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QUALITY ASSURANCE AND WORKFORCE DEVELOPMENT PROJECT: YEAR THREE ANNUAL REPORT

Performance Period: July 1, 2004–June 30, 2005

Contract Number GPH-C-00-02-00004-00



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Abbreviations

ACT	Artemisinin Combination Therapy
ACTMalaria	Asian Collaboration Training Network for Malaria
AFASS	Accessible, Feasible, Affordable, Sustainable, and Safe
AH	Arterial Hypertension
AIHA	American International Health Alliance
AMTSL	Active Management of Third Stage of Labor
ANC	Antenatal Care
APHA	American Public Health Association
ARBEF	Rwanda Association for Family Health
ART	Antiretroviral Treatment
ARV	Antiretroviral
BCC	Behavior Change Communication
CBCM	Community-Based Case Management
CBT	Computer-Based Training
CCP	Critical Care Pathway
CD-ROM	Compact Disc-Read Only Memory
CHK	Central University Hospital of Kigali
CNLS	Comité Nationale Lutte contre SIDA
COM	College of Medicine
CPHRI	Central Public Health Research Institute (Russia)
CQ	Chloroquine
CQI	Continuous Quality Improvement
DOH	Provincial Department of Health (South Africa)
DOTS	Directly Observed Therapy, Short Course
DPQS	Division for the Promotion of Quality Services (Rwanda)
DSS	Department of Healthcare (Rwanda)
EGPAF	Elizabeth Glazer Pediatric AIDS Foundation
EOC	Essential Obstetric Care
ETAT	Emergency Triage, Assessment, and Treatment
FCI	Family Care International
FHI	Family Health International
FP	Family Planning
GTZ	German Technical Assistance Agency
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HR	Human Resources
HRD	Human Resources Development
HRM	Human Resources Management
HSR	Health Sector Reform
HVO	Health Volunteers Overseas
IBP	Implementing Best Practices
IDB	Inter-American Development Bank
IEC	Information, education, and communication
IHI	Institute for Healthcare Improvement
IMAI	Integrated Management of Adolescent and Adult Infections
IMCI	Integrated Management of Childhood Illness
IMMPACT	Initiative for Maternal Mortality Programme Assessment
IP	Infection Prevention
ISQua	International Society for Quality in Health Care

ITAC	International Coalition for Treatment, Access and Care for HIV
JHPIEGO	Johns Hopkins Program in International Reproductive Health Education
JICA	Japan International Cooperation Agency
JSI	John Snow, Inc.
KCMC	Kilimanjaro Christian Medical Centre
KZN	KwaZulu-Natal
LAC	Latin America and Caribbean
LAC HSR	Latin American and Caribbean Health Sector Reform Initiative
LMC	Local Management Committee
MAARD	Modified Acquisition and Assistance Request Documents
MANCORSARIC	Municipality of Santa Rita of Copan (Honduras)
MAP	Multi-Country HIV/AIDS Program for Africa (World Bank)
MAQ	Maximizing Access and Quality
MCH	Maternal and Child Health
MIFAMILIA	Ministry of the Family (Nicaragua)
MINSA	Ministry of Health (Nicaragua)
MMR	Maternal Mortality Rate
MMRI	Maternal Mortality Reduction Initiative
MOH	Ministry of Health
MOHSD	Ministry of Health and Social Development (Russia)
MOHSW	Ministry of Health and Social Welfare
MOLISA	Invalids and Social Affairs
MSH	Management Sciences for Health
NDOH	National Department of Health (South Africa)
NGO	Nongovernmental Organization
NTN	Neighbor-to-neighbor
NTP	National Tuberculosis Program
NVP	Nevirapine
OR	Operations Research
PAHO	Pan American Health Organization
PDOH	Provincial Department of Health
PDSA	Plan, Do, Study, Act
PEPFAR	President's Emergency Plan for AIDS Relief
PHI	Pediatric Hospital Improvement
PIH	Pregnancy-Induced Hypertension
PLWHA	Persons Living With HIV/AIDS
PMSS	Proyecto de Modernización del Sector de Salud (Health Sector Modernization Project)
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PNLP	National Malaria Control Program (Rwanda)
P&O/R	Prosthetics and Orthotics/Rehabilitation
PSS	Projet Socio-Sanitaire/Coopération Suisse (Benin)
QA	Quality Assurance
QAP	Quality Assurance Project
QI	Quality Improvement
QIT	Quality Improvement Team
RAAN	North Atlantic Autonomous Region
RAAS	South Atlantic Autonomous Region
RBM	Roll Back Malaria
RCHS/MOH	Reproductive and Child Health Services of the Ministry of Health (Tanzania)
RCM	Referral Care Manual

RDS	Respiratory Distress Syndrome
RDT	Rapid Diagnostic Test
RF	Russian Federation
RH	Reproductive Health
SBA	Skilled Birth Attendant
SILAIS	Local Integrated Health Care System (Nicaragua)
SO	Strategic Objective
SOH	Secretariat of Health (Honduras)
SP	Sulfadoxine-Pyramethamine
SNAP	Soweto National AIDS Program
SWAA	Society for Women and AIDS in Africa
SWAP	Sectorwide Approach
TAG	Technical Advisory Group
TASC2	Technical Assistance and Support Contract 2/Global Health
TASC2-TB	Technical Assistance and Support Contract 2/Tuberculosis
TB	Tuberculosis
TFNC	Tanzania Food and Nutrition Centre
TOT	Training of Trainers
TRAC	Treatment and Research AIDS Center (Rwanda)
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children’s Emergency Fund
URC	University Research Co., LLC
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
WHO/AFRO	Regional Office for Africa of the World Health Organization
WHO/WPRO	World Health Organization Western Pacific Regional Office

1 Introduction

This annual report of the Quality Assurance and Workforce Development Project, known as the Quality Assurance Project or QAP, describes the activities and results of the contract during the third project year, covering the period July 1, 2004, to June 30, 2005.

The adaptation of the improvement collaborative methodology as a mechanism for large-scale implementation of improved systems of care for HIV/AIDS, essential obstetric care, child health, family planning, and malaria care in developing countries continues as a central theme of the project's work to institutionalize quality assurance in USAID-assistance countries. In Year Three, QAP started three new improvement collaboratives: improving systems of care and support for HIV/AIDS in Russia, developing model systems of care for pediatric AIDS in Tanzania, and improving family planning quality and functional integration in Tanzania. At the end of the project year, planning began for the launch in Year Four of a new collaborative to improve the quality of antiretroviral therapy in Uganda. Year Three saw the number of sites involved in improvement collaboratives expand significantly in Rwanda, Nicaragua, and Ecuador, and further expansion is planned in the coming year for ongoing collaboratives in Malawi and Tanzania. The project-sponsored collaboratives have continued to yield significant improvements in compliance with evidence-based standards of care and demonstrated their viability as a new methodology for systematic scale-up.

The scope of QAP activities grew in Tanzania, and work was initiated in three new countries: Uganda, Lesotho, and Swaziland. In addition to collaboratives, QAP supported the application of other approaches to improving healthcare quality, including performance improvement interventions such as job aids, computer-based training, traditional quality improvement, and regulatory mechanisms to enforce quality. The project's investment in updating and expanding its computer-based training product, *Integrated Management of Childhood Illness*, bore fruit with the first large-scale application of this cost-saving tool for upgrading health worker skills, launched in Kenya with the Ministry of Health and the World Health Organization (WHO).

QAP continued to work closely with WHO in areas that include the Making Pregnancy Safer Initiative, Roll Back Malaria, and most notably, the Pediatric Hospital Improvement initiative, which was extended to a sixth country, Tanzania, this year. The project also worked closely in several countries with the United Nations Children's Fund (UNICEF) and United Nations Fund for Population Activities (UNFPA), as well as with other USAID cooperating agencies and global projects, including the CORE Group, Management Sciences for Health, the ACQUIRE Project, Family Care International, and PSPOne. QAP has been particularly successful in leveraging funding from such organizations to expand and continue improvement efforts work initiated by QAP.

QAP also expanded its operations research program this year, with new studies on TB service quality, increasing demand for institutional delivery, improved measures of skilled birth attendant competency, focused accreditation of maternal and newborn care, and the impact of collaboratives on health outcomes. Seven new operations research reports and 12 other technical reports were published, and staff presented QAP results and approaches at 12 international and regional conferences. The Collaboratives Extranet was designed and initial content created for extranet pages to support collaboratives in Rwanda and Nicaragua.

QAP's work program continues to be highly responsive to the priorities outlined by USAID in its Strategic Objectives in Health. The project is conducting research and supporting the expansion of essential obstetric care, active management of the third stage of labor, and skilled attendance at birth in six countries. QAP work programs in South Africa, Rwanda, Tanzania, Lesotho, Swaziland, and Uganda are closely aligned with national AIDS treatment priorities and actively supporting U.S. Government

PEPFAR goals. Strengthening the integration of TB and HIV services to address the growing threat of co-infection emerged as a new focus area for the project this year.

This report summarizes the activities and results for country programs that fall under the project's Institutionalization component, followed by reports on core activities, such as operations research, training, workforce development, technical leadership, and support to global initiatives such as Health Systems Strengthening. The final section of the report summarizes the project's major activities related to each of USAID's Global Health Strategic Objectives.

2 Institutionalization

Africa

2.1 Eritrea

Background

QAP began work in Eritrea in 1998. Initial efforts were interrupted by local events but were fully resumed in 2001, when QAP began technical support to the Ministry of Health (MOH) of Eritrea to improve the quality of health services through the integration of quality assurance methods within the daily care delivered to women and children in primary health facilities and hospitals, and through the development and dissemination of standards, especially for hospitals. During the January–September 2004 period, the quality assurance institutionalization activities funded through QAP were transferred to the TASC2 project. Since September 2004, limited QAP activities related to the Pediatric Hospital Improvement Collaborative and the Essential Obstetric Care Collaborative have continued with core funds. Remaining field support and MAARD funds have been used to supplement TASC2 assistance in the areas of workforce development and updating of standards for infection prevention and other critical hospital care processes.

Activities and Results by Major Program Area

Pediatric Hospital Improvement Collaborative

The Eritrea Pediatric Hospital Improvement (PHI) Collaborative was launched after a baseline survey in December 2002 in 10 hospitals. Between June 2003 and 2004, three improvement sessions and a training of trainers (TOT) in emergency triage, assessment, and treatment (ETAT) were conducted. Since 2004, management changes and shifts in MOH priorities toward other aspects of child survival have resulted in the collaborative hospitals receiving little systematic support or supervision for PHI activities. A field visit by QAP staff in March 2005 found that some overall progress had occurred since the start of the program. For example, many hospitals had functioning triage systems; emergency equipment was widely available; therapeutic feeding had been newly established in several hospitals, and in these sites staff were generally adhering to national guidelines. In a few sites staff had improved patient vital signs monitoring. Overall, however, despite these advances, there had been little activity since the learning session in June 2004; none of the facilities were routinely monitoring performance, and the initiative had essentially stalled. Other difficulties contributing to this lack of progress include a lack of skilled manpower (Eritrea has only four pediatricians), limited transport and communication between facilities, and many political and economic factors outside the influence of the MOH and QAP or TASC2.

Since the March 2005 assessment, however, a number of activities have taken place. Pediatric hospital care protocols have been introduced into the National Emergency Care guidelines and a training course for emergency room doctors that includes ETAT is being developed. The MOH has begun to prioritize PHI. Several supervision visits have taken place, and stronger partnerships have been forged with UNICEF and WHO.

In June 2005, the concept of PHI was introduced to an additional 10 hospitals and a number of the existing collaborative hospitals participated. Hospitals were also introduced to an “essential change package” consisting of ETAT, patient vital signs monitoring and recording (chart review), and treatment of malnourished children.

Safe Motherhood Collaborative

A third meeting was held with the improvement teams in Menderfera (Debub Zone). Teams presented the planned changes that they had implemented to improve the use of the partograph, increase the number of pregnant women who complete four antenatal care (ANC) visits, and improve counseling/patient education. The teams also reported that they have actively engaged the community health committees in their activities, such as training traditional birth attendants and malaria agents to assist in counseling pregnant women in the community regarding danger signs and birth preparedness. Another group is using the defaulter strategy as a means to support the community in targeting women for ANC follow-up. Training and facilitative supervision are being used to improve use of the partograph. Another meeting was held with the teams in February 2005. In March 2005, the improvement process was expanded to facilities in Dekemhare District in Debub Zone. With this, the safe motherhood improvement work was extended to approximately half the health facilities in Zoba Debub (a total of 17 hospitals, health centers, and stations).

Workforce Development

This year’s support to the pre-service training of nurses brought to closure the work started in Year Two by the team of nurse tutors from Kenya, Zambia, and Nigeria. In September 2004, all the technical activities of the five nurse tutors in curriculum review, strengthening linkages between training and service delivery, and quality assurance (QA) curriculum development were concluded and follow-on activities transferred to the MOH. A close-out workshop on nursing education was held in partnership with the MOH and TASC2. The workshop theme reflected the efforts of the nurse tutors to champion change in nursing curricula as well as in practice: “Institutionalizing Quality Care: Linking Training with Service.” Professor Leana Uys from the University of Kwa-Zulu Natal and the WHO collaborating center for nursing education was the guest speaker. She inspired the MOH Human Resources Development (HRD) Department to embark on further changes to their nursing curriculum by explaining other nursing education models used in other parts of Africa.

QAP organized a study tour for the HRD staff to the University of KwaZulu-Natal in South Africa. The tour exposed them to resource people and new ideas for transforming their curriculum and career path for nurses in Eritrea. In June 2005, two nursing professors from KwaZulu-Natal were brought to Eritrea to work with the curriculum committee and improved upon the first revised curriculum done last year by the QAP nurse tutors. The first curriculum revision had incorporated integrated management of childhood illness (IMCI) and QA into the nursing curriculum, and this second revision then added the content needed to allow graduate nurses to complete their studies with a certificate in midwifery. The Dean of the Kwa-Zulu Natal Nursing School then came to Eritrea and led a curriculum dissemination and implementation planning workshop.

Standards Development and Implementation

Whole-site training in infection prevention was completed and committees initiated in 87% (20/23) of hospitals. This year, QAP’s support for infection prevention focused on surgical care: a set of standards and monitoring tools was developed for surgical services, including surgical scrub, gowning and gloving, and general surgical services infection prevention practices with accompanying job aids adapted from Tanzania. Additional support included providing washbasins, surgical gowns, drapes, and towels. Surgeons from five hospitals attended three meetings and developed protocols for several surgical

procedures. Data were collected in July 2005 to measure success in implementing the protocols, cost reduction, and infection rates.

QAP conducted an assessment of compliance in all 23 hospitals in November 2004 using a subset of the hospital care standards that had been developed in Years One and Two. A tool for measuring client satisfaction was developed and introduced in all hospitals. QAP also supported development and implementation of emergency services guidelines and an assessment tool to determine the state of emergency services throughout Eritrea. Referral policies, procedures (including two algorithms), and a referral log were also developed and implemented.

Testing of IMCI Computer-Based Training

In 2004, the Ministry of Health and College of Nursing requested that QAP apply the updated and expanded IMCI computer-based training (CBT) in Eritrea as part of the pre-service training of the latest class of nurses. The IMCI CBT program was used to train graduate nurses in October 2004 as part of the preparation for the actual product evaluation. The activity took six days, during which participants went through the CBT program and clinical sessions. All problems related to functionality were identified and later corrected. This activity helped to prepare for the evaluation in Kenya.

Directions for FY06

Funds are insufficient to provide the degree of technical support required for a full “collaborative” in PHI in Eritrea, but QAP will continue to provide support in the next year to the adaptation of the WHO referral care manual, develop supervisory and monitoring tools and help to reactivate the Technical Advisory Group (TAG) to try to ensure the sustainability of the initiative. In addition, QAP will provide support to TASC2 and the MOH to develop a long-term child health strategic plan to integrate PHI, facility and community IMCI, and child and newborn health. QAP will also continue to support the scaling-up the Safe Motherhood Collaborative.

2.2 Lesotho

Background

USAID’s Regional HIV/AIDS Office in Southern Africa asked QAP in April 2004 to assist with an assessment of TB-HIV co-infection in Lesotho. The incidence of TB in Lesotho is one of the highest in the world. In 2003, Lesotho registered 13,341 cases of all forms of TB, an estimated notification rate of 666 cases per 100,000 population and the second highest in the world (WHO Global TB Report 2005). The case detection rate has achieved the global target of 70%, but treatment success at 52% is still far from the 85% target. The adult HIV prevalence in 2003 was estimated to be 26.9% (UNAIDS Global AIDS Report 2005), and at least 50% of TB patients are estimated to be dually infected with HIV.

Activities and Results

QAP, along with WHO’s Africa Regional Office (WHO/AFRO) and National Tuberculosis Program (NTP) staff, conducted a rapid assessment of TB and TB-HIV collaborative activities in June 2005. In-depth interviews were held with the Minister of Health and Social Welfare (MOHSW), as well as representatives of WHO and UNICEF, Laboratory Services, Pharmaceutical Services, Senkatana Centre, Christian Health Association of Lesotho, National Health Training Centre, Family Health Division, Healthy Lifestyles Clinic, Clinton Foundation, Disease Control Unit, Directorate for STI/HIV/AIDS, National Drug Service Organization, and Development Cooperation Ireland. The rapid assessment found that there is strong political commitment to efforts to control TB and HIV at the highest levels of the MOHSW, and there is increased technical and financial assistance to both programs. Antiretroviral (ARV) roll-out is increasing and presents an opportunity for TB patients to access treatment early. A national TB policy was recently updated and addresses HIV co-infection, and HIV/AIDS guidelines

include TB. However, the two programs work independently and without collaboration. Voluntary counseling and testing (VCT) is not offered routinely to TB patients, and supplies of HIV test kits are irregular in some areas. Processes of diagnosing and managing co-infected patients are cumbersome and result in delayed treatment. Anti-TB drug regimen formulations are not yet in line with international recommendations, and the recently developed Essential Medicines List does not reflect TB policy. There is no screening for TB at PMTCT sites or training on TB, and isoniazid preventive therapy is not being given to children under five.

The assessment team recommended that the Ministry establish joint TB-HIV committees at all levels and that the NTP and HIV/AIDS Directorate should develop joint operational plans covering training, monitoring and evaluation, and IEC. Diagnostic processes for TB-HIV co-infection also need to be improved.

Directions for FY06

During the next nine months, QAP will provide support to the MOHSW for policy development and dialogue and help the NTP and HIV/AIDS Directorate develop integrated service delivery models and algorithms for health facilities and providers. QAP will also develop clinical training on HIV-TB and other support systems (supervision, recording and reporting, etc.) for the Ministry, NTP, and other service delivery partners; train service providers in TB-HIV coordinated activities; and train program managers in planning, monitoring, and supervision.

2.3 Malawi

Background

QAP began work with the MOH of Malawi in June 2004, in collaboration with WHO, to use the improvement collaborative methodology to adapt, implement, and scale up the application of the WHO referral care manual to reduce morbidity and mortality from common conditions in children, as part of QAP's multi-country Pediatric Hospital Improvement Initiative. A demonstration collaborative is being implemented in Malawi to develop a model of care that can ultimately be spread to all 27 of the country's district hospitals during an expansion phase. QAP has subcontracted the College of Medicine (COM) at Queen Elizabeth Central Hospital to implement the collaborative. The COM Department of Paediatrics provides technical and supervisory support to the MOH and local hospitals.

Activities and Results

Currently, the PHI Collaborative is active in eight hospitals: seven district hospitals (Ntcheu, Mwanza, Thyolo, Mulanje, Chikwawa, Machinga, and Chiradzulu) and one regional hospital (Zomba). Three learning sessions were carried out during year three. This year, the collaborative focused on improving ETAT, patient monitoring, and mortality data collection. Technical content transmitted through learning sessions and coaching visits emphasized 1) continued strengthening of ETAT, 2) the introduction of a standard admission and patient monitoring tool, (the Critical Care Pathway [CCP]), and 3) collecting and presenting mortality data. Monitoring compliance with standards using a revised case monitoring form was also introduced.

By the fourth Learning Session in April 2005, seven of the eight hospitals had implemented triage and reorganized patient flow during working hours. Some teams had also introduced the CCP, others the documentation of children triaged, and several had tried to improve patient monitoring. All hospitals now have a system of triage in place, and six are triaging patients at night. Several hospitals had conducted at least one refresher training for ETAT because of high staff turnover (in Mulanje, for example, the PHI team estimated that over 50% of approximately 50 staff who had been trained in triage in the past six months were no longer working in pediatric care). Turnover is a major challenge to improving the quality of pediatric care nationally. Zomba Regional Hospital lost its entire PHI team and is seeking a new PHI team leader. To overcome the challenge of turnover, some hospitals have employed part-time staff to

alleviate some of the pediatric ward manpower shortage, while others have tried to ensure that at least one senior person does not rotate and is retained on the pediatric wards.

At the 4th Learning Session, individual teams presented their mortality data and reviewed experiences with the CCP. Some teams were able to interpret their data findings readily; others needed considerable support in making a simple interpretation. QAP staff review of two hospital registers suggests that hospital mortality data are likely poor quality and must be interpreted with caution. To improve mortality data collection, the monitoring form was further simplified and teams trained in its use during the learning session. QAP will write a short guide to improving data collection and use, and the COM plans to organize training for members of the PHI team (team leader, health management information system staff member, and ward clerk) in each facility.

Teams also presented some results with respect to the use of the CCP, but at the time of the learning session, teams had not yet established regular compliance monitoring. Four teams presented an audit of case notes identifying some examples of good care as well as examples of inaccurate diagnoses, incorrect treatment, and inadequate monitoring (see Box 1).

In order to improve compliance monitoring, a simple CCP tool was developed and discussed during the learning session. Teams were asked to use the tool on at least five patients every month, selecting the last five cases of interest in the register and if possible to use the tools with at least five cases of each diagnosis per month (concentrating on pneumonia, malaria and diarrhea, and dehydration). Work plans for the next action period included expanding coverage to include triage at night, increasing the number of facilities using CCPs, and strengthening patient monitoring.

Registrars from the College of Medicine have been conducting monthly supervision visits. In the scale-up strategy, supervisory support will be provided by personnel without specialized pediatric training. QAP and COM will develop a supervision guide that will explain how to conduct each type of supervisory visit, for example, a supervision visit for emergency care, malaria case management, etc., for these less specialized but experienced staff.

Directions for FY06

The MOH wants to scale up the PHI collaborative activities to all 27 districts, but funding must be obtained locally, since neither Mission funds nor QAP core funds are available for further expansion of PHI in Malawi. The MOH is exploring the use of Sectorwide Approach (SWAP) funding from the World Bank to cover the MK43 million (US \$316,000) needed for local costs. If funding is obtained, the expansion phase would be launched in late 2005 or early 2006. Other institutions and partners to be involved in the expansion include Management Sciences for Health (MSH), UNICEF, and WHO.

Box 1. Findings from a Review of Five Emergency Cases by the Chikwawa Team

- *History was adequate i.e., fever, convulsions, headache, diarrhea, vomiting.*
- *Physical examination: Basic clinical signs not documented; relevant signs were documented i.e., sunken eyes, reduced skin turgor, neck stiffness.*
- *Treatment: Multiple diagnoses, so several treatments were used in most cases; most were covered with appropriate antibiotics.*
 - *One meningitis patient was on wrong choice of antibiotics for age,*
 - *Both patients with seizures were given anticonvulsants,*
 - *Glucose was given to all convulsing patients, and*
 - *Wrong amounts of fluids were given to all dehydration patients.*
- *Monitoring: CCPs were not attached to case notes, so it was not possible to say whether vital signs were monitored.*
- *Suggestions for improvements: Put more job aids in emergency area; hold more frequent case management reviews; attach CCPs to case notes.*

Note: Three other facilities presented similar results of the chart reviews.

After the PHI collaborative's fifth Learning Session, the MOH plans to hold a national conference in Lilongwe for all hospital heads, the MOH directorate of clinical services, the Kamuzu College of Nursing, the Malawi College of Health Sciences, the Malawi College of Medicine, and representatives of partners (e.g., MSH, WHO, UNICEF, and SWAP). Results from the demonstration collaborative will be presented and plans for scale-up developed.

2.4 Rwanda

Background

QAP has been operating in Rwanda with field support since 1998. In 2002, the MOH requested that QAP provide technical support to national programs for HIV/AIDS and malaria. With funding support from USAID, QAP introduced the Breakthrough Series Collaborative Improvement Model, which is based on previous work by the Institute for Healthcare Improvement (IHI). The MOH believed that this model could quickly, within 18 months, help to improve the quality of HIV/AIDS and malaria services at a number of sites. Thus the Malaria and PMTCT Collaboratives were launched. To date, results are very encouraging, and we have begun to identify best practice interventions that could have broader impact if applied on a large scale. We received PEPFAR funding in early 2003 for all HIV-related activities, while some President's Initiative funds for PMTCT, as well as field support for Malaria, remained from the prior year. PEPFAR funding continued in 2004, and we have recently received PEPFAR funding for FY 2005. PEPFAR-funded activities now include the expanded PMTCT Collaborative (30 sites), the Antiretroviral Treatment (ART) Collaborative (20 sites), the Community-based Case Management demonstration project with three local NGOs, protecting and enhancing maternal and child health (MCH) services at five sites, and the expansion of a study on adherence to ARVs to four additional sites. In addition to PEPFAR-funded activities this year, QAP strengthened the Malaria Collaborative and demonstrated results on most of the indicators in 23 sites in four districts, completed several phases of the HIV/AIDS human resources and training assessment as well as an overall health services assessment, and provided continual technical support to strengthen the National QA Program of the Division for the Promotion of Quality Services (DPQS). Our main counterparts are the DPQS located in the MOH DSS (Department of Healthcare), the MOH Training and Research AIDS Center (TRAC), as well as the National Malaria Control Program (PNLP).

Activities and Results by Major Program Area

PEPFAR Activities

QAP continued with funded PEPFAR activities, specifically the ART Collaborative, Community-based Case Management demonstration project, protecting and improving MCH services, and the expansion of the ARV adherence study. In April 2005, QAP received PEPFAR FY 2005 funding to continue and expand the ART Collaborative and to expand the PMTCT Collaborative.

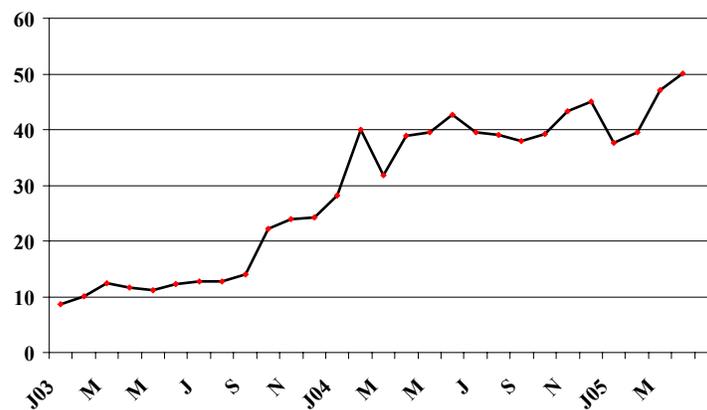
PMTCT/VCT Collaborative

The collaborative includes 16 old sites and 14 new ones located in all 12 provinces of Rwanda, and has required close collaboration with both DSS and TRAC. After 17 months of operation, all original participating sites have each formed a quality improvement (QI) team, analyzed their processes for providing PMTCT services, identified areas for improvement in their processes, identified and tested changes that could result in improvements, identified indicators, and are measuring the impact of these changes on improving their process for implementing the best practices of PMTCT. The Rwanda experience provided some of the background for a team at WHO, which developed a scale-up strategy incorporating the collaborative approach for the 3x5 Initiative. Data from one Rwandan site

demonstrating improvements in the percentage of women returning for test results were recently published in the WHO description of this strategy.¹

Another major accomplishment of this collaborative has been to increase the percentage of partners of women in PMTCT programs who are also tested. Partner testing is a particular challenge in PMTCT programs in most countries, and in Rwanda, the initial average monthly rate in sites included in the collaborative was less than 15%. Starting in July '03, a multitude of changes was tested, including special invitations to partners to come and be tested, requiring that the partner accompany the woman to at least one ANC visit, be the one to retrieve impregnated bednets given to pregnant women to protect their infant from malaria, or be the one to retrieve the woman's consultation card. As a result, the rate of partner testing has increased to 43%, with some sites testing more than 90% of partners. Data cumulated for 14 sites is presented in Figure 1.

Figure 1: Percentage of Partners of PMTCT Clients Who Were Tested, All Sites, January 2003-April 2005

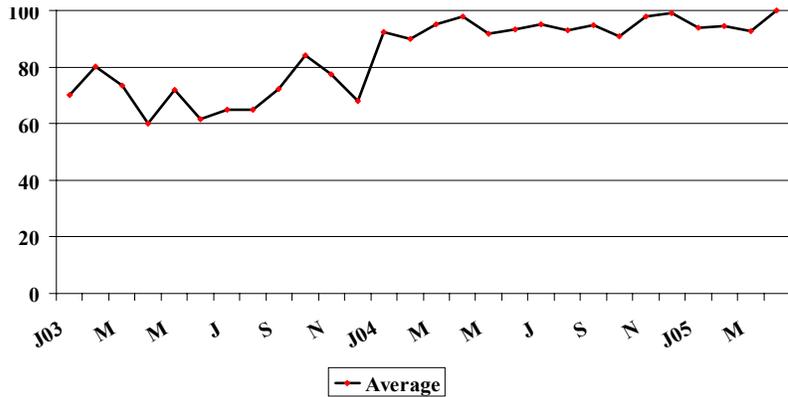


Because provision of ART single-dose Nevirapine (NVP) is at the heart of Rwanda's PMTCT program, it is particularly important to note that the average percentage of women receiving NVP has increased from approximately 60% to 90% (see Figure 2), and more than 10 sites have been providing NVP to 100% of eligible women for many months. The increase in receipt of NVP is due to the ability of the QI teams at these health centers and hospitals to analyze their processes for PMTCT service delivery, and identify and test key changes necessary to implement this recognized and internationally accepted best practice for preventing mother to child transmission of HIV/AIDS. Implementation of changes began in July '03, and included the development of a system to track eligible women, as well as reinforcement of information, education, and communication (IEC). In addition, many sites now visit eligible women to remind them of scheduled ANC appointments where they can receive NVP, especially for those who live far from the health site; some sites are also providing NVP to the women in their homes.

This past year QAP/Rwanda tackled one of the major challenges of the PMTCT Collaborative, namely testing infants aged 15 to 18 months and born to HIV-positive mothers. Identification of these children was not easy during the first two years of the collaborative, and most sites performed poorly. This year

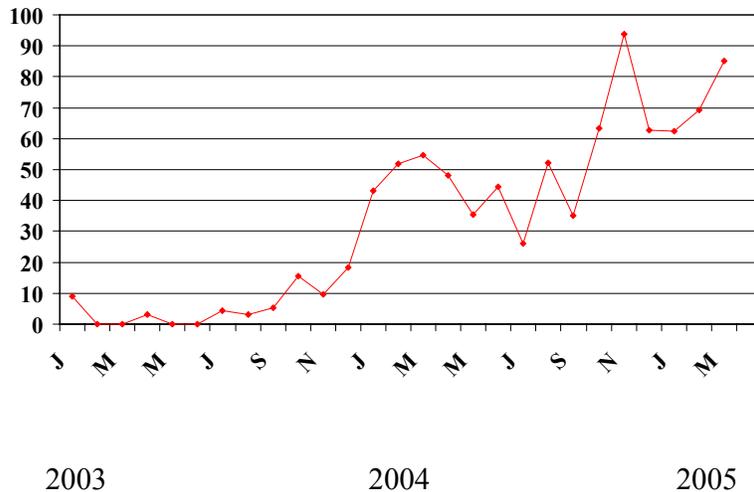
¹ *An Approach to Rapid Scale Up: Using HIV/AIDS Treatment and Care as an Example*, 2004, World Health Organization, Reference number: WHO/HIV/SPO/04.01. <http://www.who.int/3by5/publications/documents/scaleup/en/>.

Figure 2: Percentage off HIV+ Women Who Received NVP, All Sites, January 2003-April 2005



saw the development of systematic identification processes at a number of sites, and the rate of infant testing is approaching 100% in at least four sites. One change that has brought about improvements in this area is home visits by healthcare providers. This intervention has proven to be the most effective in increasing the number of infants tested, but is a major burden on the local health site, as most struggle with lack of human resources. Another successful change tested is the development of strong collaboration with the local people living with HIV/AIDS (PLWHA) community, and including at least one community member on the quality improvement team. At some sites, the community has agreed to help identify infants in need of testing in its catchment area. Other sites are continuing to learn from results of these successful sites and adapting them to the extent possible given their own realities. These results are summarized in Figure 3.

Figure 3: Percentage of Infants, Born to HIV+ Mothers, Who were Tested Between Age 15-18 months, All Sites, Jan 2003-April 2005



ART Collaborative

Subsequent to preparatory activities conducted in the previous year, QAP performed a technical and logistical situational analysis in June of 2004 in preparation for the first Learning Session. The results of this assessment helped guide QAP and the MOH in selecting the sites to receive a computer and Internet access, and how sites were performing with regards to 20 outcome indicators designated by TRAC as key outcomes. The first Learning Session took place in August 2004, the second in September 2004, and the third in January 2005. During the first, assessment results were used to help participants begin the process of identifying opportunities for improvement. Representatives were present from only 16 sites, primarily because this session was held, at the MOH's request, in a province away from the capital. Nevertheless, all sites were visited during the first action period by QAP and MOH staff. The second and third Learning Sessions saw increased site representation. Representatives from other partners active in ART care and support activities at the sites, including Family Health International (FHI), CARITAS, Catholic Relief Services, and MSH attended all three learning sessions.

Data collection has been a major challenge in this collaborative. Site personnel were not familiar with calculating indicator percentages by using the denominator and numerator derived from data collection. Since this lack of familiarity could lead to several different definitions being used to create these calculations, defining indicators was a major part of the second Learning Session. By the third one (January 2005), only a few sites were ready to present data. Now the focus is to help each quality improvement team become sufficiently capable of collecting data, calculating indicators, and graphing results. By May 2005, more than half of participating sites were doing so. Box 2 lists the improvement objectives being monitored in this collaborative.

Box 2. ART Collaborative Improvement Objectives

1. 90% of patients on ARV are adherent at 95%
2. 80% of patients on ARV since 9 months have had 2 CD4 exams completed (initial, and at 6 months after initiation of treatment)
3. 80% of patients on ARVs for at least 12 months with 2 CD4 exams have had a measurable increase in CD4
4. Less than 5% of patients on ARV are lost to follow-up
5. 80% of patients on ARVs during 12 months have experienced a 10% weight gain
6. 100% of biochemical lab results are available within two days of request
7. 100% of patients eligible for ARVs receive the treatment at reduced price (chosen by one site only)
8. 80% of patients on ARVs have had at least one home visit from a healthcare agent at the site they receive services

Community-Based Case Management Demonstration Project

Subsequent to a situational analysis and other preparatory work conducted during the previous year, QAP successfully launched the community-based case management (CBCM) activity with subcontracts to three local NGO's: namely the Society for Women and AIDS in Africa (SWAA), Rwanda Association for Family Health (ARBEF), and the faith-based Salvation Army. These NGOs have introduced CBCM in five provinces and seven districts. In November 2004, QAP hosted the first CBCM training with technical assistance from African Services, based in New York. In this training, 24 NGO staff were trained as case managers. As evidence of capacity transfer, these newly trained case managers have since trained 162 volunteers to work with them at the community level. Currently, more than 6,000 cases are being managed, triple QAP's expectations. These results were reported in a panel discussion at the 2nd Annual PEPFAR Conference in Addis Ababa, Ethiopia, in May 2005.

Initiative results include the following: First, with proper planning, community-based case management was successfully introduced in a resource-poor setting at relatively low cost. In addition, while this

activity has surely been beneficial to a large number of patients in a relatively short time, the second major gain is inspiring community organizations. Not only are services reaching more clients, but now community organizations collaborate and make regular referrals with coordinated follow-up. Third, the addition of volunteers to the workforce of such community-based and traditionally understaffed organizations has increased efficiency of service delivery and patient follow-up. These organizations can know each client's status, including identifying those who have died or moved.

Improving and Protecting MCH Services in the Context of Increased HIV Treatment Funding

Given shortages of professional staff, there is a danger that increased funding and attention to HIV/AIDS treatment services could divert staff time and other resources from maternal and child health services, ultimately eroding MCH service quality. This demonstration seeks to develop and demonstrate strategies to enhance MCH services as HIV/AIDS services are implemented.

QAP hired staff in August 2004, and the MOH and QAP jointly developed criteria for site selection. In September 2004, the MOH identified five sites for this activity. That same month, the MOH Reproductive Health Unit also outlined the key indicators of focus, and the activity was formally launched at each selected site with a representative from the MOH and the QAP Activity Manager.

Since September 2004, QI teams have been established and are functional at all five sites. These teams have analyzed their processes for MCH care delivery, have identified opportunities for improvement, and are testing changes and making improvements. Sites have been coached at least once per month by Project and MOH staff.

Other Technical Assistance Activities

Malaria Collaborative

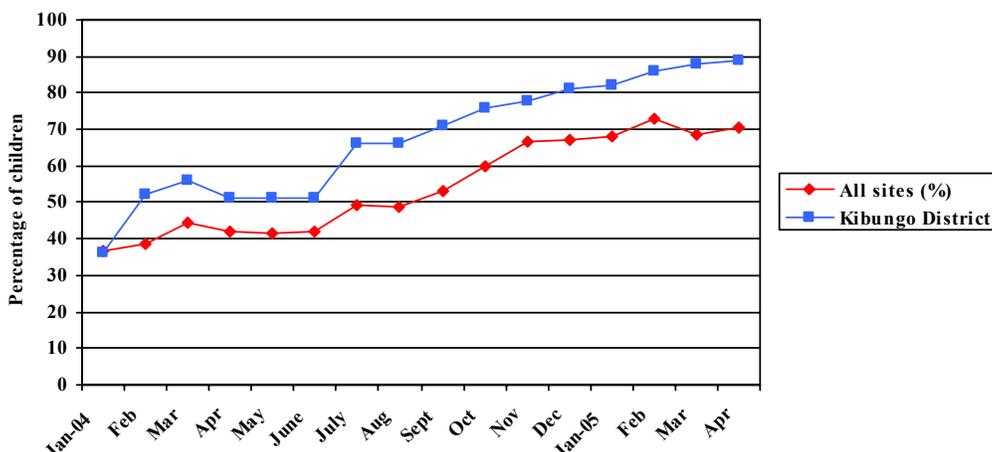
In Rwanda, more than 25% of all malaria cases are among children under five (PNLP 2002). Malaria is the number one cause of morbidity (43%) and mortality (41%) among children in this age group (PNLP 2002). Although a multitude of factors affect these statistics—including poverty, limited use of bednets and other preventive methods, and drug resistance—the problem is exacerbated by poor care provision and treatment at many health sites. Evaluation of the quality of care provision at two health districts (Ruhengeri and Kibungo) revealed that no child was *case managed* in accordance with established WHO standards and that only 29% of infants received medication according to these standards. Results also indicated that mothers waited on average three days before seeking professional care for symptomatic infants and that 31% of health sites surveyed reported being out of stock for malaria medications within the 30 days preceding the evaluation.

In an effort to reduce these quality gaps and improve care provision, the Government of Rwanda, through the Ministry of Health and specifically PNL, launched the Malaria Improvement Collaborative at the end of 2002. The overall aim was to improve health site case management of children under five years diagnosed with malaria. Following a decentralized model, the activity was initiated in four districts, namely Gisenyi, Ruhengeri, Kibungo, and Muhima. District supervisors were trained to help with the provision of coaching to 63 sites involved. However, due to numerous logistical constraints, the number of sites was reduced to 23 (19 health centers and 4 district hospitals) in July 2004, and a local coordinator was hired to assist the district supervisors in their role as QI coaches.

Since January 2003, five learning sessions have been held. During learning sessions, particular attention was placed on understanding the current process of service delivery so that it can be changed to produce better results. Thus the teams focused on process diagrams for the provision of care and treatment of malaria, identification of changes to be tested, and monitoring the effects of these changes on key improvement indicators. During action periods, technical assistance was provided to the quality improvement teams at the health sites in development of periodic action plans and in overall facilitation of the improvement process.

Results indicate an upward trend in most indicators, especially at health centers. The percentage of infants brought to a health site within 24 hours of becoming symptomatic increased, during the months between January 2004 to April 2005, from an average of 37% to 70% in all 19 health centers and from 36% to 89% in Kibungo, the district that demonstrated the most improvement (Figure 4). Some changes that contributed to these results were motivation of community health workers, specifically including them as a member of the QI team for the site; organizing regular meetings themselves; and providing a bonus to those who help bring in the largest number of children. Additional interventions were dissemination of educational fliers in churches and other cultural settings, taking advantage of existing community meetings for additional sensitization, and halving the cost of health services for women who bring infants to health center within 24 hours of symptoms.

Figure 4. Percentage of Children (0-5 yrs) Brought to Health Sites Within 24 Hrs of Malaria Svmtoms Development

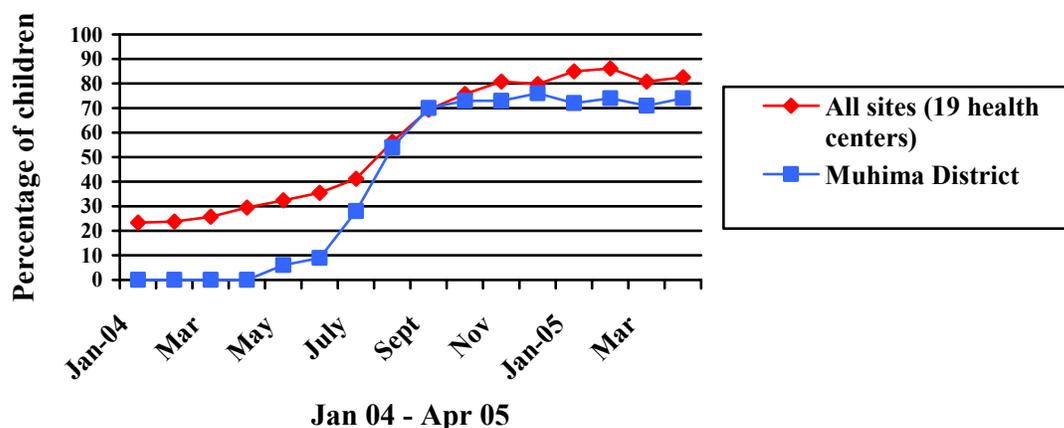


During that same period, the percentage of children receiving care in accordance with national standards increased from an average of 23% to 82% in all sites, and from 0% to 74% in Muhima, the district that demonstrated the greatest improvement (Figure 5). These increases were due in part to making laboratory services available 365 days a year, training health personnel in the proper case management of malaria in children, giving reference materials to personnel, and regularly evaluating medical records in-house for conformity of care provision to established standards. Additionally, staff were assigned to document the number of hospitalized cases that were visited at least once by the physician. Staff were also specifically assigned to monitor perfusion, and a triage system was established to identify urgent cases. Mortality rates for simple malaria remained at 0% for all sites, and severe malaria rates decreased from 17% to 0% in Gisenyi, the district with the highest mortality rate at baseline.

Support to the Ministry of Health Division for the Promotion of Quality Care and Central University Hospital of Kigali

QAP continued to provide technical support to the DPQS and the Central University Hospital of Kigali (CHK). By April 2005, a quality council had been established in CHK, and QI teams were established in the hospital's five major departments. QAP also facilitated the development of a draft structure for institutionalizing QI activities in all health sites supervised by the Ministry of Health. These drafts are being developed into the plan for institutionalizing quality within the MOH.

Figure 5. Percentage of Children (0-5 yrs) Treated According to the National Standards



Operations Research

Assessing Stigma in Health Providers and Its Impact on Quality of Care

Data collection for this study has been completed. Data from focus groups were analyzed, and the first draft of a report on the results was written. A brief presentation summarizing these results was shared with the Executive Director of the Comité Nationale Lutte contre SIDA (CNLS). Data entry and cleaning from interviews and chart reviews were completed this year. Preliminary analysis of interview results has been initiated and is currently in process.

Ensuring Patient Adherence to Antiretroviral Therapy

Results of our previous ARV adherence study stimulated discussions for expansion of this study to include additional sites. A steering committee made up of representatives from TRAC, the Department of Healthcare, Butare University School of Public Health, and QAP met in May 2004 and selected the following sites: one university hospital (Butare), one district hospital (Kabgayi), one health center (Biryogo), and one private entity that provides ARVs (Bralirwa Dispensaire). Data collection began in July 2004. To date, more than 600 patients have been interviewed. Data are being entered and cleaned for analysis.

Human Resources Assessment for Scaling up HIV/AIDS Care, Treatment, and Support

Field work for this study, undertaken in three phases, began in July 2004. Results of Phase 1 of the assessment were shared with the MOH and USAID in December 2004. In January 2005 preliminary results of the training assessment were shared, and in March 2005, results from Phase 2 were shared with the MOH and USAID. Phase 3 results were analyzed in late May, and a draft final report was submitted to Rwanda's MOH in July 2005.

Rapid Human Resources Assessment for All Health Services

The Rwanda Ministry of Health, in preparation for developing its five-year strategy to develop human resources for health services, requested technical assistance from QAP to conduct a rapid assessment of health sector human resources needs in terms of number and capacity. The assessment was conducted in February–April 2005. The study found a health services utilization rate of 28%, while Rwanda's recommended utilization rate, by WHO standards, is 50–60%. Under-utilization was greatest at the

hospital level. Most service use was in rural areas (80%) and at health centers (82%). The assessment did not find a nursing shortage, but severe needs were noted for lab technicians, pharmacists, dentists, nutritionists, and social workers. In discussion with MOH authorities, several recommendations were developed and organized into three categories: increase the utilization, create or reinforce human capacity, and build capacity for human resources retention/incentives. These recommendations were taken into account as the MOH drafted its five-year strategic plan for human resources for healthcare.

Directions for FY06

We have just received PEPFAR funding for the period April 2005 to March 2006. USAID/ Rwanda has asked QAP to further focus on developing the capacity of the DSS at the national and district levels to manage and implement QA activities at sites providing HIV services. Specifically, our focus will be to develop national and district-level QA trainers. The MOH will identify who should be trained, and, once trained, these professionals will play active roles in the management of learning sessions and action periods, including providing coaching to QA teams at sites. QAP will also expand current work in the area of ARV and PMTCT by increasing the number of sites engaged in each of these improvement collaboratives. Core funds will support continual operation of the Malaria Collaborative and, together with PLNP, possibly expand the number of districts and sites included.

2.5 South Africa

Background

QAP has worked since 2000 in South Africa, where interventions have demonstrated results in improving treatment outcomes in several key health areas (TB, maternal and peri-natal health). Based on results in the initial province (Mpumalanga), the program has gradually expanded to cover five: Eastern Cape, Kwa-Zulu Natal, Limpopo, Mpumalanga, and North West Provinces. In each province, QAP is working in close partnership with the provincial Department of Health (DOH) as well as with other community and private service delivery systems.

Since October 2004, QAP has had the role of testing interventions to improve various PEPFAR-funded treatment and care interventions. As part of this mandate, QAP is working closely with the national health department (NDOH) at national, provincial, and local service area levels to ensure that quality health services for people living with HIV/AIDS are available at both health facility and community levels. The strategic approach used is to institutionalize the use of tools and approaches to ensure a continuum of care for people with AIDS as they traverse through different levels of care (from community to facility to tertiary and back), as well as through different stages of the disease. QAP and the NDOH are also helping facilities integrate health services to reduce missed opportunities. For example, health systems and processes are being redesigned to ensure that each pregnant woman receives VCT and ARV prophylaxis and is screened for ART+. Similarly, systems and processes are being developed at community and facility levels to ensure that HIV patients are screened for TB and other opportunistic infections and receive appropriate care and treatment.

QAP and NDOH are developing strategies to improve provider compliance with national protocols and guidelines to improve outcomes among PLWHA. For this, QAP is working with provincial DOHs and other stakeholders to develop simple job aids and algorithms to help health workers comply with the HIV/AIDS treatment and care guidelines. QAP is also helping provincial DOHs and other stakeholders develop systems and procedures that facility- and community-based health workers can use to undertake regular audits and assessments to identify gaps in HIV and AIDS case management. In addition, QAP is helping DOHs and other service delivery organizations develop effective strategies to increase patient adherence with HIV and AIDS treatment regimens.

Activities and Results by Major Program Area

Counseling and Testing

During the past year, QAP has worked with the local DOHs to put systems in place to increase availability of quality counseling and testing services. Assistance in each district focuses on 1) improving the quality of pre- and post-test counseling, 2) ensuring early referrals for ARV assessments, 3) monitoring compliance with various national standards by providers and patients, and 4) ensuring quality of counseling and testing in TB-HIV services. The aims are to improve provider performance to generate client satisfaction and increase access and demand for quality counseling and testing services. As of March 2005, QAP teams had worked with 139 service outlets that served 21,099 clients with counseling and testing services, exceeding targets.

Preventing Mother-to-Child Transmission of HIV (PMTCT)

QAP is working with the provincial health offices and assisting staff in targeted facilities (245 PMTCT service outlets) to improve compliance with guidelines aimed at preventing mother-to-child HIV transmission, including counseling and testing for pregnant women, ARV prophylaxis for HIV-infected pregnant women and newborns, counseling and support for maternal nutrition, and safe infant-feeding practices. QAP is promoting a continuum of care model to ensure that pregnant women receive appropriate quality of care from pregnancy to post-delivery.

Despite reaching a large number of women with VCT (21,433 as of March 31, 2005), only about 10% received ARV prophylaxis, fewer than expected. The QAP team in Pretoria is reviewing each provincial strategy to determine how best to expand the coverage of its interventions for improving the quality of PMTCT services and further expand the reach of ARV prophylaxis uptake among HIV-positive pregnant women.

ART Services

QAP is helping NDOH, local health departments, and other stakeholders to operationalize national protocols on ARV treatment and implement a continuum of care model that ensures that HIV patients on ARV treatment receive optimal quality of care at any service delivery level (treatment site or follow-up care site). QAP is helping individual facilities in using the patient records and information systems to ensure that each patient receives quality care and in developing linkages with community-based organizations to provide community-based support for patient adherence. As of March 2005, QAP staff had assisted 15 ART service outlets providing 3,951 patients with ART, well ahead of planned targets.

Basic Health Care and Support Activities

QAP is providing support to district health offices in designing strategies to improve the basic healthcare and support for PLWHA. The basic healthcare package includes early detection and treatment of opportunistic infections (e.g., TB, pneumonia), home-based treatment of diarrhea, prophylaxis for treatment, nutritional support systems, and palliative care. QAP efforts this year have focused on improving healthcare provider knowledge and skills and improving patient records to enable appropriate follow-up care. Although 250 facilities were targeted for support, as of March 2005, work had been carried out with only 34, serving 25,890 PLWHA with palliative care services. In the first quarter of Year Four, QAP will start developing partnerships with local NGOs and community- and faith-based organizations to further expand access to quality services for PLWHA. QAP will provide small grants to these organizations and mentoring in QI to improve home-based care, including assistance to PLWHA and their caregivers to better adhere with treatment regimens. QAP will also continue working with public health centers to improve the quality of basic health services for PLWHA.

TB-HIV

TB-HIV co-infection is a major problem in South Africa, where most HIV patients are co-infected with TB, and TB is a major cause of mortality among HIV-infected persons. QAP is working with the five provincial health offices to improve operational policies and guidelines so that cross-referrals between HIV and TB facilities/centers are increased. At the facility level, QAP is working to ensure that HIV-positive patients are screened for TB and that TB patients are referred for VCT. QAP is coordinating with the TASC-TB program in South Africa to train healthcare workers in TB-HIV screening and to improve their understanding of both TB and HIV. Job aids are being developed for both providers and caregivers to ensure early detection of TB and other opportunistic infections. As of March 2005, QAP staff had worked with 44 facilities on TB-HIV co-infection, less than 20% of the projected target of 250 facilities. A number of factors, including weak TB-HIV collaboration and lack of NDOH-approved monitoring tools have hindered progress.

Directions for FY06

The U.S. Government has informed QAP that to get credit for “direct contribution,” its staff must have considerable contact with the facility staff providing a specific HIV/AIDS service. Beginning in July 2005, QAP is significantly reducing the number of facilities in the program in each local service area. Each QAP field-based staff member will be expected to cover between 10 and 15 facilities per month. Each facility will be visited at least twice a month to help its staff improve the quality of specific HIV/AIDS services. QAP also plans to hire some nurses and doctors to provide counseling and treatment services alongside facility staff. The objective is to create best practices that could be emulated by DOH staff in other areas in each province.

In the past, QAP has collected data on quality indicators (compliance, adherence, etc.) for all facilities at least quarterly in each local service area being supported by the project. Since project coverage has expanded greatly under the PEPFAR program, this approach is no longer feasible. Beginning in Year Four, QAP will collect data on quality indicators quarterly in only a sample of facilities. These data will be essential to demonstrate that quality interventions are improving compliance with evidence-based guidelines for various PEPFAR-funded HIV/AIDS services. A small portion of records will be audited (20 to 30 patient records will be drawn randomly for each service: basic health care, PMTCT, etc.) each quarter for up to three facilities per district. In addition, a number of provider-client interactions and exit interviews will be conducted quarterly in these sampled facilities. QAP will also support annual compliance surveys to be carried out by an independent local agency in each province to assess the levels of compliance with established evidence-based standards and guidelines.

2.6 Swaziland

Background

The Regional AIDS Office in Southern Africa asked QAP in April 2004 to assist with an assessment of TB-HIV co-infection in Swaziland, which is among the top five countries worldwide with the highest TB incidence rates and which has the highest per capita burden of both TB and HIV. In 2003, the country reported 7,749 cases of all forms of TB, a notification rate of 719 cases per 100,000 population (WHO Global TB Report 2005). The case detection rate in 2003 was 35%, while treatment was successful in only 47% of new smear-positive cases registered in 2002. Both are far below the global targets of 70% case detection and 85% treatment success. The adult HIV prevalence in 2003 was estimated to be 38.8%, again the highest in the world (UNAIDS Global AIDS Report 2004). The estimated prevalence of HIV among TB patients is 80%.

Activities and Results

QAP, in collaboration with the Ministry of Health and Social Welfare (MOHSW), WHO/AFRO, and the Centers for Disease Control and Prevention Global AIDS Program, conducted a rapid assessment of the TB and HIV control and care activities in Swaziland. In-depth interviews were held with senior MOHSW staff as well as representatives of WHO and UNAIDS. In addition, representatives from laboratory services, Health Education Unit, nutrition and other key Ministry units, the National TB Program, Soweto National AIDS Program (SNAP), Elizabeth Glazer Pediatric AIDS Foundation (EGPAF), and lead hospitals were also interviewed.

The assessment found highly committed staff in both the Ministry's TB and AIDS programs, strong WHO support, and available funding for TB-HIV integration activities from the Global Fund. There is some collaboration between the two programs, and the Integrated Management of Adolescent and Adult Infections (IMAI) training covers both TB and HIV/AIDS. ARV roll-out is increasing, but there are high interruption rates among patients in some areas and poor follow-up. Co-infected patients are not routinely provided with cotrimoxazole prophylaxis, even though this is a national policy. A joint policy for management of TB-HIV co-infection is needed. Case detection rates in the TB program remain low (35% in 2003). Understaffing and poor quality constrain laboratory services. Lab services need to be upgraded to increase access to microscopy in all parts of the country. The assessment team recommended that the NTP and SNAP develop joint operational plans and coordinate training and IEC activities. Other areas that need strengthening include data recording and reporting, supervision, adherence support, and counseling.

Directions for FY06

During the next nine months, QAP will support the MOHSW in developing policies and integrated TB-HIV service delivery models and algorithms for health facilities and providers. QAP will also support clinical training in TB-HIV and strengthen of support systems in the NTP and other service delivery partners.

2.7 Tanzania

Background

In 2003, QAP began providing support to the Ministry of Health of Tanzania and the Regional Health Office in Dar es Salaam for the implementation of an improvement collaborative focused on infection prevention and involving three district hospitals in the Dar es Salaam Region. That same year, as part of a joint formative research activity together with a team at Kilimanjaro Christian Medical Centre (KCMC) in Moshi, Kilimanjaro, QAP developed and tested an integrated set of job aids for use in counseling women about HIV and infant feeding in the context of HIV. In June 2004, QAP received PEPFAR funding to 1) implement an improvement collaborative on pediatric HIV/AIDS care and support involving seven referral level health facilities and 2) initiate production and dissemination of the integrated job aids and train providers in their use to improve counseling skills related to infant feeding. Finally, in August 2004, with USAID/ Washington population funds, QAP began working with the MOH/Reproductive and Child Health Services (RCHS), as well as regional office partners in Dar es Salaam, to develop a family planning improvement collaborative.

Activities and Results by Major Program Area

Pediatric Hospital Care Improvement and AIDS Treatment Collaborative

The IMCI unit of the RCHS/MOH has long recognized that wide gaps exist in quality of care at referral facilities. For many years, such quality of care has been overlooked as community-level programs have been emphasized. With increasing numbers of HIV-infected infants and a growing population of HIV-infected children (estimated at 170,000 in 2002), the urgency of addressing gaps in referral care has also

grown. In August 2004, URC approached the IMCI unit of the MOH and the WHO Office in Tanzania to initiate a program to address pediatric HIV/AIDS care and treatment and the general quality of pediatric care within these facilities. With USAID PEPFAR funds, a joint program was launched to train pediatric health providers in the referral facilities in pediatric HIV care and treatment and to set up quality systems for pediatric care for case management of severely ill children within these hospitals. The MOH selected the five collaborative sites: the three district hospitals in Dar es Salaam (Amana, Mwananyamala, and Temeke); Tumbi Special Hospital in Kibaha District; and Morogoro Regional Hospital in Morogoro Urban District. Staff from KCMC and Muhimbili National Hospital were also invited to participate in the collaborative meetings to become conversant with the program and facilitate future scale-up. A pediatrician from PASADA, a faith-based HIV clinic in Dar es Salaam Region, also attends regularly.

The collaborative was designed to coordinate improvement activities among the participating facilities and to use quality assurance methodologies to track improvements based on the National HIV/AIDS Care and Treatment Curriculum and the WHO referral care manual, *Management of the Child with a Serious Infection or Severe Malnutrition* (RCM). The RCM covers the common childhood illness causing severe morbidity and mortality, including HIV/AIDS. Table 1 summarizes the key activities in the development of this first QAP collaborative focused on care for children with AIDS.

Table 1. PHI Collaborative Activities in Tanzania, August 2004–June 2005

Key Event	Length	Dates	Activity Purpose
1st TAG meeting	5 days	August 2004	Review pediatric component of National Care and Treatment Curriculum and introduce changes to improve content of pediatric HIV/AIDS care and treatment (in partnership with the MOH/National AIDS Control Program)
Assessment	4 days	September 2004	Establish baselines of pediatric care in facilities as compared to RCM standards of care for case management at referral facilities
Learning Session 1	2 days	October 2004	Review WHO RCM guidelines and learn about the need to map out the flow of patient care in order to improve care
2nd TAG meeting	3 days	December 2005	Adapt WHO RCM to Tanzania with a key group of Tanzanian technical experts
Action Period	2 months		Map out flow of patient care and implement rapid changes to improve emergency care and treatment of children.
Learning Session 2	4 days	February 2005	Receive technical training in ETAT, the HIV screening algorithm, and develop shared indicators.
Pediatric Association of Tanzania	3 days	March 2005	QAP co-sponsored the Pediatric Association of Tanzania's annual meeting, which focused on pediatric HIV care and treatment
Action Period	3 months	Feb – May 2005	Establish ETAT in facilities, including monitoring of inputs processes and outcomes to track improvements; implementation of case fatality data collection and review
Learning Session 3	3 days	May 2005	Establish systems to improve identification and coordination of care for HIV-positive and HIV-exposed children so that appropriate care, such as prophylaxis and treatment, can be initiated
Action Period	3 months	May – July 2005	Continue to implement ETAT, improve coordination of care, collect data on numbers of HIV exposed/ positive patients who have been tested, use prophylaxis, and referred to care and treatment teams

To date, the collaborative has made important changes in care of children with AIDS nationally. The pediatric component of national HIV care and treatment curriculum has been strengthened, and the WHO RCM has been adapted to the Tanzanian setting. Over 100 pediatric providers countrywide were oriented to the curriculum through the Pediatric Association of Tanzania annual meeting, which QAP supported. To date, coordination of care between the pediatric services (RCHS), the newly established PMTCT secretariat, and the HIV Care and Treatment Program under the National AIDS Control Program has been

poor. QAP has been instrumental in assisting coordination of activities related to pediatric health by liaising and encouraging the various divisions of the MOH to improve coordination of their activities and confer with one another more routinely on issues involving them all.

In the field, teams in the five main referral facility sites have been trained to triage, assess, and treat emergency cases brought to the facility; screen, counsel, and test for HIV; and refer HIV-positive patients to the nationally instituted care and treatment teams within their facilities. Systems of triage have now been established in each facility to respond to severely ill pediatric patients. Regular monitoring of the quality of pediatric care in each facility is now being carried out, tracking data on triage (including checklists covering inputs, processes, and outcomes of care in the first 24 hours and beyond); case fatality for acute respiratory illness, diarrhea and dehydration, malaria, fever, malnutrition, anemia, and HIV/AIDS; and numbers of children thought to have HIV who were tested, started prophylaxis, and referred to the facility HIV Care and Treatment Team as appropriate.

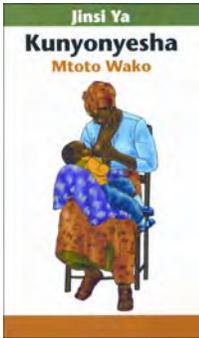
Implementation of Integrated HIV and Infant-Feeding Job Aids

QAP initiated further development and testing of HIV and infant-feeding job aids for PMTCT healthcare workers and mothers in Tanzania between February and July of 2004, based on the results of the formative research study initiated in 2003 with the University of Bergen, Norway, and KCMC in Moshi, with technical input from all key stakeholders in infant feeding in Tanzania. With PEPFAR funding added in August 2004, the objectives of the activity expanded to include finalizing the integrated set of HIV and infant-feeding counseling materials (including developing additional counseling materials on maternal nutrition and complementary feeding after 6 months) and disseminating the materials through the systematic training of health workers in three regions—Morogoro, Tanga, and Kilimanjaro. This work is being conducted in close collaboration with the National PMTCT Programme of the Ministry of Health, the Tanzania Food and Nutrition Centre (TFNC), and other organizations supporting PMTCT and infant nutrition work in the country.

The job aids package (detailed in Box 3) was developed based on updated international guidelines on HIV and infant feeding; international programmatic evidence concerning the need for such tools; a national assessment of PMTCT programs; the formative research conducted in Moshi, Tanzania; and national data related to infant and young child feeding policies, programs, and practices in Tanzania. The technical content is adapted from generic counseling tools developed by WHO, UNICEF, and USAID. A consensus-building process and state-of-the-art graphic techniques were used to create the final materials.

Box 3. Integrated Set of HIV and Infant-Feeding Counseling Materials

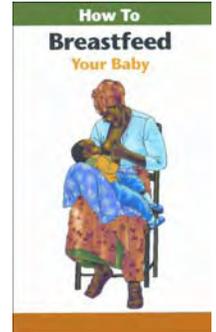
- *A “Question and Answer Guide: HIV & Infant Feeding – Answers to questions commonly asked by mothers, their families and communities”*
- *A flow chart illustrating the counseling process and the job aids to be used during one-to-one counseling sessions with HIV positive women*
- *4 Counseling/Take Home Brochures: Exclusive Breastfeeding, Infant Formula, Cow’s Milk, and Expression and Heat Treatment*
- *5 Counseling Cards: Infant Feeding Options, AFASS, Relative Risk of Transmission, Positioning and Attachment, and Expression and Heat Treatment of Breast Milk*
- *2 additional brochures on Maternal Nutrition and Feeding After 6 Months (currently in the final stages of external review, testing and production)*



Produced in both Swahili (above) and English (right), informative materials on HIV and infant feeding appeal to healthcare providers and family members alike.

Published in English and Swahili, the job aids are designed to help counselors provide information and support for preventing HIV transmission through infant feeding and to give mothers at-home guidance. Although the materials were developed for use with women in ANC clinics, the tools can also be used with women in other settings, as well as with fathers, elders, youth, local leaders, and others.

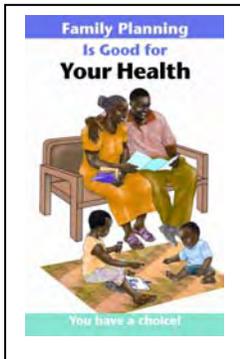
The materials were printed in Tanzania in March 2005 and dissemination began in Morogoro, followed by their introduction in Tanga and Kilimanjaro in April. The orientation to the new job aids is based on a six-day infant-feeding TOT training of regional level resource people and a subsequent two-day transfer training course for health workers involved in PMTCT or other types of infant-feeding counseling from each region. Two additional days are spent supervising the newly trained resource people as they train a second group of trainees. Subsequent trainings by the resource people are conducted unsupervised but facilitated by QAP. These innovative trainings focus on the effective use of the job aids in counseling. To date, 48 resource people (16 in each of the three Kilimanjaro regions) have been trained who in turn have conducted one supervised training of a total of 108 counselors and unsupervised transfer trainings of



another 64 individuals in the three regions. In this way, the program has been able to cover 172 facilities in the three regions.

Family Planning Improvement Collaborative

QAP used SO1 population funds to launch the Family Planning (FP) Collaborative in the Dar es Salaam region to strengthen the quality of FP services and to work on integration of FP and HIV/AIDS services.



Family planning brochures will serve as the basis for posters to reach all clients visiting reproductive and child health sites.

Supported by the Dar Regional Medical Office and the RCHS/MOH, the collaborative involves nine facilities in three districts: Ilala, Temeke, and Kinondoni Districts (one hospital and two health centers per district).

The collaborative began with an assessment—conducted by the RCHS nurses in September 2004—of current FP services. The assessment prioritized improvements to maximize opportunities to provide FP and HIV/AIDS information to all RCHS clients at the facility; improve privacy for clients of FP services; improve history taking, physical exam, counseling, and screening using national standards of medical eligibility screening; and improve method mix (reducing stock-outs).

Three Learning Sessions were held in Year Three, as summarized in Table 2. Teams began introducing changes in their systems and tracking key indicators in February 2005. Figure 6 shows data presented at the third Learning Session in April 2005.

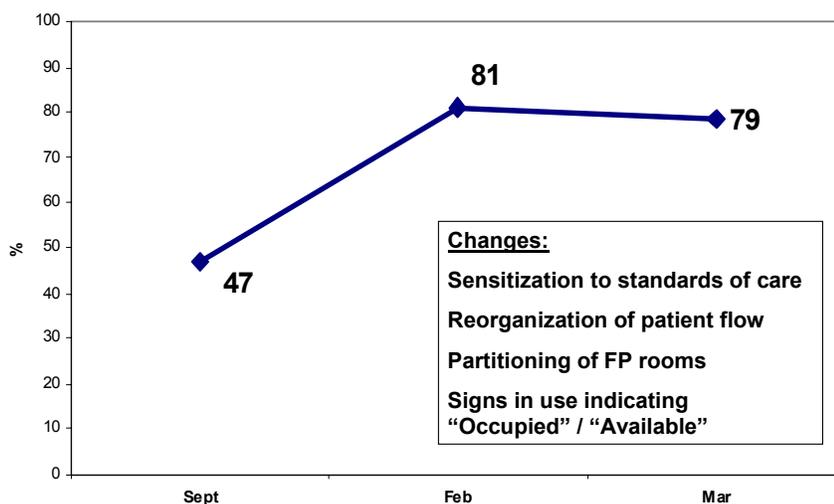
To update providers' skills in short-term methods and intrauterine contraceptive devices, QAP is partnering with EngenderHealth's ACQUIRE Project, which is assisting the MOH to roll out its national FP training program. In order to institutionalize the improvements made within the facilities it has been supporting, QAP is working to incorporate FP-HIV/AIDS quality of care indicators in the RCHS supervision checklist, which municipal nurses use during routine supervision visits.

Table 2. Family Planning Collaborative Activities in Tanzania, October 2004-June 2005

Event	Dates	Purpose of Activity
Learning Session 1	October 2004	Review of facility assessment results Quality improvement (QI): Using data for decision-making
Team Leader Training		Train QI teams in information technology and specifically in the use of data entry and generation of run-charts to monitor progress
Action Period 1	Oct 2004 – Jan 2005	Assemble QI teams; sensitize administration and co-workers in Collaborative objectives; develop workplans; initiate data collection and development of tools
Learning Session 2	January 2005	Action period data and review Updates on medical eligibility screening criteria Quality improvement methods: Plan, Do, Study Act (PDSA) cycle Counseling: privacy, interpersonal communication, informed choice networking and referrals
Action Period 2	Feb – April 2005	Implement improvements; finalize and implement data collection tools (client exit interviews, record reviews); develop the FP brochure and other IEC materials
Learning Session 3	April 2005	Action period data and review QI: PDSA cycle and data collection Hormonal contraceptives
Action Period 3	April – June 2005	Field test and finalize FP brochure and IEC materials; improve tracking referrals and coordination of reproductive health care and HIV services; improve data collection and record keeping within the facilities.

Figure 6. Example of Improvements Introduced in the Tanzania Family Planning Collaborative

**PRIVACY REPORTED ON CLIENT EXIT INTERVIEW,
4 of 7 FACILITIES REPORTING**



Family planning IEC materials in Tanzania are antiquated and out-of-print, but the demand is there for materials to support counseling and inform clients of FP options. After discussions with the RCHS, QAP initiated the development of an initial “all-methods” brochure, which has been received with tremendous enthusiasm. QAP has been asked to expand its efforts to develop complementary materials for family planning, including posters for health facilities displaying standard FP and HIV messages targeted at all clients who attend reproductive and child health services (including antenatal care, postnatal, post-abortion care, PMTCT, family planning, and well-child visits). QAP is negotiating with the Tanzania Marketing and Communications Project to produce and disseminate these materials developed and tested within the FP collaborative.

Directions for FY06

In the coming year, the PHI-AIDS Collaborative will focus on increasing the number of children who are screened for HIV, tested, and started on prophylaxis and on improving coordination of care within facilities for pediatric HIV patients (in-patient, MCH ward, ARV care and treatment teams, and referral to the community). The collaborative will also address improving case management for other leading pediatric illnesses and continue to develop capacity within the facilities to collect and use reliable data for improving the quality of pediatric services. QAP has been asked to scale up the infant-feeding counseling materials and training of infant-feeding counselors in six new regions (Kagera, Iringa, Mwanza, Tabora, Mtwara, and Dar es Salaam) as well as Zanzibar, using a strategy to collaborate with and leverage funds from PMTCT programs in those regions. Additionally, the impact of the HIV-infant feeding job aids will be evaluated in the three original regions, and a system of monitoring and evaluation established to track the successes of the program. QAP has received field support funding from USAID/Tanzania to scale up the Family Planning Collaborative to 36 additional public and private facilities in urban, rural, and semi-rural communities in the Dar es Salaam Region. Additionally QAP will provide support to build district supervisory capacity to monitor activities of the FP collaborative.

2.8 Uganda

Background

The Ministry of Health of Uganda has requested support from QAP to strengthen and institutionalize quality assurance within its ART expansion program, to ensure that services provided to adults and children with HIV/AIDS are high quality and meet clients’ expectations. Planning for this technical assistance program began with a QAP-USAID/W team visit in April 2005, to assist the MOH, USAID, and other partners in designing and planning implementation of a quality assurance activity to complement the current HIV treatment scale-up and ART expansion in Uganda.

Activities and Results

At the end of field visits and consultation with the MOH, partners, and USAID/Kampala, QAP developed a proposal to use the improvement collaborative methodology to strengthen and scale up ART nationally, which the MOH accepted. During subsequent staff visits in June, QAP worked with MOH officials to develop a QA roll-out plan. The plan includes the simultaneous implementation of several regional collaboratives, involving all of Uganda’s 56 districts. The collaboratives will improve case management and compliance with standards for ART, strengthen medical records and data management, increase patient adherence, and strengthen linkages with community-based care and services. QAP has also been asked to provide technical guidance in updating the national HIV and infant-feeding guidelines and adapt the HIV and infant-feeding counseling materials from Tanzania for Uganda.

Directions for FY06

The regional collaboratives will be launched in September 2005. QAP has begun recruiting for local staff and preparing for the baseline assessment, to be conducted in August. In July 2005, a QAP team will

initiate adaptation and preparation of Uganda-specific counseling materials for infant feeding. Draft materials will be field-tested and the results presented to national stakeholders.

Asia/Near East

2.9 Vietnam

Background

QAP received funding from the Leahy War Victims Fund at USAID to apply quality improvement methods to improve care of clients needing prosthetics and orthotics/rehabilitation (P&O/R) in Vietnam. To conduct this activity, QAP partnered with Health Volunteers Overseas (HVO), which is providing technical content expertise in P&O/R. Our local partners include Danang Rehabilitation Center, the Ministry of Labor, Invalids and Social Affairs (MOLISA), and, unofficially, Hospital C in Danang.

Activities and Results

HVO experts made follow-up visits to Vietnam in November and December 2004. Stroke teams at Danang Rehabilitation Center and Hospital C each chose new priorities for improvement while maintaining the previous improvements. In March 2005, at a one-year project update meeting, the teams presented their progress and data to MOLISA and USAID. Although the plan had been to end the project in March 2005, HVO received permission to extend the project at no cost and send its experts to Vietnam for at least one more visit. Improvements addressed documentation in patient records of diagnosis, rehabilitation goals, and regular progress notes; monitoring of stroke patients with hypertension; counseling hypertension patients on reducing salt in diet; counseling stroke patient smokers on quitting; and documenting mobility progress for cerebral palsy patients.

Directions for FY06

Because no additional funding is available to support further work, this activity will close early in year four with a final QAP trip to Vietnam.

Eastern Europe

2.10 Russia

Background

QAP has worked in Russia since 1998, adapting and applying quality improvement methodologies to its healthcare system. Following successful pilot and scale-up of improved systems of care for maternal and child and primary healthcare, QAP began a national level spread of improvement methods in priority healthcare areas in 2002. QAP supported the Central Public Health Research Institute (CPHRI) in running five national collaboratives with approximately 24 territories of the Russian Federation.

In the fall of 2003, the USAID Mission in Moscow requested that QAP, along with the American International Health Alliance (AIHA), assume responsibility for the treatment, care, and support part of its HIV/AIDS strategy. QAP and AIHA have developed a joint project strategy to maximize the effectiveness of USAID/Moscow resources and combine the strengths of each organization's approach. QAP is using QI methods to design a model comprehensive system of care, treatment, and support for HIV-infected and AIDS patients, including collaborative meetings to give territories an opportunity to share their ideas and experiences. AIHA is using its Partnership approach, which will provide for exchanges between professionals in Russia and the United States. The model is being developed in the oblasts of Samara, Saratov, and Orenburg, and in St. Petersburg City, with a plan for spread throughout these territories and to others.

Activities and Results by Major Program Area

Design a Comprehensive System for HIV/AIDS Care, Treatment, and Support

The past year has witnessed an intensive level of activity on the project. QAP and AIHA began project implementation with meetings in June 2004 in each oblast, involving leaders from the territory administration, healthcare sector, AIDS centers, social service authorities, prison health system authorities, and NGOs. During August and September 2004, QAP conducted meetings to assist with site selection in each oblast and set up teams and Coordination Committees.

During subsequent months, QAP conducted one-day QI overview workshops for Coordination Committee members, oblast leaders, and AIHA representatives in all four project sites, followed by a three-day QI core course for improvement team members. Participants in each oblast varied somewhat but generally included representatives from medical institutions (AIDS centers, immunology, infectious disease control, primary care, TB services, narcology, MCH, sexually transmitted infection clinics, youth clinics), social services (social welfare, child and family services, social workers, psychologists, youth committees) and NGOs (groups for PLWHA, risk reduction, youth, drug abuse services, etc.). By the end of 2004, QAP's Moscow-based staff had worked with practitioners at each site to conduct an analysis of the care delivery system for PLWHA, review current practices, and determine objectives for improvement.

QAP and AIHA hosted a three-day strategic planning meeting in St. Petersburg at the beginning of 2005, bringing together key Russian healthcare policymakers; experts from WHO, the Global Fund, UNAIDS, UNICEF, USAID, and other international organizations; and clinicians, epidemiologists, and service providers from Russia and the United States. The purpose was two-fold: to facilitate the development of a shared vision and integrated models for effectively providing care, treatment, and support services to people living with HIV/AIDS, and to promote continuity and synergy between various organizations and extant programs. Four global topics emerged as primary areas for improvement: *access and patient retention, care coordination, patient management and adherence, and coordinated HIV and TB detection and treatment.*

During the period March to May 2005, QAP held the first Learning Session (LS) in each territory. The first was designed to familiarize participants with the project strategy that had been developed during the strategic planning meeting, introduce collaborative improvement and other improvement methodologies, teach clinical content, and develop improvements pertaining to each priority area.

QAP Moscow-based staff conducted the second learning session in June 2005. This interregional meeting allowed representatives of all four territories to exchange ideas, experience, and problems and to develop possible solutions. Each territory made a presentation on its progress, and the team members were able to discuss relevant issues in a facilitative forum.

During the first year of project activity, QAP Moscow-based staff periodically visited all four territories to understand and oversee the process; identify problems, needs and expectations; and assist teams.

Four teams formed at each project site to address the priority improvement areas. Each team has a leader who convenes and facilitates team meetings with the assistance of the project field coordinator and maintains frequent contact with QAP's Moscow-based staff. Teams are now in the phase of introducing improvements and monitoring results. Teams working on *access and patient retention* have developed leaflets, flyers, and booklets for people who are HIV-positive; they are also involving primary care levels in pre- and post-test counseling. Teams working on *care coordination* are addressing issues related to information exchange between AIDS centers and general medical networks, case management, training of social workers in HIV/AIDS issues and appropriate care delivery, and designing standardized discharge and referral forms and a common database on HIV-positive clients. Teams working on *patient management and adherence* have identified several areas for improvement: criteria definition for ART administration and monitoring; system of supportive training based on desk audits, including patients on

ART and those receiving non-ARV care; reducing stigma among medical staff; improved cooperation between the AIDS center infectious disease specialists and psychologists to improve adherence; and detection of and assistance with depression in patients on ART. Teams working on *TB/HIV co-infection* are focusing on preventative treatment of TB among HIV patients, patient flow at facilities to avoid infection, and implementation of Ministry of Health and Social Development (MOHSD) guidelines for patient records.

Throughout the past year, QAP staff in Russia has actively participated in meetings and activities related to HIV/AIDS held by the MOHSD and international donors. We have also worked closely with all other USAID-funded projects in the country.

Follow-Up Phase III: National Scale-Up of Collaborative Improvement Methodology

The MOHSD Central Public Health Research Institute, QAP's main partner from 1998 to 2004, held a two-day national conference in late May 2005 on quality and healthcare. Over 300 people attended, including the Vice-Minister for Health, leadership from many MOHSD departments and institutes, and regional health ministers from across the country. Part of the conference, co-sponsored by QAP, was dedicated to disseminating results of Russia's five QAP-supported national collaboratives, and many presentations from other MOHSD institutes and departments reflected ideas and approaches QAP had introduced in Russia. The CPHRI has great capacity to manage projects following its capacity-building partnership with QAP and now leads similar projects without external assistance.

Presentations were given by Collaborative Directors to highlight some of the team achievements in the 24 territories involved in the five Phase III collaboratives. Examples of results from the regions include an increase from 32% to 90% of women receiving prophylaxis treatment for anemia during pregnancy from the beginning of medical observation in the Republic of Karelia; an increase from 25% to 48% of infants being breastfed in pilot sites in the Republic of Sakha (Yakutia); and a decrease from 15% to 3% in the number of hypertensive crises among patients practicing self-monitoring of blood pressure in Belgorod Oblast pilot sites.

TB-HIV/AIDS Co-infection Research

In view of Russia's growing TB-HIV co-infection problem and the opportunity to strengthen the functional integration of TB and HIV services as part of the improved model of HIV/AIDS care being developed, QAP conducted a situational analysis of the TB-HIV co-infection prevalence in Russia and in the regions selected by USAID/Moscow for QAP work. The assessment examined the federal and regional regulatory frameworks that affect coordination between TB and HIV/AIDS services, existing TB and HIV/AIDS system practices in each region, and mechanisms of coordination between these TB and HIV services with regard to the co-infection. The results were presented at the first learning session of the HIV/AIDS Collaborative and are being used to guide the improvement teams addressing TB-HIV co-infection in each oblast.

Directions for FY06

During FY06, the program will focus on providing teams with content training, conducting two more learning sessions in each territory, one or two interregional learning sessions, testing and implementing changes, collecting and processing data on indicators, and planning for scale-up.

Latin America and the Caribbean

2.9 Ecuador

Background

QAP continued two main activities in Ecuador during this past year: the Essential Obstetric Care (EOC) Improvement Collaborative and support for the scale-up and institutionalization of CQI in health areas participating in the national Free Maternity and Integrated Child Care Program. The EOC Collaborative began in August 2003 in one province (Tungurahua) and in 2004 expanded to two additional provinces (Azua and Orellana).

Mandated by Ecuadorian law, the Free Maternity Program reimburses participating health districts for MCH services covered under the program: prenatal care, delivery, immediate newborn care, family planning, and care of sick children under five following the IMCI protocol. To encourage high quality in the services delivered, the free maternity law stipulates that facilities must meet certain levels of compliance with quality standards and undertake CQI activities. QAP has supported the progressive scale-up of CQI within the Program by providing training, QA materials, and coaching for national, provincial, and district CQI facilitators, who are MOH staff who support quality improvement teams at the facility level. Facility teams carry out improvement activities to increase compliance with national MCH standards and conduct monthly measurements of quality indicators to track performance. Improvement activities and interventions used in the EOC Collaborative were extended in 2005 to all provinces participating in CQI activities under the Free Maternity Program and now cover half of Ecuador's 22 provinces.

Activities and Results

Consolidate and Expand EOC Improvement Collaborative

The EOC Collaborative works through CQI teams to engage national, provincial, and district health authorities in establishing local, integrated EOC systems that include four components: 1) conducting improvement activities in the district facilities network, focusing on improving compliance with standards for basic and comprehensive EOC and the management of obstetric complications; 2) establishing an ongoing clinical training mechanism based on resources available at the provincial referral hospital; 3) adapting obstetric practices to the cultural needs of users; and 4) promoting community-based activities to increase access to and utilization of EOC services. In each province that joins the collaborative, three basic learning sessions are conducted in a decentralized fashion, under the responsibility of the provincial facilitator (a provincial MOH staff member), with QAP support. Most, and in some cases all, of these local costs are covered by local MOH budgets.

A national meeting of provincial CQI facilitators took place in December 2004. Participants from each province shared their experiences in applying rapid improvement cycles to different EOC services and the results that had been measured through monitoring quality indicators. Lessons were extracted by determining the most common interventions for typical problems in each EOC service and the likely results. Implementation status by June 2005 for each collaborative component was as follows:

Component One: In 11 (of 22) provinces, about 60 facilities, mostly district hospitals, are reporting on the collaborative website.² The latest indicator-monitoring data posted show impressive gains from the baseline (Table 3).

² www.mortalidadmaterna.org: Data are organized by country and province/region and presented by team or facility; consolidated data are available only for some provinces/regions. To view the data, click on the link to "Trabajo de los equipos por país" and select a team folder within any region or province of the three countries; when prompted, enter the username *mmaterna* and password *colaborativo*.

Table 3: Selected Indicators from the EOC Collaborative in Ecuador: Pooled Data from All Provinces Reporting

Percentage of reviewed cases that complied with quality standards	July 2003	April 2005
% of prenatal consultations in which all standard tasks were performed	0%	72%
% of deliveries in which the partograph was correctly used	44%	80%
% of normal deliveries in which oxytocin was administered to prevent postpartum hemorrhage	0%	68%
% of newborns for whom the standard tasks were performed	25%	78%
% of normal deliveries in which standard, immediate postpartum tasks were performed	0%	81%

Component Two has been implemented in two provinces (Tungurahua and Orellana), where EOC clinical training centers have been organized at the respective provincial hospitals. All staff who provide EOC services at province facilities rotate in receiving competency-based EOC training consisting of 13 modules covering theory, practice on mannequins and in simulated situations, as well as a practicum in the hospital services. Clinical training centers are now being organized in Chimborazo and Manabi provinces.

Component Three has been implemented in one province (Tungurahua). The approach consists of a series of workshops to bring together EOC providers, representatives of health facility users' committees, traditional midwives, and local government officials to analyze the barriers to cultural acceptability of obstetric care. The approach then proposes and monitors changes in how care is provided at local health facilities. The first workshop, held in February 2005 in Tungurahua and coordinated by Family Care International (FCI) in collaboration with QAP, tested an approach to negotiating client participation in EOC quality improvement efforts, especially efforts directed at improving the cultural acceptability of services to users. Participants representing all different sectors of the community engaged in role-plays of both home-based and hospital-based births, illustrating the importance of different issues to different stakeholders. The group then listed activities or practices important to an ideal birth and began a discussion of potential cultural adaptations that would make facility-based delivery more attractive to community women and their families. A second meeting was held in May, when the various stakeholders developed suggestions about specific changes in facility-based care. These changes will be tested in a series of rapid improvement cycles over a two- to three-month period and then evaluated by participants in a third meeting.



A traditional birth attendant demonstrates culturally appropriate newborn care after a home-based birth.

Component Four was implemented in one province (Orellana), with assistance from the United Nations Fund for Population Activities (UNFPA).

QAP signed agreements with UNFPA and FCI in 2005 explicitly for the implementation of this model. UNFPA is currently paying all local costs in four provinces (approximately USD \$65,000), and FCI is supporting the Component Three in one province (approximately USD \$10,000). Currently, FCI and QAP are finalizing an agreement by which FCI will continue to support the cultural adaptation activities in Tungurahua and will pay for a national meeting in September to present the experience to other provinces and plan for this component's scale-up.

Support institutionalization of CQI within the Free Maternity Program

During this past year, QAP continued to serve on the Technical Monitoring Committee, which advises the Free Maternity Program Executive Unit on the technical components of the program, including the CQI activities. QAP assisted the Executive Unit to review and update the quality standards and indicators for the services covered under the Program, ensuring the standards are evidence based. A new set of

standards was discussed, approved, and sent to provincial offices for implementation. QAP also assisted the Unit in establishing a national database to consolidate data on quality indicators sent by provincial offices. With QAP support and in consultation with the National Association of Municipalities, the Executive Unit drafted and field-tested a manual for training members of Local Management Committees (headed by the mayor in each municipality), who are the local administrators for payments to providers for the services covered under the Program. The manual describes the role that Local Management Committees should have in overseeing and periodically reviewing the quality of the services the government is paying for. The manual provides operational guidelines for this role, recommending quarterly meetings for presentation and discussion of quality indicators in each municipality.

QAP completed the operations research study on the process of institutionalizing CQI in the Free Maternity Program and prepared two final reports. The first report describes the creation and implementation of the Free Maternity Law, documenting the institutional circumstances and actors that played a part in the creation, discussion and approval of the Law, its main components and mechanisms, and the experiences gathered after two years of its implementation. The second report describes the three-staged approach and methods used for scaling-up and institutionalizing the CQI approach within the Free Maternity Program, both in the MOH's central and provincial offices as well as hospitals and health centers.

Directions for FY06

QAP will continue to support the EOC Collaborative in Ecuador in year four to complete the development of all four components of the integrated EOC system model in all 11 provinces, in alliance with UNFPA and FCI. While continuing to address EOC in the entire provincial network, the collaborative will have a special focus on the management of obstetrical complications at larger hospitals and on promoting active management of third stage of labor (AMTSL) at all facilities participating in the CQI activities of the Free Maternity Program. QAP will also actively promote the spread of AMTSL to the rest of MOH's and other institutions' facilities that are not part of the collaborative by 1) supporting the central MOH to adopt AMTSL as an official policy included in its norms; 2) widely disseminating scientific evidence; 3) supporting other institutions influential in obstetric practice in advocating for AMTSL, such as professional organizations, university schools, NGOs and women's groups; and 4) organizing "province to province" advocacy for AMTSL by facility staff who are already using AMTSL to provinces that have not started yet.

2.10 Honduras

Background

QAP continued to support the Secretariat of Health (SOH), both at central and departmental (district) levels, to expand and scale-up the institutionalization of a CQI system aimed at ensuring high quality maternal and child care services provided by the SOH facilities. The effort was initiated in past years in two health regions: Comayagua (Region 2) and Copan (Region 5). In late 2004, the SOH changed its organizational structure from eight health regions to 20 departmental health regions and requested that QAP support the scale-up of the CQI program in the five departmental regions supported by USAID: Copan, Comayagua, La Paz, Intibuca, and Lempira. Additionally, QAP supports the National QA Unit to coordinate international support and lead the development of QA activities in the departmental health regions. USAID and the SOH requested that QAP organize and implement a CQI system within the municipal health networks that are being put in place in selected municipalities in Copan, Lempira, and Comayagua as part of a health sector reform decentralization project.

Activities and Results by Major Program Area

Improve Quality of Care for Maternal and Child Health Services in Selected Departmental Health Regions

QAP worked with the SOH Technical Unit of Family Health to revise and update the existing standards and indicators for maternal care and to develop new ones for child care. An obstetrician-gynecologist and a pediatrician QAP hired helped develop and update the standards based on available scientific evidence and the SOH National Norms. Two sets of standards and indicators were developed and updated jointly with staff from the SOH Family Care Unit. The indicators and data collection instruments were tested and adjusted in nearby hospitals and centers. The standards and indicators will be officially issued by the SOH and distributed to facilities in late 2005.

QAP and regional SOH offices worked to strengthen the reporting of compliance with standards indicators from facilities to the QA focal point in the region: 58 facilities are currently reporting in the five health regions. Quality of care improved significantly: compliance with prenatal care increased from an overall 44% to 92%; correct use of the partograph increased from 60% to 100% of all deliveries; active management of third stage of labor jumped to 100% of deliveries, but slipped to 83% in April 2005; CQI teams and regional QA staff are tackling this problem. Countrywide compliance with immediate postpartum care went from 36% to 48% in facilities with CQI. Special efforts are being directed towards improving the management of obstetrical complications care. The practice of family planning counseling in routine consultations went up from 25% to 52%. CQI facilities were able to provide care in compliance with standards to 100% of acute diarrhea and pneumonia cases, and to follow the IMCI protocol in 95% of under-five sick child consultations.

QAP supported the SOH to expand the quality improvement activities focused on maternal care that are part of the EOC Collaborative. Currently all five hospitals and ten maternal clinics and about a third of the 95 health centers in the five regions are actively implementing the CQI approach.

Strengthen QA Institutionalization in the Target Departmental Health Regions

The reorganization of SOH's eight regional offices into 20 regional departmental offices presented an opportunity to discuss the role and structure of QA within the newly organized departmental regions. With QAP's support, all five regions identified specific QA functions within the new organizational regional structure. Three of them also appointed a staff member to be responsible to carry out these functions permanently. QAP works closely with these staff, providing technical support and ongoing coaching. In Comayagua and La Paz regions, QAP also supported QA workshops for supervisors who periodically visit facilities: The aim is to include a CQI perspective and tools within the scope of the regular supervisory functions these personnel carry out. Regional SOH directors began to assign part of the funds that regions receive from USAID to CQI activities. This year approximately USD \$15,000 was allocated for expenses related to local improvements in the quality of care.

Implement CQI in the Pilot Health Sector Reform Experience of MANCORSARIC

USAID invited QAP to be part of its Health Sector Reform (HSR) team that supports the SOH and the municipal governments associations of MANCORSARIC in Copan and MAFE in Comayagua. The HSR team supports the local governments in their new role in the management of facilities networks in their jurisdictions. QAP's specific responsibility is to design and support the implementation of a CQI system in these facilities, in order to ensure the high quality of its services. The CQI system is being developed in close coordination with other managerial components, such as information, financing, payment, and human resources management subsystems. Twelve CQI teams have been formed and trained in the MANCORSARIC and MAFE facilities. Four users committees were trained and have started to measure

client satisfaction through surveys in the Municipalities of San Jerónimo, Cabañas, Santa Rita de Copán, and Copán Ruinas. The results will serve as the basis for improvements that respond to client needs.

Support Institutionalization of QA at the Central Level of the MOH

In April 2005, QAP provided training the new coordinator for the National QA Unit of the SOH and two other newly appointed staff in the QA Unit. QAP also helped the SOH's QA Unit develop its annual workplan, which will be funded separately by USAID. Last, QAP supported the creation of a Task Force (*Mesa de Trabajo*) with the participation of the World Bank Reform Process, Japanese Cooperation, the Inter-American Development Bank Project, and other institutions active in the field of QA in Honduras' health sector. This Task Force meets monthly and discusses progress of QA-related activities on several fronts, aiming to create a common vision, shared methods, and joint efforts.

Directions for FY06

QAP will continue to support the institutionalization of the CQI program in the five departmental regions supported by USAID: Copan, Lempira, La Paz, Comayagua, and Intibuca. QAP will also work with the USAID HSR team to develop CQI programs in four new decentralized municipal health networks. A national conference will be convened for CQI teams from all regions active in the program to share experiences. The CQI manual, which QAP helped the SOH QA Unit develop, will be finished and disseminated to all departmental regions and facilities. Users committees will be organized in more facilities that are active in the CQI program.

2.11 Jamaica

Background

QAP began to work with YouthNow and the MOH in year two, to develop standards for youth-friendly health services and began a small improvement collaborative with five health centers in the southern region to improve adolescent services, work concluded in year three.

Activities and Results

Support Implementation of Youth-Friendly Standards and Improve the Quality of Services for Youth

QAP continued working with Jamaican MOH to assist teams in five health centers in the southern region (Santa Cruz, Porus, Mandeville, Chapelton, and May Pen). Three collaborative learning sessions with all five teams were convened in year three (July and October 2004 and May 2005). The teams were hampered in their progress by Hurricane Ivan, but still managed to conduct improvement activities such as improving documentation in the patient medical records; increasing their stock of educational materials; signage for schedule and scope of adolescent services; and improving the appearance of the facility. The Jamaican MOH will continue to support the five teams with visits and telephone calls. The teams will continue for the time being regular monitoring of their patient records for completeness. A barrier to continued implementation of the youth-friendly standards is that the standards have not yet been formally adopted by the Ministry, which would require a new technical review and communication and circulation to all interested parties.

Directions for FY06

QAP has no further funds for working with the MOH in Jamaica. The final QAP staff trip was made in May 2005 to introduce the teams to the new bilateral adolescent health project staff to provide assistance for the bilateral project activities and facilitate their continuity.

2.12 Nicaragua

Background

QAP has, since 1999, provided support to the Ministry of Health (MINSa) and to PROFAMILIA, the leading private sector FP provider, in the implementation of a program for ongoing improvement in quality based on the promotion of a culture of quality, professional competence, and user satisfaction. From an initial four municipalities in 2000, QAP is now supporting quality assurance activities related to MCH in 14 of the country's 17 local integrated health systems (SILAIS): Rio San Juan, Jinotega, Matagalpa, Granada, Boaco, Chontales, Chinandega, Esteli, South Atlantic Autonomous Region (RAAS), North Atlantic Autonomous Region (RAAN), Nueva Segovia, Madriz, Masaya, and Leon. This expansion was possible through QAP's very close coordination at the central level of the Ministry of Health, working closely with General Directors of the First and Second levels, and the solid alliance with external cooperation agencies such as UNICEF, the Pan American Health Organization (PAHO), CARE, IPAS, UNFPA, Nicasalud, PROFAMILIA, and Management Sciences for Health.

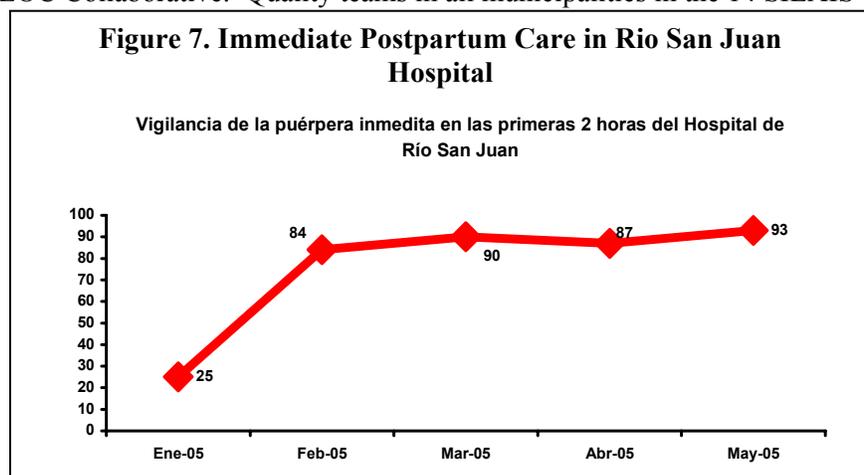
QAP began providing technical assistance in July 2004 to the 24 delegations of the Ministry of the Family (MIFAMILIA) in all Nicaraguan departments. QAP is also assisting nine private medical clinics (*Empresas Médicas Provisionales*) that provide services financed by Social Security in six SILAIS.

QAP began in May 2005 to support QA activities by the NGO ProMujer, which belongs to the Nicasalud Network. ProMujer has 14,000 clients who receive low-interest loans for microenterprise development and medical care, such as gynecological services, family planning, and utero-cervical cancer prevention. ProMujer has identified the need to establish mechanisms for assuring the quality of the medical services it provides in its four clinics and for measuring client satisfaction. QAP is providing assistance in developing quality standards, updating clinical norms, and adapting client satisfaction tools.

Activities and Results by Major Program Area

Quality Improvement in Neonatal and Essential Obstetric Care

At the beginning of year three, seven of the 14 QAP-assisted SILAIS were participating in the EOC Collaborative as part of the Maternal Mortality Reduction Initiative: Matagalpa, Chinandega, Granada, Estelí, Nueva Segovia, Madriz, and RAAS SILAIS. Teams in each SILAIS are addressing comprehensive EOC at the secondary care level, basic EOC at the primary care level, and community actions to increase the demand for institutional care. Because the interventions promoted through the EOC Collaborative are essentially the same that QAP is supporting in all 14 SILAIS, all 14 SILAIS have now been incorporated into the EOC Collaborative. Quality teams in all municipalities in the 14 SILAIS are now conducting regular monitoring of quality indicators (125 municipal level quality teams in all). An example of such monitoring is provided in Figure 7. There has been some evidence of the reduction of the maternal mortality rate in areas where QAP is supporting quality improvement. Comparing the first 17 weeks of the years 2004 and 2005, one sees that the number of maternal deaths dropped from 31 to 24.



Pediatric Hospital Improvement Collaborative

QAP continued to expand the PHI Collaborative in Nicaragua. By the end of year three, 13 of the 20 referral hospitals that treat children there had been incorporated into the collaborative. The collaborative is introducing standardized case management of severely ill children who are under five years and who have been referred from the first level to the hospital level on the basis of severity classification of IMCI. QAP has now begun work to incorporate two more hospitals in PHI: Masaya and Chontales SILAIS hospitals. Figures 8 and 9 show consolidated results for PHI hospitals for two of the six key indicators being monitored by hospital teams.

Figure 8. Ill and Very Ill Children with Pneumonia Treated According to Standards, Seven SILAIS Hospitals

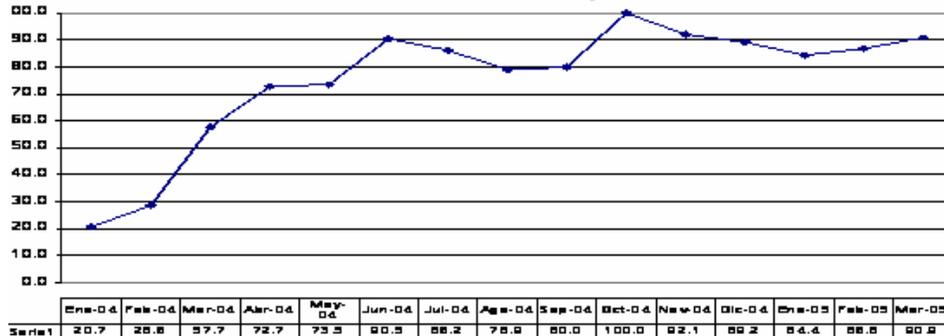
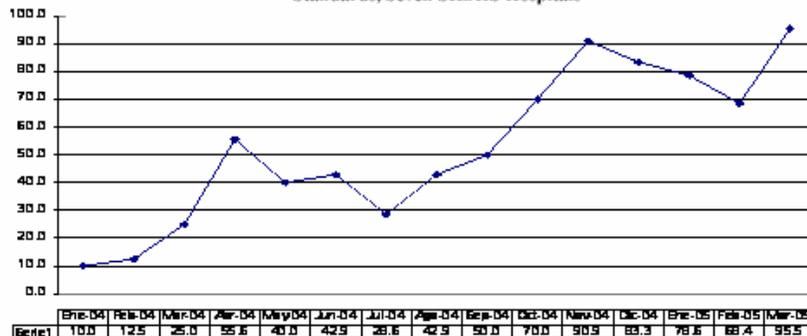


Figure 9. Children with Diarrhea and Severe Dehydration Treated According to Standards, Seven SILAIS Hospitals



Quality Monitoring and Improvement in the 24 Delegations of MIFAMILIA

The delegations have now carried out two or three measurements of compliance with standards and held their first meeting to exchange data and present changes made for improved processes. Among the improved processes are: on-time attention to accusations of violation of the rights of the children, correct application of protection measures, integration of at-risk children based on norms for specific categories of attention, measures to improve client satisfaction, and correct file organization. The delegations have also improved the system for managing complaints and designed a service strategy.

Redesign the QA Program of PROFAMILIA

During the year, QAP helped PROFAMILIA redesign its QA program to address the organization's larger goals of improved competitiveness and financial sustainability.

Improve Maternal and Child Care in *Empresas Médicas Provisionales*

Nine private medical clinics are improving quality using indicators mainly related to the use of the partograph and immediate care of the newborn. Figure 10 shows improvements in the percentage of normal deliveries in which the partograph was correctly used and interpreted in the El Socorro private clinic in Boaco.

Operations Research

Developing tools for measurement and monitoring of the competence of skilled birth attendants (SBA): This study is field-testing simplified measurement methods to assess SBA competency. Implementation has begun in 20 maternal child hospitals and 40 *municipios* (out of 152 in the country).

Mother-Baby Friendly Program Assessment in Nicaragua: The purpose of this study is to assess the impact of the Nicaragua Mother-Baby Friendly Certification Program on key indicators of care, behavior and health outcomes. Special priority will be given to the nature and impact of the integrated focus on mother and baby (as opposed to just on the baby), to community groups and local committees, and to QA approaches that improve efficiency or cost-effectiveness. This research is in its final phase, which is discussing the draft report with stakeholders in Nicaragua.

Directions for FY06

For year four, USAID asked QAP to expand its assistance to MINSA to include the development of quality standards and model care processes for integrating voluntary counseling and testing for HIV within its family planning program. QAP will also assist with the development of standards and care processes for PMTCT and ART services. In addition to continuing the EOC work in the 14 SILAIS, three more hospitals are expected to join the PHI Collaborative. We will also work with another four private medical clinics to introduce QA.

2.13 Peru

Background

Since 2003, QAP has provided assistance to Max Salud, a Peruvian NGO, for the institutionalization of a CQI program within its four urban clinics in the city of Chiclayo. Max Salud has successfully scaled up its CQI system from its initial area of maternal-perinatal care, to new areas, such as pediatric care, surgery center, client satisfaction, and quality of clinical records. This year, Max Salud opened a new clinic in the city of Cajamarca in the highlands. Max Salud is planning to organize a CQI program in this new clinic, based on the experience in its clinics in Chiclayo.

Activities and Results

QAP continued to provide short-term technical assistance to Max Salud to scale up a CQI system within its network of four clinics. With QAP, QI teams at Max Salud clinics developed evidence-based quality standards and indicators, as well as instruments for data collection and monitoring for pediatric care, C-sections and appendectomies in the surgery center, users' satisfaction, and quality of clinical records.

In December 2004, QAP worked with Max Salud's QA Managerial Group to plan the expansion. In March 2005, QAP organized a workshop with the CQI teams for the development of standards, indicators, and data collection instruments for the new services, and in May 2005 QAP conducted a second workshop for CQI teams to present

Porcentaje de embarazadas en trabajo de parto, con Partograma llenado e interpretado correctamente
Empresa Médica Previsional "El Socorro", SILAIS Boaco

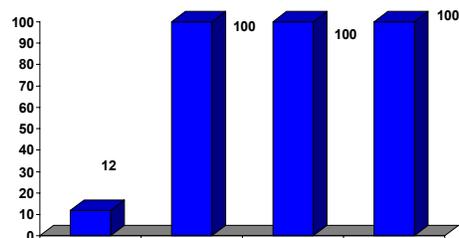


Figure 10. Percentage of Women in Labor Monitored with Partograph Correctly Interpreted: El Socorro Clinic, Boaco

their baseline data and plan for rapid improvement activities. During the workshops, CQI teams also revised the client satisfaction survey approach in use and produced a revised instrument for exit interviews.

During these visits, QAP also worked with a QA team comprising staff of the Logistics, Finance, and Administration departments to re-design the process of annual needs assessments, procurement, acquisition, and storage and distribution of drugs and supplies, which have been chronic problems affecting quality of care in every clinic. The team developed an eight-step re-design approach based on users' needs that is being applied to each of the sub-processes. The team has produced a draft document with new objectives, flowcharts, and an implementation plan for the new sub-processes. The document has been sent to Max Salud's Director for approval.

In April 2005, USAID/Peru supported a visit of technical MOH staff from the Huanuco Department to the QA program at Max Salud. During one week, Max Salud staff taught the Huanuco visitors about the organization and methods of their CQI program, and the Huanuco staff practiced with CQI tools at Max Salud clinics.

Directions for FY06

QAP will support the planning and implementation of rapid improvement cycles in each new additional technical area being addressed through the CQI system and will provide support to the ongoing CQI institutionalization process. QAP will also support the implementation and performance monitoring of the re-designed logistics process.

2.14 Latin American and Caribbean Health Sector Reform Initiative

Background

QAP was one of five partners on USAID's Latin American and Caribbean Regional Health Sector Reform Initiative (LACHSR) from 2003 through Initiative cessation in March 31, 2005. QAP's role was to enhance the impact of health sector reform (HSR) activities on healthcare quality and strengthen the quality focus within health sector reform activities.

Activities and Results

Support and Participate in the End-of-Initiative Conference

QAP actively participated in the planning and design of the final LACHSR conference held in Antigua, Guatemala in July 2004. The conference brought together representatives from 14 countries in the region to hear presentations on major topic areas in HSR that had been addressed through Initiative activities. The conference theme was "The New Agenda for Health Sector Reform: Strengthening Essential Public Health Functions and Scaling Up Health Systems." QAP also funded the participation of representatives from four countries.

QAP was represented at the conference by Tisna Veldhuyzen van Zanten, Jorge Hermida, Oscar Nuñez, Joanne Ashton, and Carlos Quan. QAP organized a plenary session on trends in quality assurance in the LAC region and three breakout sessions: institutionalization of quality assurance in the Free Maternity Program in Ecuador; the conceptual framework for QA and health sector reform that the project developed with PAHO and its application in Jamaica; and quality-oriented healthcare regulation, drawing on the review of efforts in the region to regulate the quality of healthcare through accreditation and licensing. Stanley Lalta, Chief Economist of the Jamaican MOH, also presented the Jamaican perspectives on the QA-HSR framework.

Testing and Revising the PAHO/QAP Framework for Maximizing Quality of Care in Health Sector Reform

Authorities from Nicaragua who attended the presentations on the QA-HSR framework at the final LACHSR conference expressed interest in using the framework to review their QA activities and possible linkages with HSR efforts. Drs. Jorge Hermida and Oscar Nuñez presented a review in Managua in October 2004. Feedback from the use of the framework document in Nicaragua and Jamaica was incorporated into the final framework completed in May 2005.

Study of the Scale-up of CQI in Ecuador's Free Maternity Program

QAP completed its study on the scale-up and institutionalization of a CQI model as an integral part of the Free Maternity and Integrated Child Care Program, a major health sector reform effort in Ecuador designed to increase coverage and quality of essential maternal and child services. The report documents three stages of expansion of the CQI program: the initial stage, covering 14 health areas in eight provinces (Jan.–Sept. 2003); the second stage, extending the CQI intervention to all health areas in the participating provinces (45 health areas, seven provinces, implemented from Oct. 2003–Dec. 2004); and the beginning of the third stage, still underway, to implement the CQI approach for improving the quality of services covered under the Free Maternity Program in 70 health areas in 11 provinces, covering half of the provinces and 42% of the health areas in the country. The expansion strategy relied on provincial and local facilitators who were themselves MOH staff, to form, train, and support CQI teams in each healthcare facility. By the second stage of expansion, the Ministry of Health and its provincial offices had formalized the role of facilitators as an integral component of their regular work as Ministry officers. More significantly, the spread of the CQI program was achieved largely with resources of the Provincial Health Directorates themselves and of central offices of the Ministry of Health. Given that the Free Maternity Program covered 855,491 antenatal care consultations and 102,756 deliveries in 2004, the reach of the CQI activities represents a major contribution to improve the quality of basic health services in Ecuador.

Two reports issued from the study: One describes the Free Maternity law and analyzes the factors that were important in its successful enactment, and the second describes the process of CQI expansion and institutionalization through March 2005. The second report includes a CD-ROM providing all the training and methodological tools created with QAP assistance to support the CQI scale-up.

Review of Quality Regulation Experiences in the LAC Region

The desk study of experiences in Latin America and the Caribbean to regulate quality of healthcare through accreditation, licensing, certification, or registration of healthcare providers or facilities that had been initiated in year two was completed in May 2005.

Dissemination of QAP LACHSR Products

The six reports QAP prepared under LACHSR (revised QA-HSR framework document, trainer notes and a participant manual for a five-hour course to explain the QA-HSR framework, desk review of LAC experiences with regulatory approaches to quality, and the two reports related to the Free Maternity Program in Ecuador) were published in the LACHSR Report Series and submitted to PAHO in July 2005 for posting on the LACHSR website. Hard copies of the six reports were disseminated to the 264 individuals in the region on the LACHSR mailing list in June and July 2005.

Directions for FY06

QAP will continue to contribute materials to the LACHSR website, which PAHO still manages.

2.15 Regional Maternal Mortality Reduction Initiative

Background

The Latin American and Caribbean Regional Maternal Mortality Reduction Initiative (MMRI) was a two-year extension of the Latin American Maternal Mortality Initiative (1999–2002) under which QAP piloted facility- and community-level improvements in access to and quality of essential obstetrical care (EOC) in one pilot district each of Bolivia, Ecuador, and Honduras. The purpose of the extension was to further develop the EOC model and extend it to more countries and sites. For the extension, QAP expanded the pilot EOC model to include the referral level to create an integrated local EOC system, comprised of actions to reduce maternal mortality spanning the community level to first level facilities to the referral level. To meet the scale-up goal, QAP adapted the IHI Improvement Collaborative approach to the context of Latin America and initiated the first-ever international EOC Improvement Collaborative. Involving the Ministries of Health of Ecuador, Honduras, and Nicaragua, the EOC Collaborative was launched in the three countries in August 2003 with 31 teams in five intervention areas: Tungurahua Province in Ecuador; Health Region V in Honduras; and Chinandega, Matagalpa, and RAAS SILAIS in Nicaragua. In early 2004, additional sites in Ecuador and Nicaragua joined the collaborative: two additional provinces in Ecuador (Azuay and Orellana) and two SILAIS (Estelí and Granada) in Nicaragua.

The MMRI ended on September 30, 2004, and no further LAC/RSD-PHN funding was provided to QAP to continue the EOC Collaborative in FY2005. In order to build on the very successful results achieved by the end of the Initiative, QAP used field support funds in Honduras and Nicaragua and SO2 funds in Ecuador to continue the EOC Collaborative's consolidation and expansion in year three. (Collaborative progress is discussed in more detail under the respective country sections of this report.)

Activities and Results

Implement the Regional EOC Improvement Collaborative

By the end of 2004, the EOC Improvement Collaborative had developed the capacity of participating teams in some 47 hospitals and health centers in Ecuador, Honduras, and Nicaragua to evaluate adherence to EOC quality standards, client satisfaction, and outcomes of the EOC system, drawing primarily on existing facility records (e.g., the perinatal consultation form). Through the collaborative, QAP trained teams in simple data collection methods, such as client exit interviews and systematic medical record sampling. Each facility team has collected data on some 15–20 key EOC system performance indicators (indicators vary slightly between countries, and teams in Nicaragua report on additional indicators not used in Ecuador and Honduras), mostly on a monthly basis in order to monitor their progress over time in achieving standards of high quality EOC. Most of the teams have regularly uploaded their monitoring data and short reports of specific improvements and changes introduced in their local systems activities to the website that QAP created to support the collaborative as a mechanism to share progress and improvement ideas across teams and countries. Equally important, teams participating in the collaborative have shared these data with regional and national level MOH officials, who have witnessed firsthand how the ongoing tracking of performance indicators has stimulated teams to try to continually improve.

Teams in all three countries have demonstrated steady and sustained improvements in the quality of most of the EOC indicators, particularly for prenatal care, use of the partograph, active management of the third stage of labor, and immediate newborn and postpartum care. The appropriate management of obstetrical complications has not seen such dramatic improvements as in other areas addressed by the collaborative, due primarily to the complexity of standardized case management of obstetrical complications. For this reason, the collaborative is giving a special focus on the management of complications, especially at referral hospitals, in the technical forums and meetings held in 2005. The collaborative is also developing and testing case management maps and other job aids adapted to national

norms for pregnancy-induced hypertension, hemorrhage, and sepsis, and is reinforcing the practice of maternal death audits. The collaborative has also begun developing new interventions to adapt obstetric care practices to the cultural needs of users and community-based activities to increase access and utilization of EOC services.

While no new countries joined the collaborative in year three, considerable expansion occurred during in the three current countries. In Ecuador, the use of rapid improvement cycles to progressively put in place all of the elements of a local integrated EOC system has been incorporated into the CQI program that covers health facilities in half of Ecuador's 22 provinces, as part of the national Free Maternity Program. This has meant adding seven new provinces in year three to the collaborative, beginning with improvements to clinical processes of care. In the provinces which have already made considerable progress in improving clinical processes of care, the collaborative is now placing more emphasis on the cultural adaptation of obstetrical practices, with participation of clients and community groups, and community mobilization to strengthen access and demand for skilled care for obstetrical emergencies. UNFPA and FCI are providing support for improvement and clinical training activities in the new provinces.

Similarly in Nicaragua, the technical content of the collaborative has been incorporated into the maternal and neonatal quality improvement efforts that QAP is supporting in 14 of the country's 17 SILAIS. While not all of the 14 SILAIS are participating in the reporting of monitoring data through the collaborative website, teams from all 14 SILAIS did participate in the fifth Learning Session of the EOC Collaborative in Nicaragua, held in June 2005. In Honduras, with the change in health system structure to a larger number of Departmental Health Regions, the quality improvement teams that QAP is working with in the five regions supported by USAID have all been incorporated into the EOC Collaborative. As of June 2005, the EOC Collaborative includes 30 local health systems in the three countries and over 150 improvement teams.

Manage the Collaborative Website

QAP's Ecuador office continued to maintain and manage the collaborative's website. Approximately 100 CQI teams in the three countries are currently reporting monitoring data and results through the website. QAP's Ecuador team also initiated in early 2005 a Technical Forum using electronic mail. The forum uses a listserv of all the teams to promote the sharing of solutions and experience with an important EOC implementation issue. So far, two topics have been discussed: 1) how to overcome the difficulties in training staff in partograph use, given the high staff turn-over in hospitals, and 2) how to address the difficulties of introducing CQI in larger hospitals.

Disseminate Results of the MMRI LAC EOC Collaborative

In September 2004, the Symposium on the USAID-PAHO Partnership, held at PAHO's headquarters in Washington, DC, served as a major forum for sharing the key results and lessons from the Initiative with USAID and cooperating agency officials. QAP's Director for the EOC Improvement Collaborative, Dr. Hermida, participated on the MMRI Panel at the Symposium, presenting the collaborative's results to date in improving the technical quality of EOC services and in establishing local EOC systems in the three participating countries. The results of the EOC Collaborative through September 2004 were presented at the American Public Health Association meeting in Washington, DC, in November 2004. A journal article on the development of the EOC Collaborative was submitted for consideration in a special MCH theme issue of the *Pan American Journal of Public Health*.

Directions for FY06

Although the Maternal Mortality Reduction Initiative has ended, the Latin American EOC Collaborative will continue into 2006, to allow for further development of the improvements related to the management of obstetrical complications, cultural adaptation of obstetric care, and community demand and access for

EOC. New articles on the results of the collaborative through 2005 will be prepared for submission to peer-reviewed journals.

3 Core Technical Activities

3.1 Operations Research

Table 4 lists the status of all the operations research studies the project has conducted since July 2002, including those completed in prior years and already reported in previous annual reports. The narrative that follows describes the progress to date of ongoing studies and reports key results of completed during Year Three.

1. Global: HIV & infant feeding: Compilation of program evidence. This report was completed in Year Two and published in July 2004.

2. Multi-Country: Availability and quality of lab services for TB analysis. This study intends to assess the availability and quality of TB diagnosis in several high-burden, developing countries, with particular emphasis on sputum test collection, analysis, and reporting. Study instruments have been developed.

Table 4: Status of Operations Research Studies, June 30, 2005

	Location	Study Name	Status
OR Studies Completed or In Process			
1	Global	HIV and infant feeding: Compilation of program evidence	Completed
2	Multi-country	Quality of TB care and lab services	Planning
3	Multi-country	Collaboratives documentation and evaluation	Underway
4	Benin	Safe motherhood studies: Results from Benin	Completed
5	Ecuador	Safe motherhood studies: Results from Ecuador	Completed
6	Jamaica	Safe motherhood studies: Results from Jamaica	Completed
7	Rwanda	Safe motherhood studies: Results from Rwanda	Completed
8	Benin, Ecuador, Jamaica, Rwanda	Measuring the competence of SBAs	Completed
9		In-hospital delays in obstetric care	Report in editing for publication
10		Hospital performance to obstetric standards	Draft report in review
11		Factors influencing hospital obstetric performance	Data analysis
12	Bangladesh	Tuberculosis system study	Completed
13	Cambodia	Private sector TB study	Completed
14	Ecuador	Scale up of CQI in Free Maternity Program	Completed
15	Ecuador	Develop maternal health questions for national health survey	Data analysis
16	Ecuador	Generate demand for quality maternal care	Planning
17	Eritrea, Jamaica	Low-cost measures of quality of care for maternal complications	Planning
18	Jamaica	Impact of PMTCT program on mother-child pairs	Completed
19	Jamaica	Improving process of maternal mortality surveillance	Report in preparation
20	Jamaica	Community follow-up of obstetric emergencies	Phase 2 proposed
21	Kenya	Evaluation of cost and effect of IMCI CBT	Underway
22	Kenya	Improving client purchases of anti-malarials	Delayed
23	Laos, Philippines	Proper application of malaria Rapid Diagnostic Tests	Completed
24	Nicaragua	Mother-Baby Program as focused accreditation success	Underway
25	Nicaragua	Improved measures of SBA competency	Underway

26	Niger	Evaluation of PHI malaria collaborative	Underway
27	Rwanda	HIV stigma study	Data analysis
28	Rwanda	ARV adherence study	Underway
29	Rwanda	Human resources assessment to scale-up HIV/AIDS care	Draft report in review
30	South Africa	Effectiveness of TB DOTS supporters	Completed
31	South Africa	Accreditation and regulatory options	Completed
32	South Africa	Functional analysis of Soweto PMTCT programs	In review for publication
33	Tanzania	Job aids for counseling HIV+ mothers on infant feeding	Data analysis and report preparation
34	Tanzania	HIV stigma study	Data analysis
35	Zambia	HIV/AIDS workforce study	Completed
36	Zambia	Health worker performance-based incentives study	Final editing
37	Zambia	HIV health worker training study	Planning completed
Potential OR Studies under Consideration			
1	Ecuador	Validity of self-assessment in EOC collaborative	Concept paper in development
2	Malawi	Validity of self-assessment in PHI collaborative	Concept paper in development

3. Multi-Country: Collaboratives documentation and evaluation. So far, the evaluation activity has developed a literature review summary and bibliography, and an overall methodological framework for the evaluation, including a proposed data collection plan and reporting schedule. In addition, during Year Three, data on the start-up and implementation of all of QAP's current collaboratives were collected through in-depth questionnaires and interviews with QAP staff managing the collaboratives. Three additional data collection instruments were developed: a self-assessment for participating team members, site visit protocol, and a scoring methodology. The self-assessment is intended to assess motivation of team members and solicit feedback on progress and learning. The site visit protocol is intended to help standardize the types of questions QAP staff ask in their visits, to remind them to explore important issues, and to coach teams. The site visit protocol is intended to become a source of routine monitoring information. The scoring methodology is intended to help the project develop a quantifiable "map" of team development and progress. A second paper that analyzed information collected regarding the monitoring of collaboratives was also drafted.

4. Safe motherhood studies: Results from Benin. Completed and published in Year Two.

5. Safe motherhood studies: Results from Ecuador. Completed and published in Year Two.

6. Safe motherhood studies: Results from Jamaica. Completed and published previously.

7. Safe motherhood studies: Results from Rwanda. Completed and published previously.

8. Measuring the competency of skilled birth attendants. An article reporting the results of this study was accepted and published during Year Three in a peer-reviewed journal (Harvey SA, et al. Skilled birth attendant competence: An initial assessment in four countries and implications for the safe motherhood movement. *Intl J Gynecol & Obstet* [2004] 87, 203-210.)

9. In-hospital delays in treating obstetric emergencies. During the last year, a draft of this report was completed, circulated among the co-authors, and revised; it is in the final stages of editing before publication as a formal research report.

10. Hospital performance in complying with obstetric standards. In this study, 245 normal births were observed in 14 hospitals in four developing countries. During the past year, the data were cleaned and analyzed, and a draft report was completed and is circulating among the authors for comments.

11. Factors influencing hospital obstetric performance. This study is analyzing data collected in the four-country study to examine the complex relationships between performance and a variety of factors, including provider team size and composition that might influence it.

12. Bangladesh: Tuberculosis system. This assessment of the Bangladesh delivery system for TB-DOTS, the internationally recommended strategy for TB control, examined various aspects (including awareness-raising efforts, identification of suspects, case detection, mode of DOTS, cure rate, physical facilities, technical capacity, record keeping, and referrals) of government- and NGO-managed systems. The study was completed and the report published in December 2004.
13. Cambodia: Private sector TB. This study was completed and full results presented to the National TB Program in Cambodia in Year Two. A summary report was published in December 2004.
14. Ecuador: CQI Scale Up in the Free Maternity Program. This study, which documented and analyzed the progressive scale-up of a CQI mechanism in the MOH facilities delivering services financed under Ecuador's Free Maternity Program, was completed in April 2005. Two reports presenting the findings of the study were published in July.
15. Ecuador: Developing questions on maternal health for national health survey. In early 2004, the Centers for Disease Control (CDC) invited QAP to develop a module on factors that influence women's decisions about where to give birth for the Demographic, Maternal and Infant Health Survey (ENDEMAIN) to be carried out in Ecuador during 2004. Data collection for this population-based, nationally representative survey took place between June and October 2004. After data input, cleaning, and validity checks, QAP received the data set in late March 2005. The sample included 2,798 women who had given birth during the two years before the survey. Of this group, 2,065 women gave birth in a health facility, while 733 gave birth at home. QAP is currently analyzing responses to the 20 questions and will contribute a chapter to the final report to be published later in 2005.
16. Ecuador: Generate demand for quality maternal care. This study will test the hypothesis that improving the cultural adequacy of obstetric care in public health facilities will increase perceived quality of obstetric care, which in turn will increase demand for and utilization of public health facilities for obstetric care by women who are currently giving birth at home. In 2005, QAP began pilot testing a method for improving the cultural adequacy of obstetric care in public health facilities. On the basis of the pilot, QAP is finalizing a protocol that will involve district-level health facilities in four to six provinces, representing different ethnic and geographic areas of the country. Each participating province will have at least one intervention hospital and one control hospital. Preparations for the study began in July 2005, with the intervention phase scheduled to start in October 2005.
17. Eritrea/Jamaica: Low-cost measures of quality of care for maternal complications. This proposed study is still in the planning phase. Both Eritrea and Jamaica are considered potential sites.
18. Jamaica: Impact of a PMTCT program on mother-child pairs. This assessment was completed, and the final report published in November 2004.
19. Jamaica: Improving the process for maternal mortality surveillance. The final report has been submitted and is in technical review. This study used a very careful technique to identify all deaths related to pregnancy and their causes, in Jamaica in the 3-year periods 1993–1995, 1998–2000, and 2001–2003. The results were compared to Jamaica's official maternal mortality surveillance system and recommendations made on how to improve the official system.
20. Jamaica: Community follow-up of obstetric emergencies. Phase 1, which included formative investigations, defining the intervention with the Jamaica health authorities, and gaining the commitment of the Jamaican Ministry of Health, was completed in Year Three. The results were incorporated into a proposal for Phase 2, which is currently in review.
21. Kenya: Evaluation of cost and effect of IMCI CBT. QAP's computer-based training (CBT) program for IMCI is intended to be used in a week-long training of clinicians on the application of the WHO-developed protocol. The traditional classroom IMCI training takes several days longer. This study aims to test the hypothesis that the CBT training is at least as effective as the traditional approach even though

it takes less time. Trainees have been randomly assigned to the traditional and CBT trainings. Pre- and post-tests of knowledge and skills will be used to determine the effectiveness of each method. Field work began in June 2005.

22. Kenya: Improving client purchases of anti-malarials. QAP had planned to expand its initially successful Vendor-to-Vendor and Neighbor-to-Neighbor initiatives to improve malaria case management in the private sector in Kenya. The planned expansion stalled in April 2004 when the Kenya Ministry of Health announced a change in treatment guidelines from use of Sulfadoxine Pyramethamine (SP) to Artemisinin Combination Therapy (ACT). While the decision to move away from SP was based on high levels of SP resistance in many areas of the country, ACT is widely available in the country. The Government of Kenya has delayed developing and announcing new national treatment guidelines pending wider and more consistent supplies of ACT. Study implementation study awaits implementation of new guidelines and an assured supply of ACT.

23. Laos, Philippines: Proper application of malaria Rapid Diagnostic Tests. This study was completed in October 2004, and a final report submitted to the WHO, which commissioned the study. The report was published on the WHO website in January 2005.

24. Nicaragua: Mother-Baby Program as focused accreditation success. This study was initiated in November 2004 to document whether the prior reported success of the Mother-Baby Friendly Hospital Initiative in Nicaragua had continued and to ascertain the extent to which certain key aspects of the program contributed to its success. Data collection was completed, and a preliminary report drafted in May 2005.

25. Nicaragua: Improved measures of SBA competency. QAP shortened and refined the skilled birth attendant knowledge test and consolidated the skills evaluations used in the four-country safe motherhood study. The project is now working with the Ministry of Health, UNICEF, CARE, and PAHO to apply the revised instruments in a large-scale evaluation of SBA competency in Nicaragua, involving about two-thirds of all health personnel who attend deliveries in 13 SILAIS and 20 hospitals across the country. The first round of testing began in early June, and data collection will continue through the end of July 2005.

26. Niger: Evaluation of PHI malaria collaborative. This study is comparing the impact of the Pediatric Hospital Initiative malaria collaborative with traditional quality improvement and technical training on quality of care for febrile illness/malaria for children ages 0–59 months at 6 district hospitals in Niger. It is also examining referral/counter-referral practices between district hospitals and associated health centers before and after implementation of the PHI Collaborative, and describing case-specific care-seeking behavior of caretakers of febrile children evaluated at facilities with emphasis on trajectory from home to facility. Fieldwork began in February 2005.

27. Rwanda: HIV stigma. Fieldwork for this study has been completed. The study used chart reviews and focus groups comprised of 40 healthcare workers from six urban, semi-urban, and rural health centers in Rwanda. Data from the interviews are being analyzed.

28. Rwanda: ARV adherence. After a preliminary assessment of 76 ARV patients at the prestigious King Fayçal Hospital in Year Two, this study was expanded in July 2004 to include four sites outside of Kigali. Over 600 patients have been interviewed, and data are being analyzed.

29. Rwanda: Human resources assessment for HIV/AIDS service scale-up. Data collection began in September 2004, and all data have been collected and analyzed. Reports for each of three study phases were drafted and presented to the MOH and USAID. Based on their feedback, the draft reports were revised into a final report that was presented to authorities in Rwanda for review in June 2005.

30. South Africa: Effectiveness of TB DOTS supporters. This study was completed, and a summary report published in April 2005.

31. South Africa: Accreditation and regulatory options. This study reviewed the various current initiatives involved in accrediting hospitals in South Africa through document review and in-depth interviews and made recommendations to the National Department of Health in October 2004. The study recommended that the NDOH develop a policy on accreditation within its quality assurance framework; strengthen internal mechanisms for improving quality in the short run, including external accreditation and auditing bodies; and in the long run emphasize third party accreditation of all facilities. QAP published a summary report in June 2005.
32. South Africa: Functional analysis of Soweto PMTCT programs. The study's goal was to describe and analyze the PMTCT model program being implemented by the Perinatal HIV Research Unit at Baragwanath Hospital in Soweto, South Africa, to determine the key elements that have contributed to its success and the potential for replicating this model as a best practice. The study is analyzing several specific program components, including: usage data from program clinics; service quality of testing, dispensing, and pharmacies; quality of care during pre- and post-counseling; staff roles, knowledge, motivation, and satisfaction; client knowledge and satisfaction. A draft report has been prepared and circulated; the final report is in preparation.
33. Tanzania: Job aids for counseling HIV+ mothers on infant feeding. This study developed pictorial job aids in the form of counseling cards and posters that health counselors could use to counsel mothers of any HIV status about proper infant-feeding options and evaluated the impact of the improved counseling on a cohort of mothers and infants in Moshi. The fieldwork for this study was completed in July 2004, and the final report describing the impact of the job aids is in preparation.
34. Tanzania: HIV stigma. Interviews with providers in several clinics obtained data about their knowledge of HIV, their knowledge and fears about transmission of HIV in the clinic setting, and their attitudes and values about stigma towards HIV patients. The data analysis has just begun and is examining the extent of stigma on the part of the providers towards HIV patients.
35. Zambia: HIV/AIDS workforce. This study was completed in Year One and published in Year Two.
36. Zambia: Health worker performance-based incentives. The incentive program for this study was piloted from February 2004 through March 2005. Final awards and data collection were completed in the two sample districts in March 2005. The data were analyzed and a final report drafted in May 2005.
37. Zambia: HIV health worker training. This study will examine the effect of training on the competence and performance of HIV workers at the workplace. All survey tools were developed and local staff identified. The Zambian Central Board of Health has reviewed the study plan and provided its concurrence. The work plan is now under review by the USAID Mission in Zambia.

3.2 Computer-Based Training

Background

In collaboration with the WHO's Child and Adolescent Health Division, QAP developed, under the prior contract, a prototype IMCI computer-based training (CBT) program based on the case management guidelines developed by WHO and UNICEF for IMCI. The CBT program is intended for use in combination with traditional clinical IMCI training. It can be used as a learning tool within in-service or continuing education (or refresher) training courses, as well as within pre-service academic programs for doctors, nurses, and other health professionals.

In Year One, QAP began to significantly revise the CBT program in both content and functionality. The new program more closely mirrors the traditional course and allows for a simulated environment. It includes an introduction, tutorials, interactive exercises, case studies, final test, and a library. The program provides instruction in a user-friendly, self-paced format intended to sustain participants' interest. It also explains how to use the program for those without previous computer experience.

USAID/Bolivia has funded the development of a Spanish version of the IMCI CBT, which has progressed in parallel with the development of the IMCI CBT in English.

Activities and Results

The redesign of the IMCI CBT was accomplished by the end of Year Two, and during Year Three the programming was completed and tested. During the process of finalizing the programming, the Ministry of Health and College of Nursing requested that QAP apply the revised IMCI CBT in Eritrea as part of the pre-service training of the latest class of nurses. The IMCI CBT program was used to train graduate nurses in Eritrea in October 2004 as a field test of the revised product. The activity took six days, during which participants went through the CBT program and clinical sessions.

All problems related to functionality were identified and then corrected. Final revisions to the updated CD-ROM were completed in April 2005 and the final version produced by the programming team at Dragonfly Communications in June. The final of the CD-ROM, *Integrated Management of Childhood Illness*, was sent for replication in July 2005 and will be disseminated to USAID cooperating agencies early in Year Four.

Discussions with the Ministry of Health of Kenya and the World Health Organization in Geneva led to establishing Kenya as a suitable site for the large-scale application and evaluation of the IMCI CBT. The evaluation will assess the actual effect of the product as well as costs associated with using the IMCI CBT. The research protocol was finalized during early 2005. Field-testing in Kenya began in June 2005.

During Year Three, the design of the Spanish version of the IMCI CD-ROM was also completed, and the final changes submitted to Dragonfly in May 2005. Dragonfly has agreed to produce the final Spanish version by early August, when it will be submitted to the MOH of Bolivia for final review and approval.

Directions for FY06

The project's main CBT activity will be to disseminate the IMCI CBT to USAID-supported child survival programs and to implement and evaluate the effectiveness of the updated IMCI CD-ROM in Kenya. The Spanish IMCI CBT will be completed and produced for implementation by the Ministry of Health of Bolivia.

3.3 Training

Background

Planning and implementation of training in QA methods is decentralized and determined by each QAP country program. Core training staff in Bethesda provides services to field staff and country programs as requested and responds to requests for short-term training assistance from USAID-assisted countries and cooperating agencies.

Activities and Results

In Year Three, the Training Director provided assistance to the project's team in Russia to design and conduct training in facilitation skills for QAP and partner (IAHI) staff. Technical assistance was also provided to ACTMalaria for a three-day QA training at regional international management course in Bangkok and for the regional international course, Transfer of Training Technology, held in Malaysia.

Directions for FY06

QAP's Training Director will develop a section on QA for CDC's CD-ROM on malaria drug policy development, *CDCynergy*. Standardized materials for conducting training in improvement collaboratives will also be developed, based on a systematic review of training materials used in all of the project's collaboratives.

3.4 Workforce Development

Background

QAP's objective in the area of human resource management (HRM) and workforce development (WD) is to conduct research, technical assistance, and pilot-level demonstrations in a limited number of HRM/WD issues where results of improvements can be obtained in a relatively short period of time and add to the evidence base of effective human resource/workforce development interventions. Initiatives Inc. is QAP's primary subcontractor; other partners include the Ministries of Health and nursing schools in the countries where we are implementing workforce development activities.

Activities and Results

Research on the Competency of Skilled Birth Attendants in Nicaragua

As an extension of its work in measuring the competence of skilled birth attendants, QAP is currently undertaking an evaluation of the competence of health personnel responsible for attending deliveries throughout Nicaragua, in collaboration with the Nicaraguan Ministry of Health, CARE, UNICEF and PAHO. Evaluation results will serve as the basis for clinical training and continuous quality improvement efforts. (See further discussion in section 4.2.)

Zambia Performance-Based Incentives Study

The Zambia Performance-Based Incentives study was piloted from February 2004 through March 2005. Final awards and data collection were completed by the two sample districts in March 2005. The data have been analyzed and compiled and a final report drafted. The final report will be published early in Year Four.

Rwanda Human Resources Assessment for HIV/AIDS Services Scale-Up

Data collection for the Rwanda Human Resources Assessment for HIV/AIDS Services Scale-Up began in September 2005. All data have been collected and analyzed, and reports for each of three study phases drafted and disseminated. The final report has been submitted for review and comment to Ministry of Health and USAID officials in Rwanda.

Zambia Study on the Effect of Training on Competence and Performance at the Workplace

This study was planned during Year Three, and all survey tools were developed and local staff identified. CBOH support was obtained, but, to date, the USAID Mission has not provided concurrence for implementation of this study.

Directions for FY06

Final reports will be completed and disseminated for the Zambia incentives and Rwanda human resources assessment studies early in Year Four. A final report for the Nicaragua SBA competency study is expected by December 2005.

3.5 Regulatory Approaches to Quality

QAP continues to seek opportunities and funding for applying licensing, accreditation, certification, and other regulatory approaches to improving healthcare quality. In November 2004, QAP launched a study of the program of Mother-Baby Friendly Hospital certification in Nicaragua, which has persisted for over a decade with largely volunteer evaluation teams and continues to show excellent results. The strategies used and their costs and effectiveness will be instructive for other countries.

The Joint Commission Resources, Inc. continued providing technical assistance to the development and implementation of hospital standards in Eritrea, especially in the area of infection prevention.

This year, QAP published several reports related to accreditation and other regulatory mechanisms for assuring healthcare quality. A study of accreditation approaches being used in South Africa was initiated at the end of Year Two to assist the Department of Health in assessing its regulatory options. This study was completed in August 2004, and a full report was submitted to the National Department of Health. A summary report was published by QAP in June 2005. That same month, QAP published a study of licensing, accreditation, and certification in the LAC region as part of the deliverables due under the LAC Health Sector Reform Initiative. The final report for the Zambia accreditation impact study was also published in June 2005.

As HIV/AIDS care is expanded worldwide, interest is growing in assuring that the quality of care meets international standards and will be effective. As part of this interest, QAP has proposed a system of “stepped up” accreditation of HIV/AIDS facilities in Uganda; this system would build on the government’s current system of accreditation of facilities wishing to provide ART, which is based on very minimal standards. This system of “stepped up” accreditation would evaluate facilities using progressively more stringent requirements in providing ART.

QAP has been in discussions with the National Committee on Quality Assurance (NCQA) in the United States to assess the feasibility of applying their self-assessment approaches to certification and pay for performance. Such approaches might be particularly applicable to HIV/AIDS care and a variant of this approach could be tested in Uganda. QAP also sponsored a presentation by NCQA to the USAID community in March 2005.

In April 2005, QAP’s Director conducted a videoconference on Regulation at the World Bank in Washington for Russian participants in Moscow, presenting the range of objectives that could be considered and the pros and cons of various alternatives.

Directions for FY06

Accreditation of HIV/AIDS facilities in Uganda will be pursued as part of the project’s new technical assistance program in that country. The Nicaragua Mother-Baby-Friendly Hospital program study will be completed and disseminated.

3.6 Health Systems Strengthening Initiative

The purpose of the proposed Health Systems Strengthening Mainstreaming Initiative is to find new, cost-effective ways to put the combined knowledge, expertise, and tools from USAID’s health system strengthening projects at the service of USAID’s large bilateral health service delivery projects and to improve these projects’ capacity to achieve USAID’s health impact objectives. QAP is one of three Global Health projects chosen to take part in this initiative.

QAP’s first activity has been to participate in the development of a Health System Assessment instrument, which is designed to provide a description of the health system and its challenges and identify issues and improvements that could be addressed by USAID mission initiatives. QAP also participated in the Child Survival and Health Grants Program (CSHGP) Mini-University and in the review of Detailed Implementation Plans. QAP provided CSHGP with assistance in the development of new proposal guidelines and proposal review guidelines.

Directions for FY06

QAP will participate in the test of the Health System Assessment instrument in Angola in August 2005. In the next year, QAP will take over the lead in the overall coordination of the Health Systems Strengthening Initiative activities. Other activities in which QAP will participate are:

1. Provide specific health systems strengthening assistance to CSHGP partners in country.
2. Provide mission and regional bureaus with technical assistance in health systems strengthening in the development of their strategies, new designs, and major revisions.
3. Provide Global Health Bureau staff with health systems support to launch major new HIDN programs, and develop short summaries on health systems strengthening tools to promote utilization of state-of-the-art approaches.
4. Work with Mainstreaming Countries to provide technical assistance in health systems strengthening to USAID bilateral projects; develop a business model for how to influence bilateral health systems strengthening activities.

3.7 Technical Leadership/Communication

Background

One of the five major components of the QAP Statement of Work in support of USAID's Strategic Objectives, technical leadership encompasses the development and dissemination of methodologies, tools, and best practices in the application of QA and human resources management (HRM). QAP fulfills this role by publishing technical reports; presenting project approaches and results at international professional conferences; briefing USAID, donor, cooperating agency, and host country audiences; publishing articles on QA/HRM methods and results in peer-reviewed journals; and operating a project website.

Activities and Results

The project continues to exert technical leadership in the field of quality assurance internationally, demonstrating USAID's commitment to improving developing country healthcare systems through leadership in applying and adapting the improvement collaborative methodology. During Year Three, QAP more widely disseminated information on 1) its adaptation of the methodology and 2) results from applying the methodology in HIV/AIDS, acute pediatric care, and essential obstetric care to USAID staff, national health authorities, and cooperating agency staff.

Development and Dissemination of Technical Reports and Publications on QA Methods and Results

Table 5 shows that the project published 7 operations research reports and 12 other technical reports during Year Three. All reports were published electronically on the project website, and most were distributed in hard copy to limited audiences. In May 2005, QAP updated the *Technical Reference Material: Quality Assurance* for the PVO Child Survival and Health Grants Program, to expand the discussion on improvement collaboratives. Findings from the four-country study of skilled birth attendant competence were published in the October 2004 issue of the *International Journal of Gynecology and Obstetrics*, and an article on the results of the LAC EOC Collaborative was submitted to the *Pan American Journal of Public Health* in September 2004.

The project also developed new templates for reports and presentations to comply with the Graphics Standards Manual USAID issued in January 2005. The QAP report cover and format and PowerPoint templates were revised and disseminated to all staff in April and May 2005.

QAP staff delivered seven presentations to USAID, donor and cooperating agencies, and host country officials during Year Three, and QAP work was presented at 12 international and regional conferences. Details are reported in Table 6.

Table 5: QAP Technical Publications and Presentations, 6/30/04–7/1/05

Operations Research Reports (Date Published)
Quality Assurance Project. 2005. Review of Health Services Accreditation Programs in South Africa (June 2005).
Quality Assurance Project. 2005. The Zambia Accreditation Program Evaluation (May 2005).
Dick J, Murray E, and Botha E. 2005. The Effectiveness of TB DOTS Supporters in South Africa (April 2005).
Quality Assurance Project (QAP). 2004. Treating Tuberculosis in the Private Sector: Cambodia (February 2005).
Guda DR, Khandaker IU, Parveen SD, and Whitson, T. 2004. Bangladesh: NGO and Public Sector Tuberculosis Service Delivery—Rapid Assessment Results (January 2005).
Harvey K and Thame I. 2004. The Impact of a Programme to Prevent Mother-to-Child Transmission of HIV: Disease Transmission and Health-Seeking Behaviour among HIV-Positive Mother-Child Pairs in Jamaica (December 2004).
Edson WN, Boucar M, Koniz-Booher P, Djibrina S, and Mahamane I. 2004. Developing Job Aids to Increase Adherence to an Antibiotic Regimen in Children with Pneumonia in Niger (October 2004).
Other QAP Reports (Date Published)
Viteri MA. 2005. Evaluation of the Latin American and Caribbean Maximizing Access and Quality Exchange, <i>Evaluation Report</i> (June 2005).
Reinke, J. 2005. Quality-Oriented Health Sector Reform Training Module: Participant Manual, <i>Latin America and Caribbean Regional Health Sector Reform (LACHSR) Report</i> Number 67 (June 2005).
Reinke, J. 2005. Quality-Oriented Health Sector Reform Training Module: Instructor Notes, <i>Latin America and Caribbean Regional Health Sector Reform (LACHSR) Report</i> Number 66 (June 2005).
Hermida J, Robalino ME, Vaca L, Ayabaca P, Romero P, and Vieira, L. 2005. Scaling Up and Institutionalizing Continuous Quality Improvement in the Free Maternity and Child Care Program in Ecuador, <i>Latin America and Caribbean Regional Health Sector Reform (LACHSR) Report</i> Number 65 (June 2005).
Quality Assurance Project. 2005. Maximizing Quality of Care in Health Sector Reform: The Role of Quality Assurance Strategies, <i>Latin America and Caribbean Regional Health Sector Reform (LACHSR) Report</i> Number 64 (June 2005).
Zeribi KA and Marquez L. 2005. Approaches to Healthcare Quality Regulation in Latin America and the Caribbean: Regional Experiences and Challenges, <i>Latin America and Caribbean Regional Health Sector Reform (LACHSR) Report</i> Number 63 (June 2005).
Hermida J, Romero P, Abarca X, Vaca L, Robalino ME, and Vieira L. 2005. The Law for the Provision of Free Maternity and Child Care in Ecuador, <i>Latin America and Caribbean Regional Health Sector Reform (LACHSR) Report</i> Number 62 (June 2005).
Jean-Baptiste R and Kantengwa, K. 2005. Human Resources and Capacity for Health Services Delivery in Rwanda: Rapid Assessment, <i>Technical Report</i> . DRAFT (May 2005).
Harvey S and Rennie W. 2004. Developing and Testing a Generic Job Aid for Malaria Rapid Diagnostic Tests. (Report submitted to the WHO in November 2004 and published on WHO website in January 2005).
Koniz-Booher P and Ross J, eds. 2004. <i>Selected Abstracts on HIV and Infant Feeding from the XV International AIDS Conference, Bangkok, Thailand, July 11–14, 2004</i> (December 2004).
Quality Assurance Project. 2004. <i>Selected Abstracts on Pediatric HIV/AIDS from the XV International AIDS Conference, Bangkok, Thailand, July 11–14, 2004</i> (August 2004).
Koniz-Booher P, Burkhalter B, de Wagt A, Iliff P, and Willumsen J. 2004. <i>HIV and Infant Feeding: A Compilation of Programmatic Evidence</i> (July 2004).
Articles in Peer-Reviewed Journals (Date Published)
SA Harvey, P Ayabaca, M Bucago, WN Edson, S Gbangbade, A McCaw-Binns A, and BR Burkhalter. 2004. Are skilled birth attendants really skilled? An initial assessment of SBA competence in Benin, Ecuador, Jamaica and Rwanda, <i>International Journal of Gynecology & Obstetrics</i> 87:203–10 (October 2004).

Table 6: Dissemination of QAP Results and Methods at Briefing and International Conferences

Briefings and Presentations for USAID and Cooperating Agency Staff	
4/05: Neeraj Kak visited Japan to make presentations on QAP's approach to quality improvement at the Japanese International Cooperating Agency, Foundation for Advanced Studies in International Development (FASID), and the Japan Bank for Investment and Cooperation (JBIC). Based on these meetings, QAP plans to conduct a three-day training program for FASID in September 2005. Also, QAP and JBIC are exploring possibilities of working together in Vietnam and Indonesia.	
4/8/05: David Nicholas participated in a virtual roundtable, sponsored by the World Bank's Global Development Learning Network, on Health Sector Reform in Russia, making the presentation "Licensing and Accreditation in the U.S. and Other International Experiences: Lessons Learned."	
3/9/05: Jorge Hermida and Claudia Evans of USAID Nicaragua presented on "Improving Access and Quality of Essential Obstetric Care" at the Latin American and Caribbean State of the Art Consultative Meeting for PHN Field Staff, held in Miami, FL.	
3/3/05: David Nicholas participated in the panel discussion "Quality Improvement in Health Care: Approaches and Tools" sponsored by the PSP- <i>One</i> Project as part of its seminar, "Strengthening Reproductive Health Service Quality in the Private Sector: Approaches, Tools, and Incentives."	
1/25/05: Steve Harvey presented QAP's experiences with improvement collaboratives and EOC system strengthening in a talk entitled, "Quality Approaches in Health Care: Approaches and Tools" at a day-long forum hosted by Save the Children and other partners on the ACCESS Project.	
12/1/04: Stephen Kinoti and Mandy Rose briefed USAID staff on "Large-Scale Improvement for Seriously Ill Children: Status of a Multi-Country Initiative."	
9/13–14/04: Jorge Hermida made the presentation, "Collaborative Model to Improve Maternal Health in Selected Countries," as part of a panel on Maternal Mortality Reduction at the PAHO-USAID Symposium "Partnerships for Public Health in the Americas."	
Conference Presentations	
Child Health Forum 6/05, Dar es Salaam	Stephen Kinoti presented on "The Role of the Collaborative Approach in the Scale-up of Child Health Interventions" at this regional meeting convened by the Regional Center for Quality of Health Care (RCQHC) and the East, Central, and Southern Africa (ECSA) Health Community with support from USAID/REDSO. The forum brought together senior MOH officials from 13 countries.
President's Emergency Plan for AIDS Relief, Second Annual Field Meeting, 6/05, Addis Ababa	Rachel Jean-Baptiste made a presentation on "Community-Based Case Management of HIV/AIDS in Rwanda" and presented a poster on "Collaborative Quality Improvement in PMTCT in Rwanda: An International Example of Implementing Best Practices."
Global Health Council, 6/05 Washington, DC	Rachel Jean-Baptiste led a half-day skill-building workshop: "Applying Models of Quality Improvement for Scale-Up."
	David Nicholas participated in a panel on "The 'M' in M&E: Monitoring Quality and Provider Performance Improvement," describing the continuous improvement process and how to use different indicators to self-measure and monitor the results of changes made to improve a healthcare system.
	Jorge Hermida presented "Scaling Up Essential Obstetric Care to Reduce Maternal Mortality in LAC," describing the LAC EOC improvement collaborative involving teams in Ecuador, Honduras, and Nicaragua, during the panel, "From Routine to Emergent: Improving the Quality of Obstetric Care,".
Conference of the Pediatric Association of Tanzania, 3/05, Dar Es Salaam	Ráz Stevenson and Stephen Kinoti presented "An Application of the Collaborative Approach to Develop Quality Systems of Care for Pediatric Patients in Tanzania: Focus on HIV/AIDS."

American Public Health Association Annual Meeting, 11/04, Washington, DC	Diana Silimperi presented on work developed at QAP in a presentation entitled, “Improving Pediatric Hospital Care in Developing Countries The Quality Assurance Project Multi-Country Pediatric Hospital Improvement Collaborative.”
	Rebecca Furth of Initiatives Inc. presented on “Human Resources Implications of HIV/AIDS Scale-Up: The Case of Zambia.”
	Lani Marquez presented “Scaling Up Essential Obstetric Care Systems through an Improvement Collaborative: Ecuador, Honduras, and Nicaragua.”
International Union Against Tuberculosis and Lung Disease (IUATLD), 10/04, Paris	QAP conducted two workshops covering quality improvement and strategies for improving patient adherence. The workshops focused on QAP’s TB assessments and improvement activities in Bangladesh, Cambodia, Russia, and South Africa. Based on the success of these workshops, IUATLD has asked QAP to conduct a post-graduate course on quality improvement during the 2005 IUATLD meeting.
International Society for Quality in Health Care Conference, 10/04, Amsterdam	Rashad Massoud co-led a day-long workshop on “A Modern Paradigm for Improving Health Care Quality.”
European Focus on Clinical Pathways Workshop, 9/04, Jesi, Italy	Rashad Massoud opened this workshop, describing the state of the art in clinical pathways worldwide. Olga Chernobrovkina, QAP/Russia, presented on clinical pathways in that country.
Performance Improvement Symposium, 9/04, Washington, DC	Lani Marquez and Thada Bornstein presented on “Improvement Collaboratives: An Approach to Spreading Best Practices” at this symposium on the “Technology of Performance Improvement: How We Get Results,” sponsored by the International Society for Performance Improvement and USAID’s Population Leadership Program.
International Congress of Pediatrics, 8/04, Mexico	Martin Weber of the WHO Division of Child and Adolescent Health presented material developed by Diana Silimperi and Stephen Kinoti on “Improving the Care of Hospitalized Children: Using QI to improve Pediatric Hospital Care.”
LAC Health Sector Reform Regional Forum 7/04, Antigua, Guatemala	At this final conference to present tools and strategies developed under the LACHSR Initiative, Jorge Hermida delivered a plenary presentation on “Assuring Quality of Health Care: Key Strategies and Trends in Latin America.” QAP work was also presented at three break-out sessions: Tisna Veldhuyzen van Zanten presented the QAP-PAHO Framework for Quality in Health Sector Reform and Stanley Lalta, Chief Economist, MOH, Jamaica, discussed Jamaican perspectives on implementing the HSR/QA framework; Joanne Ashton made a presentation on accreditation and other forms of quality regulation; and Jorge Hermida and Oscar Nuñez presented on the institutionalization of quality assurance in Ecuador and Nicaragua.
XV International AIDS Conference, 7/04, Bangkok	Rachel Jean-Baptiste, with Bonaventure Nzeyimana, Apolline Waitu, and Maina Boucar, presented a poster on “The Management of Hospitalized Patients with Pulmonary Tuberculosis in Rwanda.”

Management of the Project Website

A new section was added to the QAP website on improvement collaboratives. The website was redesigned in May 2005 to comply with the new USAID branding guidelines.

Development of the Collaboratives Extranet

The custom programming of the Instant Intranet Builder software purchased at the end of Year Two was completed in January 2005. This customization will allow QAP to use this off-the-shelf intranet product to support the web-based entry and display, in any language, of indicators and improvement reports from

collaboratives the project supports. Planning for content and structure of the QAP Collaboratives Extranet was carried out from March to May 2005. In May, a preliminary home page for the Extranet was posted, and in July, pages were created for the Rwanda PMTCT Collaborative and the Nicaragua PHI Collaborative. Ya-Shin Lin traveled to Rwanda in July 2005 to train local QAP staff and facility-based teams in the use of the Extranet and to begin entering previously collected data and improvement reports.

Directions for FY06

In the first quarter of Year Four, the QAP Collaboratives Extranet will be officially launched, with password-protected sites for Nicaragua's Pediatric Hospital Improvement Collaborative in Spanish and the Rwanda PMTCT Collaborative in French. Additional sites are expected to be developed for the overall Pediatric Hospital Improvement Collaborative (featuring results and improvements from work in the various PHI countries) and for the ART Improvement Collaborative in Rwanda. New web-based and print publications will be developed to describe how QAP has adapted the improvement collaborative methodology in developing countries and to share results and improvement stories from collaboratives. QAP journal articles will focus on the results of collaboratives that are addressing HIV/AIDS, essential obstetric care, malaria, and acute pediatric care.

4 USAID Strategic Objectives

4.1 SO1 Population

Background

QAP's SO1 population group focuses on ways to support USAID population activities by adapting quality improvement approaches to address the needs of population and reproductive health programs. QAP has been actively involved in the USAID Maximizing Access and Quality (MAQ) Initiative since its inception, playing leadership roles on MAQ subcommittees and in planning and implementing the first MAQ Regional Exchange in Latin America. During Year Three, QAP initiated the first family planning improvement collaborative in Tanzania and supported improvement activities related to adolescent reproductive health in Jamaica.

Activities and Results

Maximizing Access and Quality (MAQ) Initiative

QAP continued to co-chair the Management and Supervision Subcommittee of MAQ, co-host meetings, and advance the subcommittee's agenda. QAP has submitted proposals to participate in the 2005 Mini-University.

Implementing Best Practices Consortium

QAP has been a member of the IBP consortium for three years and last year contributed to the Strategic Planning Committee and the Electronic Communication System (ECS) Committee. The IBP's last regional meetings was in June 2004 in Entebbe, Uganda. QAP attended the strategic planning meeting in May 2005 in Washington, DC, where a decision was made to conduct a joint MAQ-IBP meeting in July to further the agenda of both groups toward change management issues.

LAC MAQ Regional Exchange Evaluation

The consultant report for the LAC MAQ evaluation conducted in April 2004 was finalized after inputs from USAID/Washington and FHI and published in June 2005.

Improving Adolescent-Friendly Reproductive Health Services in Jamaica

QAP provided technical assistance to teams in five health centers in the Southern Region of Jamaica to improve the quality and responsiveness of reproductive health services for adolescents. QAP's assistance ended in May 2005, but follow-on improvement activities with these facilities may occur through the new bilateral Healthy Lifestyles Project aimed at youth.

Family Planning Improvement Collaborative in Tanzania

Partnering with the Dar es Salaam Regional Medical Office and the Reproductive and Child Health Services Division of the Ministry of Health, QAP initiated a Family Planning (FP) Improvement Collaborative in August 2004 in nine facilities in three districts of the Dar es Salaam Region. The collaborative aims to rapidly improve the quality of FP services and to strengthen linkages between FP and HIV services. The district RCHS supervising teams conducted an assessment of the quality of FP services in September 2004. This assessment allowed districts to take a closer look at their performance and helps them focus quality improvement efforts.

Since September 2004, three Learning Sessions have been conducted with the nine facility teams. Teams were trained to use quality indicator data and create run charts to monitor their progress. QAP has also partnered with EngenderHealth/ACQUIRE, which is assisting the MOH to roll out its national family planning training program to secure training for the teams in short-term methods and intrauterine contraceptive devices.

Since its implementation, the FP Collaborative has facilitated improvements in method availability, client privacy during consultations, and awareness among all RCHS clients about birth spacing, as well as the development of standard FP and HIV messages targeted at all clients who attend reproductive and child health services, including antenatal care, postnatal care, PMTCT, family planning, and well-child visits. QAP also developed an all methods brochure to serve as an information source for FP clients and as a job aid to help providers in explain options and methods to clients.

Directions for FY06

During the next year, the FP Collaborative in Tanzania will scale up to 36 additional facilities, including private clinics. QAP will also explore developing additional FP counseling materials and job aids to support the improvement activities in Tanzania.

4.2 SO2 Safe Motherhood

Background

Improving the quality of and access to essential obstetric care (EOC) continued as a major focus of the project's QA institutionalization activities and operations research program in Year Three. The LAC EOC improvement collaborative again expanded to new geographic areas in each of the three participating countries, and QAP initiated a new EOC improvement collaborative in Benin. The project's safe motherhood research program completed studies and draft reports on hospital delays in treating obstetric emergencies, the impact of Ecuador's Free Maternity Program on quality of care, the adherence of developing country hospitals to international obstetric standards, and trends and underreporting of maternal mortality in Jamaica with recommendations for improvement. QAP also pilot-tested and then introduced a new module in Ecuador's ENDEMAIN national survey. The module has questions on factors affecting decisions of mothers and families. Other studies are underway that are developing better measures of the competence of skilled birth attendants, analyzing the reasons for the success of the Mother-Baby Friendly Hospital-focused accreditation program in Nicaragua, improving community postpartum follow-up of obstetric emergencies and high-risk cases, and examining the impact of improvements in the cultural sensitivity of obstetric care on patient satisfaction and demand for institutional births.

Activities and Results

LAC EOC Improvement Collaborative

As was discussed in section 2.17, the LAC EOC Collaborative was extended to a national scale in both Ecuador and Nicaragua and incorporated within other maternal health improvement initiatives being supported by the Ministry of Health in each country. A more limited geographic expansion was accomplished in Honduras. As of June 2005, the LAC EOC Collaborative includes 30 local health systems in the three countries and over 150 improvement teams.

QAP support for the activities of the collaborative in Ecuador in Year Three were funded with SO2 funds, due to the ending of the LAC Regional Maternal Mortality Reduction Initiative. The collaborative has continued to make an important contribution to improving the availability of high quality EOC services in Ecuador. For example, the administration of oxytocin to the mother after delivery to prevent postpartum hemorrhage was first introduced in Ecuador by the EOC Collaborative on an experimental basis, because this internationally accepted practice was not part of the national obstetric care norms. By the end of 2004, teams participating in the collaborative had increased the use of this practice to over half of all normal deliveries, even in the absence of a formal MOH decision to incorporate the practice in national norms. By June 2005, seven more provinces were incorporated into the collaborative, bringing the total number to 11 (half of the provinces in the country), in which 70 hospitals and health centers are participating.

EOC Improvement Collaboratives in Africa

Benin

Detailed planning for the start-up of the EOC improvement collaborative in Benin began in December 2004. The collaborative methodology was explained to stakeholders and the decision made to focus on a “slice” of the maternal care system by selecting two demonstration districts (each located in a different region of the country) as the intervention areas for the EOC improvements to be introduced through the collaborative. In each district, the collaborative would include the district referral maternity and three to five of the peripheral maternity centers in their respective catchment areas (out of 10–15 per district), plus the referral maternity of the regional hospital. The districts selected were Pobè (OUEME Region) and Applahoué (MONO Region), areas where UNFPA, UNICEF, the ACQUIRE Project, and Africare are working in different aspects of EOC with the MOH.

The collaborative was launched in February 2005 with a one-day national awareness workshop to sensitize key stakeholders on the methodology’s value and implementation experiences in Africa and Latin America. An expert meeting was convened to discuss and finalize key collaborative documents, including the statement of improvement objectives, quality indicators, and change package. The expert group included National University lecturers, other national experts on EOC, MOH staff, and technical staff from other cooperating agencies (UNFPA, UNICEF, EngenderHealth/ACQUIRE Project, and the Projet Socio-Sanitaire/Coopération Suisse [PSS]). Collaborative objectives were defined as implementing in each district an EOC system that integrates all levels of care, from the community level through an active system of referral and counter-referral; improving the technical quality of antenatal, delivery, postpartum, and newborn care at peripheral clinics; improving the technical quality of case management of obstetrical complications in all hospitals; and improving client satisfaction at all levels.

The first learning session was also held in February. Leaders and team members from the two districts, representing the District Hospital maternities, the corresponding Regional Hospital’s maternity clinic, and five peripheral maternities from each district, learned about the collaborative’s objectives and design, the quality improvement approach, and the quality indicators that would be collected during the collaborative. A final meeting was organized by the MOH following the learning session to discuss next steps and included the key partners in each site: UNFPA, UNICEF, USAID (represented by QAP and the Acquire

Project), and PSS. Meeting participants decided that all facilities in each district should be incorporated into the collaborative and that the partners, according to their presence in the zone, would fund all local costs for learning sessions and coaching as well as provide technical and other logistical supports for EOC improvement activities, while QAP would provide technical assistance in the management of the EOC Collaborative.

In April 2005, a joint coaching visit with the MOH was conducted at all sites to review the quality indicators monitoring plan and the criteria to be used to determine compliance with EOC standards. The coaching team helped the sites finalize their action plans and organize their improvement teams. The coaching team found that some sites had not been introduced to key standards like the active management of the third stage of labor.

The second learning session with the original sites was held in May 2005. At this session, the baseline data collected by the teams themselves were reviewed, and improvement objectives determined for each facility, according to its level of care (peripheral clinics, district or regional hospitals). The learning session also included presentations on active management of the third stage of labor and how to implement rapid improvement cycles. For the remainder of 2005, QAP will conduct training in coaching for local supervisors so they can assume this fundamental activity. QAP will conduct at least two joint coaching visits with local supervisors at all sites. Additional facilities in each district will be incorporated into the collaborative, so that by the end of 2005, all sites in both districts (up to 50 teams) will have joined the collaborative.

Eritrea

As discussed in section 2.1, teams in Mendefera District in Debub Zone continued to implement improvement activities focused on the use of the partograph, antenatal care, and improved counseling about danger signs and birth preparedness. Ministry of Health, QAP, and TASC2 staff led meetings with the teams in November 2004 and February 2005 to review results and improvement strategies. In March 2005, the collaborative was expanded to include facilities in Dekemhare District in Debub.

Rwanda/Niger

Rwanda was originally proposed as a third African site for an EOC improvement collaborative, but the project decided after further discussions with the MOH and USAID that such an activity should not move forward. Niger is now being considered. A final decision will be made early in Year Four in consultation with national health authorities in that country.

Operations Research

Better Methods for Measuring Competency of SBAs

QAP was invited to participate in a technical consultation with the Making Pregnancy Safer Initiative at WHO headquarters in Geneva in November 2004. Subsequent to this consultation, QAP began a revision of its SBA competency measurement instruments based on lessons learned from the four-country study. With input from the American College of Nurse Midwives and JHPIEGO and from our own field staff in Nicaragua and Niger, QAP shortened and refined the knowledge test and consolidated the skills evaluations. The revised knowledge test consists of 50 multiple choice and true/false questions (reduced from approximately 75 in the early version). Wording of the questions and the answer choices has been simplified to reduce or eliminate language difficulties. The answer format was standardized to make the test more straightforward. The practical skills evaluations were simplified and updated to reflect current international standards. Sections have been added to evaluate provider competence at active management of the third stage of labor and immediate newborn care in addition to manual removal of placenta, bi-manual uterine compression, and neonatal resuscitation, which were included in the previous instruments.

QAP is now using the revised instruments to conduct a large-scale evaluation of SBA competency in Nicaragua. With technical and financial support from UNICEF, CARE, PAHO, and the Nicaraguan Ministry of Health, QAP is evaluating health personnel involved in attending deliveries in 13 SILAIS and 20 hospitals across the country. The first round of testing began in early June 2005, and data collection will continue through the end of July. A preliminary report is expected by late September or early October and a final report by year's end. The initial protocol called for testing two-thirds of all health personnel in each participating SILAIS, but some SILAIS have asked to include all their personnel, so the final sample size is expected to include 600–800 health personnel. To our knowledge, this will be the first evaluation of its type carried out on a nearly national scale.

Initial response to the evaluation has been quite positive from both SILAIS and health facility directors and those being evaluated. As in the past, many evaluatees have commented that this is the first time they have had the opportunity to practice skills on anatomical models and receive guidance and instruction from their country's top clinicians, who are serving as study observers. One hospital director told the study coordinator that the hospital had stored anatomical models similar to those used by the study for years, but had never known how to use them. Ministry officials at the central level as well as many SILAIS directors are now planning to carry out similar evaluations on a periodic basis. The initial evaluation will serve as a baseline to identify weak areas of knowledge and skills to be addressed by clinical training and CQI efforts.

Timeliness in Treating In-Hospital Obstetric Emergencies

This report was drafted during the last year, circulated among the co-authors, and revised and is currently in the final stages of editing before publication as a formal research report. Based on observations and patient record reviews in 14 hospitals in Benin, Ecuador, Jamaica, and Rwanda, the time intervals between critical events in the care of obstetric emergencies varied widely by the type of emergency, treatment, and country. For example, treatment of hemorrhage with a blood transfusion averaged three hours from its diagnosis, while the time from diagnosis to treatment of obstructed labor by C-section averaged over five hours. Experienced obstetricians judged that 31% of the 328 emergency obstetric cases they reviewed suffered in-hospital delays. The time from arrival at the hospital to evaluation by a professional averaged about 30 minutes.

Quality of Hospital Care in the Performance of Obstetric Tasks in 245 Cases

In this study, 245 normal births were observed in 14 hospitals in Benin, Ecuador, Jamaica, and Rwanda. During the past year, the data were cleaned and analyzed, and a draft report was completed and is now in review by the authors. Preliminary findings indicate that while adherence to international standards varied substantially across countries, the largest disparity was across the standards themselves. Monitoring of critical indicators of the mother and baby in the first two hours after birth was particularly low, only 10%–20% of the recommended frequency, on average. Monitoring during labor was also very low for certain indicators, notably maternal pulse, intervals between contractions, and duration of contractions. A few key tasks were performed less than a third of the time, notably hand washing, suctioning the newborn, and putting baby in skin-to-skin contact with mother. Partographs were completed accurately about 45% of the time.

Documenting the Scale-up of CQI in the Free Maternity Program in Ecuador

As discussed in section 2.16, QAP recently completed a two-year study to document the expansion of a CQI mechanism within the Free Maternity Program, to cover all health districts in half of Ecuador's 22 provinces. Given that the Free Maternity Program covered 855,491 antenatal care consultations and 102,756 deliveries in 2004, the reach of the CQI activities represents a major contribution to improve the quality of basic health services in Ecuador. The study documents monthly tracking of compliance with key standards by the CQI teams and reports that steady improvements in compliance with standards were achieved and sustained across increasingly larger numbers of facilities. For example, use of the

partograph—an evidence-based, labor-monitoring practice not widely used in Ecuador prior to its promotion through the CQI scale-up—increased from 23% of attended births in November 2002 to 88% by December 2004. The final study report, describing the process of CQI expansion and institutionalization through March 2005, includes a CD-ROM with all the training and methodological tools created with QAP assistance to support the CQI scale-up.

Generate Demand for Quality Maternal Care in Ecuador

In 2005, QAP, through the LAC EOC Collaborative in Ecuador, began pilot testing a method for improving the cultural adequacy of obstetric care in public facilities. The goal is to increase demand for quality, in-facility obstetric care and increase utilization of health facilities by women who would otherwise give birth at home. The approach consists of a series of workshops that brings together EOC providers, representatives of health facility users' committees, traditional midwives, and local government officials to analyze the barriers to cultural acceptability of obstetric care and then propose and monitor changes to how care is provided at local health facilities. The first workshop was held in February 2005 in Tungurahua. The meeting, funded and coordinated by QAP and FCI, tested an approach to negotiating client participation in EOC quality improvement efforts, especially efforts directed at improving users' acceptance of services. Participants representing all different sectors of the community engaged in role-plays of both home- and hospital-based births, illustrating the importance of different issues to different stakeholders. The group then listed activities or practices characteristic of an ideal birth and began a discussion of potential cultural adaptations that would make facility-based delivery more attractive to community women and their families. A second meeting was held in May 2005, where the various stakeholders developed suggestions about specific changes in facility-based care. By this time, some facilities had already begun implementing initial changes, including attending birth in a squatting position, allowing visits by family members, and allowing birthing women to use herbal teas, among others. Additional ideas for changes emerged from the second meeting; they will be tested in a series of rapid improvement cycles over the coming months and then evaluated by participants in a third meeting scheduled for later this summer.

Questions on Maternal Health for the National Demographic and Health Survey in Ecuador

In early 2004, CDC invited QAP to develop a module on factors that influence women's decisions about where to give birth and where to seek care for obstetric complications for the Demographic, Maternal and Infant Health Survey (ENDEMAIN) to be carried out in Ecuador during 2004. Between April and June 2004, QAP carried out formative research and designed and tested questions, resulting in 20 questions on care-seeking for obstetric complications, client perceptions of quality of care, and client perceptions of the costs of obstetric care. QAP staff provided technical assistance to CEPAR, the local implementing organization for the survey, on how to apply the questions. Data collection for this population-based, nationally representative survey took place between June and October 2004. After data input, cleaning, and validity checks, QAP received the data set in late March 2005. The sample included 2,798 women who had given birth during the two years prior to the survey. Of this group, 2,065 women gave birth in a health facility and 733 at home. Preliminary analysis shows important differences between indigenous and non-indigenous women with respect to decisions about location of delivery. Only 34% of indigenous women said they would deliver in a health facility if they were to become pregnant again, compared to 76% of non-indigenous women. Among all women who reported having a life-threatening complication during their last pregnancy, 75.8% reported going immediately to a health facility. However, only 44% of the indigenous women in this group reported going immediately to a health facility; 42% reported staying at home and/or using a home remedy to treat the perceived complication. QAP is currently analyzing responses to the 20 questions and will contribute a chapter to the final report due to be published later in 2005.

Improving the Process of Maternal Mortality Surveillance in Jamaica

The final report for this study was submitted by the lead researcher and is in technical review. This study used a very careful technique to identify all pregnancy-related deaths and their causes in Jamaica in the three-year periods 1993–95, 1998–2000, and 2001–03. The results were compared to the official maternal mortality surveillance data, and recommendations made on how to improve the official surveillance system. Two phenomena were analyzed: underreporting by the official system and trends in the causes of maternal mortality over the study decade. Two important trends emerged: (1) a decrease in the number of direct maternal deaths per 1000 live births accompanied by an increase in the number of indirect maternal deaths per 1000 live births (significantly due to cardiovascular problems and HIV/AIDS), resulting in no change in the overall maternal mortality rate overall, and (2) an increase in the number of late (7 days or more postpartum) and very late (more than 42 days postpartum) maternal deaths. This latter trend argues for including very late maternal deaths in the official surveillance system, which is not currently the case. Underreporting is higher in indirect deaths and late and very late maternal deaths.

Community Follow-up of Maternal Complications in Jamaica

Phase 1 of this study was completed in August 2004. It investigated the number and distribution of high risk cases, the ability of and barriers facing existing community nursing teams to do home follow-up of obstetrical complications, and current information systems and practices that can enable the necessary coordination between hospitals and community nursing teams. A workshop of key Jamaican participants from the MOH, hospitals, educational institutions, and nursing associations designed a pilot intervention, and a detailed workplan and proposal for Phase 2 was submitted in September 2004. The focus of Phase 2 is to test whether a well-implemented program of community-based professional contacts with high-risk cases and integration with the health facilities where most births occur in Jamaica will improve the quality of postpartum care, the quality of client practices, and selected client health status indicators. The proposal is under review.

Assessment of the Nicaragua Mother-Baby Friendly Hospital Program as a Focused Accreditation Success

A 1999 evaluation of the Nicaragua Mother-Baby Friendly Program documented substantial success in its first five years and suggested that the Nicaragua program had been one of the most successful among all Baby-Friendly programs worldwide. The objective of this assessment, initiated in November 2004, is to document whether the success has continued and ascertain the extent to which certain key aspects of the program, such as use of self-evaluation and other low-cost methods in the re-certification process, involvement of community groups, and focus on mother-baby friendly rather than baby-friendly, have contributed to its success. Data collection has been completed and a report drafted.

Directions for FY06

QAP will continue to support the EOC Collaboratives in Eritrea and Benin and add a third EOC Collaborative in an African country in the coming year. The LAC EOC Collaborative will continue to adapt its interventions to the specific needs of Nicaragua, Honduras, and Ecuador, and increase its focus on those areas of the local EOC system model needing further reinforcement. These include improving the clinical management of obstetrical complications across local care networks—more difficult to achieve than basic, uncomplicated EOC; cultural adaptation of obstetric care; and increasing community demand for EOC. The project's EOC collaboratives will emphasize supporting Ministries of Health and facilities to institutionalize evidence-based obstetric and neonatal care practices as well as the CQI process itself.

Based on the experience from the pilot EOC cultural adaptation effort in Ecuador, QAP proposes to implement a new study to measure the effect of cultural adaptation on user satisfaction and utilization rates for obstetric services. The study would involve district-level health facilities in four to six

provinces, representing different ethnic and geographic areas of the country. Another proposed research topic is to measure the validity of the self-assessment data generated by the EOC Collaboratives. QAP also plans to carry out an evaluation of SBA competency on a smaller scale in Niger during the latter part of 2005. In addition to publishing the final SBA competency evaluation instruments themselves, QAP expects to produce a manual describing how to apply the evaluation, either as a one-time baseline exercise or to apply the instruments in modular form as part of on-going monitoring and supervision. Finally, QAP will continue to strengthen local alliances with agencies such as UNFPA, PAHO, FCI, and UNICEF, which are already working with QAP on these efforts, and will pursue opportunities for new alliances.

4.3 SO3 Child Health

Background

QAP has worked in over 20 countries over the last decade to improve service quality and demonstrate clinical improvements in neonatal and child health and nutrition. QAP's main focus has been to assist Ministries of Health and other organizations design and strengthen the healthcare delivery systems so that they can improve the quality and outcomes of child healthcare services. To support country efforts in child health, QAP has developed or adapted a variety of cutting-edge QA methods and tools, such as quality improvement collaboratives, performance-enhancing job aids, counseling materials, and computer-based training.

Activities and Results

Pediatric Hospital Improvement Collaborative

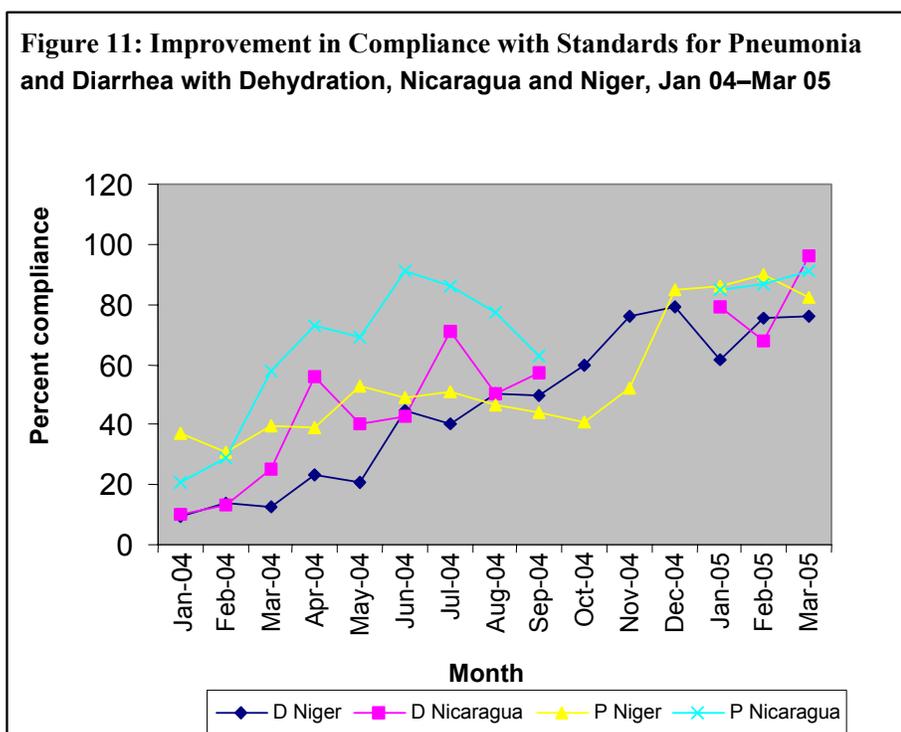
During Year Three, QAP continued to support the activities and partnerships forged in building the multi-country Pediatric Hospital Improvement (PHI) Collaborative for improving the quality of hospital care for seriously ill children. In Niger, Nicaragua, and Malawi, early gains were consolidated in Year Three while the geographical range, technical scope, and complexity of the activities expanded. Activities in Eritrea stalled for much of the year, due to lack of consistent support for the PHI at the central level of the MOH, although support was renewed in June 2005 and 10 additional hospitals were introduced to PHI. Tanzania joined the initiative in September 2004 with a special emphasis on improving pediatric HIV/AIDS treatment and care. QAP support for the Guatemala collaborative ended in December 2004 because of a change in priorities of the Government of Guatemala and USAID Mission.

Although advances were faster in some regions than others, all countries demonstrated progress. QI teams were established in all participating facilities, and teams met to share experiences, results, best practices, and challenges for improving care in learning sessions in all countries. The PHI served as a mechanism to create a regional—and in the case of Niger and Nicaragua, national—network for sharing and learning around acute care for children. QAP's Year Three effort supported three learning sessions in Malawi, Nicaragua, Niger, and Tanzania and one in Guatemala and Eritrea. Between learning sessions, facilities were supported by intensive, on-site coaching by teams of skilled clinicians and QA experts drawn from the Ministry of Health in each country, academic institutions, cooperating agency partners, and QAP staff. Site visits emphasized team building, QI principles, clinical content training, reorganization of care, and effective monitoring systems for management decision making. In addition to the learning sessions, many countries also supported further clinical content training. Clinical sessions in Nicaragua covered malnutrition, newborn care, and airway management for all hospital staff. Tanzania and Niger each conducted training of trainers (TOT) in emergency triage and treatment (ETAT) and then supported the trainers to conduct ETAT training workshops for hospital staff.

While the number and degree of quality problems identified in the baseline assessments varied across the PHI countries, one common priority has been emergency care. In most hospitals at the outset of the initiative, effectively no triage and very little emergency care were provided. Improvements in ETAT in

all sites have included establishing a triage system; creating a space for emergency stabilization, improving access to emergency equipment, supplies, and medications; and implementing a range of activities to increase compliance with emergency care standards, such as formal and continuous on-site training and introducing new job aids, medical records, and other tools for measuring progress and ensuring compliance. In many cases, personnel have been reassigned to ensure that skilled care is available in the emergency room, and as a result, in practically all facilities participating in the PHI, functioning triage systems now ensure that the sickest children receive prompt attention in working hours. Some sites have achieved 24-hour coverage, but for others this remains a challenge.

In addition to ETAT, another priority has been to improve case management of the most common pediatric illnesses (malaria, pneumonia, diarrheal disease with severe dehydration, malnutrition, meningitis, and sepsis). Actions undertaken after the baseline assessments in Nicaragua and Niger have led to dramatic improvement in overall compliance with standards, as illustrated in Figure 11 for the management of pneumonia and diarrhea with dehydration. Malawi and Tanzania are monitoring mortality but have yet to begin reporting regularly on compliance. Mortality trends are in the right direction, but it is too early to know with certainty whether these encouraging trends result from the PHI intervention.



A further activity in all countries except Eritrea has been the adaptation of the WHO referral care manual (RCM). Niger, Malawi, and Nicaragua have disseminated a nationally adapted version, and Tanzania is at the publishing stage. In Nicaragua, moreover, legislative approval has been granted for the adoption of the RCM as the national standard of care for children at first referral level facilities.

Tanzania merits special mention: Its PHI focus on pediatric HIV/AIDS care necessitates not only developing the quality of existing services but also the introduction of new services. Additional accomplishments include strengthening the pediatric component of the national HIV/AIDS care and treatment guidelines and training providers in the use of the guidelines. The baseline assessment conducted in October 2004 identified similar challenges to those of other countries, including poor emergency care, low compliance with case management standards for common conditions, and poor

organization (e.g., poor layout and patient flow, inaccessible supplies and medicines, lack of standardized reporting forms).

During the past year, the number of facilities participating in the PHI Collaborative increased in Nicaragua from 6 to 14 facilities, in Niger from 17 to 34 facilities, and recently in Eritrea from 10 to 20 facilities. In both Nicaragua and Niger, expansion was preceded by and planned at a national conference with experienced representatives from the first group of facilities serving as facilitator-assessors to introduce PHI to the facilities just now joining the network. In this way, we expect that country-specific approaches and improvements will spread more quickly, external technical support can be minimized, and local capacity will be developed through practical trials and shared learning. Table 7 summarizes the progress and approximate coverage of the hospitals involved in PHI at the end of the project year.

Table 7: PHI Implementation Status, June 2005

Country	Start	Status	Scale-Up Planned for Year Four
Eritrea	2003	Phase 1: 10 hospital in original collaborative Phase 2: Additional 10 hospitals added in June 2005	Ongoing strengthening of Phase 1 & 2 facilities
Nicaragua	2003	Phase 1: 6 hospitals Phase 2: Additional 9 hospitals	Ongoing strengthening of Phase 1 & 2 facilities
Niger	2003	Phase 1: 17 sites (2 national, 4 regional, 8 district, 3 maternities) Phase 2: 17 sites (1 national, 2 regional, 14 district)	Ongoing strengthening of Phase 1 & 2 facilities
Malawi	2004	8 sites (7 district hospitals, 1 regional hospital)	Additional 19 hospitals (All 27 hospitals in country)
Guatemala	2004	13 hospitals	None—QAP involvement ended in December 2004
Tanzania	2004	3 district hospitals, 1 trauma hospital (Tumbi Special Hospital, designed to treat accidents and emergencies), 1 regional hospital	TBD

The national PHI Collaboratives also expanded the range of technical areas covered. While most countries are focusing on case management for the major common diseases, Niger and Nicaragua have also begun to improve newborn care, and Nicaragua has begun to address the emotional and developmental needs of hospitalized children by improving accommodations for mothers and introducing children's play areas. Nicaragua also increased the range and complexity of program activities, linking community IMCI with PHI by developing the first community-based IEC strategy to promote healthy behaviors. Nicaragua also introduced a number of innovations, including a knowledge prize competition to stimulate self-study of the RCM and a strategy to measure and address client perceptions of quality.

Several lessons learned in implementing PHI over the past year will exert a strong influence on activity implementation next year. The most significant is that because PHI covers a very broad technical area, developing the human, financial, and political and resource systems to achieve sustainable improvements in pediatric hospital care will take much longer than the 12–18 month time frame envisaged for collaboratives in the United States. Making collaboratives work, moreover, requires strong technical leadership from national officials. At the global level there has been considerable technical focus at the request of country teams to simplify PHI monitoring. Currently, individual teams evaluate their progress monthly, tracking process, input, and outcome indicators, but such frequent monitoring is burdensome in many countries in Africa, where the quality of medical records and patient monitoring is poor. Improving data quality requires reducing the number of country indicators, developing practical and feasible tools for monitoring progress, and investing more heavily in training teams to collect, analyze, and interpret their own data for management decision making. This work is in progress. A modified mortality monitoring form has been introduced in Malawi, Eritrea, and Tanzania. A critical care pathway has been



introduced in Malawi that acts as both a job aid and monitoring form, and other countries are considering this approach.

IMCI Computer-Based Training

In collaboration with WHO's Child and Adolescent Health Division, QAP completed development this year of the prototype IMCI computer-based training (CBT) program, based on the IMCI case management guidelines. After discussions with the Ministry of Health of Kenya and the WHO in Geneva Kenya was established as the evaluation site for the large-scale application of the CBT. The evaluation will assess the actual effect of the product as well as costs

associated with using it. The research protocol was finalized during early 2005. Field testing in Kenya began in June 2005. Final changes to the Spanish version were submitted to Dragonfly, QAP's CBT programmer, in May and should be completed by August 2005.

Development of Jobs Aids to Improve Infant-Feeding Counseling

Based on the results of a QAP operations research study conducted with the University of Bergen, Norway, and the Kilimanjaro Christian Medical Centre (KCMC) in Moshi, Tanzania, and drawing on generic counseling tools developed by WHO, UNICEF, and USAID, QAP developed and tested a series of HIV and infant feeding-related job aids for PMTCT healthcare workers and mothers in Tanzania. To facilitate ease of use and continued compliance with international guidelines, the job aids use straightforward text and high impact images to convey highly technical concepts. A consensus building process and state-of-the-art graphic techniques were used to create the final set of materials, published in Swahili and English:

- A "Question and Answer Guide: HIV & Infant Feeding – Answers to questions commonly asked by mothers, their families and communities"
- A flow chart illustrating the counseling process and the job aids to be used during one-to-one counseling sessions with HIV positive women
- Four counseling/take home brochures: Exclusive Breastfeeding, Infant Formula, Cow's Milk, and Expression and Heat Treatment
- Five counseling cards: Infant-Feeding Options, AFASS, Relative Risk of Transmission, Positioning and Attachment, and Expression and Heat Treatment of Breast Milk
- Two brochures on Maternal Nutrition and Feeding After 6 Months (currently in external review, testing, and production)

The materials were printed in Tanzania in March 2005 and are being disseminated through short training courses for health workers involved in PMTCT or other types of infant-feeding counseling in three regions of Tanzania.

Strengthen Linkages between Essential Maternal and Neonatal Health Interventions and PMTCT Programs

Planning for this activity evolved significantly during the year. After meeting in Tanzania to develop an integrated health strategy for cooperating agency partners hosted by the mission in December, USAID/W invited QAP to develop a proposal for a demonstration collaborative to strengthen links between maternal, newborn, child health, and PMTCT services. Several ideas were put forward to the mission, culminating most recently in the submission of a concept paper developed jointly by the main CA partners (QAP, ACCESS and Measure) using as a platform the existing QAP family-planning

collaborative (since this is what the missions had indicated). However, after a regional forum in June 2005 convened by the Regional Centre for Quality in Health Care in East, Central and Southern Africa highlighted the need for more focus on newborn health and further discussions with URC, a decision was reached that a better approach would be to build on the platform of the existing PHI initiative. URC will develop a concept paper on the approach, and planning will take place during the summer of 2005.

Collaboration with the World Health Organization

QAP continued close collaboration with WHO's Child and Adolescent Health and Development Division and with WHO country offices this year. QAP continued collaboration with WHO Geneva in the development of PHI monitoring tools and finalization of adapted referral care manuals for the management of children with serious infections or severe malnutrition. QAP provided inputs to the development of the WHO Pocket Book, *Management of the Child with a Serious Infection or Severe Malnutrition*, to revise and strengthen a number of areas, including the chapter on the Child with HIV/AIDS. Strong partnerships were forged with WHO country offices to support the implementation of PHI activities in Nicaragua, Tanzania, Malawi, and Niger by providing technical assistance, advising on policy direction, and in some cases contributing significantly towards funding of local costs. WHO Geneva officers Dr. Martin Weber and Dr. Rebecca Bailey reviewed the revised IMCI CBT program and provided comments that facilitated product finalization. The WHO Office in Kenya is involved in the evaluation of the cost-effectiveness using the IMCI CBT compared with the traditional 11-day training.

Directions for FY06

QAP's priorities for the coming year include continued consolidation of all the technical areas currently being covered in the PHI Collaborative. A number of short operations research studies are being planned to examine costs and other aspects of how collaboratives might influence the efficiency of child healthcare delivery. Linking IMCI with PHI will be a focus in Niger, Eritrea, and Nicaragua. At the global level, work will continue to develop better and simpler tools and guidelines for local supervisors and for teams to collect, analyze, and use data for decision making. Opportunities to build capacity in local institutions and thereby create more viable and sustainable collaborative networks will continue to be sought as will strategies to address the more pervasive problems, such as high staff turnover and the need to provide more on-site support. In Tanzania, the PHI/Pediatric AIDS Collaborative will be expanded to include newborn, child, and PMTCT services. QAP will also continue to work with WHO Geneva and its regional and country offices to disseminate and implement the RCM pocket book and to disseminate the IMCI CBT program. QAP will also complete and disseminate technical papers on the development, application, and results of the PHI Collaborative.

4.4 SO4 HIV/AIDS

Background

The overall strategy of QAP's HIV/AIDS program is to create sustainable systems of health services delivery for quality HIV/AIDS care and support, including services for sexually transmitted infections and opportunistic infections in developing countries. QAP-provided support is in concert with USAID's objectives and seeks to 1) increase use of HIV/AIDS services and preventive practices, including VCT, PMTCT and ART; 2) increase access to these services; 3) improve provider knowledge and skills related to HIV/AIDS; 4) improve performance of laboratories and diagnostic services; 5) test strategies for appropriate staffing of health systems; 6) develop and implement models and best practices for comprehensive, high quality HIV/AIDS services, including ART, and 7) strengthen national policies and guidelines in support of HIV/AIDS services.

Activities and Results

Human Resources and Human Capacity Development

QAP supported operations research on HIV workforce and training issues in the past year in order to inform program improvement and scale-up (section 3.1 further discusses these studies). Following on the analysis of the workforce implications of HIV/AIDS program scale-up conducted in Zambia during Year One, QAP initiated and completed this year a second HIV workforce development study in Rwanda: a comprehensive assessment of HIV workforce and training needs, options, and costs. The draft final report was presented to the Government of Rwanda and the USAID Mission. After feedback, the final report will be published in September 2005. Data collection was completed for two studies in Rwanda: HIV stigma among healthcare providers and adherence to ART. The study documenting best practices and strategies that have led to high performance in the PMTCT Program in Soweto, South Africa, was also completed.

Improving the Quality of HIV/AIDS Care

Rwanda HIV/AIDS Improvement Collaboratives

In Year Three, QAP continued to support the Government of Rwanda in implementing the Prevention of Mother-to-Child Transmission of HIV/Voluntary Counseling and Testing (PMTCT/VCT) Improvement Collaborative in 18 sites in all the country's 12 provinces and has expanded to 16 new sites. QAP also launched an HIV/AIDS Antiretroviral Therapy Improvement Collaborative in Rwanda to improve the management and service quality of antiretroviral treatment in the country's 16 sites that provide ARVs. PEPFAR COP05 funding has been received to expand this collaborative in the next year and to build the capacity of the central MOH and the districts to support QI and collaborative activities in the future. Results are described here in the section 2.4.

HIV/AIDS Care Improvement Project in Russia

In the past year and in collaboration with the American International Healthcare Alliance, QAP began a major project in Russia to assist in the rapid scale-up of HIV/AIDS care, especially ART. Using a collaborative approach, QAP is assisting teams in four territories design a model comprehensive system of care, treatment, and support for HIV-infected and AIDS patients. The approach includes collaborative meetings where the territories will share their ideas and experiences with each other. A full description of this activity is in section 2.10.

HIV/AIDS Care Improvement Project in South Africa

Section 2.5 describes the large and important QAP program in South Africa to improve HIV/AIDS care, especially ART.

ART Collaborative in Uganda

COP05 PEPFAR funds have been received to assist the rapid scale-up of ART services in Uganda. QAP teams conducted visits in April and June to meet with USAID and MOH officials to plan the scope and schedule for the collaborative roll-out (see section 2.8 on Uganda). A long-term QAP country director will arrive in country in August, and the first Learning Session should take place in October.

Improving the Quality of Infant-Feeding Counseling for HIV-positive Mothers

The final report of the QAP-UNICEF review of programmatic evidence on HIV and infant feeding was published in July 2004. A set of job aids and counseling brochures based on the lessons of the programmatic evidence review was developed and field-tested in Tanzania. The results of the research study to evaluate the impact of the job aids will be published in the next six months. The infant-feeding job aids for Tanzania were shared with WHO and the Academy for Educational Development's Linkages Project, which plan to adapt them for use in other countries. Based on favorable field-testing, PEPFAR

has provided funds in both COP04 and COP05 for their use throughout Tanzania. QAP also provided technical assistance for the adaptation and production of the job aids in Zimbabwe and Uganda.

Community-based Case Management of HIV in Rwanda

An important but often overlooked part of the continuum of care for HIV/AIDS is community-based palliative care and support for PLWHA. QAP has just completed a demonstration project in Rwanda that tested approaches for HIV/AIDS case management in the community through local NGOs. QAP contracted with three NGOs (Salvation Army, SWAA and ARBEF) to hire, train, and supervise case managers and volunteers. We also contracted with the African Services Center in New York to assist in the training and client records system. Results after only six months of field activities were exceptionally good and are described in the Rwanda section here.

Protecting MCH Services in the Context of Increased HIV Treatment Funding

Given shortages of professional staff in most African countries grappling with the HIV epidemic, there is a danger that increased funding and attention to HIV/AIDS treatment services could drain resources from other services and undermine basic maternal and child health care. A demonstration project was started at the end of Year Two in Rwanda to develop and field test strategies to strengthen MCH services in concert with expansion of HIV/AIDS services, such as integrated supervision visits and improvement of drug logistics. This demonstration is now complete and is described in the Rwanda section.

HIV/AIDS Care Improvement in Nicaragua

The QAP team has recently begun assisting the Ministry of Health in Nicaragua to develop its standards and strategy for HIV/AIDS screening and treatment. Additional funds have been allocated for Year Four to continue and expand this assistance.

Issues Papers on Quality of Pediatric HIV/AIDS Care in Resource-limited Settings

QAP has produced detailed outlines for a set of issues papers on pediatric HIV/AIDS care in resource-limited settings, to which Dr. Martin Weber of WHO among other partners have provided comments. The four papers are presently being written and will be published in the coming year.

Operations Research

- 1. Adherence to ART:* To inform improvement strategies for the new ARV Collaborative in Rwanda, QAP conducted in Year Two a study of antiretroviral therapy adherence in King Fayçal hospital in Kigali, the most prestigious treatment facility in the country. The Government of Rwanda and USAID requested that the study be expanded in Year Three to four additional sites. This second phase of the study has been completed and data are being analyzed.
- 2. Stigma in HIV/AIDS health workers:* QAP initiated studies on stigma of healthcare workers directed against HIV-positive clients in Rwanda and Tanzania in Year One. Data collection was completed in Year Two, and data analysis is now near completion. Final reports will be issued by the end of 2005.
- 3. Impact of PMTCT program on mother-child pairs.* Piloted in 15 clinics in Jamaica in 2003, the PMTCT program offered HIV testing, counseling for pregnant women, and ARV therapy (Nevirapine) for HIV-positive women in labor and their newborns. QAP began an assessment of the impact of the program on mother-infant pairs in Year Two. The study's final report was published in December 2004. The study found that nearly of 50% of HIV-positive women and 30% of their newborns did not receive Nevirapine. One reason was reluctance to disclose their HIV status at delivery. Procedures for postpartum care and HIV follow-up care were often not followed. Although only 10% of infants were HIV-infected of mothers reporting they had taken Nevirapine (compared to 24% of infants whose mothers had not), the rate of mixed feeding was unacceptably high among those who received it.
- 4. Functional analysis of the Soweto PMTCT Program in South Africa.* This study's goal was to describe and analyze the potential for replication of the Perinatal HIV Research Unit at Baragwanath Hospital in

Soweto, South Africa, worldwide one of the most successful PMTCT programs. Preliminary findings suggest that it is indeed a best practice program. By combining professional and lay staff, costs have been kept reasonably low, quality service is provided, and a successful example of holistic care has been demonstrated. Some logistic challenges remain. Satisfaction is high at all levels—from staff to patient. A draft report is now in technical review.

Directions for FY06

QAP will provide continued support to the implementation of HIV/AIDS improvement collaboratives in Rwanda, Uganda, and Russia. It will also expand assistance to the pediatric care of HIV-positive children in Tanzania. The HIV/AIDS improvement program in South Africa will be expanded to more sites and focus on quickly expanding the numbers of clients receiving ART. In Tanzania, Uganda, and Zimbabwe, we will continue to expand assistance for the use of health worker job aids and mother counseling materials for the feeding of infants of HIV-positive mothers. The team in Nicaragua will broaden its assistance to the MOH in expanding and improving HIV/AIDS testing and treatment services.

4.5 SO5 Infectious Disease: Anti-microbial Resistance

Background

To reduce unnecessary and inappropriate use of antibiotics and antiretrovirals, QAP has developed job aids and training to help medical providers correctly prevent, diagnose, and treat infectious diseases and effectively counsel clients on correct drug use.

Activities and Results

Increasing Rational Use of Anti-microbials in Pediatric Hospital Care

As part of the Pediatric Hospital Improvement Collaborative in five countries, QAP continues to provide technical assistance to help assure the appropriate use of antibiotics in the hospital care of children referred with severe illness.

Increasing Rational Use of Anti-microbials in Primary Child Care

In Niger, Eritrea, Honduras, and Nicaragua, QAP has developed job aids and quality monitoring systems to help assure compliance with IMCI guidelines that limit the inappropriate use of anti-microbials.

Preventing and Reducing Hospital-Acquired Infections

Such infections can spread resistant organisms and also threaten staff. QAP has continued its work in this area in Eritrea and Tanzania.

Optimizing Adherence among Patients Treated with ARVs

Adherence to antiretroviral therapy is an important determinant of the development of HIV resistance to ARV drugs. QAP has conducted research on ART client adherence in Rwanda and has made adherence a key indicator in its ART collaborative work in Rwanda, Russia, South Africa, and Uganda.

Optimizing Adherence among TB patients

Adherence to treatment and DOTS supporters are important factors in the development of resistance to TB drugs. In its TB quality improvement work, QAP uses as key indicators the adherence rates and the effectiveness of DOTS.

Reducing the Emergence of Resistance to Newer Anti-malarials

QAP research in the previous year in improving the lab technician job aids for the correct use of the Rapid Diagnostic Test (RDT) for malaria will help reduce unnecessary use of anti-malarials and also reduce the costs associated with the unnecessary use of the newer and more expensive anti-malarial drugs.

Directions for FY06

QAP will continue and or expand its activities in all the six areas described above.

4.6 SO5 Infectious Disease: Malaria

Background

Through the Pediatric Malaria Improvement Collaborative in Rwanda and the Pediatric Hospital Improvement Collaborative in six countries, QAP is working to strengthen malaria case management at primary healthcare facilities and to improve hospital care for severe pediatric malaria. QAP is also supporting quality improvement activities and research aimed at strengthening private sector malaria case management and improving adherence to treatment. QAP has collaborated with WHO to use quality design principles to improve diagnosis of malaria through use of rapid diagnostic tests (RDTs) in rural areas with limited access to formal health services.

Activities and Results

Malaria Collaborative in Rwanda

Section 2.4 describes the progress and results of the improvement collaborative that QAP is supporting in Rwanda to improve malaria care for children under five.

ACTMalaria

QAP again provided technical assistance to ACTMalaria in the past year by leading the quality assurance section of the Management of Malaria Field Operations course in Bangkok in October 2004. QAP also provided the sole advisor to the international course, Transfer of Training Technology, in Kuala Lumpur, Malaysia, in June–July 2005.

Roll Back Malaria

In conjunction with Roll Back Malaria (RBM), the Research Institute for Tropical Medicine (RITM), and the Lao Ministry of Health, in late 2003 QAP developed and tested a simple job aid to help low-level health workers correctly use and interpret malaria Rapid Diagnostic Tests (RDTs). RDTs are an efficacious way to diagnosis malaria in the field, but actual use is often ineffective. This study developed and tested pictorial job aids for use of malaria RDTs in Laos and the Philippines. Pictorial job aids were developed for the use two types of RDTs (dipstick and cassette) by community. Based on this work, RBM invited QAP to present its results at an RBM technical consultation on parasite-based diagnosis for malaria in high transmission areas in November 2004. The resulting job aid and the report on the operations research involved in designing it were posted in January 2005 on the website of WHO's Western Regional and Pacific Office (<http://www.wpro.who.int/rdt/>). QAP and WHO are continuing to collaborate on efforts to help low-level health workers correctly use RDTs and interpret their results (see below).

Operations Research to Improve Management of Malaria in the Private Sector and Ensure Caretaker Compliance with New Diagnostic and Treatment Norms in Kenya

QAP had planned to expand the successful Vendor-to-Vendor and Neighbor-to-Neighbor initiatives to improve malaria case management in the private sector in Kenya. The planned expansion was put on

hold in April 2004 when the Kenya Ministry of Health announced a change in treatment guidelines from use of Sulfadoxine Pyramethamine (SP) to use of Artemisinin Combination Therapy (ACT). QAP postponed development of this study pending development and promulgation of new national malaria treatment guidelines by the Government of Kenya. During the past year, QAP continued to provide limited technical assistance to the Kenyan National Malaria Control Program, especially in the area of IEC, but as of June 30, 2005, no new treatment guidelines had been issued. Since the proposed study is based on improving compliance with national guidelines, it is not possible to move ahead with this initiative until such guidelines become available.

Directions for FY06

In the coming year, QAP will work with WHO, the Zambian Ministry of Health, and Médecines sans Frontières to develop an RDT job aid for use by Zambian community health workers. In addition to explaining the use of the RDT, the new job aid will help health workers understand the need to follow universal precautions for safe handling and disposal of blood.

4.7 SO5 Infectious Disease: Tuberculosis

Background

Tuberculosis continues to pose a serious threat to public health in many countries, a threat that has been exacerbated by the emergence of HIV/AIDS. Most countries with high burden of TB face many challenges due to case detection difficulties, presence of a vast private sector, provider knowledge and treatment behavior, and patient compliance with the directly observed treatment/short course (DOTS) therapy. QAP is working closely with WHO and country-level national TB control and prevention programs in selected high-burden countries to improve case detection, case management, and as a result, case cure rates.

Activities and Results

In Year Three, QAP completed four low-cost TB studies in conjunction with other ongoing country programs in Bangladesh, Cambodia, Russia, and South Africa. Work was begun on a new multi-country assessment of TB diagnostic and treatment services. QAP also began providing technical support to several programs in the coordination of TB and HIV activities, including beginning work in two new countries, Lesotho and Swaziland.

Improving Quality of TB Case Management in Bangladesh

QAP completed in Year Three a rapid assessment in Bangladesh of the quality of TB services in both government and NGO service delivery sites. The study found poor rates of adherence to treatment, especially in the NGO sites; limited awareness-raising efforts at the community and facility levels to help overcome the stigma associated with TB; and poor quality patient-provider interactions, including counseling for treatment adherence. As a result of the study findings, the National TB Program in Bangladesh requested assistance from QAP in operationalizing quality improvement and supervision and monitoring systems in their TB control network. A Memorandum of Understanding was signed between NTP/Bangladesh and QAP in early 2005, under which QAP will provide technical support to the National TB Program in improving the quality of TB services and in particular, in improving the quality of TB services offered by private providers, including private drug outlets. QAP also assisted the NTP to develop the TB-HIV section of Bangladesh's proposal for Round 5 of the Global Fund.

Developing Public-Private Partnerships in Cambodia

Cambodia is still one of the 23 high burden countries for tuberculosis worldwide. WHO estimates (1998) indicate that Cambodia's TB DOTS program covers 88 percent of the population, but the case detection

rate of 53 percent limits program impact. The National TB Control Program, with QAP as well as support from the Japan International Cooperation Agency (JICA), WHO, and others, aims to develop a public-private partnership model whereby clients of private providers will receive correct information about TB control and prevention and referrals for treatment from appropriate TB facilities. A private sector assessment funded by QAP in 2004 was instrumental in the design of the interventions. The assessment included review of practices of private providers (drug outlets, pharmacists, doctors), quality of private lab services and the policy environment. In 2005, QAP staff worked with NTP, JICA, WHO, and the bilateral Health Systems Strengthening Project to develop options for testing public-private mix interventions in the country.

Russia HIV/AIDS-TB Integration

To address the growing threat posed by HIV-TB co-infection in Russia, in late 2004 QAP commissioned a rapid assessment of such co-infection there. Results were presented at the National TB-HIV Conference hosted by the Russian Ministry of Health and Social Development in May 2005 with participation of WHO, major international donors, and organizations working in TB and HIV. Following on this study, QAP has support for the creation of TB-HIV improvement teams comprising representatives from TB clinics, AIDS centers, polyclinics, and drug dispensaries as part of the HIV/AIDS Treatment, Care and Support Project that QAP is implementing in four regions of the country. The teams identified the following major areas for improvement in the four regions: low knowledge of HIV among TB and infectious disease specialists, inadequate testing for TB among HIV-positive individuals, and lack of knowledge on TB preventive treatment among HIV-positive individuals. The teams also identified improvement: setting up offices for TB screening of HIV-positive patients, improving recording statistics for TB-HIV co-infection, developing a system of follow-up for patients with TB-HIV, initiating TB prevention among HIV-positive individuals, improving coordination of care between AIDS centers and TB dispensaries, and training hot line personnel and outreach workers on TB-HIV issues. QAP is closely coordinating its TB-HIV work in Russia with the Federal Center for TB-HIV Prevention and Treatment and the WHO High Level Working Group on TB.

South Africa: DOTS Study

To improve the effectiveness and quality of the TB DOTS program in South Africa, QAP commissioned a rapid assessment of the lay health worker (LHW) program responsible for providing supervision to TB patients during the treatment phase. The study found that LHW, when well trained, seemed to be as effective as health professionals in providing information on health to their peers and thus have the potential to positively affect health and treatment behaviors in their communities. However, LHW are challenged by lack of financial and other incentives, fear of TB infection, etc., so they are less than enthusiastic about their participation in the program. The findings from this study were presented to NTP and other stakeholders and are being applied in the national TB program. QAP has also assisted South Africa in improving the quality of its monitoring system by developing a simple tool for data collection at the facility level.

Multi-Country Study of the Quality of TB Care and Laboratory Services

A pillar to TB control and the WHO gold standard for TB diagnosis and treatment is a positive sputum smear. An effective TB control program requires that TB treatment centers have access to a reliable lab network with capacity to accurately prepare, read, and report sputum smears and results. No studies are available reporting the actual availability and quality of sputum smears in typical developing country primary care sites. This four-phase study will review actual practices of TB diagnosis and explain factors that hinder quality TB care. The study will help answer the following questions:

- 1) What is the process for diagnosing TB in high burden countries?
- 2) Are sputum smears routinely done for all pulmonary TB suspects, and if so, are the sputum smear results known before treatment is initiated?
- 3) What other methods are used to diagnose TB instead of sputum smear?
- 4) Are TB suspects treated without sputum smear or other diagnostic methods?
- 5) Do public facilities have reasonable access to sputum microscopy?
- 6) What factors contribute to or impede the practice of obtaining sputum smear for diagnosis of TB and ongoing management?
- 7) What are the critical gaps in TB management that contribute to poor quality of care (e.g., difficulty conducting direct observation of treatment for DOTS, difficulty diagnosing and/or managing multiple drug resistant TB)?

The objective of the study's first phase is to assess the access and quality of the system of TB diagnosis and care across high burden TB countries from the perspective of a national tuberculosis program official. Phase II will involve more detailed single-country assessments conducted by both telephone and onsite observation in a representative sample of primary care facilities and labs, focused on both access and quality of sputum smear and clinical care services. Phase III will consist of telephone and/or mail surveys of clinical/primary care sites in 10 to 12 countries to determine access and quality of sputum smear and other clinical care services. Phase IV will repeat Phase II in two or three other countries, depending on resources available. The final report will provide a complete assessment of the availability and quality of sputum smear diagnosis and of other essential clinical care services in high burden countries.

During Year Three, the assessment instrument for Phase I was developed and discussions initiated with national TB authorities and USAID Missions in potential country sites.

Lesotho and Swaziland

As discussed in sections 2.2 and 2.6 above, QAP conducted a rapid situational analysis of TB and TB-HIV programs in Lesotho and Swaziland in June 2005. Results will inform QAP technical support for improving TB-HIV coordination in these countries starting in August 2005.

Training in Quality Improvement at the Meeting of the International Union Against Tuberculosis and Lung Disease (IUATLD)

At the October 2004 IUATLD meeting, QAP repeated the skill-building workshop on the application of QI methods to improve TB case management at the facility level. The 2004 workshop was attended by over 50 participants and included NTP managers from Bangladesh and India. Presentations sponsored by QAP also disseminated strategies to improve active patient involvement in treatment.

Work with the STOP TB Secretariat

QAP staff attended the Third Meeting of the Public-Private Mix Subgroup for DOTS Expansion sponsored by the STOP TB Secretariat, held in Manila in April 2005. QAP provided inputs to the expert public-private mix panel based on lessons from Cambodia and Bangladesh on the development of public-private partnerships for treatment and control of TB.

Directions for FY06

During the next fiscal year, QAP will continue providing technical support to programs in Bangladesh, Cambodia, Lesotho, Russia, Swaziland, South Africa, and other countries to be determined over the next year. Support will provide assistance in adapting QA tools and approaches for improving access to and quality of TB services. QAP will also provide support to improve the coordination of TB-HIV services using the collaborative approach and other tools. Participant feedback convinced IUATLD to request that QAP conduct a one-day post-graduate course on QI at the October 2005 IUATLD meeting to be held in Paris.

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