateral organizations, such as the United Nations Population Fund (UNFPA), to continue PAC programs at a national scale. The Ministry of Health in Nepal is using its own funds to scale up PAC throughout the country, as well as to procure MVA equipment. The majority of women who come to facilities in these countries, and other areas where Jhpiego has implemented PAC, are being treated and are leaving with lifesaving family planning methods.

In many low-resource countries, PAC programs originally supported by Jhpiego continue to provide needed services, and thousands of women’s lives are being saved.

¹ <http://www.postabortioncare.org/content/recommended-pac-training-resources>.

Pioneering Maternal and Neonatal Health Programming

By Nancy Caiola

In 1999, Jhpiego brought the same passion we had for family planning to the broader sphere of ensuring safe childbirth for women and their newborns around the globe. That year, Jhpiego expanded its work to encompass maternal and newborn health programming through its leadership of the United States Agency for International Development's (USAID's) Maternal and Neonatal Health (MNH) Program.

And since then, Jhpiego has continued to lead in the field of maternal, newborn and child health (MNCH) by also managing the ACCESS Program and, more recently, USAID's flagship global Maternal and Child Health Integrated Program (MCHIP) and Maternal and Child Survival Program (MCSP), operating now in 25 countries.

Since 1990, Jhpiego has promoted the household-to-hospital continuum of care, helping women better prepare for birth and avoid the delays that often lead to maternal mortality. We have trained tens of thousands of providers

on active management of the third stage of labor to reduce postpartum hemorrhage; influenced governments to change national guidelines to promote focused antenatal care; and encouraged a renewed focus on pre-eclampsia/eclampsia as a leading cause of maternal mortality.

Focusing on MNCH has allowed us to work more closely with midwives and midwifery training institutions. We have supported midwifery associations from Afghanistan to Indonesia to encourage, support and represent this very important cadre of health care workers. The broad platform of MNCH has allowed Jhpiego to expand its comprehensive approach to quality improvement and to introduce innovative ways to integrate MNCH with family planning and HIV services.

Over the years, Jhpiego has improved health care services for hundreds of thousands of women and changed the practices of tens of thousands of health care providers.

“Jhpiego has promoted the household-to-hospital continuum of care to avoid the delays that often lead to maternal mortality.”

Global Leadership in Emergency Obstetric and Newborn Care

By Barbara Deller

“EmONC has received global acceptance as the package of care necessary to reduce maternal mortality in developing countries.”

From the first days of Jhpiego’s Maternal and Neonatal Health (MNH) Program in 1998, Jhpiego recognized that a key to reducing maternal deaths was skilled birth attendants achieving widespread competency in managing life-threatening complications during pregnancy and childbirth. Emergency obstetric and newborn care (EmONC) is a set of lifesaving interventions that address each of the main causes of maternal mortality. EmONC has received global acceptance as the package of care necessary to reduce maternal mortality in developing countries, **and Jhpiego played a vital role in turning global policy into evidence-based action.**

While the World Health Organization (WHO) had defined the lifesaving interventions, the global community needed guidance on the management of complications. To this end, Jhpiego partnered with WHO to develop the manual *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors*¹ (MCPC) to guide frontline service providers in the actual diagnosis and management of these complications. The MCPC has become the international standard for EmONC worldwide, is available on the WHO website and has been translated into more than 17 languages.

With the standard of care established, Jhpiego partnered with Averting Maternal Death and Disability (AMDD), a global program at the Columbia University Mailman School of Public Health, sponsored by the Bill & Melinda Gates Foundation, to develop an EmONC Learning Resource Package. This package includes all tools needed to conduct training and support

development of competency in managing complications of pregnancy and childbirth. The package was developed in a modular format that could be used in pre-service (undergraduate) education and in-service training.

Individual country programs in more than 120 countries in Africa, Asia and Latin America have used the MCPC to develop program and clinical standards for managing and improving the quality of EmONC services. Every day, global and national programs and organizations around the world are using these advances in EmONC to save the lives of women during pregnancy and childbirth.

¹ World Health Organization (WHO), United Nations Population Fund (UNFPA), UNICEF, The World Bank. 2000. *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors*. Geneva, Switzerland: WHO. http://www.who.int/maternal_child_adolescent/documents/9241545879/en/; http://reprolineplus.org/system/files/resources/mcpc_guide_eng.pdf.

Managing Complications in Pregnancy and Childbirth

By Barbara Deller

“The IMPAC series has become a key reference for frontline clinicians in more than 120 countries throughout Asia, Africa and parts of Latin America.”

Frontline health care providers in low-resource countries had long relied on clinical guidance from textbooks written in high-resource countries, even though the books did not apply to their settings. Locally developed materials also in use often were not evidence-based. That's why Jhpiego partnered with the World Health Organization (WHO), United Nations Population Fund, UNICEF and the World Bank to develop, under the leadership of Jhpiego's Medical Director, Dr. Harshad Sanghvi, an important new resource. *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors*¹ (MCPC) is a set of evidence-based clinical guidelines for managing complications of pregnancy and childbirth in low-resource settings.

This user-friendly manual, published in 2000, is arranged by symptoms (e.g., vaginal bleeding in early pregnancy) so that it can be easily used by frontline providers (nurses, midwives and doctors) who may not have access to resource-intensive methods for diagnosing and treating complications. The symptom-based approach makes the manual different from most medical texts, which are arranged by disease. The MCPC manual includes a system of cross-references to facilitate navigation between symptoms and diagnoses. The action steps are based on clinical assessment with limited reliance on laboratory or other tests, and most can be performed in a variety of clinical settings (e.g., district hospital or health center).

WHO included the manual as a key component of its Integrated Management of Pregnancy and Childbirth (IMPAC) series, a package of guidelines and tools for addressing issues in maternal, newborn and child health. Another manual in the IMPAC series, *Managing Newborn Problems: A Guide for Doctors, Nurses, and Midwives*,² is the companion guide for service providers in low-resource countries who care for newborns, and it too was developed with Jhpiego's technical guidance.

The IMPAC series has become a key reference for frontline clinicians in more than 120 countries throughout Asia, Africa and parts of Latin America. The MCPC is available in Arabic, English, French, Indonesian, Italian, Russian and Spanish on the WHO website, but it has been translated into more than 17 languages by local governments and nongovernmental organizations. Well-worn copies can be found in clinics and district hospitals, as well as in medical and midwifery schools, around the globe.

¹ World Health Organization (WHO), United Nations Population Fund, UNICEF, The World Bank. 2000. *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors*. Geneva, Switzerland: WHO. http://www.who.int/maternal_child_adolescent/documents/9241545879/en/; http://reprolineplus.org/system/files/resources/mcpc_guide_eng.pdf.

² World Health Organization (WHO), United Nations Population Fund (UNFPA), UNICEF, The World Bank Group. 2003. *Managing Newborn Problems: A Guide for Doctors, Nurses, and Midwives*. Geneva, Switzerland: WHO. <http://apps.who.int/iris/bitstream/10665/42753/1/9241546220.pdf>; http://reprolineplus.org/system/files/resources/mnp_manual_0.pdf.

Advancing a Global Movement for Respectful Maternity Care

By Débora Bossemeyer

Significant progress has been made globally in reducing maternal and neonatal morbidity and mortality. Despite these improvements, access to high-quality services is not guaranteed for many, especially in developing countries.¹ Even when services are available, care may be compromised by: social, ethical and cultural barriers; an unwelcoming reception at the health care facility; lack of privacy and information for the client; and disrespect and abuse.² These barriers affect service utilization as women often avoid seeking care in health facilities because of mistreatment.

In recent years, women giving birth and a number of doctors, midwives and nurses have joined forces in various countries around the world to promote more respectful maternity care, emphasizing the importance of underlying professional ethics and psycho-socio-cultural aspects of health care delivery as essential elements of care.³ This movement for respectful maternity care (RMC), sometimes referred to as “Humanization of Childbirth,” calls for an approach centered on the individual; based on principles of ethics and respect for human rights; and promoting high-impact, evidence-based practices that recognize women’s preferences and the needs of women and newborns.

Recognizing the importance of RMC, Jhpiego has been a leader in integrating key RMC principles and practices into its maternal and newborn health (MNH) programs worldwide. One notable example is from Mozambique, a country committed to creating a progressive culture

of RMC in its health services. The Mozambique Ministry of Health (MOH), with support from the United States Agency for International Development (USAID) and Jhpiego, has been incorporating the principles of humanization of care into national strategies and technical guidelines. Since 2007, Jhpiego has worked collaboratively with the MOH in the development and implementation of a National Plan to Improve the Quality and Humanization of Reproductive Health and MNH Services.

The National Plan is based on the Standards-Based Management and Recognition (SBM-R[®]) approach to performance and quality improvement pioneered by Jhpiego, in which aspects of respectful care were incorporated with performance standards. The first phase of implementing the National Plan included 18 health facilities across the country, all of which demonstrated improved adherence to the RMC performance standards.

Building on the experiences and lessons learned from these 18 facilities, the Mozambique MOH, with support from USAID and the Maternal and Child Health Integrated Program (MCHIP) led by Jhpiego, launched a national “Model Maternity Initiative” (MMI) in 2009. Under this initiative, the quality and humanization improvement process using the SBM-R approach was expanded to the 34 largest hospitals in the country.

MMI is based on principles of quality and RMC to create facilities that serve as models for high-quality maternity



care, as well as clinical training sites. MMI promotes birthing practices that recognize women's preferences and needs and the scale-up of high-impact interventions. Specifically, the interventions included are: respect for beliefs, traditions and culture; the right to information and privacy; choice of a companion; freedom of movement and position; skin-to-skin contact and early breastfeeding; appropriate use of technology and effective lifesaving interventions; and prevention of violence and disrespect.

As one Mozambican woman who had her first child under respectful care, accompanied by her partner, said, “This movement is so important. We women must speak up to fight for our rights.”

Over time, the culture of promoting RMC has become more widespread in Mozambique, with increasing involvement of pre-service and in-service training institutions, professional associations (ob-gyn, pediatric

and nursing) and civil society. The MOH, with the support of MCHIP and other partners, worked to scale up the MMI to include up to 122 health facilities by 2014.

Jhpiego continues to provide leadership in the promotion of RMC, focusing on disseminating various program experiences, developing program tools and templates to support countries interested in strengthening RMC programming and supporting global advocacy efforts.

¹ Countdown to 2015 for maternal, newborn, and child survival: the 2008 report on tracking coverage of interventions. 2008. *The Lancet*. 371:1247–1258.

² Bowser D, Hill K. 2010. *Exploring Evidence and Action for Respectful Care at Birth*. Boston, MA: USAID-TRAction Project, Harvard School of Public Health, University Research Co., LLC.

³ Davis-Floyd RE, Barclay L, Daviss B, Tritten J (eds). 2009. *Birth Models That Work*. Oakland, CA: University of California Press; Davis-Floyd R, Cheyney M. 2009. Birth and the big bad wolf: an evolutionary perspective. In: *Childbirth across Cultures: Ideas and Practices of Pregnancy, Childbirth, and the Postpartum*, Selin H, Stone PK. (eds). Dordrecht, Netherlands: Springer; 1–22.

Improved Quality of Skilled Birth Attendance in More Than 30 Low-Resource Countries

By Barbara Rawlins

In 2000, many nations adopted the historic United Nations Millennium Declaration, which includes eight critical goals. Millennium Development Goals (MDGs) 4 and 5 relate to reducing child and maternal mortality, respectively, underscoring the importance of these health factors in reducing poverty and promoting human development. The *Countdown to 2015*¹ report released in 2012 reveals that maternal mortality has declined overall during the last 20 years—from 543,000 deaths a year in 1990 to 287,000 deaths in 2010.

However, with only nine *Countdown* countries on track to achieve MDG 5, and 25 countries that have made little or no progress, greater headway is needed. In particular, sub-Saharan Africa and South Asia account for the largest share of maternal deaths.

According to the World Health Organization (WHO), all pregnant women are at risk of developing obstetric complications, and approximately 15 percent will develop life-threatening ones that require treatment at health facilities. Skilled birth attendants are prepared to manage and refer these cases as needed. In addition, they are trained to perform newborn resuscitation, which must be performed within the first minute after birth for newborns with compromised breathing.

In response to this need for skilled birth attendance, Jhpiego and partners have worked in more than

30 countries to improve the skills of providers who attend births. We take a systems approach to build health care provider capacity so that interventions can continue long after we depart. This systems approach involves working with local institutions, including ministries of health, to: improve in-service and pre-service training systems; revise national policies and service delivery guidelines; improve supervision systems; and apply the Jhpiego-developed Standards-Based Management and Recognition (SBM-R®) approach to improve the quality of health care services.

To date, more than a million women have given birth with skilled birth attendants who benefited from support under the Jhpiego-led Maternal and Child Health Integrated Program (MCHIP) and Maternal and Child Survival Program (MCSP), the United States Agency for International Development's flagship programs for maternal and newborn health. As a result of Jhpiego's work in strengthening the ability of these skilled birth attendants to provide quality care, thousands of these women's lives were saved. In the years ahead, Jhpiego is committed to continuing and expanding this legacy.

¹ WHO, United Nations Children's Fund (UNICEF). 2012. *Countdown to 2015 Maternal, Newborn & Child Survival—Building a Future for Women and Children: The 2012 Report*. Geneva, Switzerland: WHO. <http://countdown2015mnch.org/reports-and-articles/previous-reports/2012-report>; in October 2015, *A Decade of Tracking Progress for Maternal, Newborn and Child Survival: The 2015 Report*, was launched at the Global Maternal and Newborn Health Conference in Mexico City. <http://countdown2015mnch.org/reports-and-articles/2015-final-report>.



“We take a systems approach to build health care provider capacity so that interventions can continue long after we depart.”

Leadership in Scaling Up Focused Antenatal Care

By Patricia Gomez

“When care is personalized, women are more likely to attend four ANC visits and to give birth with a skilled provider.”

Jhpiego’s leadership in supporting antenatal care services (ANC) is a prime example of how we translate policy recommendations into everyday practices to save lives. Since 2001, when the World Health Organization (WHO) recommended the use of a new, evidence-based model of ANC called focused antenatal care (FANC), Jhpiego has supported more than 20 countries to introduce and/or expand this model.

Referred to as “focused antenatal care” because it tailors care to a woman’s individual needs, FANC targets interventions known to improve maternal and newborn outcomes in a framework of four visits, compared with the traditional model of more frequent visits. This approach, which emphasizes quality over quantity, recognizes three key realities:

- Frequent visits do not necessarily improve pregnancy outcomes, and in low-resource countries, they are often logistically and financially impossible for women and health care systems to manage.
- Although the majority of pregnancies progress without complications, every pregnant woman benefits from an integrated package of services that include blood pressure measurement; tetanus toxoid immunization; and prevention, early detection and treatment of anemia, sexually transmitted infections, HIV, TB and malaria.
- All women, including healthy women, are at risk of developing complications that cannot be predicted.

Therefore, all women need the basic package of care, which includes health education and monitoring for complications, with timely referral when necessary. And, when care is personalized, women are more likely to attend four ANC visits and to give birth with a skilled provider, which is linked to decreased maternal and newborn morbidity and mortality.

Taking a systems approach, Jhpiego worked hand in hand with the Ministry of Health and Social Welfare (MOHSW) in Tanzania to introduce focused antenatal care in 2001. Jhpiego enabled the MOHSW to include FANC in its national reproductive health guidelines and then to institutionalize the guidelines through in-service training systems and pre-service education. With scale-up, all ANC providers in the country—over 7,000 women and men from 3,500 facilities—were trained in FANC. In addition, all pre-service midwifery education curricula have been revised and 85 tutors received knowledge updates. As a result, 100 percent of Tanzania’s 130 districts have incorporated FANC into their annual plans, ensuring that all pregnant women have access to this lifesaving intervention.

Prevention and Treatment of Pre-Eclampsia/Eclampsia—Reducing a Leading Cause of Maternal Death

By Sheena Currie

Pre-eclampsia is a life-threatening disorder characterized by high blood pressure and protein in the urine (proteinuria); it occurs only during pregnancy, childbirth and the postpartum period. If undiagnosed and unmanaged, pre-eclampsia can rapidly progress to eclampsia (convulsions/fits)—the deadliest form of the condition. Globally, severe pre-eclampsia/eclampsia (PE/E) is the second leading cause of pregnancy-related mortality, resulting in 63,000 deaths each year. PE/E can also lead to long-term or permanent disability among women.

The majority of deaths due to PE/E are avoidable through the timely provision of effective care. In taking evidence to practice, Jhpiego has been at the forefront of ensuring that recommended lifesaving practices for PE/E prevention and treatment are implemented in the field.

The timely and appropriate administration of magnesium sulfate ($MgSO_4$) has been shown to reduce the risk of death from eclampsia by 45 percent. Jhpiego training has helped ensure that frontline providers, as well as those in tertiary referral hospitals, are both competent and confident in the management of PE/E—including the administration of this lifesaving drug. From midwives in Ethiopia to physicians in Burkina Faso, health care

providers are developing the skills necessary to prevent these unnecessary deaths. And the United States Agency for International Development (USAID)-funded global Maternal and Child Health Integrated Program (MCHIP), led by Jhpiego, worked closely with countries worldwide to ensure the availability of $MgSO_4$ at every health facility.

Jhpiego programs work not only to treat PE/E but also to implement global recommendations to prevent the development of pre-eclampsia. Evidence has shown that calcium supplementation given to pregnant women in areas where calcium intake is low can reduce their risk of developing pre-eclampsia by 50 percent. In Nepal, for example, Jhpiego has led an innovative program to ensure that pregnant women receive calcium. Nearly 5,000 pregnant women have participated in the free calcium-supplementation program, which has helped to protect their health and will also inform other programs and facilitate national scale-up of this lifesaving intervention.

As part of this effort, Jhpiego has also developed a calcium preparation that is more feasible than calcium tablets for use in low-resource settings. Pregnant women can fortify their own food with “calcium sprinkles” for a fraction of the cost of tablets.



To ensure that policymakers, managers and clinicians have global access to the evidence, information and tools needed to combat PE/E, MCHIP developed and disseminated the Web-based *Pre-Eclampsia/Eclampsia: Prevention, Detection and Management Toolkit*.¹ This arsenal of material supports all aspects of PE/E programming—including advocacy, policy development, provider training, quality improvement of PE/E care and monitoring and evaluation of results—to help ensure that women and their unborn babies no longer die from this condition.

¹ Maternal and Child Health Integrated Program (MCHIP). 2012. *Pre-Eclampsia/Eclampsia: Prevention, Detection and Management Toolkit*. Baltimore, MD: Jhpiego. <http://reprolineplus.org/resources/pre-eclampsia-eclampsia-prevention-detection-and-management-toolkit>; <https://www.k4health.org/toolkits/preeclampsia-eclampsia>.

Increased Use of Active Management of the Third Stage of Labor to Prevent Postpartum Hemorrhage

By Barbara Rawlins

Postpartum hemorrhage (PPH), or bleeding in the period immediately following birth, is the leading direct cause of maternal death in sub-Saharan Africa and South Asia and a major cause of long-term disability. Active management of the third stage of labor (AMTSL) provides a protocol for managing the time immediately following birth when women are most likely to experience uncontrolled bleeding. Simple actions—including administration of a medication to contract the uterus, controlled delivery of the placenta and careful monitoring of the tone of the uterus and the amount of bleeding—can save lives. Despite the fact that the World Health Organization (WHO) has recommended AMTSL as an evidence-based intervention for preventing PPH for many years, countries have been slow to scale it up and develop systems to measure how frequently, and with what quality, AMTSL is being provided.

Jhpiego has worked in more than 30 countries to operationalize WHO recommendations regarding AMTSL, including collaborating with ministries of health to revise policies and service delivery guidelines. We

also work with professional associations and facilities to ensure that all health care providers responsible for assisting with childbirth have the skills they need to perform AMTSL to standard. We partner with midwifery, nursing and medical schools to ensure that their students graduate with these same basic abilities to prevent and manage bleeding after birth.

Jhpiego recognizes that providers cannot make a difference without access to the lifesaving medication, equipment and supplies they need to do their jobs. We also work with governments and hospitals to ensure that workers are optimally supported in their jobs. And beginning in 2008 under the Maternal and Child Health Integrated Program (MCHIP), funded by the United States Agency for International Development and led by Jhpiego, pre-service education for skilled birth attendants, including prevention of PPH, was improved in 12 countries: Democratic Republic of Congo, India, Liberia, Malawi, Mozambique, Ethiopia, Ghana, Guinea, Nigeria, Rwanda, Zimbabwe and Bangladesh.

“We also work with professional associations and facilities to ensure that all health care providers responsible for assisting with childbirth have the skills they need to perform AMTSL to standard.”

To assist country programs, donors and governments to develop comprehensive and innovative programs to address PPH, Jhpiego and partners under MCHIP developed a PPH toolkit, the *Postpartum Hemorrhage: Prevention and Management Toolkit*.¹ This program guidance toolkit outlines key steps, identifies available documents and highlights lessons learned from current projects. It serves as a valuable resource of current evidence, materials and experiences from around the world. It reflects contributions from many donors, agencies, associations, academic institutions and organizations that have identified PPH as a priority and have contributed in different ways to address it.

Moving forward, Jhpiego and its implementing partners are taking into account the latest evidence regarding the effectiveness of AMTSL. We will interpret and operationalize the latest PPH recommendations and guidelines from WHO and the International Federation of Gynecology and Obstetrics (FIGO) for additional countries—with the ultimate aim of reducing maternal death and disability worldwide.

¹ <http://www.k4health.org/toolkits/postpartumhemorrhage>.

Preventing Postpartum Hemorrhage through Community-Based Distribution of Misoprostol

By Jaime Haver

In many low-resource settings, local governments are striving to build a qualified workforce of skilled providers to increase maternal survival. Despite impressive gains in providing access to skilled care at birth, which includes active management of the third stage of labor to prevent postpartum hemorrhage (PPH), these efforts have often not kept pace with the need to provide universal access to care. Vast numbers of women in remote areas continue to deliver without the assistance of a skilled provider. In 2001, Jhpiego developed an innovative, community-based strategy to prevent bleeding after birth and save the lives of women who deliver at home without skilled care.

Under the technical leadership of Jhpiego's Medical Director, Dr. Harshad Sanghvi, Jhpiego collaborated with the Ministry of Health in Indonesia to pilot the distribution of misoprostol (a drug that helps the uterus contract, or uterotonic) at the community level to prevent PPH at home births. Trained community health workers visited households to provide education to pregnant women and their support persons on birth preparedness, complication readiness and the importance of delivering with a skilled provider in attendance. In addition, the community health workers educated women about how to self-administer oral misoprostol correctly, in the event that they delivered at home.

In the wake of this successful demonstration project, pilot programs in Indonesia and Afghanistan followed, giving further evidence of the safety, acceptability, feasibility and program effectiveness of the intervention. Jhpiego has provided technical assistance to governments and partners in more than nine countries in the use of community-based distribution of misoprostol, including scale-up within government health services in Nepal and Afghanistan.

Using a comprehensive approach to prevent PPH along the continuum of care, which involves strengthening prevention and management of PPH at the facility level and community-based distribution of misoprostol for home births, both programs successfully raised uterotonic coverage. In Nepal, uterotonic coverage increased remarkably from 11.6 percent to 74.2 percent, with the most substantial increases among the most vulnerable—the poor, nonliterate and those living in remote locations. This simple and inexpensive intervention has made a positive impact in the prevention of PPH, regardless of where the pregnant woman gives birth.



Photo by Kate Holt

“Trained community health workers visited households to provide education to pregnant women and their support persons on birth preparedness, complication readiness and the importance of delivering with a skilled provider in attendance.”

Helping Mothers Survive: Building Competency on the Frontline

By Peter Johnson

According to the World Health Organization, every day approximately 800 women die during pregnancy and childbirth. Most of these deaths can be prevented if midwives and other frontline health workers have the skills needed to prevent and manage a small number of complications. While current Jhpiego programs are working to decrease maternal mortality in many different ways, upgrading the skills of frontline health workers to provide comprehensive care to mothers on the day of birth remains a substantial challenge. Jhpiego believes that accelerating progress toward eliminating the preventable deaths of mothers in childbirth will require new and innovative methods to improve the skills of health care providers around the globe.

Jhpiego, working in collaboration with Laerdal Global Health, has developed the Helping Mothers Survive (HMS) training method designed to dramatically reduce barriers to quality care for the most vulnerable. HMS rapidly prepares district-level champions with the skills they need to introduce and facilitate a new generation of clinical skills building: low-dose, high-frequency (LDHF) training. This innovation allows delivery of proven training approaches to remote facilities, which frequently are not reached through current training methods. By taking training to health workers on the frontlines and establishing a culture of learning within their workplaces, this approach enables larger numbers of health workers to maintain the skills needed to prevent and manage the leading causes of death for mothers and babies on the day of birth.

Postpartum hemorrhage accounts for up to 35 percent of maternal deaths. The *Helping Mothers Survive Bleeding after Birth*¹ module has been introduced as the first in the HMS series. The module contains a graphic flip-book used to introduce key knowledge, actions and clinical decisions needed to prevent and manage bleeding after birth. The MamaNatalie maternal simulator, developed by Laerdal, is used to demonstrate best practices and provides workers with the realistic simulated experience that they need to be comfortable managing postpartum hemorrhage.

The MamaNatalie simulator was purposefully developed to address access barriers to quality of care by focusing on the variables associated with portability, durability and affordability that make it available for LDHF practice by teams. Frequent practice of the scenarios that are most responsible for hemorrhage are now enabling midwives and frontline health workers to build and maintain the competence and confidence they need to prevent the needless deaths of women from bleeding on the day of birth. Jhpiego has taken steps to rapidly introduce HMS training into health systems where it is needed most while expanding it to address other common causes of maternal death.

¹ Jhpiego. 2015. *Helping Mothers Survive Bleeding after Birth Training Package*. <http://reprolineplus.org/resources/HMS-English>.



“The MamaNatalie maternal simulator, developed by Laerdal, is used to demonstrate best practices and provides workers with the realistic simulated experience that they need to be comfortable managing postpartum hemorrhage.”

Reducing Maternal Mortality in Afghanistan—at Scale for the Long Term

By Rich Lamporte

Over the past 40 years, Jhpiego has been committed to achieving impact at scale. An example of such impact was our work in transforming Afghanistan's maternal and newborn health landscape—leading to remarkable improvements in maternal and newborn mortality rates.

In 2006, in response to the world's second highest national maternal mortality ratio of over 1,800 deaths per 100,000 live births, the Afghanistan Ministry of Public Health asked Jhpiego to work collaboratively on interventions to reduce maternal deaths. Jhpiego jointly devised an ambitious plan, funded by the United States Agency for International Development (USAID), to establish a national system to continually prepare qualified midwives who would work in their communities, especially in remote areas of the country, and remain where they are needed most.

Jhpiego built the capacity of 30 midwifery schools, active in 25 of 34 provinces, which educated more than 3,000 midwives in Afghanistan—a dramatic increase from just 467 midwives in 2002—and catalyzed the formation of the Afghan Midwives Association. This association, the first of its kind in the country, promotes the constant improvement of midwifery and the quality standing of the profession in Afghanistan—today and into the future.

By supporting the Afghan Midwives Association and spearheading the development of a national midwifery education system, Jhpiego laid the foundation to address chronic shortages in qualified community midwives for the long term. Of note, the Minister of Public Health cited Jhpiego and the community midwifery program in March 2012 as primary contributors to a reduction in maternal mortality by more than 50 percent.

“The Afghan Midwives Association, the first of its kind in the country, promotes the constant improvement of midwifery and the quality standing of the profession in Afghanistan—today and into the future.”



Photo by Kate Holt

Quality Improvement among Private Sector Midwives in Indonesia

By Anne Hyre

“Bidan Delima was one of Jhpiego’s early applications of its Standards-Based Management and Recognition (SBM-R®) approach to improve the performance and quality of health care services offered by midwives.”

Recognizing that private sector midwives provide most family planning services in Indonesia, Jhpiego adapted its signature quality improvement approach to raise the standard of care delivered by these essential frontline health care workers. The program, known as *Bidan Delima*, has been in operation since 2002 and is an example of a sustainable initiative to improve maternal health care services delivered by midwives. (*Bidan Delima* is an Indonesian expression that refers to a midwife with a high-quality private practice.)

The Sustaining Technical Achievements in Reproductive Health (STARH) project, funded by the United States Agency for International Development (USAID) and led by Jhpiego and the Johns Hopkins Center for Communication Programs, designed *Bidan Delima* to specifically target the private sector. *Bidan Delima* was one of Jhpiego’s early applications of its Standards-Based Management and Recognition (SBM-R®) approach to improve the performance and quality of health care services offered by midwives.

Through self-assessments and self-funded improvements guided by SBM-R, private sector midwives strive to achieve defined standards for quality midwifery services. Once they are validated by the Indonesian Midwives Association (IBI) as achieving the standards for quality care, midwives are designated as *Bidan Delima*. In recognition of this achievement, they receive sign boards that indicate their *Bidan Delima* status and encourage clients to seek services at their high-quality clinics. A *Bidan Delima* sees five to 10 clients each day for

family planning and antenatal care and assists with about 15 births each month.

Although the 6-year STARH project (2001–2006) initiated and developed the *Bidan Delima* program, IBI continues to manage it. Since its launch, more than 10,000 midwives have been qualified as *Bidan Delima* across 15 of Indonesia’s 30 provinces. Their clinics continue to offer the highest-quality private midwifery services. Through a combination of member fees, IBI volunteer services, corporate sponsors and small amounts of USAID funding, the program has sustained itself and expanded over the years. Jhpiego has nurtured a commitment from Johnson & Johnson to support training opportunities and awards for *Bidan Delima*—a commitment that has continued for more than 10 years.

As the former head of IBI, Harni Koesno, explains, “*Bidan Delima* represents IBI’s efforts to standardize practices of private midwives aimed at improving quality of midwifery care. *Bidan Delima*’s motto is ‘quality service.’ Service quality is not only influenced by the quality of the midwives but also by the availability of good health facilities. All these factors affect the well-being of mothers and newborns and impact the maternal mortality rate and infant mortality rate in Indonesia.”

Leadership in Voluntary Counseling and Testing in Jamaica Launches HIV Portfolio

By Kelly Curran

In 2001, Jhpiego was asked by the United States Agency for International Development (USAID) to create a network of HIV counseling and testing providers and trainers in Jamaica. Jhpiego worked with the Ministry of Health and long-standing AIDS service organizations such as Jamaica AIDS Support to develop the capacity of trainers to train others in voluntary counseling and testing (VCT). Jhpiego's VCT intervention forever changed the way HIV services are provided in the Caribbean, and as a result, most countries in the region have institutionalized VCT training in their HIV programs.

Jhpiego's trainer development pathway, which features competency-based training of trainers and mentoring, enabled Jamaica, and later the greater Caribbean region, to implement a sustainable and evidence-based network approach. Within a year of its initiation, the VCT training program expanded to public sector and nongovernmental organization sites in all parishes in Jamaica. This meant that there was a network of trainers and service providers available to all Jamaicans interested in getting an HIV test. Two years after the program's inception, USAID's Caribbean Regional Office requested that Jhpiego expand its coverage to include Barbados, Trinidad and Tobago, Antigua and Barbuda, Grenada, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Dominica and Suriname.

By doing so, Jhpiego empowered a pool of master trainers with skills to instruct cadres of other trainers throughout the region and increased VCT coverage to even the smallest islands. These programs always featured strong collaboration between ministries of health in each country and the AIDS service organizations tasked with reaching those most vulnerable to HIV infection. This program has touched the lives of countless trainers and counselors, many of whom have remained in contact with each other for more than a decade through an email group dedicated to HIV best practices and new developments.

“This meant that there was a network of trainers and service providers available to all Jamaicans interested in getting an HIV test.”



Increasing Access to HIV Treatment by Expanding the Role of Nurses and Midwives to Provide Antiretroviral Therapy

By Stacie Stender

Globally, 34 million people are currently living with HIV. Remarkable progress has been made over the last decade in the expansion of HIV treatment, care and support, particularly in Africa, home to more than two-thirds of people living with the virus. In 2003, only 100,000 people in Africa had access to treatment; by 2013, more than 7 million men, women and children were on antiretroviral therapy (ART).

Jhpiego, a leader in building capacity of health care providers and strengthening health systems for improved quality of care, has supported governments across the continent to expand access to HIV treatment for women and their families. Jhpiego has long recognized the role of nurses and midwives in providing comprehensive care to women of reproductive age and began supporting governments early on in scaling up ART to ensure that these essential health care providers are engaged in policy, planning and service delivery. Building the capacity of nurses and midwives to provide ART sets the stage for effective integration of prevention of mother-to-child transmission services with maternal and child health services. It also empowers frontline health care workers to meet the prevention, care and treatment needs of the entire family at the primary care level.

In South Africa, home to one out of every six people in the world living with HIV, Jhpiego conducted a situational analysis in 2008 to assess, document and advocate for the role of nurses and midwives in providing HIV treatment services. The analysis highlighted competency-based training, health systems strengthening, political advocacy and policies supporting expanded scopes of practice as essential aspects for institutionalizing skills that nurses and midwives were already performing in many settings. In collaboration with Stellenbosch University, Jhpiego developed an accredited, 6-month course, “Clinical Competency in Antiretroviral and Tuberculosis Treatment,” to train more than 200 nurses and midwives. The course continues to be offered by the University.

In Mozambique, 11.5 percent of adults between the ages of 15 and 49 are living with HIV. Although this African country is slightly larger than the state of Texas, with a similar population size, there are fewer than 1,000 doctors to serve the population of 24 million, as compared with the 43,000 physicians in Texas. As a result, nurses are the backbone of the health care system, particularly in rural areas. Jhpiego



Photo by Kate Holt

has been supporting the government and nursing education institutions in Mozambique to ensure that the curriculum for training new nurses is evidence-based and adequately addresses the country's health priorities, including universal access to ART. As such, nursing educators as well as students have been empowered to initiate and manage pregnant women on ART to keep mothers alive and healthy, as well as prevent transmission of HIV to their children.

In Côte d'Ivoire, Jhpiego has led advocacy efforts to sensitize relevant departments within the Ministry of Health to the role of nurses in expanding access to lifesaving ART for the most underserved populations. In coordination with the Ministry, Jhpiego also led the development and implementation of competency-based training for practicing nurses and midwives for

the country's first-ever demonstration project, where nurses comprehensively manage people living with HIV.

Only by harnessing the skills and commitments of nurses and midwives have countries managed to scale up the provision of ART. The dedication of these competent and confident essential health care providers prevents unnecessary HIV-related deaths. Through prompt identification of HIV during pregnancy and early initiation of ART, mothers are alive and well, caring for their HIV-free children.

Through Jhpiego's leadership in expanding the role of nurses and midwives to provide HIV services, thousands of women and families who normally would not have received HIV services are now receiving high-quality care.

Community-Level Task Shifting: A Model for Home-Based Counseling and Testing

By Amy Dear

“First piloted in Mozambique in November 2006, the successful CCT approach was endorsed as a national strategy and has become a model for task shifting in Mozambique and other countries.”

Jhpiego has pioneered an innovative strategy for HIV community counseling and testing (CCT), which relies on the geographical reach and skills of lay counselors to expand services to populations who do not regularly visit health facilities. First piloted in Mozambique in November 2006, the successful CCT approach was endorsed as a national strategy and has become a model for task shifting in Mozambique and other countries.

Originally intended as an aggressive scale-up strategy to help achieve national treatment goals for antiretroviral treatment coverage for HIV/AIDS, CCT began as a straightforward prevention intervention. It emphasized training lay counselors and equipping them with tools to reach their respective communities and refer HIV-positive individuals to the closest available treatment services. The project, implemented in Mozambique in partnership with the National AIDS Commission, the Ministry of Health (MOH), nongovernmental organizations and faith-based organizations, showed that the community task-shifting model reached significantly more rural and underserved populations than facility-based counseling and testing. From October 2008 to April 2013, the project counseled 1,242,225 people and tested 1,010,641 (81.4 percent acceptance rate) using the CCT approach; of those tested, 749,584 (74.2 percent) were aged 15 and older; 546,089 (54 percent) were females; and 34,035 (3.4 percent) were HIV-positive. A total of 116,475 couples were reached, with 2,192 positive concordant and 3,367 discordant couples. In addition, home-based CCT reached more children and couples and encouraged disclosure of test results among couples.¹ The clear and immediate success of the demonstration project helped win MOH support for expanding the project from an HIV/AIDS

prevention intervention to an extensive, basic health care management intervention that also includes screening for other prevalent diseases such as diabetes, malaria and tuberculosis. When the number of people tested by lay counselors increased more rapidly than anticipated, the scope of the project was expanded further to cover other critical interventions. These included support for prevention of gender-based violence, management of pregnancy and childbirth, and voluntary medical male circumcision services.

The lay counselors also began to use community mapping, which enabled them to: ensure that there was appropriate and confidential follow-up after referrals; document the need to return to offer counseling and testing to family members who were not at home during the initial visit; and reinforce linkages to other prevention services and health care facilities. Not only have high-quality CCT services improved counseling and testing coverage for couples and children, they have also contributed to changing individual behaviors, strengthening the human face of health services, reducing the stigma associated with disclosure and addressing gender-based violence.

The CCT approach is now integral to the provision of health services in Mozambique and has proven to be an important vehicle in bringing health services to the people, resulting in wider coverage of services—and serving as a model for replication in other countries.

¹ Data compiled by Jhpiego under University Technical Assistance Project in Support of the Global AIDS Program, JHU-UTAP CoAg#3U62PS322428; and Mozambique: Strengthening Safe Hospitals and Clinics in HIV/AIDS Prevention, CDC Grant # 5U2GPS001542.

Creating an AIDS-Free Generation

By Alice Christensen and Kelly Curran

After decades of effort, the path toward an AIDS-free generation is becoming clear. Preventing new infections is a crucial step forward along this path, and voluntary medical male circumcision (VMMC) can play a pivotal role. The results of three randomized controlled trials show that VMMC reduces female-to-male HIV transmission by at least 60 percent. Cost and impact modeling studies show that rapidly scaling up VMMC to reach 80 percent of men of reproductive age would avert an estimated 3.4 million new HIV infections and save \$16.5 billion in care and treatment costs by 2025. Jhpiego is at the forefront of this prevention intervention; as a global leader in the battle against AIDS over the last 10 years, Jhpiego has translated groundbreaking Johns Hopkins research on VMMC into practical methods for combating HIV in countries with the highest burden of disease.

Between 2003 and 2005, Jhpiego supported a demonstration project in Zambia to investigate whether male circumcision services could serve as an entry point to reproductive health services for men. As part of this pilot project, Jhpiego created the training package that eventually formed the backbone of *Male Circumcision under Local Anaesthesia*, the World Health Organization (WHO)/Joint United Nations Programme on HIV/AIDS (UNAIDS)/Jhpiego reference manual and training package. This manual now stands as the international consensus document for VMMC surgical services.¹ In 2010, WHO and Jhpiego published a companion manual and training package, *Early Infant Male Circumcision*

under Local Anaesthesia,² a resource for countries that wish to introduce or standardize early infant male circumcision practices.

With the generous support of our donors, we have been able to assist 10 countries in the East and Southern Africa region to scale up VMMC as part of a comprehensive package of HIV prevention services. These 10 countries are Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Rwanda, South Africa, Tanzania and Zambia. This package includes screening and treatment for sexually transmitted infections; HIV testing, counseling and referral to care; condom promotion; and HIV risk reduction counseling.

Moving forward, Jhpiego continues to play a leadership role in efforts to expand access to high-quality VMMC services that are accessible and acceptable to communities with a high burden of HIV disease. Over the coming years, Jhpiego will continue to:

- Improve service delivery approaches to reach the unreached (e.g., by using geographic information system mapping to identify communities that have not yet received VMMC services);
- Lead studies that hold promise for expanding choice in VMMC (e.g., introductory studies of the PrePex™ device in Botswana, Mozambique, Lesotho and Tanzania);



- Intensify efforts to ensure that men who test HIV-positive in VMMC settings are effectively linked to HIV care and treatment;
- Participate in global technical working groups to advance the state of the art in VMMC; and
- Introduce early infant male circumcision as a key element of maternal, newborn and child health services in high HIV prevalence settings to ensure that the next generation receives the protective benefit.

Postscript: As of April 2016, Jhpiego is proud to have supported programs that have conducted over 2 million VMMCs, averting thousands of future infections across 12 countries with high HIV prevalence.

¹ World Health Organization, Joint United Nations Programme on HIV/AIDS, Jhpiego. 2009. *Male Circumcision under Local Anaesthesia Learning Package*. <http://reprolineplus.org/resources/male-circumcision-under-local-anaesthesia-learning-package>.

² World Health Organization, Jhpiego. 2010. *Early Infant Male Circumcision under Local Anaesthesia*. <http://reprolineplus.org/resources/early-infant-male-circumcision-under-local-anaesthesia>.

Cervical Cancer Prevention: Jhpiego's Pioneering Work in the Single Visit Approach/Visual Inspection with Acetic Acid

By Alena Skeels and Ricky Lu

Providing leadership in reproductive health, Jhpiego worked with stakeholders and partners to pioneer the single visit approach (SVA) for cervical cancer prevention. The SVA consists of visual inspection using dilute acetic acid (the main component of vinegar) to detect precancerous lesions on the cervix, followed by the offer of treatment using a freezing technique (cryotherapy), all in one visit. This practical, clinically safe and cost-effective approach to cervical cancer prevention in low-resource settings helps save women's lives worldwide by reducing the overall cost of detection and treatment, including turning what would normally require four or five clinic visits into just one. As such, SVA offers screening and treatment in one package of services that can be provided easily at local health facilities by nurses and midwives—the mid-level providers on the frontlines of care. For these reasons, SVA has become the “gold standard” cervical screening approach in much of the developing world, supported by both the World Health Organization (WHO) and the United Nations Population Fund (UNFPA).

The detection of precancerous cervical lesions using acetic acid was pioneered by Dr. Harshad Sanghvi and other colleagues at Jhpiego. Starting in 1999, Jhpiego collaborated with multiple studies that confirmed the

safety and effectiveness of SVA, which contributed to the government of Thailand adopting SVA as a national program. Thailand now leads the developing world in cervical cancer prevention, with more than 1 million Thai women screened using this low-cost approach. As of 2011, more than 20 countries were implementing visual inspection using dilute acetic acid for screening, according to the Cervical Cancer Awareness Report Card.

Jhpiego's commitment to preventing cervical cancer as the leading cause of cancer deaths among women in low-resource settings extends into the field of HIV/AIDS. Jhpiego is proud of playing a pivotal role convincing the United States President's Emergency Plan for AIDS Relief (PEPFAR) in 2008 to formally fund cervical cancer prevention, as it represents one of the most dangerous opportunistic infections for women living with HIV/AIDS. Jhpiego has worked in cervical cancer prevention in more than 15 countries and has joined forces with the Pink Ribbon Red Ribbon initiative—a partnership of the George W. Bush Institute, PEPFAR, Susan G. Komen and the Joint United Nations Programme on HIV/AIDS (UNAIDS)—to leverage public and private investments in global health to combat cervical and breast cancer.

“Jhpiego worked with stakeholders and partners to pioneer the single visit approach (SVA) for cervical cancer prevention.”



Integrating the Single Visit Approach to Cervical Cancer Prevention with HIV Care and Treatment

By Alena Skeels

Cervical cancer is the leading cause of cancer-related deaths for women in Africa. Each year, worldwide, 270,000 women die needlessly from a disease that is 100 percent preventable. Approximately 80 percent of these deaths occur in low-resource countries, where less than 1 percent of HIV-positive women are screened for cervical cancer, which is one of the most dangerous opportunistic infections for women living with HIV/AIDS. The survival rate for cervical cancer in sub-Saharan Africa is 20 percent, compared with 80 percent in the United States—where the Pap test is widely available for screening.

Now, because of advances in treatment for HIV/AIDS, women in sub-Saharan Africa—the epicenter of the pandemic—are living with HIV, but are at risk for dying from cervical cancer **because of the lack of screening**. Traditionally, cervical cancer prevention efforts have targeted the general population, but Jhpiego is specifically focusing on HIV-positive women, representing a new frontier.

Globally, an estimated 50 percent of adults infected with HIV are women, and these women have a higher incidence and greater prevalence of human

papillomavirus (HPV) infection, which is responsible for nearly all cases of cervical cancer. Because HPV generally persists longer in women with HIV, this population has a higher risk of developing precancerous lesions. And these lesions may progress more rapidly to cancer in women with HIV.

Jhpiego has been a leader in establishing and scaling up innovative, low-tech cervical cancer prevention (CECAP) programs using the cost-effective single visit approach (SVA) to screening and treatment. This approach combines visual inspection of the cervix after an application of acetic acid (VIA) to detect precancerous lesions, with an offer of immediate treatment with cryotherapy, when appropriate.

Building on this experience, Jhpiego has pioneered the integration of this program with existing HIV care and treatment services. For example, with support from the United States President's Emergency Plan for AIDS Relief (PEPFAR) at 20 HIV care and treatment sites in Côte d'Ivoire, Jhpiego and partners screened more than 13,000 women, including 6,000 women living with HIV, and provided immediate cryotherapy to 76 percent of eligible women. Globally, Jhpiego has helped to screen



more than 170,000 women, treat more than 10,000 women and train 700 providers to deliver CECAP services. By integrating cervical cancer screening and treatment with HIV services, Jhpiego is helping to save the lives of women in low-resource countries, many of whom are struggling with the added burden of HIV.

“Jhpiego has pioneered the integration of cervical cancer screening with existing HIV care and treatment services.”

Preventing Cervical Cancer in the Next Generation: The Mother-Daughter Initiative in Thailand and the Philippines

By Sharon Kibwana

“More than 88.1 percent (Philippines) and 99.8 percent (Thailand) of the girls received all three doses of the HPV vaccine.”

For more than a decade, Jhpiego has been committed to building local capacity in low-resource settings for the implementation of a “single visit approach” to cervical cancer screening and treatment. The single visit approach involves visual inspection of the cervix after application of acetic acid (VIA), followed by immediate treatment with cryotherapy for eligible lesions—during the same visit. Women in low-resource settings face a number of barriers to accessing care, including lack of funds to pay for transportation and lack of access to health screenings that provide test results and immediate treatment. Combining screening and treatment in a single visit approach greatly reduces the burden on these women.

In addition to this innovative approach to screening and treatment, there is now a vaccine available to protect women against the human papillomavirus (HPV), which has been shown to cause cervical cancer. As the HPV vaccine becomes more affordable and available to governments and stakeholders in low-resource settings, there is an opportunity to explore approaches that will ensure that it reaches all eligible girls. Pilot projects that use a school-based approach to introduce the vaccine have been successfully implemented in various countries.

Recognizing the benefits of ensuring optimal coverage of the vaccine and reaching a greater number of girls, including those who may not have access to schools, Jhpiego initiated a study that integrated provision of the vaccine within existing cervical cancer screening services at health facilities in a “no

missed opportunities” approach. The study, called the Mother-Daughter Initiative (MDI), was implemented from February 2011 to July 2012 in Thailand and the Philippines. Its premise was that mothers (or women) who visit clinics and opt to receive cervical cancer screening will be more likely to bring their daughters (or other female relatives) to the clinic for vaccination later. In partnership with Chulalongkorn University in Thailand and the Cancer Institute Foundation in the Philippines, the MDI recruited 8,005 adolescent girls for the study through the clinics where their mothers received screening. More than 88.1 percent (Philippines) and 99.8 percent (Thailand) of the girls received all three doses of the HPV vaccine. The study also included interviews with parents and guardians to assess their knowledge, attitudes and beliefs about cervical cancer, HPV and the HPV vaccine.

The preliminary findings of the study suggest that an integrated approach to introducing the vaccine is feasible and could complement a school-based approach, resulting in a generation of girls who will be protected from cervical cancer.

Malaria in Pregnancy: Innovative Practices to Improve Maternal and Child Health

By Elaine Roman

Since 2002, Jhpiego has implemented innovative and strategic health practices for pregnant women, including focused antenatal care (ANC) and community-directed interventions (CDIs), to improve efforts to control malaria in pregnancy (MIP). Beginning in 2002, in collaboration with the World Health Organization, Jhpiego introduced the implementation of focused ANC services with MIP. Given that over 90 percent of pregnant women attend ANC at least once during pregnancy and often twice, ANC is an opportune platform for delivering a broad range of comprehensive health services, including malaria control, during pregnancy. For malaria, these services include: a full treatment dose of an antimalarial for intermittent preventive treatment in pregnancy (IPTp) during routine ANC; promotion and use of an insecticide-treated bed net (ITN); and effective diagnosis and treatment for women with malaria.

Between 2002 and 2004, Jhpiego provided technical support to the Ministries of Health in Kenya and Burkina Faso to introduce and expand focused ANC with MIP. In Kenya, baseline and follow-up surveys, conducted by the United States Centers for Disease Control and Prevention in 2002 and 2005, respectively, showed that IPTp increased significantly from 7 percent to 38 percent. In Burkina Faso, baseline (2001) and follow-up (2004) results revealed significant improvements in health outcomes. The percentage of women attending

four or more ANC visits increased from 21 percent to 44 percent; IPTp increased from 0 to 75 percent; and ownership of an ITN increased from 22 percent to 46 percent. Also, substantial health impacts in the form of significantly reduced malaria (22 percent to 15 percent) and low birthweight (13 percent to 11 percent) were documented. These efforts catalyzed the introduction and expansion of focused ANC services with MIP in multiple African countries.

For example, in 2008, supported by the ExxonMobil Foundation, Jhpiego piloted a CDI approach in Akwa Ibom State, Nigeria, to improve MIP services for pregnant women. (CDIs foster partnerships between communities and facilities; communities “direct” the planning and implementation of health services in coordination and collaboration with health facilities.) This approach led to increases in IPTp use and ITN ownership and maintained ANC coverage among pregnant women. During the baseline and follow-up surveys conducted in 2008 and 2010 respectively, the number of pregnant women who slept under an ITN increased from 19 percent to 36 percent. The effects of the CDI program were largest for IPTp adherence, increasing the fraction of pregnant women taking at least two doses of sulfadoxine-pyrimethamine during pregnancy by 35.3 percentage points (95% CI: 0.280, 0.425, p-value < 0.001), relative to the control group.¹



“Jhpiego’s work in MIP has led to improved care for pregnant women with malaria.”

This single project led to the adoption and expansion of the CDI approach across Nigeria for MIP and malaria services for young children.

At the global level, Jhpiego is a recognized leader in MIP. Jhpiego has extended its ability to make an impact on malaria globally by participating in strategic partnerships. Since 2003, Jhpiego has actively participated in the Roll Back Malaria MIP Working Group—as cochair for 7 years, secretariat for 4 years and technical representative throughout. Through this collaboration, Jhpiego has contributed to efforts that have reprioritized MIP as a core component of maternal, neonatal and child health programming in countries where malaria is prevalent. Jhpiego’s work in MIP has led to increased use of IPTp, increased ownership and use of ITNs and improved care for pregnant women with malaria in more than 20 countries across sub-Saharan Africa.

¹ Okeibunor JC, Orji, BC, Brieger W, et al. 2011. Preventing malaria in pregnancy through community-directed interventions: evidence from Akwa Ibom State, Nigeria. *Malaria Journal*. 10:227.

Improving Infection Prevention Practices: A High-Impact, Lifesaving Intervention

By Sharon Kibwana

In many health facilities in low-resource settings, it is not unusual to find blood samples left on window sills in labs; medical waste disposed of in cardboard boxes and pit latrines; rusty, unsterilized equipment in maternity wards; and other unsafe and unsanitary conditions. Improving infection prevention practices in health care settings reduces the risk that clients, their families and health workers will acquire and transmit potentially life-threatening infections after accidental exposure to blood and body fluids or contaminated objects.

Recognizing infection prevention as an integral part of quality service delivery, Jhpiego has dedicated its efforts over the last decade to advocating for and implementing evidence-based standards for infection prevention in more than 40 countries. By providing leadership for the development of comprehensive national policies and guidelines in countries such as in Ethiopia and Zambia, and by systematically integrating infection prevention into in-service training, pre-service education and service delivery in Malawi, Mozambique, Tanzania, Uganda and other countries, Jhpiego has worked with ministries of health to ensure that their citizens receive care in clean, safe facilities. In Uganda, Jhpiego supported infection prevention strengthening in 12 health facilities in Isingiro District, helping to ensure that 180,000 Ugandans had a lower risk of acquiring infections at health facilities.

In 2003, Jhpiego developed a widely used learning resource package, *Infection Prevention Guidelines for Healthcare Facilities with Limited Resources*, which offers guidance for hospitals and other facilities that provide general medical, surgical and obstetric services.¹ In countries such as Malawi, Tanzania and Uganda, Jhpiego has also introduced Standards-Based Management and Recognition (SBM-R®), a quality improvement approach that helps health facilities institutionalize the processes of effective hand hygiene, instrument processing and waste management to reduce health care-associated infections and minimize environmental pollution.

In country after country, Jhpiego has found that even in clinics with the most limited resources, improving infection prevention is one of the most easily attainable, highest-impact lifesaving interventions. Jhpiego has supported countries in identifying and using simple, locally available solutions, such as locally manufactured personal protective equipment and hand sanitizer that can be made in the health facility—simply by mixing 2 mL glycerin and 100 mL of alcohol. The emphasis on low-cost, sustainable approaches has led to a “can-do” ethos among providers who are trained and thus empowered to protect themselves and their clients. Service statistics have shown that the incidence of infections in health facilities decreases where Jhpiego’s programs are implemented.



Having seen that strengthening infection prevention practices results in clean hospital wards and health care providers adequately protected against potential infection, Jhpiego continues to advocate for and support infection prevention practices in all of its programs.

Postscript: In 2014, in response to the Ebola outbreak in West Africa, Jhpiego quickly mobilized to develop an Ebola Learning Resource Package in collaboration with the Department of Hospital Epidemiology and Infection Control at the Johns Hopkins Hospital; the package has been widely disseminated throughout Africa. Jhpiego also prepared over 100 Jhpiego and ministry of health staff in 31 countries as Ebola trainers. In addition, the Johns Hopkins Center for Bioengineering Innovation & Design and Jhpiego partnered to develop a new personal protective suit that was chosen as one of only five United States Agency for International Development Grand Challenge awardees. The Ebola personal protective suit is expected to go into mass production by early 2017 after field-testing is complete.

¹ Jhpiego will publish an updated learning resource package on infection prevention and control in 2017.

Revolutionizing Training of Health Care Providers

By Julia Bluestone

For 4 decades, Jhpiego has led training innovations around the globe. Beginning with innovative approaches to training physicians to perform laparoscopic surgery for diagnostic and therapeutic purposes, to using low-cost operating loupes (goggles) for microsurgery, Jhpiego has been a leader worldwide in the training of health care providers.

The publication of Jhpiego's *Clinical Training Skills for Reproductive Health Professionals* manual in 1995,¹ perhaps more than any other event at Jhpiego, changed the direction of training. In this landmark manual, Jhpiego's future path was set, with the introduction of competency-based learning guides and checklists and the use of the humanistic approach to training—in which service providers had their clinical skills standardized on an anatomic model before moving on to clients. In 2010, this reference manual, along with additional materials for the facilitator and the learner, was revised and published as *Training Skills for Health Care Providers*, third edition.²

Before publication of the 1995 manual, a typical course on the intrauterine device (IUD) took 6 weeks, and did not include the use of anatomic models. Jhpiego worked closely with a manufacturer to create a pelvic model, allowing learners to master the skill in simulation before working with clients. This innovation broke new ground in evidence-based, humanistic training by decreasing the time required to achieve competency, reducing stress for the learner and potentially reducing the risk of adverse events with clients.

In 1994, this approach to clinical training was tested in Thailand. Jhpiego and Chulalongkorn University evaluated this then-revolutionary use of models in training by comparing the numbers of clients required for a learner to achieve competency in IUD insertion. In the intervention group, 70 percent of the 150 providers who were trained using models demonstrated competent performance of IUD insertion after practice on one client. In comparison, in the control group, only 18 percent demonstrated competent performance after practice on one client. Even after practice on eight clients, only 71 percent of the control group demonstrated competency in IUD insertion, compared



to 97 percent of the intervention group, who demonstrated competency after just three clients. As a result of this study, the government of Thailand adopted the use of competency-based training with models (i.e., the humanistic approach), and the length of training for midwives in IUD insertion was reduced from 6 to 2 weeks. The approach became the “gold standard” for clinical training, not only for Jhpiego but for sister agencies around the world. The results of this study were published in the *British Journal of Family Planning* in 1997.³

¹ Sullivan R, Magarick R, Bergthold G, Blouse A, McIntosh N. 1995. *Clinical Training Skills for Reproductive Health Professionals*. Baltimore, MD: Jhpiego.

² Bluestone J, Fowler R, Johnson P, Smith J (eds). *Training Skills for Health Care Providers*, 3rd edition. Baltimore, MD: Jhpiego.

³ Limpaphayom K, Ajello C, Reinprayoon D, Lumbiganon P, Gaffikin L. 1997. The effectiveness of model-based training in accelerating IUD skill acquisition. *British Journal of Family Planning*. 23(2):58–61.

Leading the Way in Pre-Service Education

By Julia Bluestone

For nearly 40 years, in 68 countries and more than 120 education programs, Jhpiego has worked to strengthen pre-service education around the globe. Beginning in the early 1970s, Jhpiego strengthened education in medical and nursing schools in countries such as the Philippines, Mexico, Somalia and Kenya. One of the first programs was at the Autonomous University of Tamaulipas, Mexico. This program, on Fertility Management Education for Medical Students, eventually launched a medical education program in 28 of the 56 Mexican medical schools. The emphasis of the course was on preparing students to provide family planning services.

In the early 1980s, Jhpiego partnered with the International Federation of Gynecology and Obstetrics (FIGO) to send the FIGO teaching manual, known as the *Manual of Human Reproduction* (with accompanying slides), to more than 700 nursing and medical colleges in low-resource countries for use by faculty in their teaching. A peer-reviewed article published in 1980, coauthored by Jhpiego's Vice President for Technical Leadership, Dr. Ronald Magarick, found that more than 30,000 students around the world were exposed to the content of the manual. This work has been cited in the literature as the first example of an organization working to strengthen medical and nursing education in developing countries.

Next was Jhpiego's development of the International Nurse Education Program, which worked to strengthen

nursing education throughout Asia and Africa. Later, Jhpiego also developed a course, "Academic Skills in Reproductive Health," which was designed to strengthen the ability of mid-career medical and nursing/midwifery faculty to teach and assume leadership positions at their respective schools. Many graduates of the course have noted that participation in the course helped launch their academic careers in the teaching of family planning and reproductive health (FP/RH).

Examples of Jhpiego's work in pre-service education include early efforts to strengthen minilaparotomy training for interns in Kenya. As a result of this effort, upon graduation, every intern in 13 hospitals affiliated with the University of Nairobi was certified as competent in minilaparotomy—a sentinel undertaking by Jhpiego. In the Philippines, Jhpiego worked with the Association of Deans of Philippine Colleges of Nursing to strengthen the FP/RH curriculum, and also worked with the nursing/midwifery accreditation council to require questions on FP/RH in the certification exam for nurses and midwives. A study conducted in the 1980s demonstrated that nurses/midwives who graduated from the schools where Jhpiego had provided support scored better on the national licensure exam for nurses, compared with those who graduated from schools where Jhpiego had not provided the support.

More recently, Jhpiego has worked to strengthen midwifery education globally, particularly in Afghanistan. In 2002, Jhpiego provided technical

leadership in the expansion of a national Community Midwifery Education program. This program launched 27 midwifery schools in 29 provinces in 6 years—a nearly four-fold increase—and graduated more than 2,200 skilled midwives. Between 2006 and 2011, almost 1,000 additional midwives graduated. A program evaluation in 2009 found not only that the midwifery program delivered critical services to women, but also that “substantial health system strengthening” was accomplished in the Ministry of Public Health at central and provincial levels.

In addition, in 2004 Jhpiego provided direction in the establishment of a midwifery education accreditation program in Afghanistan to ensure that all programs provide a standardized education. This has evolved into the effective functioning of the Afghanistan Midwifery and Nursing Education Accreditation Board, and schools are accredited by this board when they meet set requirements. And to further support the professionalization of midwifery, the national Afghan Midwives Association was established. It is thriving today, representing more than 2,000 members: <http://www.afghanmidwives.org/>.

Finally, Jhpiego recently conducted an integrative review¹ of the literature on pre-service education and its link to health outcomes. The findings from this review have informed a shift in strategy toward greater use of e-learning, student selection criteria, student assessment and professional regulation and more attention to clinical practice.

As part of the move to use more innovative training and learning approaches, Jhpiego engaged in a project with

Intel, the United Nations Population Fund (UNFPA) and the World Health Organization (WHO)—a project that is transformational for pre-service education. E-learning modules on topics such as pre-eclampsia/eclampsia, postpartum hemorrhage and family planning have been developed and integrated into midwifery education, beginning in Ghana. Students in these schools are able to learn the technical content at their convenience, more efficiently and effectively than through traditional lectures, and are better prepared to enter their clinical rotations. More than 5,000 of the modules have been downloaded and are being used by students in numerous countries worldwide.

Jhpiego continues to break down barriers and explore new frontiers in pre-service education, enabling students to begin to provide high-quality services immediately upon their graduation from colleges and universities.

¹ Fogarty L, Johnson P, Bluestone J, Drake M, Rawlins B, Fullerton J. 2012. *The Health Impacts of Pre-Service Education: An Integrative Review and Evidence-Based Conception Model*. Baltimore, MD: Jhpiego.

Groundbreaking Use of Information Technology for Global Health

By Theresa Norton

Jhpiego pioneered the use of information technology (IT) for global health by providing online access to clinical training materials through the development of the Reproductive Health Online (ReproLine®) website. Prior to ReproLine's creation, availability of these materials in developing countries was limited to print distribution for course trainers and participants, and it was difficult to update the content once a project ended and Jhpiego was no longer working in a country. To solve these problems, in 1995, Jhpiego took advantage of the newly emerging Internet and designed ReproLine to maintain contact with its network of trainers and sustain high-quality training through updated, relevant health information and peer support. For many years, ReproLine served as the number one source of information on reproductive health for trainers and service providers worldwide.

The Internet has also allowed Jhpiego to reach beyond its network of trainers to a much wider audience. And what began as a single website has, over the years, grown into a suite of IT services that Jhpiego designed for use in low-resource settings.

To continue using IT to provide the global health community with information, access to expertise and support for program implementation, Jhpiego launched an updated and expanded ReproLine. Known as ReproLinePlus, it offers discussion boards and state-of-the-art learning opportunities in a range of technical areas, such as maternal and newborn health and voluntary medical male circumcision, as well as programmatic approaches, including nearly 190 competency-based education and training materials.

“The award-winning ModCAL[®] course for in-service trainers and pre-service faculty provides knowledge updates, training skills demonstrations and exercises to develop training competencies.”

Among the ReproLinePlus offerings is the award-winning *ModCAL[®] (Modified Computer-Assisted Learning) for Training Skills* course for in-service trainers and pre-service faculty, which provides knowledge updates, training skills demonstrations and exercises to develop training competencies. This course continues Jhpiego’s groundbreaking efforts to reach trainers in low-resource settings around the world. ReproLinePlus also offers international, evidence-based standards of care for mothers and their newborns, such as the World Health Organization’s *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors*¹ manual, developed in collaboration with Jhpiego, which reaches thousands of users through Internet downloads and CD-ROM



distribution.

Other IT-related resources that Jhpiego pioneered over the years have included:

- A 14-week, email-based course on family planning/reproductive health (FP/RH) for HIV/AIDS patients in low-resource settings; participants from 30 countries took part in the course.
- A monthly *TrainerNews* newsletter on FP/RH news and training tips, which was emailed to more than 1,600 reproductive health professionals in 80 countries, including 45 low-resource countries.
- Technology-assisted learning centers in pre-service and in-service institutions, which for 10 years promoted computer-based learning and the use of the Internet for FP/RH programs through 19 centers in nine countries.

¹ World Health Organization (WHO), United Nations Population Fund (UNFPA), UNICEF, The World Bank. 2000. *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors*. Geneva, Switzerland: WHO. http://www.who.int/maternal_child_adolescent/documents/9241545879/en/; http://reprolineplus.org/system/files/resources/mcpc_guide_eng.pdf.

Advancing the Art of Learning and Training

By Julia Bluestone

For 4 decades, Jhpiego has led training innovations around the globe. Beginning with satellite-based distance learning in the early 1980s, these training innovations have aimed at increasing quality, improving efficiency and reducing overall training costs. In the 1990s, Jhpiego created *ModCAL® (Modified Computer-Assisted Learning) for Clinical Training Skills*, a CD-ROM-based course to update knowledge in training skills focused on reproductive health. The course was among the first of its kind and has since been used in more than 25 countries to prepare trainers and pre-service faculty.

In 2010, as part of Jhpiego's ongoing effort to maximize the flexibility, efficiency and effectiveness of training systems, *ModCAL®* was revised to be offered via the Web or flash drive. This updated course, *ModCAL® for Training Skills*, now uses an interactive multimedia format that combines self-paced learning delivered via the Internet or flash drive (*ModCAL®*) and individual coaching by a master trainer.¹

The new *ModCAL® for Training Skills* provides a more flexible means of strengthening the teaching skills of trainers, pre-service faculty and clinical preceptors, and of training health service providers to become clinical skills trainers. The revised course has a strengthened focus on developing clinical decision-making skills and

offers examples from all technical areas, including HIV, infectious diseases and maternal and newborn health. Using *ModCAL® for Training Skills* reduces group-based training time from 5 to 3 days, and in some programs, participants move directly to co-training, resulting in significant cost savings.

As of January 2013, *ModCAL® for Training Skills* had been used in more than 15 countries across Africa and Asia, viewed by almost 3,500 unique users and downloaded more than 1,000 times—ultimately serving as the launching point for preparing Jhpiego trainers and those in other organizations worldwide.

¹ Jhpiego. 2010. *ModCAL® for Training Skills*. Baltimore, MD: Jhpiego. <http://reprolineplus.org/learning-opportunities/course/modcal-training-skills>.

“This updated course, *ModCAL[®] for Training Skills*, now uses an interactive multimedia format that combines self-paced learning delivered via the Web or flash drive (*ModCAL[®]*) and individual coaching by a master trainer.”



The screenshot displays the ModCAL software interface. At the top left, it shows "Managing Training (27:25 / 33:29)" and the Jhpiego logo, an affiliate of Johns Hopkins University. A navigation menu on the left lists various training topics, with "Post-course: Last tasks" currently selected. The main content area shows a slide with a bulleted list of tasks: "Compile and share data", "Prepare any required training report", "Provide training debrief", and "Follow up visits". To the right of the list is an illustration of a house with a forklift in front. Below the list is an illustration of a hand writing in a notebook labeled "NOTES". The word "MODCAL" is written in large, stylized letters at the bottom right, with the letter 'O' containing a lightbulb icon. The bottom of the interface features a control bar with a play button, "SLIDE 17 OF 20", "PLAYING", and a timer "00:14 / 01:17".

- Compile and share data
- Prepare any required training report
- Provide training debrief
- Follow up visits

NOTES

MODCAL

Leadership in Task Sharing

By Barbara Deller

“By expanding the role and reach of the health workforce, Jhpiego is making many lifesaving services—previously available only to the urban and the wealthy—accessible to people in all communities.”

Jhpiego seeks to ensure accessible, equitable, high-quality health services. Human resource shortages, especially in rural areas, have been a significant challenge to achieving this goal, especially because doctors, midwives and highly trained nurses often stay in cities and work in hospitals. For several decades, Jhpiego has promoted task shifting as a strategy to optimize the tasks and roles of existing health resources to reach as many people as possible with essential health services. In the early 1990s, Jhpiego empowered nurses to provide intrauterine device (IUD) and contraceptive implant services; by the early 2000s, Jhpiego was supporting midwives to provide lifesaving emergency obstetric and newborn care services, all tasks previously reserved for physicians. Jhpiego also trained many general doctors in Asia and Africa to perform cesarean sections and/or minilaparotomies for female sterilization—surgeries that were previously performed only at referral hospitals by specialists in gynecology and obstetrics. Similarly, the frontline prevention and treatment of cervical cancer have been placed in the hands of nurses and midwives, increasing access to these services for more than 108,000 women over the past 5 years.

With the growing need to address the HIV epidemic, Jhpiego has trained lay persons with a seventh grade education to provide screening for tuberculosis and hypertension, as well as counseling and testing for HIV, in the community. These lay persons have provided counseling and testing services to more than 900,000 persons in Mozambique alone. In response to international recognition that voluntary medical

male circumcision is a key tool in the effort to prevent the spread of HIV, Jhpiego has played a leadership role across sub-Saharan Africa in advocating for nurses to provide both adult and infant circumcision. In several countries, nurses perform circumcisions independently; in others, nurses perform many but not all of the surgical steps. By working with countries to harness the skills and commitment of nurses, Jhpiego has made it possible for many hundreds of thousands of men to have this procedure. Finally, in South Africa, Mozambique and Côte d’Ivoire, Jhpiego has advocated for expanded access to antiretroviral therapy through policies and programs that enable nurses and midwives to provide comprehensive care, including antiretroviral therapy, for people living with HIV.

For too long, hundreds of thousands of people living in rural and underserved areas have been without basic maternal, newborn, reproductive and HIV-prevention care and services. By expanding the role and reach of the health workforce, Jhpiego is making many lifesaving services—previously available only to the urban and the wealthy—accessible to people in all communities.

Leadership in Supporting and Strengthening Professional Associations and Regional Bodies

By Peter Johnson

Throughout our 40 years, Jhpiego has played a critical role in strengthening professional associations of nurses, physicians and midwives and regional health organizations. We have assisted these groups in leading countries to find solutions to the complex problems affecting their health systems.

Afghanistan had virtually no midwifery workforce when Jhpiego began its work there in 2003. An aggressive plan to reduce maternal mortality focused on the development of a highly skilled midwifery workforce. The Afghan Midwives Association (AMA) was formed with Jhpiego's assistance. The AMA helped spearhead the improvement of midwifery practices throughout Afghanistan and has been credited, at least in part, for the dramatic decrease in maternal mortality in Afghanistan. The Afghanistan Mortality Survey released in 2011 by the Afghanistan government found that 327 Afghani women die for every 100,000 births, in contrast to 1,400 per 100,000 births—the ratio reported in 2008 by the World Health Organization. Today, the AMA has chapters representing over 2,000 midwives working in 33 of Afghanistan's 34 provinces. It has been essential in the development of national education and practice standards and has served as a role model for midwifery associations in other parts of the world.

Jhpiego supported the Federation of Obstetric and Gynaecological Societies of India (FOGSI) in setting up a comprehensive emergency obstetric and newborn care (CEmONC) program to train frontline medical officers to provide CEmONC services. Jhpiego created three centers of excellence and set up a coordinating mechanism at FOGSI. As a result, FOGSI received a grant from the government of India to scale up the model, during which 20 centers were established and hundreds of medical officers trained. The program continues today almost 10 years after Jhpiego's initial support.

Jhpiego also provides leadership at the regional level. For example, in 1999, Jhpiego was instrumental in helping to establish the Regional Center for Quality of Health Care at Makerere University in Kampala, Uganda. To this day, the Center provides leadership in building regional capacity to improve quality of health care by promoting better practices. The Center has become sustainable and is an important legacy of Jhpiego's work in Uganda.

In addition, Jhpiego has maintained an ongoing commitment to the East, Central, and Southern African College of Nursing (ECSACON). This organization of national nursing and midwifery associations has been a strong ally in scaling up Jhpiego's solutions to health care challenges within this important region. Jhpiego



Photo by Kate Holt

has worked with the Society of African Gynecologists and Obstetricians (SAGO) to develop educational initiatives in family planning and emergency obstetric and newborn care for pre-service education. Jhpiego had a significant leadership presence at the SAGO 12th Congress in Niamey, Niger, in January 2013.

On the international level, Jhpiego is very active with professional associations. We work closely, for example, with both the International Council of Nurses (ICN) and International Confederation of Midwives (ICM) to strengthen their member associations. Jhpiego was a major contributor to both ICN and ICM when both hosted their global meetings for the first time in Africa. We also have strong collaboration with the International Federation of Obstetrics and Gynecology (FIGO), which recently endorsed Jhpiego's policy statement on the global expansion of postpartum IUDs.

National, regional and international associations and bodies will continue to be strong allies in spreading Jhpiego's best practices and strategies. These organizations are vital to building and maintaining the global health workforce, and Jhpiego is proud to have taken a leadership role in strengthening them.

SBM-R[®], a Team-Based Quality Improvement Methodology to Improve Performance of Health Care Workers

By Lyra Alicia

In 1996, Jhpiego began integrating several quality improvement processes to improve the performance of frontline health care workers. This practical management approach is widely known today as Standards-Based Management and Recognition (SBM-R[®]).

SBM-R consists of four simple steps:

1. Set clear and simply worded performance standards with observable benchmarks;
2. Implement the standards through a systematic process, watch for performance gaps and develop corrective action plans to address gaps;
3. Use a team-based approach for measuring progress, which motivates transformation and adoption of corrective action plans; and
4. Celebrate by rewarding achievements through agreed-upon recognition mechanisms.

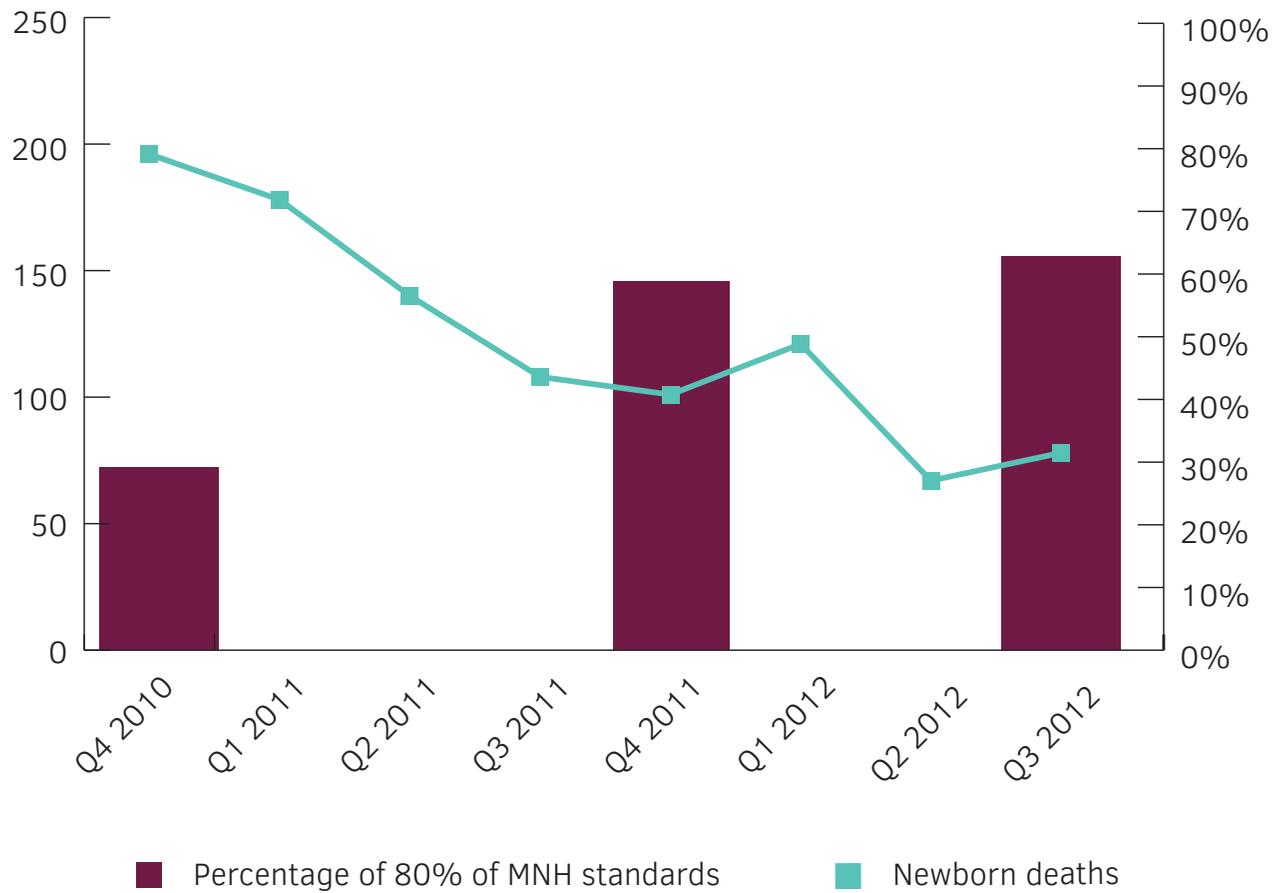
SBM-R applies a systems approach. It does not work on isolated problems but rather on specific aspects of service delivery, making it possible to achieve broad and sustainable improvements. Jhpiego has applied SBM-R to improve services in more than 30 countries and in a

wide range of technical areas—maternal and newborn care, infection prevention, cervical cancer prevention and a full array of HIV/AIDS and infectious disease services. Countries such as Malawi, Mozambique and Afghanistan have utilized SBM-R on a national scale and have sustained its implementation for more than 5 years.

By starting with simple interventions and then moving on to more complex problems, Jhpiego has documented results of SBM-R that range from improving cleanliness of facilities, increasing infection prevention practices and promoting respectful patient care, to more challenging issues such as: improving evidence-based practices to prevent maternal and neonatal morbidity and mortality; assuring quality of HIV prevention and treatment services; and improving pre-service education and health management systems.

An example of the effects of SBM-R on service performance and results helped to illustrate the effectiveness of the approach. In Zimbabwe, the number of newborn deaths by quarter was analyzed for 17 facilities where a quality improvement process using SBM-R was implemented. The figure on the next page

Zimbabwe: Newborn deaths by quarter at 17 SBM-R-supported sites



shows that, over a 2-year period, the number of newborn deaths decreased as health workers' compliance with maternal and newborn health standards increased.

Dr. Edgar Necochea, a chief innovator of SBM-R and Director of Health Systems Development at Jhpiego, describes the goal of SBM-R as addressing "... a critical gap between what is known in health care and what is done. Implementing SBM-R is a process to change the reality of underperforming services to achieve better health results. In the end, what's important is not just to know what should be done but to implement and manage changes."

Expanding Access to Care for Thousands by Integrating Health Services

By Megan Christofield

Jhpiego's work in integrating health services at the point of care has had great impact and has played a vital role in improving the health of women and children around the world. By maximizing opportunities through routine and systematic integration of health services, Jhpiego has enabled clients to get the care they need when they need it. Integration has also increased efficiency, which benefits both the client and the health care provider.

For many years, health facilities divided and addressed each specific health outcome separately, and this approach was often matched by a divided infrastructure—maternal health services were available only on a certain day; to access malaria services the client would need to revisit the facility on another day, or even travel to a different facility altogether.

Integrating health services expands access to health care services. With postpartum family planning, for instance, Jhpiego has emphasized the importance of systematically offering family planning (FP) information and services during routine antenatal, postnatal and child health visits, the most common times for health worker contact. Jhpiego has also found that women coming for postpartum care are very interested in receiving FP messages and services. These women

account for 90 percent of women of reproductive age in many high-fertility settings.

Liberia is a good example of the benefits of integration. Jhpiego prepared vaccinators to provide FP counseling and same-day referrals to women who brought their infants in for vaccinations, which enabled women to receive an FP method while their children received immunizations. In Côte d'Ivoire, and elsewhere, Jhpiego integrates cervical cancer screening with HIV care and treatment. And in many countries, Jhpiego integrates malaria prevention and treatment with antenatal care to improve birth outcomes.

Using a “no missed opportunities” approach, Jhpiego has consistently focused on bringing people the best care, in the best way. Supporting health care providers to address client needs first and overcome barriers to better health has inspired our innovations. Jhpiego continues to develop and fine-tune integration models to balance the needs of clients with the ability to maintain high-quality, integrated services.



“Using a ‘no missed opportunities’ approach, Jhpiego has consistently focused on bringing people the best care, in the best way.”

Photo by Kate Holt

Urban Health, an Engine for Innovation

By Stu Merkel

The world is urbanizing quickly. For the first time in recorded history, over half of the world's population currently lives in urban areas. In Africa in particular, urbanization largely equates with growing slums. UN-HABITAT estimates that 72 percent of all urbanites living in Africa in fact dwell in slums.

Urban slums are complex communities where poverty is only one of many challenges that impact the health and well-being of residents in slums. Jhpiego has learned firsthand that “proximity to health services does not equal access to health services.” One striking example from Kenya is that the rates of infant and under-5 mortality are greater in the urban slums of Nairobi than among the rural poor in Kenya, while immunization rates are lower.¹

Since 2005, Jhpiego has worked in Kenya and worldwide to address the health needs of the urban poor. With support from the Bill & Melinda Gates Foundation, the United States Agency for International Development (USAID), Merck/MSD, the Wallace Global Fund, the Waterloo Foundation and the Rockefeller Foundation—and in close partnership with local organizations—Jhpiego has translated its technical expertise to the context of poor, overcrowded slums in low-resource countries.

Jhpiego's successful work and results were recognized in the 2010 joint World Health Organization (WHO) and UN-HABITAT publication *Hidden Cities: Unmasking and Overcoming Health Inequities in Urban Settings*.² Jhpiego's approach has been to listen to the urban poor and to link them to health care services to address **real** health needs in their community. Numerous community-based innovations have resulted—and thousands of lives have been improved. A few examples:

- To “bring health care services to the people,” Jhpiego has scaled up the availability of community-based family planning services. In partnership with MSD, and building on the Bill & Melinda Gates Foundation-funded *Tupange* program, as of December 2012, Jhpiego helped over 22,251 clients in slums across Kenya access the full range of family planning methods and other critical health services, including HIV counseling and testing, as well as immunizations and deworming for children.
- Jhpiego has trained HIV-positive “expert patients” from slums who test the medical knowledge of clinicians providing HIV treatment and care services. These expert patients now are regularly engaged to help strengthen the quality of HIV training in Kenya.



- In response to the threat of violent sexual assault, Jhpiego sponsored self-defense training to help women in the Nairobi slums ward off attackers at night. Community paralegals who were trained with Jhpiego support have helped police capture and convict nine rapists from the slums. Youth groups now patrol the slums at night to help protect their community.
- Jhpiego has helped organize young mothers' clubs, which not only help single mothers care for themselves and their babies during and after pregnancy but also help them earn income to support their new families.

Jhpiego will continue to build upon these successes by working closely with urban communities to address their health needs in the years ahead.

¹ African Population and Health Research Center (APHRC). 2002. *Population and Health Dynamics in Nairobi's Informal Settlements: Report of the Nairobi Cross-Sectional Slums Survey (NCSS) 2000*. Nairobi, Kenya: APHRC.

² World Health Organization (WHO), UN-HABITAT. 2010. *Hidden Cities: Unmasking and Overcoming Health Inequities in Urban Settings*. Geneva, Switzerland: WHO.

Bringing Innovations to Scale through the Development and Adoption of National Policies and Guidelines

By Barbara Deller

“Through the years, Jhpiego has assisted governments and national programs to develop policies and clinical guidelines that support effective, equitable and standardized health care.”

During the 1980s, Jhpiego recognized that clinical services cannot be developed without strong national policy support. As a result, Jhpiego established a process of guidelines development that ensures ownership by local stakeholders while adapting international, evidence-based guidelines to the country. Through the years, Jhpiego has assisted governments and national programs to develop policies and clinical guidelines that support effective, equitable and standardized health care. More than 20 countries around the world have taken such action with support from Jhpiego, including Nepal, Zambia, Malawi, Haiti, Ukraine and Turkey.

These Jhpiego-assisted policy changes expanded reproductive health (RH) services and the role of nurses and clinical officers to perform RH procedures, such as manual vacuum aspiration and insertion of contraceptive implants and intrauterine devices (IUDs). Jhpiego has also partnered with governments in Malawi, Jamaica, Zimbabwe, Kenya and Zambia to establish RH guidelines and protocols that are considered the standard for best practices in service delivery. More recently, Jhpiego successfully collaborated with host governments to: establish guidelines for postnatal care, postpartum family planning and prevention of mother-to-child transmission of HIV in Tanzania; develop the first national family planning protocols and standards in Albania; and update RH guidelines in Afghanistan, Nigeria and Liberia, which include the national scale-up of postpartum family planning service provision by community health worker teams.

Jhpiego has maintained a global leadership role in the development of numerous guidelines and recommendations that have become universal standards of practice. In collaboration with the World Health Organization (WHO), Jhpiego has partnered to create global guidance on managing complications in pregnancy and childbirth, managing newborn problems, providing family planning and performing male circumcision under local anesthesia for adults and infants. Jhpiego collaborated with the United Nations Population Fund (UNFPA) to develop the global guide *Comprehensive Cervical Cancer Prevention and Control: Programme Guidance for Countries*.¹ Similarly, Jhpiego has provided technical guidance to WHO and other international bodies in the development of global recommendations for the prevention and management of key causes of maternal mortality, as well as for systems issues such as the strengthening of human resources for health.

These recommendations serve as the reference for global and national bodies to establish their own evidence-based service delivery, training standards and guidance documents. The evidence-based service delivery guidelines that Jhpiego has helped other countries develop and translate into practice continue to result in improved practices and services for women and families worldwide.

¹ United Nations Population Fund (UNFPA), PATH, Union for International Cancer Control (UICC), Jhpiego, International Planned Parenthood Federation. 2011. *Comprehensive Cervical Cancer Prevention and Control: Programme Guidance for Countries*. New York, NY: UNFPA. <http://eeca.unfpa.org/sites/default/files/pub-pdf/ENGLISH-%20Cervical%20Cancer%20Guidance.pdf>.

Saving Lives through Innovative Partnerships: The Jhpiego–CBID–Laerdal Day of Birth Alliance

By Stu Merkel

Throughout its 40 years of work around the world, Jhpiego has remained unwavering in its commitment to addressing maternal and newborn health. Building on longstanding relationships and common interests, in 2010, a natural partnership evolved among Jhpiego, Laerdal Global Health (a nonprofit affiliate of Laerdal Medical) and the Johns Hopkins Center for Bioengineering Innovation & Design (CBID) to form the Day of Birth Alliance.

This innovative partnership leverages each organization's strengths to address a common vision of improved maternal and newborn health:

- Having worked on maternal and newborn health in over 150 countries since 1973, **Jhpiego** provides critical knowledge of “what works” in addressing maternal and newborn health challenges and advises the Alliance on urgent priorities being identified by ministries of health around the world. Jhpiego also provides a plethora of field program sites for testing new products.
- As one of the world's leading training institutions for health engineers, **CBID** brings unique expertise in designing and engineering innovative medical technologies. CBID's highly competitive program encourages the world's top young minds to think critically about what new products are needed, and equips them with the business skills to plan how these products could be brought to market.

- As an affiliate of one of the world's most important resuscitation training device companies, **Laerdal Global Health** offers vast experience in understanding the dynamics and process of introducing medical devices to market. An industry leader in humanistic training models, Laerdal also offers a unique perspective on production and distribution of new medical products. Laerdal has generously partnered with Jhpiego to expand access to one of its most impactful training models, MamaNatalie, through a Buy One Gift One Program.

The Day of Birth Alliance accelerates the product design and market introduction process by creating synergy in the innovative work each organization is already doing. The Alliance first sends CBID students to Jhpiego program sites in Africa, Asia and Latin America to experience firsthand the environment where their potential products will be used. The Alliance then supports CBID students by providing regular feedback on their product design, taking into account both clinical quality and user perspective, as well as commercial viability. Acknowledging that many promising products cannot be fully developed during CBID's 2-year master's degree program, Laerdal Global Health generously supports the **Day of Birth Alliance Fellows Program** to employ those CBID students who are working on the most promising technologies. The Fellows continue to work with each member of the Alliance to commercialize their technologies even after completing their degrees.



Jhpiego and Laerdal also work collaboratively on Helping Mothers Survive (HMS), a new major educational program for frontline health workers in countries with high burdens of maternal mortality; HMS uses the innovative simulator, MamaNatalie, for teaching. After an initial, onsite 1-day training, providers continue reinforcing skills using a “low-dose, high-frequency” training approach with peers in their health facilities. The program aims to address the major causes of the 120,000 maternal deaths that occur annually.

“Having worked on maternal and newborn health in over 150 countries since 1973, **Jhpiego** provides critical knowledge of ‘what works’ in addressing maternal and newborn health challenges and advises the Alliance on urgent priorities being identified by ministries of health around the world.”

SmartCare, Zambia's Electronic Health Record System

By Stephanie Reinhardt

“The goal of SmartCare is to enable the delivery of cost-effective, confidential and high-quality health care for everyone—anywhere and anytime—by improving health records and related health information systems.”

In 2005, SmartCare was introduced to Zambia as a pilot project in Kafue District. With funding from the United States Centers for Disease Control and Prevention, Jhpiego, alongside the Ministry of Health and other partners, has been a leading supporter of expanding this innovative electronic health record system throughout Zambia—the country’s first such national medical records system.

SmartCare has been developed to improve continuity of care and provide data for patient management, including Health Management Information System (HMIS) trend reporting and analysis for health officials. The SmartCare card, which carries an encrypted copy of a patient’s health history, using a SIM chip to store data, is an integral part of SmartCare. A soft copy of a patient’s health record is saved in the database of every facility the patient visits. These data are later de-identified, and pooled at the district, provincial and national levels for monitoring, evaluation and HMIS use.

The initial SmartCare project in Kafue addressed the challenges of a resource-poor region with a mobile patient population. The goal of SmartCare is to enable the delivery of cost-effective, confidential and high-quality health care for everyone—anywhere and anytime—by improving health records and related health information systems.

Since 2005, SmartCare has been deployed to nearly 700 clinics and hospitals, in all 10 provinces of Zambia and in every district therein. In recognizing Zambia’s innovation, the United States Secretary of State Hillary Rodham Clinton said during a 2011 visit to the country that she tried unsuccessfully to implement a similar system in the United States: “I may need to send some people [to Zambia] to see how it is done.”

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