PROJECT DELIVERABLE FOR THE

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

Quality Assurance Project

Second Annual Project Report

PERIOD OF PERFORMANCE: JULY 1, 2003 – JUNE 30, 2004

CONTRACT NUMBER GPH-C-00-02-00004-00

SEPTEMBER 25, 2004

PROJECT DELIVERABLE FOR THE

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

Quality Assurance Project

Second Annual Project Report

PERFORMANCE PERIOD: JULY 1, 2003 – JUNE 30, 2004
CONTRACT NUMBER GPH-C-00-02-00004-00

SEPTEMBER 25, 2004

University Research Co., LLC
7200 Wisconsin Avenue, Suite 600
Bethesda, MD 20814-4811
Tel 301-654-8338
Fax 301-941-8427

Table of Contents

ABBREVIATIONS .... **II**

1 INTRODUCTION **1**

2 INSTITUTIONALIZATION **2**

AFRICA 2
2.1 ERITREA 2
2.2 RWANDA 4
2.3 SOUTH AFRICA 8
2.4 TANZANIA 10
ASIA/NEAR EAST 12
2.5 VIETNAM 12
EASTERN EUROPE 13
2.6 RUSSIA 13
LATIN AMERICA AND THE CARIBBEAN 15
2.7 ECUADOR 15
2.8 HONDURAS 17
2.9 JAMAICA 18
2.10 NICARAGUA 20
2.11 PERU 22
2.12 LATIN AMERICAN AND CARIBBEAN HEALTH SECTOR REFORM INITIATIVE 23
2.13 REGIONAL MATERNAL MORTALITY REDUCTION INITIATIVE 25

3 CORE TECHNICAL ACTIVITIES **28**

3.1 OPERATIONS RESEARCH 28
3.2 COMPUTER-BASED TRAINING 35
3.3 TRAINING 36
3.4 WORKFORCE DEVELOPMENT 36
3.5 REGULATORY APPROACHES TO QUALITY 38
3.6 TECHNICAL LEADERSHIP/COMMUNICATION 39

4 SHORT-TERM TECHNICAL ASSISTANCE **43**

5 USAID STRATEGIC OBJECTIVE AREAS **44**

5.1 SO1 POPULATION 44
5.2 SO2 SAFE MOTHERHOOD 46
5.3 SO3 CHILD HEALTH 48
5.4 SO4 HIV/AIDS 51
5.5 SO5 INFECTIOUS DISEASE: ANTI-MICROBIAL RESISTANCE 53
5.6 SO5 INFECTIOUS DISEASE: MALARIA 54
5.7 SO5 INFECTIOUS DISEASE: TUBERCULOSIS 55

Abbreviations

ACT	Artemisinin Combination Therapy
ACTMalaria	Asian Collaboration Training Network for Malaria
AFASS	Accessible, Feasible, Affordable, Sustainable, Safe
AH	Arterial Hypertension
AIHA	American International Health Alliance
APHA	American Public Health Association
ART	Antiretroviral Treatment
ARV	Antiretroviral
BCC	Behavior Change Communication
CBCM	Community-Based Case Management
CBT	Computer-Based Training
CD-ROM	Compact Disc-Read Only Memory
CHK	Central University Hospital of Kigali
CQ	Chloroquine
CQI	Continuous Quality Improvement
DOH	Department of Health
DOTS	Directly Observed Therapy, Short Course
DPQS	Division for the Promotion of Quality Care (Rwanda)
DSS	Départment de Soins de Santé (Rwanda)
EOC	Essential Obstetric Care
ETAT	Emergency Triage, Assessment and Treatment
FCI	Family Care International
FP	Family Planning
GTZ	German Technical Assistance Agency
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HR	Human Resources
HRM	Human Resources Management
HSR	Health Sector Reform
HVO	Health Volunteers Overseas
IBP	Implementing Best Practices
IDB	Inter-American Development Bank
IHI	Institute for Healthcare Improvement
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
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
NDOH	National Department of Health (South Africa)
NGO	Non-Governmental Organization
NTN	Neighbor-to-neighbor
NTP	National TB Program
NVP	Nevirapine
OR	Operations Research
PAHO	Pan American Health Organization
PDOH	Provincial Department of Health
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)
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
RCM	Referral Care Manual
RDS	Respiratory Distress Syndrome
RDT	Rapid Diagnostic Test
RF	Russian Federation
RH	Reproductive Health
SBA	Skilled Birth Attendant
SESPAS	Secretariat of Health (Honduras)
SILAIS	Local Integrated Health Care System (Nicaragua)
SO	Strategic Objective
SP	Sulfadoxine-Pyramethamine
TASC	Technical Assistance and Support Contract

TB	Tuberculosis
TOT	Training of Trainers
TRAC	Treatment AIDS Research 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
VTN	Vendor-to-vendor
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 report describes the activities and results of the Quality Assurance and Workforce Development (hereafter referred to as the Quality Assurance Project, or QAP) contract in the second year—July 1, 2003 to June 30, 2004—of project implementation under the current contract.

The project's second year was characterized by significant growth and intensive activity in improvement collaboratives in the seven countries in which collaboratives had begun in year one, the initiation of two new collaboratives (adolescent health and antiretroviral therapy) and the planning of a third (essential obstetric care in Africa), and the addition of three more countries (Guatemala, Malawi, and Jamaica) in QAP's collaboratives. Thus, there are now 11 collaboratives in 12 countries. The number of sites involved in improvement collaboratives expanded in Nicaragua and Ecuador, a positive early indication of spread, and we significantly expanded our field activities in South Africa. Although continued objective evaluation is essential, this expansion of the first use of the improvement collaborative approach in developing countries is a significant achievement.

Ongoing technical assistance aimed at institutionalizing quality assurance (QA) in target countries continued to expand in geographic and technical scope. We now have significant national QA programs established in nine countries (Russia, Eritrea, Rwanda, South Africa, Tanzania, Niger, Ecuador, Nicaragua, and Honduras). At the same time that we have expanded field activities in existing countries, we have maintained a high caliber of technical assistance and responsiveness to Mission and country needs. Project staff spent even more time in the field this year, and we expanded our field staff in Nicaragua, South Africa, Rwanda, and Honduras. Our strategy is to maximize the use of host country staff to carry out the work, thus minimizing costs and maximizing capacity development. For example, we have only two long-term expatriate advisors stationed overseas (Russia and Rwanda), and in Nicaragua, 97% of field support funds are spent in country.

The project's activities have a clear focus on priority services (HIV/AIDS, safe motherhood, child survival, and malaria) in both country assistance and research. QAP is now engaged in a number of cutting-edge activities and issues, e.g., community-based management of HIV care, protecting maternal and child health services in the context of expanded AIDS care, workforce shortages, the quality of tuberculosis care, and pediatric antiretroviral treatment. QAP also continued strong collaboration with the World Health Organization (WHO), Pan American Health Organization (PAHO), United Nations Children's Emergency Fund (UNICEF), and the United Nations Fund for Population Activities (UNFPA) this year. In a number of countries, these organizations have paid local costs of our activities because of the importance they attach to the QAP work. The improvement collaboratives have proven to be an excellent medium for strengthening relationships with, and between, other donors and USAID cooperating agencies at the country and international levels.

Other major activities during the year were the initiation of 16 new operations research (OR) studies addressing strategic topics and continued work on four other studies initiated in year one. Eleven operations research reports were published, and staff made 21 conference presentations. We also designed and launched a new website to support our Latin American Essential Obstetric Care Collaborative and began development of a QAP Collaboratives Extranet, which will provide a web-based structure for communication and sharing among teams within collaboratives and between collaboratives.

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 workforce development, training, operations research, and technical leadership, and short-term technical assistance activities. The final section of the report summarizes the project's major activities related to each of USAID's Global Health Strategic Objectives.

2 Institutionalization

Institutionalization refers to the project's long-term activities to support the development of institutionalized quality assurance programs in USAID-assisted countries, the largest component of the Quality Assurance Project's scope of work. Reports on the previous year's work are presented alphabetically by country and grouped by geographic region, beginning with Africa.

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 last year, QAP added a workforce component, supporting a team of six expatriate nurse tutors to introduce QA within the nursing curriculum, as well as to assist in the pre-service training of professional and associate nurses. QAP's main counterparts have been the Ministry of Health; the John Snow, Inc. Technical Assistance and Support Contract (TASC) team (through December 2003, when TASC ended); the Partners for Health Reform*plus* Project, and now the TASC2 team managed by URC. During the January-September 2004 period, the quality assurance institutionalization activities funded through QAP were gradually transferred to the TASC2 project. After September 2004, no additional field support is anticipated for QAP activities, although limited core-funded activities (particularly related to the Pediatric Hospital Improvement Collaborative, the Essential Obstetric Care Collaborative, and operation research studies) will continue, in close coordination with the TASC2 team.

Activities and Results by Major Program Area

Institutionalizing Quality Assurance Methods

Integrated Management of Childhood Illness (IMCI)

During the last year, QAP worked with the MOH to integrate QA methods and skills within the standard WHO/MOH IMCI Supervisor Follow-up Training Course. This enabled supervisors to expand the focus of a follow-up visit beyond the mere observation of a newly trained provider's individual performance in IMCI to incorporate the facility's function or system performance in IMCI implementation. Each facility introducing IMCI will thus receive 3-4 visits during the first year of IMCI implementation, with each visit simultaneously addressing individual provider skills and facility (system) barriers to IMCI implementation. During these visits, the facility staff are taught how to change their process of delivering care to facilitate the use of IMCI. In addition, facility self-monitoring of IMCI performance is introduced, using chart reviews focused on 10 key IMCI indicators. Supervisors also perform chart reviews during their visits, thus validating facility data.

Through the facilitation of two quality-oriented IMCI supervisor workshops conducted over the last year, as well as multiple onsite mentoring visits, QAP assisted the MOH to prepare a cadre of supervisors in each USAID target zone, as well as peripheral zones, to more effectively implement IMCI using QA-enhanced supervisory skills. Facility IMCI Self-Monitoring Booklets were developed and introduced. TASC2 will support the development of the associated database, which will facilitate time-series (run chart) analysis of performance according to the indicators at facility, zonal, and national levels.

Pediatric Hospital Improvement Collaborative

The past year saw the launching of the Pediatric Hospital Improvement (PHI) Collaborative in 9 Eritrean hospitals serving nearly three-quarters of the population. The aim of the collaborative is improve the quality of hospital care through the implementation of WHO's "Guidelines for Care at First Referral Level Hospitals: Management for the Child with Serious Infection and Severe Malnutrition," evidence-based guidelines for the management of the most common, serious pediatric conditions. The expected outcomes of the collaborative are to reduce mortality and morbidity associated with pediatric hospitalization, as well as improve the efficiency of care. The PHI Collaborative is thus an extension of IMCI and an essential component in the continuum of care for a sick child. Three Improvement Sessions were held, as well as a Training of Trainers (TOT) in Emergency Triage, Assessment, and Treatment (ETAT). Common foci for improvement include: management of pediatric emergency conditions; assessment and treatment of severe pneumonia; management of severe malnutrition; and patient monitoring. Ten common indicators (both process and outcome) are being measured across all hospitals, using a self-monitoring process of chart reviews similar to that used in quality IMCI. In addition, the hospitals test and document local changes they make to improve care according to the guidelines.

Safe Motherhood

During the last year, QAP assisted TASC to analyze the results of its facility assessment of essential obstetric care. In addition, QAP assisted in the development of tools (staff and client interviews, observation and record reviews) to evaluate the results of the Life Saving Skills course. The findings were then used to launch a quality improvement collaborative with the aim of improving the quality of care for pregnant women during antenatal visits, labor, and delivery by increasing compliance with the Life Saving Skills standards of care, resulting in decreased still births and maternal mortality. The collaborative technical advisory group is drawn from across the levels of the delivery system in one zone, from community through hospital, and also includes community leaders and mothers. Sensitization and introduction to the collaborative approach was conducted for members of the coordinating and technical groups. The first learning session was held in July 2004 with 30 participants, representing 8 facilities (2 hospitals, 4 health centers and 2 health stations), which focused on identifying key areas for improvement and developing flow charts of these activities. The activities identified included: use of the partograph, antenatal visits, and improving counseling, particularly related to birth preparedness and the danger signs. A second meeting was held in August in which the quality improvement teams presented their flow charts and developed action plans for making improvements to achieve the aims.

Operationalizing Hospital Standards

Standards Development

QAP continued to assist the MOH in its efforts to implement the functional hospital standards developed in previous years. Although the most progress has been made in the area of Infection Prevention (IP) as described below, progress was made in addressing the following additional categories of standards: access; patient and family rights; patient and family education; assessment of the patient; care of the patient; quality leadership; governance, leadership and direction; facility management and safety; staff qualifications and education; and management of information. Instruments were developed and field-tested to measure the hospitals against the entire set of hospital standards. The expectation is that hospitals will use these instruments to assess their own progress toward meeting the standards, to set priorities for improvement, and to incorporate improvement activities in develop plans to achieve the standards.

Infection Prevention

During the last year, much progress was made in the implementation of infection prevention (IP) and control standards throughout all the regional and national hospitals in Eritrea. After whole-site training was conducted, infection prevention committees were established and continue to function in the 18

regional and national hospitals and associated health centers/stations. In the hospitals, using a set of indicators and criteria linked with the infection prevention standards, there has been a 32% improvement in infection prevention practices, including general housekeeping, universal precautions, waste management, clinical practice, and sharps disposal. Facilities are provided mentoring in conducting self-assessments, and in hospitals where there are computers, secretaries are being trained to enter the data.

Other achievements include: establishment of a National IP Committee and strategic plan; development and distribution of a series of job aids to assist staff in implementing infection prevention practices; development of a plan and protocols to reduce surgical site infections; and the completion of a national workshop to present changes in IP practice and to share learning and practical experiences. A group of physicians has developed antibiotic prophylaxis protocols for ten of the most common surgical procedures. This local initiative aims to improve medical practice through the proper use of antibiotics as well as decrease costs of antibiotic use and reduce future antibiotic resistance.

Workforce Development: Nurse Tutors

For the past year, QAP provided six expatriate African nurse tutors to work within the Ministry of Health College of Nursing and Health Technology in Asmara and in two regional Associate Nursing Schools to improve the quality of nursing education. They developed and introduced a pre-service Quality Assurance curriculum, integrating QA principles within both theoretical and clinical learning experiences. At the same time they led a curriculum revision, incorporating QA principles into the new curriculum and improving the clinical training of nursing students. Their work has served to link pre-service training with actual job requirements and in-service performance, improve communication between educators and practitioners, and bring pre-service training into the forefront of quality care in Eritrea. Improvements in the pre-service training of nurses in Eritrea have resulted in newly trained nurses who are more capable, cognizant of standards, and better able to give quality care.

Transition to TASC2

During this last year, TASC completed its work and the TASC2 contract was awarded. QAP worked closely with the TASC contractor to achieve common goals in maternal and child health, in particular improving the quality of child health services across the continuum of care. QAP contributed to the smooth transition to TASC2, sharing lessons learned in the end-of-project conference, developing joint work plans with common objectives, and conducting joint technical field visits to assure that QAP activities would be fully integrated within TASC2 by the end of the program year. The new TASC2 contract has fully incorporated QAP’s approaches to integrate and sustain quality assurance within child and maternal health, from community through hospital level care. TASC2 will continue the scale-up of quality IMCI and pediatric hospital improvement and initiate similar activities within the safe motherhood program.

Directions for FY05

Follow-on to most of the quality assurance institutionalization activities that QAP had been developing in Eritrea will occur through the quality assurance component of TASC2. Ongoing QAP work in Eritrea will include expansion of the PHI Collaborative to all hospitals; field application of QAP’s computer-based training in IMCI in pre-service, in-service, and refresher training for MOH personnel; and completion of learning sessions for the first cycle of the EOC Collaborative. Additional operations research related to workforce development is also being considered.

2.2 Rwanda

Background

During the past year, QAP continued to reinforce ongoing activities while also launching new activities, most notably related to the President’s Emergency Plan for AIDS Relief (PEPFAR) activities and

operations research. QAP helped the Government of Rwanda to implement the Prevention of Mother-to-Child Transmission of HIV/Voluntary Counseling and Testing (PMTCT/VCT) Improvement Collaborative in 18 sites in all 12 provinces – a representative sample of the country's hospitals and health clinics; strengthen the Malaria Improvement Collaborative for case management of children under 5; strengthen QA activities at the Central University Hospital of Kigali; complete a study on HIV/AIDS-related stigma in the health sector against persons living with HIV/AIDS (PLWHA); and launch a new operations research (OR) study on factors affecting adherence to antiretroviral treatment (ART) at King Fayçal Hospital. QAP also launched four new activities in Rwanda with PEPFAR 1.5 and 2.0 funds: an ART Improvement Collaborative with 16 sites, a demonstration project on community-based case management (CBCM), a demonstration project to identify ways to protect and enhance maternal and child health services in the context of expanded HIV/AIDS services, and finally the expansion of the study on factors affecting adherence to ART in four additional sites.

Activities and Results by Major Program Area

PMTCT/VCT Collaborative

The PMTCT/VCT Collaborative Improvement Project activities focused on coaching site teams in using quality improvement methods to achieve increases in key PMTCT and VCT outcome indicators and on facilitating mutual learning through the sharing of team results during sessions/meetings and coaching visits. Most sites have teams for VCT and teams for PMTCT. QAP works with 30 teams from these 18 sites. Four meetings/workshops with all thirty teams took place during the year, coaching tools were developed, and QAP staff visited and coached teams almost monthly. This period also included consolidation and collaboration among different partners intervening in those sites, including the different MOH agencies, notably the Division for Promotion of Quality Care (DPQS) and the Treatment AIDS Research Center (TRAC).

The teams expressed great appreciation for the benefits of shared experiences during learning sessions and continued training opportunities facilitated by interactions with peers and experts. Teams were inspired by the work of other teams to initiate untested changes, and improved performance over time was an excellent motivator. The results of this work are unprecedented in Rwanda: at more than half of the sites, key outcome indicators are at 100% and holding. Specifically, 100% of pregnant tested women receive their test results the same day at 8 out of the 15 PMTCT sites, and 100% of pregnant HIV-positive women receive Nevirapine (NVP) at the 8th month of pregnancy at 8 facilities, compared to a year ago, when less than half of eligible women received NVP and the best facilities in the country gave NVP only 65% of the time. While previously the proportion of children that were born of HIV-positive mothers and were followed up and tested at the 15th month had been near zero, now four out of the fifteen sites have 100% of children born to HIV-positive women tested at the appropriate age. Providers are also registering greater satisfaction in terms of greater motivation and of learning quality improvement methods such as reorganizing the way they work by forming teams. With the collaborative, teams have started to follow the indicators for PMTCT and are motivated to share their results with other sites at the learning sessions and to show improvement.

Malaria Collaborative

The Malaria Collaborative is improving case management for children under five years old diagnosed with malaria. Work was initiated with 60 health centers and hospitals in four districts, but implementation of activities has been delayed by difficulties in coordinating the necessary technical assistance in quality improvement to so many sites from the central level. In order to decentralize that assistance, the National Malaria Control Program (PNLP) and QAP together decided to reorganize and train selected district supervisors to provide coaching to sites involved in quality improvement. This training detailed the implementation of a collaborative improvement activity in an involved facility and the roles and expectations of a quality improvement coach. Examples used throughout the training were based on practical experiences observed in the field. Discussions between PNLP and QAP also resulted in

identifying the most relevant improvement objectives for better case management of children under five with malaria. The key improvement indicators selected for health centers and hospitals are shown in the box at right.

Malaria Collaborative Indicators

Health Centers

- % of children 0-5 years diagnosed with malaria who were brought to the health center for care within 24 hrs
- Number of serious malaria cases detected in children 0-5 at the health center
- Number of deaths of children 0-5 due to malaria in the health center
- % of children 0-5 diagnosed with malaria receiving care at the health center according to the national guidelines
- Number of days that essential malaria drugs or consumables were out of stock

District Hospitals

- % of children 0-5 years diagnosed with malaria who were brought to the health center for care within 24 hrs
- Number of serious malaria cases detected in children 0-5 at the health center
- Number of deaths of children 0-5 due to malaria in the health center
- % of children 0-5 diagnosed with malaria receiving care at the health center according to the national guidelines
- Number of days that essential malaria drugs or consumables were out of stock

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 Central University Hospital of Kigali (CHK). The PMTCT and Malaria Collaboratives are directed by the DPQS, as is the support provided to CHK to assess and improve its services. The results of the assessment of tuberculosis (TB) care at CHK were presented at the Bangkok HIV/AIDS Conference in July 2004.

Operations Research

Assessing stigma in health providers and its impact on quality of care

The objectives of this research study were to elucidate the dominant attitudes and beliefs of healthcare workers towards HIV-positive pregnant women, identify common practices in the health sector that are detrimental to HIV-positive pregnant women, and evaluate the relationship between provider attitudes, beliefs and practices towards HIV-positive pregnant women. Data were collected from 18 PMTCT sites in Rwanda—six focus groups conducted at six sites, and in-person interviews conducted at the remaining 12 sites with 110 healthcare personnel. Two hundred and twenty charts were also reviewed from six of the 12 sites with healthcare worker interviews to document outcome indicators of PMTCT services. In addition, HIV-positive and HIV-negative patient focus groups were conducted to document patient experiences with seeking and receiving antenatal services. All sites were chosen because they contained PMTCT services, and the sites where charts were reviewed also provided maternity services.

Ensuring Patient Adherence to Antiretroviral Therapy

During 2004, QAP conducted an antiretroviral (ARV) adherence study at King Fayçal Hospital. Results of preliminary analysis indicated that a little less than 70% of patients were adherent to prescribed ARVs according to established norms. Some 31% of patients missed a dose last week; only 22% of patients said they've never missed a dose. Because data were collected from the most prestigious hospital in Rwanda, our Government partners and USAID have suggested and agreed to the expansion of this study to four additional sites. A steering committee made up of representatives from TRAC, Département de Soins de Santé (DSS), Butare University School of Public Health, and QAP, met and selected sites in May. Sites selected were the following: One university hospital (Butare), one district hospital (Kabgayi), one health center (Biryogo), and one private entity that provides ARVs (Bralirwa Dispensaire).

Assessing the Outcomes of ARV Therapy

After much discussion with government counterparts, we decided not to conduct this study. The main reasons are that since hospitals started providing ARV therapy, the guidelines have changed several times, making results of such an assessment more difficult to understand. In addition, each of the many

organizations providing ART are more or less in the process of collecting data on outcomes of their programs, and the Government of Rwanda is very clear that they do not want duplication.

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

Ranking as one of the least developed countries in the world, Rwanda faces formidable challenges to providing quality healthcare to its population. Compounding issues of widespread poverty and economic instability is that of HIV/AIDS. An estimated 8.9% of adults in Rwanda are living with HIV/AIDS (UNAIDS 2002).[1] With support of the Clinton Foundation, the Government of Rwanda has developed a five-year plan for HIV/AIDS Treatment and Care. The plan is based on multiple sources of funds – among them the World Bank/MAP, Global Fund, USAID/PEPFAR and Clinton Foundation – and makes estimates of staffing needs, training requirements, and personnel costs within a proposed district model of care for the scale-up of HIV/AIDS care, support, and antiretroviral treatment. Execution of these plans will require large increases in the number of MOH personnel and community workers, both paid and volunteer. This study aims to analyze in more depth these projections, their relationship to existing human resources (HR), options for filling any gaps in the recruitment and allocation of personnel, and the associated training needs. The aim of the assessment is to provide the Government of Rwanda and its supporting agencies with information that will help facilitate structured HR planning for HIV/AIDS services and enable sustainable HIV/AIDS service provision. Fieldwork began in July 2004.

PEPFAR Activities

QAP has received PEPFAR 1.5 and 2.0 funds to implement four activities. Funds for PEPFAR 1.5 are to support the implementation of an Improvement Collaborative on antiretroviral therapy at the four referral hospitals, implement a demonstration project in initiating community-based case management for PLWHA, and protect and support maternal and child health services in light of expanded HIV/AIDS funds. PEPFAR 2.0 is funding the inclusion of 12 additional sites in the ART Collaborative and the expansion of an ongoing study on factors affecting adherence to ARVs to four additional sites.

ART Collaborative

Preparation has started for the ART Collaborative. TRAC has identified 16 sites, which include all sites currently prescribing ARVs to PLWHA in Rwanda. Working with QAP, government counterparts TRAC and DSS defined country goals and objectives for the national ARV program. The ART Collaborative was officially introduced to sites in May 2004 at a site leader's meeting, where we reviewed the overall purpose, structure, and roles. At the site leaders' request, QAP hosted training in quality improvement and the collaborative approach for the care and support team at TRAC. The training is one of many steps to help develop the capacity of personnel at TRAC to be coaches for quality improvement. QAP is currently analyzing the situation of each site with regard to the national objectives in order to discuss areas for improvement. The first learning session is currently planned for August 2004.

Community-Based Case Management Demonstration Project

QAP conducted an assessment of community-based services available to PLWHA for the Community-Based Case Management demonstration project. Forty-three non-governmental organizations (NGOs) participated, and all services provided by each NGO were identified and summarized. While there are many NGOs providing services in Rwanda and the majority provide home-based care, community-based case management was not identified as one of their activities. This assessment also enabled us to identify potential NGO partners with whom we could sub-contract and initiate case management activities. QAP shared a brief concept paper and solicitation request with these organizations, and three of the four have already responded. We hope to begin training of case managers by August 2004.

---

[1] UNAIDS/UNICEF/WHO. 2002. Epidemiological Fact Sheet on HIV/AIDS and Sexual Transmitted Infections: Update.

Improving and Protecting Maternal and Child Health 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 will divert staff time and other resources from maternal and child health (MCH) services. This could lead to a worsening of maternal or child health status. The objective of this demonstration will be to develop and demonstrate strategies to enhance MCH services as HIV/AIDS services are implemented. This will be done without diverting resources channeled to HIV/AIDS. We believe there are ways to "piggy back," at no additional cost, certain MCH service improvements. Co-sharing service supervision visits, improvement of drug logistics, increased facility quality improvement skills and community-based case management capabilities would be examples of such approaches. Study staff, district management teams, facility staff and community representatives would engage in workshops to design the approaches and to assist in their implementation.

2.2.1 Directions for FY05

During FY 05, potential sources of funds for QAP in Rwanda are through PEPFAR for HIV/AIDS activities and field support for other health-related activities. USAID/Rwanda has asked QAP, with PEPFAR funds, to further focus on developing the capacity of the DSS at the national and district levels to manage and implement quality assurance activities at sites providing HIV services. QAP will also expand current work in the area of ARV and PMTCT, expanding the number of sites engaged in each Improvement Collaborative.

2.3 South Africa

Background

Until October 2003, QAP provided technical support to only two provinces in the country: Mpumalanga and KwaZulu-Natal (KZN). During Year Two, the program has been expanded to cover three additional provinces (Limpopo, North West, Eastern Cape). The QA interventions that the project is supporting in these five provinces place a strong emphasis on improving compliance with evidence-based guidelines. This is achieved by improving both content of care and process of care at various levels of the health system. Tools for measuring quality of specific services have been developed, including maternal and neonatal care, VCT/PMTCT, tuberculosis, sexually transmitted infections and antenatal care services. A training manual on improving the quality of care has also been developed. A collaborative approach is being used in all five provinces to scale-up best practices.

Activities and Results by Major Program Area

QA Institutionalization

In each province, QAP has undertaken systems analyses to identify quality gaps. Based on the results, interventions have been designed to improve provider compliance with guidelines and patient adherence with treatment regimens. In addition, QAP has also completed a functional analysis of the Soweto PMTCT program. Key results in the past year are summarized below by province.

Limpopo: Implementation of QA activities in this province started in June 2004 after final discussions with provincial management. The project includes two districts within the province: Sekhukhune, which has 7 hospitals and 63 clinics, and Bohlabela, which has 4 hospitals and 47 clinics. Training on QA methods has started for both districts. The project's approach has been to begin by training management (district management, clinic supervisors and hospital management) followed by service providers, grouping each hospital with its feeder clinics. Seventy-one people have been trained, with two additional training workshops planned for July 2004. Total number of people trained: 219 people trained in Quality Assurance Approaches and Principles and 50 healthcare workers trained in baseline assessments.

North West Province: QAP support for the province started in May 2004 and also allocated two districts to the project: Southern, which has three hospitals, one of which is a complex of three smaller hospitals and 41 clinics; and Bopherima, which has 8 hospitals and 47 clinics. Training was conducted in both districts for 250 people in quality assurance methods. Baseline assessments are scheduled for August 2004 and will use an approach similar to that of Limpopo Province. Total number of people trained: 250 trained in QA methodology and 91 healthcare workers trained in baseline assessments.

Eastern Cape: Implementation began in January 2004 with 6 districts: Chris Hani, UKhahlamba, Alfred Nzo, Cacadu, Nelson Mandela and O.R.Tambo, for a total of 66 hospitals and 512 clinics. Six hundred and ten people received training in QA. Baseline assessments have been conducted for VCT/PMTCT, TB and MCH services, and 351 health workers were trained on how to analyze their own data and compile reports. Forty hospitals and 217 clinics have already been involved in the baselines and have designed facility-specific improvement plans. Total number of people trained: 855 trained in QA Methodology and 734 health workers trained in baseline assessments.

KwaZulu-Natal: The project was implemented in October 2002 in the Uthungulu district of KwaZulu-Natal (KZN) and includes 8 hospitals and 45 clinics, with a focus on TB and maternal services. In May 2004 the services were extended to Ilembe district, which consists of 4 hospitals and 34 clinics. Training in QA was conducted for 116 health care workers in the Ilembe district. All hospitals and clinics have been involved in the baseline training and are currently analyzing their data on TB, PMTCT, and MCH services. Total number of people trained: 123 trained in QA Methodology and 206 health workers trained in baseline assessments.

Mpumalanga: Started late in 2000 in Mpumalanga Province, the project has now expanded to cover the entire province. There are three districts (Gert Sibande, Ehlanzeni, and Nkangala) with a total of 26 hospitals and almost 218 clinics, excluding mobile units. With QAP support, there has been remarkable improvement in TB case management and maternal care. QAP is currently supporting the Mpumalanga Department of Health in conducting clinic audits. Total number of people trained: 34 trained in QA Methodology; there were no baseline assessments conducted for this year.

Dissemination of Best Practices

QAP has conducted numerous workshops at provincial and national levels to disseminate results of the QA program in South Africa. A winter course on QA methods is being developed. We plan to finalize the QA course content and training schedule with local partners by the end of 2004.

Small Grants Program

QAP will start offering small grants to local NGOs to assist them in improving the quality of home-based palliative care for PLWHA. Grants will also be provided to local community-based organizations for improving referral systems and community-based support for improving adherence to ART regimens.

Support to the National QA Directorate

QAP continues to work with the National QA Directorate to improve the quality of antiretroviral treatment and other essential health services.

Directions for FY05

QAP will continue to support the institutionalization of quality assurance in the five provinces but will increase the focus of activities on HIV/AIDS through three new areas of work.

- QAP will support the prevention of mother-to-child HIV transmission, including counseling and testing for pregnant women; ARV prophylaxis for HIV-infected pregnant women and newborns; and counseling and support for maternal nutrition and safe infant feeding practices. We will focus on improving the performance of antenatal clinics and developing interpersonal guidelines/protocols at the facility and community level. QAP will also work with local partners

(professional associations, community and faith-based organizations, universities, etc.) to develop their capacity to promote quality practices in PMTCT.

- QAP will work with the National Department of Health (NDOH) and Provincial Departments of Health (PDOH) to improve operational policies and guidelines so that cross-referrals between HIV and TB facilities/centers are increased. QAP will target both community members and health care providers to increase their understanding of both TB and HIV. We will develop job-aids for both providers and care givers to ensure early detection of TB and other opportunistic infections. Providers will also receive training in the use of prophylactic treatment of HIV patients to reduce their risk of contracting TB.
- QAP will help NDOH and PDOHs in operationalizing national protocols on ARV treatment. We will develop a continuum of care model to ensure that HIV patients on ARV treatment receive optimal quality of care at any level of service (treatment site or the sites where patients will visit for follow-up care). We will assist facilities in using the patient records and information systems to ensure that each patient receives quality care when needed. QAP will also provide support to Local Service Area (LSA) health offices and NGOs in designing and implementing strategies to improve the basic health care and support for PLWHA We will develop linkages with social services to ensure availability of appropriate nutritional supplements and with community-based organizations to support patient adherence with treatment regimens.

2.4 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 Infection Prevention Improvement Collaborative among the three district hospitals in the Dar es Salaam Region (Amana, Mwananyamala, and Temeke) and one private hospital (Mikocheni mission teaching hospital) The project applied the WHO/AFRO Policies and Guidelines for Infection Prevention developed for sub-Saharan Africa. In June 2004, QAP began supporting two new activities with PEPFAR funding: 1) the development, testing, and introduction of an integrated package of HIV and infant feeding job aids for PMTCT counselors and mothers in Tanzania, and 2) an improvement collaborative on pediatric HIV/AIDS care and support involving nine sites initially. QAP has also recently begun working with the Ministry of Health and the Tanzania National Family Planning Agency to develop a family planning improvement collaborative.

Activities and Results by Major Program Area

Infection Prevention Collaborative

The Regional Medical Officer of Dar es Salaam, Dr. Mtasiwa, gave a green light to Dr. Stevenson of URC/QAP in April 2003 to initiate a quality improvement program focusing on Infection Prevention (IP) methods in the Dar es Salaam region. The program involves three district hospitals (Amana, Mwananyamala, Temeke) and one private hospital (Mikocheni mission teaching hospital joined on its own initiative in October 2003) and uses a collaborative format in order to discuss and plan IP and quality improvement on a region-wide basis. Activities during the past year focused on high-risk areas of HIV transmission such as operating theaters, labor and delivery, and laboratory in the three district hospitals. Following the assessment of Infection Prevention in these areas and of support services (pharmacy, laboratory, and central supply), the district and the hospital leadership developed a working relationship within the Collaborative through three Learning Sessions. Infection Control Committees at each hospital were trained. They developed priorities and work plans, agreed on priority areas for improvement based on the assessment, and subsequently developed indicators based on standards to track the improvements. Quality improvement teams were established in each focus area: waste disposal and appropriate handling

of sharps, protective wear and hand washing/scrub technique, and disinfection or sterilization of instruments.

The staff was trained in the basics of infection prevention, HIV epidemiology, and quality improvement (including pre- and post-training exams showing 15% mean improvement of participant's knowledge). Teams established region-wide indicators to be followed on a monthly basis at each hospital; these are tracked on a weekly, monthly, and/ or quarterly basis.

The improvement activities have been presented within the collaborative, within region, and at the national nursing conference (December 2003). To begin institutionalizing practices, the indicators were incorporated in the regional institution-wide supervision checklist. QAP is developing a series of posters and job aids that address issues of infection prevention for use at the hospitals as reminders of IP standards being institutionalized.

Monitoring and evaluation of the Infection Prevention program in the four focus areas of each district hospital has resulted in various changes consistent with the goals of the program. At all three hospitals, changes have been documented in numerous areas, as detailed in the box at right.

IP Improvements Achieved in Tanzanian Hospitals

- Policies, standards and indicators adopted for IP priority areas and posters displaying policies posted in each unit
- Knowledge of appropriate waste and sharps handling, including policies, waste segregation prior to disposal, coding of waste containers, proper waste removal, reduction in needle re-capping, and use of single-handed scoop method for re-capping of multiple-use syringes
- Purchase and use of appropriate protective wear promoted and undertaken in labor and delivery, laboratory, major and minor theatre and for waste collection
- Documentation of lack of supplies (protective wear, disinfectant, sterile gloves, etc) at hospitals with notification of Medical Officers in-charge
- Routine monitoring of autoclave runs and use of indicator paper to track successful sterilization of sterile instruments
- Monitoring of sterilization and disinfection technique and regular evaluation of staff knowledge by nurse officers in-charge

Operations Research

Study of Stigma Associated with HIV

A survey on levels of stigma towards HIV/AIDS patients was conducted at the start-up of the infection prevention activities to assess whether improving health worker knowledge with respect to infection prevention and HIV epidemiology and setting up a hospital-based risk management program could reduce this stigma. The survey will be repeated to determine the impact of the IP program on knowledge and attitudes regarding HIV/AIDS and infection prevention. The baseline assessment of stigma will be used to direct continuing medical education.

Development and Testing of Integrated HIV and Infant Feeding Job Aids

A core-funded operations research study was initiated in Moshi, Tanzania, in October 2003. The activity focused on the development, testing, and introduction of an integrated package of HIV and infant feeding job aids for PMTCT counselors and mothers in Tanzania (a Question & Answer Guide for counselors and four brochures on infant feeding options). The technical content and corresponding imagery of this highly visual set of materials are based on the recently revised international guidelines on infant feeding options for HIV-positive women, formative research conducted in the Kilimanjaro Region of Tanzania, and state-of-the-art computerized graphic technology. The OR study was designed and executed in collaboration with a Tanzanian PhD student, the University of Bergen, Norway, the Kilimanjaro Christian Medical Centre (KCMC, one of five original PMTCT sites in Tanzania) and a number of national stakeholders, including the Ministry of Health, WHO, UNICEF, the Tanzanian Food and Nutrition Centre, Muhimbili University, Counselnuth, and USAID/Tanzania. The job aids package was launched in February 2004 during an innovative one-day orientation training of 15 PMTCT counselors at KCMC. The training included a technical update on HIV and infant feeding, but focused on interpersonal communications and

the effective use of the job aids during counseling of both HIV-negative and HIV-positive women. Six nurse counselors and 60 women (30 from the intervention PMTCT site and 30 from a control site) were subsequently followed to assess the impact of the job aids in counseling.

PEPFAR-funded Pediatric HIV/AIDS and PMTCT activities

In June 2004, QAP began developing the work plan and implementation schedule for two projects which have been awarded PEPFAR funding: an improvement collaborative on pediatric care and support for HIV/AIDs, and improved infant feeding with a focus on HIV-positive mothers. These activities will be the major focus of QAP's work program in Year Three.

Directions for FY05

Through the Pediatric Hospital Care Improvement and AIDS Treatment Collaborative, QAP will support updating the Tanzania national guidelines for HIV/AIDS care, developing and incorporating a pediatric HIV component into national guidelines, developing a pediatric HIV/AIDS training curriculum, and adapting the WHO generic Referral Care Manual (RCM) to the Tanzanian setting. QAP will provide training to hospital-based teams to conduct assessments of the quality of their pediatric care and help teams to incorporate quality improvement approaches into their work. The Improvement Collaborative approach will provide a structure within which teams will test changes in their facilities, share strategies and lessons learned, and expand approaches that lead to improved pediatric HIV/AIDS care.

The newly designated PEPFAR funding for PMTCT and nutrition activities is based on the groundwork laid and positive preliminary results of the aforementioned OR study to develop infant feeding job aids. USAID/Tanzania expressed interest in scaling up both the materials and training approach used by QAP based on the impact of the job aids and training approach. PEPFAR funding will support: 1) expanding the set of materials to include pre- and postnatal nutrition and the introduction of complementary feeding; 2) reproducing the materials; and 3) training in the effective use of the materials in three of the seven health zones of the country.

With SO1 core funding, QAP will launch a small collaborative in combined Family Planning/PMTCT services. The family planning collaborative, which is being supported by USAID/Washington Population funds, will be led by the Ministry of Health's Reproductive and Child Health Services branch and involve nine facilities in Ilala, Temeke, and Kinondoni Districts.

Asia/Near East

2.5 Vietnam

Background

QAP received funding from the Leahy War Victims Fund at USAID to improve the care of clients in the area of prosthetics and orthotics/rehabilitation in Vietnam. After long delays in gaining approvals for the scope of work and contracts, QAP finally began introducing improvement methods to Vietnamese and international partners during Year Two. We are working closely with Health Volunteers Overseas (HVO), a U.S. organization that is providing technical content expertise in prosthetics and orthotics/rehabilitation. Our partners include Danang Rehabilitation Center, the Ministry of Labor, Invalids and Social Affairs, and, unofficially, Hospital C in Danang.

Activities and Results

The QAP office was set up at the Danang Rehabilitation Center, and HVO hired a project coordinator. In March 2004, QAP conducted training in quality improvement methods for employees of the Danang Rehabilitation Center and a few people from Hospital C. In order to assist the Danang Rehabilitation Center manager in choosing priorities for improvement, the QAP team facilitated discussions with staff,

patients, and families. The Center's management then selected the following areas as priority for improvements: treatment of Cerebral Palsy, rehabilitation of stroke patients, and creating a data management system. Teams were formed to lead improvement efforts in each area. QAP staff then assisted the newly formed teams to flowchart their current systems. During the subsequent months, the teams met periodically to continue their work, which was translated into English and sent through the project coordinator to QAP in Bethesda for feedback.

QAP conducted a follow-up visit in June to further refine the analysis of the current system in preparation for a visit in August. In August, a second meeting of the teams was held in which the teams presented their analysis to content experts from the U.S. who, in return, provided training in evidence-based practices. The three clinical teams then selected aims for improvement and developed indicators for measuring success. The management information systems team had difficulty identifying suitable indicators and interactions revealed that the team membership was not appropriate. Steps were taken to change some of the members, and guidelines for next steps and follow-up for this team were established.

Directions for FY05

Plans for the coming months include follow-up by the expert teams and QAP. The clinical experts for cerebral palsy will make return trips in November and the stroke content expert will return in December. On these trips, the experts will follow-up not only their own team but the others as well. Future HVO volunteers visiting Danang Rehabilitation Center will be asked to reinforce the QAP work. The project is scheduled to end in March 2005.

Eastern Europe

2.6 Russia

Background

QAP has worked in the Russian Federation since 1998, adapting and applying quality improvement (QI) methodologies to the Russian healthcare system. Following successful pilot and scale-up of improved systems of care for neonatal respiratory distress, pregnancy-induced hypertension, and arterial hypertension in two oblasts, QAP began in 2002 a national level spread of improvement methods in priority healthcare areas. The national-level spread of quality improvement methods used a modified version of the improvement collaborative model in order to introduce new territories of the Russian Federation (RF) to quality improvement methods. The Methodological Center for Quality at the Central Public Health Research Institute of the Ministry of Health of the RF worked closely with QAP to carry out and oversee the project.

Every territory[2] in the RF was invited to participate in the project under the conditions that the health administration provide funds for QI team members (or representatives) to travel to Moscow for collaborative meetings, provide staff time to work on creating and implementing improvements, and provide internet access for communication throughout the process. Twenty-three territories from across the RF accepted the invitation and assigned teams from several pilot facilities to participate in the project. Moscow Oblast was most active with 10 participating raions[3]. The 23 territories were involved in one or more of the following Series (the term used in Russian for improvement collaborative):

- Arterial Hypertension (AH)
- Pregnancy Induced Hypertension and Neonatal Respiratory Distress Syndrome (PIH/RDS)

---

[2] Territory is the general term for the different types of administrative regions in the Russian Federation of which there are 88, including oblasts, republics, autonomous republics, districts, independent cities, and others.
[3] Moscow Oblast does not include Moscow City; a raion is an administrative subdivision of a territory.

- Maternal Child Health (Antenatal Care, Anemia of Pregnancy, Neonatal Jaundice, Well Baby Care)
- Secondary Prevention of Complications of Cardiovascular Diseases (Hypertension, Ischaemic Heart Disease, Diabetes, Hyperlipidemia, Obesity)
- Bronchial Asthma, Chronic Obstructive Pulmonary Disease, Depression

The AH and PIH/RDS Series sought to spread improved systems of care that had been developed during the first two years of QAP's work in the RF and then spread oblast-wide. Each participating territory adapted these systems to their local conditions. The other three Series sought to improve existing systems of care. The Series topics were determined by eliciting input on the priority improvement areas for each territory. Each Series was run by two to three Directors, who were QI trainers and champions from the first two phases of QAP in Russia. In addition to the Russian Directors leading each of the Series, two to three Russian clinical experts were brought in to advise the territories on the latest evidence-based clinical practices related to the Series topic.

Activities and Results by Major Program Area

Scale Up the Collaborative Improvement Methodology on a National Basis to Improve Quality of Care in Multiple Clinical Areas

Over the past year there has been an intensive level of activity on this project. Series Directors visited each of the territories twice to provide hands-on technical assistance, including meeting with territory health authorities, providing additional quality improvement trainings to QI teams and other health professionals, and guiding teams in working through testing and implementing changes in their systems of care. Each Series held three or four meetings in Moscow to review the latest evidence-based medicine, exchange experiences and ideas on improvements to their systems of care, and to develop a guideline outlining the variety of changes made in each system of care. The territories and Series Directors used a web-based application to communicate on implementation and to collect data and documents. The formal meetings and work of the Series concluded in June 2004. However, data collection will continue through the end of December 2004. A final conference to share data and results is planned for early 2005.

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

In the fall of 2003, the USAID Mission/Moscow requested that QAP, along with the American International Health Alliance (AIHA), be responsible for the treatment, care and support part of their HIV/AIDS strategy. QAP and AIHA have developed a joint project strategy in order to most effectively utilize the resources of USAID/Moscow and combine the strengths of each organization's approach. QAP will use QI methods to design a model comprehensive system of care, treatment, and support for HIV-infected and AIDS patients, including collaborative meetings in which the territories will have the opportunity to share their ideas and experiences with one another. AIHA will use their Partnership approach, which will provide for exchanges between professionals in RF and the U.S. The model will be developed in Samara Oblast, Saratov Oblast, Orenburg Oblast and St. Petersburg City with a plan for spread throughout these territories and to others in the RF. QAP had worked closely with USAID to conduct site visits which led to the final decision of the territories listed above. In March 2004, QAP presented its strategy at a USAID meeting for all cooperating agencies to talk about the Mission's HIV/AIDS strategy. In June 2004, QAP and AIHA began the project implementation with leadership meetings in each oblast involving leaders from the Territory administration, healthcare sector, AIDS centers, social service authorities, prison health system authorities, and NGOs. QAP's Kim Ethier relocated to the project's new office in Moscow to coordinate activities of the joint QAP-AIHA project.

Directions for FY05

The goal of the QAP-AIHA HIV/AIDS project is to design a model system of HIV/AIDS treatment, care, and support that will include patients, families, communities, medical system, social sector institutions,

NGOs, drug treatment facilities and other relevant groups. Additionally, the project will contribute to stronger public/private partnerships by encouraging department of health facilities to work on referral systems with local NGOs and community organizations, both for referring patients for treatment and referrals to NGOs for social, psychological and other support. Cross-cutting issues, such as TB/HIV co-infection, will also be addressed through involvement of specialized TB institutions and providers at the primary health care level in the process. During FY05, the program will focus on formation of QI teams, setting up oversight mechanisms, providing teams with training in QI methods, content training, experience sharing meetings, testing and implementing changes, and development of project indicators (process, output, and outcome).

Latin America and the Caribbean

2.7 Ecuador

Background

In Year Two, QAP continued two main activities in Ecuador: the Essential Obstetric Care (EOC) Improvement Collaborative and support for the scale-up and institutionalization of Continuous Quality Improvement (CQI) in health areas participating in the national Free Maternity Program. Mandated by law, the Free Maternity Program reimburses participating health districts for the MCH services covered under the program, including prenatal care, delivery, newborn care, and care of sick children following the IMCI protocol. To encourage high quality in the services delivered, a provision of the Free Maternity legislation stipulates that facilities must also meet certain levels of compliance with quality standards and undertake CQI activities. QAP is supporting the progressive scale-up of CQI within the Free Maternity Program by providing training, QA materials, and coaching for national, provincial and district CQI facilitators, who are MOH staff that support quality improvement teams at the facility level. Facility teams carry out improvement activities to increase compliance with national MCH standards and conduct monthly measurement of the quality indicators to monitor their performance.

Activities and Results

EOC Improvement Collaborative

The EOC Improvement Collaborative was initiated in Tungurahua Province in August 2003. National health authorities, the Provincial Health Directorate of Tungurahua Province, and teams in the provincial hospital and all seven districts of Tungurahua are actively participating in the EOC collaborative. All eight teams in Tungurahua have submitted improvement cycle reports to the collaborative website and carry out monthly monitoring of key quality indicators. The Third Learning Session, at which the eight Tungurahua teams reviewed their measurements and the results of their second round of improvement cycles, was held as a two-part meeting on March 31 and April 23, and focused on ways of improving client satisfaction.

To address the EOC clinical training needs of staff in Tungurahua, QAP worked with the Medical School of the University of Cuenca to develop and implement a four-day training course on Evidence-based Medicine Applied to Essential Obstetric and Neonatal Care. The course was held in Cuenca over the four Fridays in the month of March. Twenty-eight staff from Tungurahua participated, including obstetricians, nurse-midwives, and nursing staff from labor and delivery in the district hospitals of Baños, Pelileo and Píllaro and personnel from the Provincial Health Directorate. The facility staff who attended will replicate the training for other staff in their respective facilities.

In the first nine months of improvement efforts, most teams in Tungurahua have focused on improving clinical care processes and have made steady progress in improving compliance with key EOC standards of care. (See section 2.13 for further discussion of results of the EOC Improvement Collaborative.) The teams in Tungurahua are now turning their attention to the other two areas needed to increase

communities' access to and utilization of EOC services: cultural adaptation of services and community mobilization activities.

While the addition of other provinces to the collaborative in Ecuador had not been originally planned, in February 2004, a second province, Azuay (which includes Ecuador's third largest city), joined the EOC Collaborative. In February, the Provincial Coordinating Group for the EOC Collaborative in Azuay Province was formed, including three staff from the Provincial Health Directorate, the Obstetrics Chief from "Vicente Corral Moscoso" Hospital in Cuenca, a representative from the NGO SENDAS-ALDES (which is implementing a project on citizen rights and EOC with support from Columbia University), and a representative from the Medical School of the University of Cuenca (which is also a Latin American Perinatalogy Collaborating Center). The First Learning Session of the EOC Collaborative in Azuay was held April 1-2 with nursing, obstetrics, and pediatrics staff from the provincial hospital and four district hospitals. Baseline data collection in Azuay was completed in July 2004.

In July 2004, a third province, Orellana, also officially joined the EOC Collaborative in Ecuador. QAP had provided some technical support to the Provincial Health Directorate in Orellana in 2003 at the request of the MOH and UNFPA, which was supporting efforts to strengthen maternal and child services through the activities of a local NGO, FUSA. QAP worked with FUSA to conduct some initial training of health facility staff in CQI in August and October 2003. By early 2004, FUSA proposed that the quality improvement work in Orellana be expanded and integrated into the EOC Collaborative. In July 2004, QAP led a third workshop in Orellana to redirect the existing teams' improvement activities toward implementation of the local EOC system model being developed through the collaborative.

Continuous Quality Improvement Scale-up of the Free Maternity Program

The CQI scale-up began in 2003 with 14 health areas in 8 of Ecuador's 22 provinces. During the past year, with modest technical support from QAP, the expansion has reached (as of June 2004) a total of 50 health areas (districts), or approximately 30% of the total districts in the country, covering 2.2 million persons in 10 provinces. An important sustainability strategy in the scale-up has been to require that the health districts and provinces pay the direct costs of CQI activities (i.e., training costs, staff time worked on improvement activities, etc.). After the first group of teams was trained by QAP, CQI facilitators from the MOH's Provincial Offices have conducted all training, using materials developed by QAP.

QAP began in 2003 an operations research study, simultaneous to the scale-up, to document the process and results of the CQI expansion and provide lessons for QA scale-up and institutionalization for other countries. In Year Two, data collection continued on the enabling factors that have contributed to the institutionalization of the CQI model. Two reports from the study (one describing the Free Maternity legislation and analyzing the political, technical, budgetary and advocacy factors which were important in its successful enactment, and the other describing the process of scale-up through 2003) were produced this year and disseminated to health sector leaders from the region at the April 2004 EUROLAC meeting in Fortaleza, Brazil.

Directions for FY05

In Year Three, SO2 funds will be used to help existing teams in Tungurahua, Azuay, and Orellana to consolidate improvements and increase their work in the cultural adaptation of obstetric care and increasing access to skilled care for obstetric complications, and to support the expansion of the EOC Collaborative to eight new provinces in Ecuador. For the cultural adaptation intervention, at each hospital where delivery care is provided, the team will include, besides health care providers, representatives from users' or women's organizations as well as community providers of obstetric care, such as traditional birth attendants and health promoters. Through a series of three workshops, the members of the team will identify gaps between current obstetrical practice at the local hospital and the features this practice should have in order to be more responsive to the cultural needs of families and communities and then design and implement progressive changes to the current obstetrical practices. The team will identify and

systematically deal with the expected cultural resistance to change, in a dynamic discussion-trial-discussion process that will involve as much as possible community organizations, traditional providers, and staff from the facility. The OR study on the Free Maternity Program CQI expansion will be completed by the end of 2004.

2.8 Honduras

Background

QAP began assistance to the Secretariat of Health (SESPAS) in 1997, to design and implement a QA system to improve the quality of maternal and child health services in one demonstration region, Region 2. In 2003, QAP was asked to extend its assistance to Region 5, USAID's other focus region in Honduras. There, quality improvement activities have focused initially on essential obstetric care, as part of QAP's three-country EOC Improvement Collaborative that is being supported by the regional Maternal Mortality Reduction Initiative (MMRI). QAP is also supporting the institutionalization of quality assurance at the national level through support to the SESPAS National Unit of Quality Control.

Activities and Results by Major Program Area

Institutionalize a Comprehensive QA Program in Region 2

QAP has continued supporting the institutionalization of quality assurance in Health Region 2 (Comayagua), providing technical advice to the Regional Quality Unit, where the Ministry of Health employs a full-time QA coordinator. The Regional Quality Assurance Unit now supervises the CQI system that QAP helped to establish, providing follow-up and support to 15 facilitators and 10 quality improvement teams (QIT). The facilitators are doctors and nurses that meet regularly with teams to support them in standards monitoring, results analysis, and development of improvement plans. From the USAID-financed Sustainable Improvement Program of the MOH, US$ 24,000 has been invested in planning and carrying out quality improvements in six mother-baby clinics.

Of a total of 10 QITs, eight continuously monitor 14 maternal health standards; five have developed improvement plans and are carrying out ongoing improvement activities. Data monitoring has shown a steady increase in the proportion of prenatal care sessions in which all standards were met and compliance recorded in the perinatal clinical record (from 48% in January 2003 to 75% in April 2004) and in the proportion of normal deliveries in which the partograph was correctly used (from 58% in January 2003 to 86% in April 2004). In the Regional Quality Assurance Unit, an Excel database is used to process monthly reports that are sent by facilitators and/or QITs. The coordinator of the Regional Quality Assurance Unit sends this monthly report to the regional board and to the corresponding technical units.

The Regional QA Unit has developed a close working relationship with the regional board and is contributing innovative proposals for reducing maternal and child mortality in the region. For example, the regional authority has mandated that all mother-baby clinics provide pediatric emergency care for children under the age of five with diarrhea/dehydration and pneumonia, which previously was not the standard. This new standard has resulted in modifications in the medical management of these conditions. Based on the CQI experience in the initial three mother-baby clinics, the regional board is expanding CQI to three other areas of Region 2, validating and applying the set of quality standards appropriate for mother-baby clinics and facilitating organization and training of QITs in these areas.

In 2003-2004, the facilitators organized and trained five new quality improvement teams in their respective areas. The five health clinics are implementing proposals for expanding the model to other health units and hope to add 16 new quality improvement teams in 2004-2005 in smaller health centers and health posts. In view of the expansion of the quality improvement work in Region 2, QAP has contracted a local consultant based in Comayagua in order to support the Regional QA Unit in expanding institutionalization of quality improvement.

Institutionalize a Comprehensive QA Program in Region 5

In Region 5, the quality improvement process was initiated under the Maternal Mortality Reduction Initiative. Under the leadership of the official responsible for quality at the regional level, Dr. Oscar Efrain Aguilar, a coordinating team was formed in October 2003 to direct the EOC Collaborative's work in Region 5. Five facilities (three hospitals and two MCH clinics) were chosen to participate in the collaborative. Teams first met in November 2003 to review EOC standards and organize their baseline assessment of current performance. In January 2004, the five teams met to review their baseline results and develop improvement plans. By the end of June, teams in the five facilities documented steady gains in use of the partograph (77% compliance in May 2004 compared to 16% compliance in November 2003) and postpartum monitoring (79% compliance in May compared to 37% compliance in November).

As a result of the MMRI results, quality improvement activities will now be introduced to Region 5's Area 4, Florida Copan, which has the highest rates of maternal and infant mortality in the region. This area encompasses the municipality of Santa Rita of Copan (MANCORSARIC), which comprises four smaller municipalities (Santa Rita, Cabañas, San Jeronimo and Copan Ruinas). With funding from the Japanese government, MANCORSARIC constructed a clinic and sought technical advice from USAID for the implementation of a decentralized model of health services. QAP has supported the clinic to develop standards of quality and their respective monitoring instruments. USAID has a special interest in MANCORSARIC to demonstrate, in the form of a pilot project of health reform in Honduras, how decentralized health services can operate with a strong CQI component.

Support Institutionalization of QA at the Central Level of the MOH

QAP supported the MOH Quality Control Unit in convening the national QA Task Force in which all cooperating agencies that invest in the field of quality improvement participate, among them USAID, JHPIEGO, QAP, World Bank, Inter-American Development Bank (IDB), and the Japanese International Cooperation Agency (JICA). In September 2003, QAP provided technical support for a national workshop of quality control coordinators of all the health regions in the country; 25 facilitators from all the health regions and major hospitals attended. In the coming months, the QA Task Force will hold a workshop to define the National Strategy for Quality Control. QAP is also coordinating closely with the Family Health Unit of the MOH in implementing the EOC Collaborative in Region 5. QAP has actively supported the Family Health Unit in the design of the National Initiative for Maternal and Child Mortality Reduction, which articulates strategies, standards, and instruments for monitoring and improving quality of care and which is intended to be applied in all health care facilities throughout Honduras.

Directions for FY05

In Year Three, QAP's technical assistance in Honduras will support the regional QA Unit and facilitators in scaling up CQI to all MOH facilities in Regions 2 and 5, including the extension of the EOC Improvement Collaborative activities to Region 2. QAP will also provide technical assistance to the pilot health sector reform experience of MANSORSARIC to include quality standards and indicators as part of the management agreements between financers and providers and to implement the CQI system in every health care facility that is part of MANCORSARIC. QAP will also continue to support the National QA Unit of the Secretariat of Health in its leading role to design and launch a National QA strategy and QA system, integrating support from other interested donors, such as the World Bank health sector reform project, the IDB health sector reform project, UNFPA, PAHO, and the German Technical Assistance Agency (GTZ).

2.9 Jamaica

Background

QAP began working in Jamaica in 1998 at the invitation of USAID/Jamaica, to help the National Family Planning Board update national contraceptive guidelines. Subsequently, QAP assisted in the

dissemination of the guidelines and in strengthening the supervision system. The prior QAP contract also supported the evaluation of the PMTCT program. QAP has continued providing technical support to the Ministry of Health in these and other areas that further the institutionalization of QA and improvements in quality of care in the country.

Activities and Results by Major Program Area

Provide Technical Support to Improve the Quality of PMTCT and HIV Treatment, Care and Support Services

In the past year, QAP has assisted the Ministry of Health in a study to follow-up HIV+ women who participated in the pilot program through December 2002. (See section 3.1 Operations Research.)

QAP provided a small grant to CHARES to improve the quality of home-based care. Family members caring for loved ones living with HIV/AIDS were trained to improve the care they provide. A post-training assessment indicated that a large portion of the information received was being utilized. The training session resulted in the formation of a support group for family members caring for loved ones living with HIV/AIDS.

Infection Prevention

Following on similar work in the North-East Region, QAP assisted the South-East Region in implementing their Infection Control program. All the hospitals in that region are presently identifying a person responsible for infection control and collecting data. QAP is also assisting with the revision of the national guidelines for infection control.

Provide Support for Improving the Quality of Services for Youth

Under the prior contract, QAP provided technical support to the MOH to develop adolescent or youth-friendly standards of care for reproductive health. In January 2004, QAP began working with the MOH's Adolescent Health Working Group to plan a small improvement collaborative to help operationalize these standards to improve the quality of health services provided to adolescents. Five health facilities that are part of the Youth Now Project in the Southern Region were selected to participate in the collaborative. During the period February-April 2004, a QAP consultant collected data on current adherence to the adolescent health standards in the five clinics. The first learning session with the five clinics, to review the baseline assessment and plan improvement activities, was held in May 2004. The teams selected one essential functional standard on which to focus their efforts and are now using a collaborative approach to implement improvement activities.

Quality Assurance and Health Sector Reform

As part of QAP's activities supported by the LAC Health Sector Reform Initiative, QAP presented the framework linking health sector reform (HSR) and quality assurance (which had been jointly developed by PAHO and QAP) to national and regional Ministry of Health officials in Jamaica through a series of meetings in May and June 2004. The Ministry of Health of Jamaica had agreed to participate in an application of the QA-HSR Framework for the purpose of using the framework and the associated review of current QA activities in the country as confidential input to the senior management of the MOH. A seminar was held on May 13 to review and discuss the QA-HSR Framework. QAP Director Dr. David Nicholas and consultant Dr. Stan Scheyer also interviewed MOH officials and visited all four regions and selected parishes to interview local managers and medical officers on their perspectives of how health reforms have affected QA and quality of care in order to ascertain the realism of the issues discussed in the document. Jamaican authorities made a number of recommendations for improving the framework document.

Operations Research

QAP conducted three operations research studies in Jamaica in Year Two. The first sought to verify the health status and sero-conversion status of infants born to over 300 HIV-positive women who had received Nevirapine in the previous year through the country's PMTCT program. The study also sought to collect information on the women's health-seeking behavior and infant feeding practices. The results will be used to further refine the PMTCT and HIV care and support systems.

Two studies were carried out to pursue critical maternal care topics. The first addressed the problem of suspected under-registration of maternal deaths that occur outside the hospital. Local researchers identified all registered deaths to females 10-50 years of age in the period 1998-2001 and then audited the medical records of these persons to determine possible pregnancies and causes, and carried out interviews with family and providers. Data collection was completed. The second study addresses the lack of postpartum care provided after hospital discharge and proposes to develop and field test a model for community-based postpartum care for high-risk cases. Researchers from the MOH and QAP held a kick-off workshop in May to explore barriers to postpartum follow-up and key elements of possible models.

Directions for FY05

QAP will continue to work with the five clinics in the Southern Region to implement the youth friendly standards through a small improvement collaborative. QAP's local consultant in Jamaica, Dr. Ingrid Thame, will also continue to work with the MOH on various QA activities and initiatives. Final reports for the operations research studies on follow-up of mother-infant pairs, maternal mortality surveillance, and community follow-up of postpartum care will be completed.

2.10 Nicaragua

Background

Since 1999, QAP has provided support to the Ministry of Health (MINSA) and to PROFAMILIA, the leading private sector family planning provider, in the implementation of a program for ongoing improvement in quality that is based on the promotion of a culture of quality, professional competence, and user satisfaction. From an initial four municipalities in 2000, QAP is currently supporting quality assurance activities in 106 municipalities in 12 of the country's 17 integrated local health systems (SILAIS): 6 in Rio San Juan, 8 in Jinotega, 15 in Matagalpa, 4 in Granada, 6 in Boaco, 14 in Chontales, 13 in Chinandega, 6 in Esteli, 7 in South Atlantic Autonomous Region (RAAS), 6 in North Atlantic Autonomous Region (RAAN), 12 in Nueva Segovia, and 9 in Madriz. These activities support improved quality of care for 3,050,099 inhabitants.

This expansion has been possible due to 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, PAHO, JICA, CARE, GTZ, IPAS, FONMAT-PMSS (*Proyecto de Modernización del Sector de Salud*), Nicasalud, PROFAMILIA, and Management Sciences for Health.

Activities and Results by Major Program Area

Institutionalization of Quality Assurance

National health policy continues to prioritize quality assurance, and an agreement was made between the central level Ministry of Health and the SILAIS for the design, implementation and evaluation of the Quality Assurance Program at the SILAIS level. During Year Two, QAP continued activities to institutionalize and expand quality assurance activities at the SILAIS level, with efforts growing from support to 10 SILAIS in Year One to now supporting QA institutionalization in 12 SILAIS.

During the first half of 2004, QAP also began supporting QA activities with the private sector and the Ministry of the Family (MIFAMILIA). Agreements were also made between QAP and the Nicaraguan Institute of Social Security to implement quality assurance programs in 14 of the 52 countrywide private medical practices clinics (*Empresas Médicas Provisionales*) that provide medical care to those insured under Social Security. QAP also continued technical support to PROFAMILIA, the main private sector provider of family planning services with a network of 16 clinics throughout the country.

National level achievements during the past year include:

- Implementation of a redesigned emergency triage system for care of the critical patient
- Monitoring of perinatal and infant mortality through a database designed by QAP and UNICEF
- In coordination with PAHO and other donors, supported MINSA in redesigning and field testing a new maternal mortality surveillance form and reporting system
- Development of a service strategy for MINSA facilities, including complaint management and efforts to improve internal and external user satisfaction.

Development of Local Integrated Essential Obstetric Care Systems

Nicaragua is actively engaged in improving the quality of essential obstetric care services through the development of local integrated essential obstetric care systems in three SILAIS (Matagalpa, Chinandega, and RAAS), under the aegis of the LAC Maternal Mortality Reduction Initiative’s EOC Improvement Collaborative. In Matagalpa, 4 teams participate in the collaborative; in Chinandega, 5 teams; and in RAAS, 8 teams. The first learning session and baseline measurements of the EOC Collaborative’s key indicators were carried out in September 2003. A second learning session was held in December 2003 as part of the national quality meeting, and QAP staff held follow-up meetings in each SILAIS in February to reinforce the application of rapid improvement methodology to introduce changes in facility-based obstetric care.

In early 2004, officials from the SILAIS of Estelí and Granada asked to join the EOC Collaborative. The first learning session was held in Estelí in March 2004 with the SILAIS hospital and two municipal teams; the first learning session was held in Granada in April 2004 with two teams. National meetings of all teams from the five SILAIS, to share improvement results and lessons, were held in May 2004 and September 2004.

In February 2004, the MOH published its official document, “Standards and Quality Indicators for Care of Pregnant Women and Newborns,” which incorporates the indicators being monitored through the EOC Collaborative. This document lays the groundwork for eventually extending the quality monitoring activities of the EOC Collaborative to all 17 SILAIS in the country.

Pediatric Hospital Improvement Collaborative

The Pediatric Hospital Improvement Collaborative was launched in Nicaragua at the end of June 2003. Six regional (i.e., SILAIS level) hospitals were selected to participate: Bluefields (RAAS), Chinandega, Estelí, Jinotega, Madriz, and Matagalpa. QAP and MINSA staff conducted a participatory quality assessment at each of the six hospitals in July. The first learning session with teams from all six hospitals

was held in October 2003, to review the baseline assessment findings vis-à-vis the standards of care contained in the WHO Referral Care Manual and to discuss key areas for improvement. Each hospital team developed its preliminary improvement plan. The second learning session was held with the six teams in December 2003. At that meeting, teams reviewed their progress in implementing improvements and the importance of the monthly monitoring of key indicators was reinforced. Teams at the six hospitals began monthly measurements in January 2004. QAP staff conducted site visits to each hospital to provide training in the nutritional management of sick children and to support rapid improvement activities. The third learning session with these teams was held in March 2004. Based on the progress in the initial six hospitals, MINSA asked QAP to extend the PHI work to four more SILAIS hospitals: Boaco, Granada, Nueva Segovia, and RAAN. The baseline assessments were conducted in these hospitals in May 2004. The PHI is now working in 10 of the 21 maternal-child hospitals countrywide.

Directions for FY05

The USAID/Nicaragua Mission has requested that QAP expand its activities in Nicaragua to institutionalize the methods used to reduce maternal and child mortality in all the SILAIS in which QAP is working. The Director General of MINSA has asked QAP to extend the QA institutionalization work to the SILAIS of León, bringing the total number of SILAIS in which QAP will be working to 13 out of 17. USAID has also asked to support MINSA in the "humanization of care" to improve client satisfaction with health services. QAP will work with SILAIS staff to extend quality improvement activities to private medical providers (*Empresas Médicas Provisionales*) and will also continue technical support to PROFAMILIA.

QAP will continue to provide technical support to the implementation of the EOC Collaborative in the five SILAIS now participating and support the addition of seven more SILAIS to the EOC Collaborative (SILAIS where QAP has been working on safe motherhood). The twelve SILAIS that will participate in the EOC Collaborative will focus on improving compliance with technical standards of EOC as well as on strengthening linkages between the health facilities and community organizations and improving the cultural acceptability of delivery care in selected municipalities. Together with PAHO and UNICEF, QAP will support the SILAIS of Chinandega in establishing an EOC clinical training program similar to the very successful program established in Matagalpa.

In Year Three, the fourth and fifth learning sessions for the Pediatric Hospital Improvement Collaborative will be held with the original six hospital teams. Four learning sessions will be held with the four new expansion hospitals that just joined the PHI Collaborative.

2.11 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 Chiclayo. Max Salud has successfully developed a set of evidence-based quality standards and indicators for maternal and perinatal care. In each clinic, a CQI team regularly monitors and implements quality improvement activities.

Activities and Results

QAP continued to provide technical assistance to Max Salud to streamline its CQI system, focused on maternal and perinatal care, in its network of four clinics. With QAP's support, Max Salud was able to progress in the institutionalization of a set of 21 maternal care quality standards and indicators that cover prenatal care, labor and delivery, post-partum care, neonatal care, and family planning.

In late 2003, Max Salud's Board of Directors and the Executive Manager took an important step in the institutionalization of the CQI Program. An official document was issued, formally establishing several

elements of the CQI Program, as part of the regular organizational structure and functions of the institution at its various levels. The document, called "*Normas para el Mejoramiento de la Calidad en la Red de Clínicas y Unidad de Apoyo Gerencial de Max Salud*", establishes the legal foundation for the CQI Program, its objectives, the main quality-related policies of Max Salud, several operational definitions, the composition and functions of the "CQI managerial group" and of the CQI teams at the clinics, and the organizational structure of the CQI Program. After the issuance of this document, the CQI Program at Max Salud ceased to be a donor-dependent activity and became a fully incorporated part of the organization's structure and functions. Dr. Luis Castañeda was appointed as the staff member responsible for the CQI Program.

In April 2004, Max Salud was awarded an important national prize that recognizes the level of excellence in its services. The institution that granted this award is called "*Empresa Peruana del Año"* and is supported by leading national institutions, such as San Marcos National University; Universidad San Martin de Porres; Universidad Garcilaso de la Vega; Universidad Federico Villareal; Organización Latinoamericana de Administración; Colegio de Licenciados en Administración del Perú, and others. Max Salud was one of only two institutions in the health services area selected to receive this prize this year. In receiving the award, Max Salud's Executive Director, Dr. Miguel Vela, acknowledged that a key factor in the award was the CQI Program that Max Salud has successfully implemented since mid-2003, and the objective, quantifiable results it has achieved in improving compliance with quality standards for maternal and perinatal care, with technical support from QAP and USAID.

Planning continued for the creation of a Diploma Course in quality assurance in which Max Salud would serve as a training site. Max Salud's management team met twice in the first half of 2004 with a team from the Postgraduate School of the Pedro Ruiz University, to discuss and agree on the general aspects of the Diploma Course.

Directions for FY05

In the first quarter of 2004 Max Salud and USAID/Peru decided to add new objectives to the Scope of Work for QAP's technical assistance, to be carried out in 2004 and 2005. The new objectives are the following: 1) expansion of the CQI Program to new clinical areas, such as pediatric care; 2) redesign of selected administrative processes, starting with for supply and drug logistics; 3) design of a Diploma Course in association with the local Pedro Ruiz University; 4) strengthening of the CQI Program in the area of external clients' satisfaction.

2.12 Latin American and Caribbean Health Sector Reform Initiative

Background

Since 2003, QAP has been one of five partners on USAID's Latin American and Caribbean Health Sector Reform (LAC HSR) Initiative. QAP's role in LAC HSR is to enhance the impact of health sector reform activities on healthcare quality and strengthen the focus of quality within health sector reform activities.

Activities and Results by Major Program Area

Testing the PAHO/ QAP Framework for Maximizing Quality of Care through Health Sector Reform: The Role of Quality Assurance

QAP's main LAC HSR activity during the past year focused on the field testing of the framework linking quality assurance and health sector reform (QA-HSR) that was jointly developed by PAHO and QAP under the prior contract. QAP presented the QA-HSR framework to national and regional Ministry of Health officials in Jamaica through a series of meetings in May and June 2004. The Ministry of Health of Jamaica had agreed to participate in an application of the QA-HSR Framework for the purpose of using the framework and the associated review of current QA activities in the country as confidential input to

the senior management of the MOH. The MOH agreed to provide QAP with specific feedback on the Ministry of Health of Jamaica's perspectives on the usefulness and uses of the framework document.

Various officials of the Jamaican MOH read the document, and five were designated to be the lead discussant for each chapter. A seminar was held on May 13 to review and discuss the QA-HSR Framework and each chapter, with recommendations for modification. Jamaican authorities made a number of recommendations for improving the framework document and for additional content that should be added, including guidance on how one would start QA activities if HSR has already started, how to phase in QA activities over time, discussion of costs of QA strategies, and the inclusion of specific tools to use in planning and assessing QA in HSR.

Support and Participate in the End-of-Initiative Conference

QAP was an active participant in the planning and design of the final LAC HSR conference held in 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 activities of the Initiative. The theme of the conference 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 to participate in this conference.

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 QA-HSR framework and its application in Jamaica; and accreditation and other forms of quality-oriented regulation. Stanley Lalta, Chief Economist of the MOH of Jamaica, also presented the Jamaican perspectives on the QA-HSR framework. Following that presentation, delegates from the Ministry of Health of Nicaragua asked QAP to introduce the framework in that country.

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

Data collection was completed on the operations research study begun in 2003 on Ecuador's Free Maternity and Child Healthcare Program (*Programa de Maternidad Gratuita y Atención a la Infancia*). The study sought to document the enabling factors that have contributed to the establishment of the Free Maternity Program and how the program has been progressively scaled up. During the past year, with modest technical support from QAP, the CQI component of the program has expanded to a total of 50 health areas, or approximately 30% of the total health areas in the country, in 10 of the country's 22 provinces. Two reports were issued from the study: one describing the Free Maternity legislation and analyzing the factors which were important in its successful enactment, and the second describing the process of scale-up through 2003.

Contribute QA-related Materials and Content to the LAC HSR Website

QAP created a CD-ROM in English and Spanish presenting reports and CQI tools from the study on the Scale-up of CQI within Ecuador's Free Maternity Program. In April 2004, 100 copies of the CD-ROM (containing the CQI Facilitator's Manual, Chapter One of the Report of the Study of Scale-up on Quality Improvement in the Free Maternity Program in Ecuador, and the 2003 CQI Scale-up Progress Report) were distributed at the EUROLAC Forum in Brazil. A training module on QA and HSR was completed and disseminated through the LAC HSR website.

In 2003, QAP commissioned a desk review of current efforts in Latin America and the Caribbean to regulate quality of healthcare through accreditation, licensing, certification, or registration of healthcare providers or facilities. The document still requires some revisions to make it appropriate for publication. The draft document was used to prepare the QAP-led breakout session on experiences in the LAC Region with accreditation and other forms of quality-oriented regulation at the July final conference.

Directions for FY05

The LAC HSR initiative officially ends September 30, 2004. USAID has requested that all activities be completed by December 2004. The major remaining LAC HSR activity for QAP to complete during the first quarter of FY05 is to carry out a second country-level review/test in Nicaragua of the QAP-PAHO Quality Assurance-Health Sector Reform framework. The application of the QA-HSR framework in Nicaragua will take place in October 2004, and a final report on the field applications (Jamaica and Nicaragua) and a revised framework will be produced. QAP will also finalize and publish the review of accreditation and licensing experiences in Latin America and complete the second report on the Free Maternity Study in Ecuador.

2.13 Regional Maternal Mortality Reduction Initiative

Background

The Latin American and Caribbean Regional Maternal Mortality Reduction Initiative (MMRI) is 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 is 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 put in place 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. In each country, other international agencies and USAID cooperating agencies form part of the collaborative's national coordinating group and/or are supporting EOC improvement activities at the level of the local EOC system (Nicaragua: UNICEF, PAHO, CARE, FONMAT-PMSS, PROSILAIS, Japanese Cooperation; Ecuador: UNFPA, FCI, PAHO, National Council of Women, Association of Municipalities, Medical School of the University of Azuay, SENDAS-ALDES; Honduras: JHPIEGO, UNFPA, and PAHO).

Activities and Results by Major Program Area

Implement the Regional EOC Improvement Collaborative

During the past year, QAP's main activity under the regional Maternal Mortality Reduction Initiative has been the full-scale implementation of the Essential Obstetric Care Improvement Collaborative. At the start of Year Two, QAP had reached agreements with national health authorities in the three countries, in coordination with MMRI partner PAHO and other donors supporting safe motherhood activities, as to the region(s) within each of the three countries that would participate in the collaborative: Tungurahua Province, Ecuador; Matagalpa, Chinandega, and Atlantic South SILAIS in Nicaragua; and Region 5 of Honduras. Further planning and preparations were then carried out with health authorities in each of the selected regions in July-September 2003. In each participating region, the collaborative involves teams at the referral level (provincial or regional hospital), at all facilities attending births, and at primary care level facilities that provide prenatal care and community outreach, in order to create an integrated EOC system (*sistema integrado de cuidado obstétrico esencial*, or SICOE in Spanish) that strengthens the entire continuum of care, from demand generation and behavior change to the clinical management of normal deliveries and of obstetrical complications. The collaborative provides a structure for ongoing quality improvement, exchange of ideas and approaches among the teams in the three countries, and monitoring compliance with key standards.

During August-November 2003, the first Learning Session was held in each country, to orient the 31 participating facility teams to the collaborative's goals and approach and to train them in how to measure compliance with EOC norms. Teams then conducted their baseline assessments (August-January). A

website in Spanish was launched in November 2003 to provide a mechanism for sharing data and improvement experiences among teams. At the second learning session (October-January), teams reviewed their baselines and learned about rapid improvement methods to test changes in specific processes. By February 2004, teams in all five participating regions were implementing progressive improvements while continuing monthly monitoring of the collaborative's key indicators. As of June 2004, teams in Ecuador and Honduras had met in their Third Learning Session (teams in Nicaragua will meet for their Third Learning Session in July).

In the first ten months of improvement efforts (which began in September 2003 in Ecuador and in January 2004 in Nicaragua and Honduras), most teams focused on improving clinical care processes and establishing in-service training mechanisms to upgrade provider competency. As shown in the table on the following page, all five regions have demonstrated large improvements in compliance with key EOC standards as measured in the percentage point change between baseline measurements and monitoring data through June 2004.

While teams in all three countries continue in the period of intensive improvement activities, there is already evidence of spread of the SICOE concept and improvement methods. In Ecuador, the Azuay Provincial Health Directorate, the provincial medical school and local NGOs have signed an agreement with QAP and the MOH to add their facilities to the EOC Collaborative. In Nicaragua, early in 2004, the SILAIS of Estelí and Granada asked to join the collaborative. The first learning session was held in Estelí in March and in April, the six teams that will participate in the collaborative collected their baseline data. In Granada, two teams will participate: the SILAIS hospital (Hospital Amistad Japón-Nicaragua) and the Nandaime health center. The Granada teams received orientation in perinatal technologies such as the partograph, EOC standards, and how to implement rapid improvement cycles.

In Nicaragua, QAP staff have laid important groundwork for the eventual spread of the integrated EOC system to the entire country by working closely with other donor-supported maternal health programs in each SILAIS to harmonize distinct maternal health approaches within the concept of an integrated EOC system, spanning the continuum of care from referral to community levels. This approach has helped to leverage other donor resources to support improvements needed to establish an integrated EOC system in each SILAIS.

The effect of the EOC Collaborative activities on national maternal mortality reduction policies and strategies has also become evident. In Honduras, the MOH has initiated the discussion of a national-level strategy for reduction of maternal mortality, stimulated in large part by the Maternal Mortality Reduction Initiative. The strategy has as main pillars EOC and continuous quality improvement. A national task force (including PAHO, QAP, and JHPIEGO) produced in February 2004 a draft document for discussion. The EOC Collaborative's work in Region 5 has undoubtedly sparked this initiative and is seen by the MOH as the spearhead of implementation of the national strategy.

Regional MMRI Workshop

In May 2004, QAP and PAHO co-sponsored a Regional MMRI Workshop in Managua, Nicaragua which convened some 120 delegates from the Ministries of Health of El Salvador, Honduras, Guatemala, Nicaragua, and Ecuador and technical assistance and donor agencies (USAID/Washington and Nicaragua; PAHO; UNFPA/Honduras and Nicaragua; CARE/USA and Nicaragua; JHPIEGO/Honduras, UNICEF/Nicaragua, Japanese International Cooperation Agency/Nicaragua, German Technical Cooperation/Nicaragua, and Project Hope/Nicaragua). Meeting participants examined progress made in policy development at the national level, learned of the achievements made in establishing integrated local EOC systems in Ecuador, Honduras, and Nicaragua through the EOC collaborative, and discussed how to incorporate lessons learned into national maternal and perinatal mortality reduction plans.

Prior to the official opening of the workshop, a pre-workshop field visit to Matagalpa SILAIS was organized by QAP to provide participants with the opportunity to visit firsthand facilities participating in

Progress in Key Quality Indicators by Region Participating in the EOC Collaborative

Indicator	**Percentage point change in compliance with standard** (current minus baseline percentage)				
	Ecuador/ Tungurahua Province (June 2004 vs. Aug. 2003, 10 months after baseline)	Honduras Region 5 (May 2004 vs. Nov. 2003, 6 months after baseline)	Nicaragua/ Matagalpa SILAIS (June 2004 vs. Sept. 2003, 9 months after baseline)	Nicaragua/ Chinandega SILAIS (June 2004 vs. Sept. 2003, 9 months after baseline)	Nicaragua/ RAAS SILAIS (June 2004 vs. Sept. 2003, 9 months after baseline)
% of pregnant women at more than 18 weeks gestation at whose first prenatal check-up key care activities were performed and recorded	**53.8%** (82.0%-28.2%)	**33.3%** (33.3%-0%)	**-1.0%** (75.0%-76.0%)	**20.6%** (89.2%-68.6%)	**52.7%** (93.3%-40.6%)
% of births attended in the facility in which the alert curve and the cervical dilation curve of the partograph were correctly drawn	**68.3%** (85.0%-16.7%)	**60.5%** (76.7%-16.2%)	**15.8%** (86.1%-70.3%)	**23.4%** (66.7%-43.3%)	**15.6%** (55.6%-40.0%)
% of births attended in the facility in which the active management of the third stage of labor was performed and recorded in the perinatal clinical record	**18.2%** (22.9%-4.7%)	**12.0%** (92.2%-80.2%)	**0%** (100%-100%)	**55.0%** (95.3%-40.3%)	**10.0%** (100%-90.0%)
% of normal deliveries in which selected post partum control activities were performed and recorded every 30 minutes during the first two hours after delivery	**80.6%** (90.1%-9.5%)	**42.0%** (78.9%-36.9%)	**65.7%** (81.9%-16.2%)	**30.5%** (76.2%-45.7%)	**63.6%** (91.1%-27.5%)
% of live births who were examined and for whom selected newborn care activities performed and registered in the perinatal clinical record	**24.7%** (95.4%-70.7%)	**0.2%** (86.7%-86.5%)	**2.2%** (88.9%-86.7%)	**55.3%** (100%-44.7%)	**11.1%** (88.9%-77.8%)

the EOC collaborative. Some 50 workshop participants went on the field trip, including MOH representatives from El Salvador, Guatemala, Honduras, and Ecuador and officials from UNFPA, PAHO, and QAP. Field trip participants were able to observe how facility teams have carried out improvement activities. Participants were particularly interested in the improvements made in the Matagalpa Regional

Hospital in its system of referral and counter-referral, labor monitoring, the introduction of family planning into post-partum care, and clinical EOC training internships. They also visited the community of Diamante to see community-level activities to reduce maternal mortality.

Directions for FY05

No further LAC/RSD-PHN funding was provided for FY05 to continue the EOC Collaborative. In order to build on the very successful results achieved thus far, in FY2005, QAP will use field support funds to continue the EOC Collaborative's consolidation and expansion in Honduras and Nicaragua and SO2 funds to support the EOC Collaborative in Ecuador. While no new countries will be added to the collaborative, considerable expansion is planned for the collaborative in each of the three countries where it now operates. In Ecuador, the collaborative will emphasize 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 in the three provinces that have already begun improving clinical processes of care. In addition, the clinical care and training components of the collaborative are expected to be extended to eight new provinces in Ecuador in collaboration with the MOH, the Free Maternity Program, UNFPA, Family Care International (FCI), and CARE. By the end of FY2005, half of Ecuador's provinces are expected to be implementing the local EOC system model developed through the MMRI. In Honduras, the EOC Collaborative will be rolled out to all facilities in Region 2 as well as Region 5 during FY2005. In Nicaragua, eight more SILAIS are expected to join the collaborative in FY2005, bring the total number of SILAIS covered by the collaborative to 13, out of 17 SILAIS in the country. In addition, a major initiative will also be started in Nicaragua to improve the cultural acceptability of institutional delivery in *municipios* with high maternal mortality but low utilization of maternal care services.

3 Core Technical Activities

3.1 Operations Research

Background

In Year Two, QAP completed final reports on five operations research (OR) studies, initiated sixteen new studies, and continued work on four studies initiated or identified in Year One. Three approved studies were cancelled, due largely to barriers to implementation or changing priorities in country. Four potential study topics were also identified for further development into concept papers.

Status of Operations Research Studies as of September 2004

	Location	Study Name	Status
OR Studies Completed and In Process			
1	Benin, Ecuador, Jamaica, Rwanda	Measuring the competence of SBAs*	Completed
2		Enabling environment of SBAs*	Data analysis
3		In-facility delays in obstetric care*	Report preparation
4	Bangladesh	Tuberculosis study	Report preparation
5	Cambodia	Private sector TB study	Completed
6	Ecuador	Factors enabling scale-up of CQI in the Free Maternity Program	Underway
7	Ecuador	Developing questions on maternal health for local "DHS"	Underway
8	Eritrea	Nurse motivation and appreciative inquiry	Cancelled
9	Jamaica	Follow-up of HIV+ mother and child pairs	Report preparation
10	Jamaica	Improving process for maternal mortality surveillance	Report preparation
11	Jamaica	Community follow-up of obstetric complications	Underway
12	Kenya	Improving client purchases of anti-malarials	Cancelled
13	Laos, Philippines	Proper application of malaria Rapid Diagnostic Test	Data analysis

	Location	Study Name	Status
OR Studies Completed and In Process			
14	Multi-country	HIV & infant feeding: Compilation of program evidence	Completed
15	Multi-country	Collaboratives documentation and evaluation	Underway
16	Multi-country	Low-cost measures of Q of C for maternal complications	Planning
17	Multi-country	Assessment of quality of TB care and lab services	Concept approved
18	Rwanda	HIV stigma study	Underway
19	Rwanda	ARV adherence study	Underway
20	Rwanda	Analysis of workforce needs for scaling up HIV care	Underway
21	South Africa	Functional analysis of PMTCT program in Soweto	Data analysis
22	South Africa	Accreditation and regulatory options for South Africa	Completed
23	South Africa	Transporting sputum from clinics to lab facilities	Cancelled
24	Tanzania	Job aids for counseling HIV+ mothers on infant feeding	Underway
25	Tanzania	HIV stigma	Underway
26	Zambia	HIV/AIDS workforce study**	Completed**
27	Zambia	Health worker bonus study	Underway
28	Zambia	HIV health worker training study	Underway
Potential OR Studies under Consideration			
1	Kenya	Evaluation of cost and effectiveness of IMCI CBT	Proposal in development
2	Nicaragua	Mother-Baby Program as focused accreditation success	Proposal in development
3	Niger	Evaluation of the impact of the Pediatric Improvement Collaborative on improving quality of malaria case management in children under 5	Proposal in development
4	TBD	Development and field testing of improved measures of SBA competency	Concept paper in development

*initiated under QAP II
**field work completed in Year One; final report disseminated in Year Two.

Studies and Results

Completed and In-Process Studies

1.-3. Three multi-country safe motherhood studies: Under QAP II, three separate studies were begun in four countries to learn about the factors that affect the quality of maternal care received by mothers and newborns during hospital labor, delivery and postpartum care. Each of the three studies focused on one research question: (1) How can the competency of skilled birth attendants (SBA) be measured? (2) What in-facility delays occur during labor, delivery and postpartum care that might be responsible for maternal complications and their poor outcomes? (3) What factors other than SBA competency contribute to the quality of maternal and newborn care during the labor, delivery and immediate postpartum periods? Data were collected in 2002 in Benin, Ecuador, Jamaica, and Rwanda, and draft reports submitted to researchers and authorities in each country for review. During the past year, the final country reports (incorporating comments from the countries and additional analysis) were published and disseminated. In addition, these studies generated several new QAP maternal health operations research studies. In addition to the country reports, the final report of the SBA competency study was completed and accepted for publication in the *International Journal of Obstetrics and Gynecology*. A draft of the third delay paper has just been completed. The analysis and writing of the paper on the enabling environment for SBAs in hospitals is in progress.

Key results: Competency testing of SBAs used written tests and simulated performance with mannequins based on international standards. On average, 166 providers in four countries answered 53.6% of the 55-question multiple-choice test questions correctly, with scores differing by country (ranging from 50.0% in Benin to 59.3% in Ecuador), by provider type (doctors – 60.2%, midwives – 51.7%), and sub-topic

(ranging from 63.2% for pregnancy-induced hypertension to only 21.3% for active management of 3rd stage labor). On average, providers performed 48.2% of the skill steps correctly. The third delay study observed the flow of 859 maternal arrivals and audited 328 medical records at 14 hospitals in four countries. As hospitals became more complex, delays between diagnosis and treatment increased as personnel and/or facilities became too busy, resulting in more delays during the daytime on weekdays rather than at night or on the weekend. In the enabling environment study, the quality of care provided and associated factors were assessed from 228 observed births and 328 record reviews of complicated cases. The observed cases indicated that the pooled quality of care was below 50% overall, although much higher for complicated cases. Frequency of monitoring during labor and newborn care was erratic and well below international standards.

4. Bangladesh tuberculosis study: QAP commissioned a situation analysis to assist the National Tuberculosis Program (NTP) in developing a strategy for expanding access to and improving quality of TB services, particularly directly observed therapy, short course (DOTS). The rapid assessment examined TB-DOTS service delivery within the public and NGO sector, including existing structures and functions for prevention of the spread of TB; promotion of DOTS; program capacity; and systems used for case detection, referral, case management, and general surveillance and monitoring of programmatic outputs and impact. Cross-sectional data were collected over a six-week period (May–June 2004). Ten government health facilities and 15 NGO clinics were purposively selected from the three city corporations of Rajshahi, Khulna, and Chittagong. Data were collected through interviews; skills observations using a structured, program-based observation checklist; and review of existing records and reporting formats. The major findings of the situation analysis were that: behavior change communications (BCC) activities related to TB-DOTS need to be strengthened and integrated into the overall TB strategy; the quality of service delivery at both the laboratories and the pharmacies needs improvement; TB-DOTS needs greater integration with other primary health care services; and supervision and monitoring systems need strengthening.

5. Cambodia private sector tuberculosis study: The study, initiated and completed in Year Two, was carried out to inform decisions related to improving TB healthcare services in Cambodia. The 93-page technical report, "An Assessment of Private Sector Services for Tuberculosis: Cambodia" was finished in June 2004. The assessment surveyed 162 private doctors, 204 pharmacies, 126 TB drug sellers, and 60 TB patients and had mystery shoppers visit 273 pharmacies. Aimed to gain a better understanding of the nature and extent of TB services provided by the private sector, the assessment measured providers' knowledge and training, their diagnostic and treatment practices, monitoring and follow-up of patients, willingness to counsel clients and offer TB education materials. The survey asked patients about their health-seeking behaviors and the quality of services they received. Mystery shoppers contributed information about the likelihood of being able to buy drugs without a prescription and whether appropriate information and medications would be offered.

6. Documentation of factors enabling the scale-up of CQI in Ecuador's Free Maternity Program: Since 2003, the national Free Maternity Program in Ecuador has been progressively scaling up a CQI approach to improve the quality of key maternal and child health services financed under the program. With limited technical support from QAP, the CQI scale-up began in 14 health areas in 8 of Ecuador's 22 provinces. During the past year, the expansion has reached a total of 50 health areas, or approximately 30% of the total health areas in the country, covering 2.2 million persons in 10 provinces. QAP began this study simultaneous to the scale-up, to document the process and results of the CQI expansion and provide lessons for QA scale-up and institutionalization for other countries. Two reports from the study (one describing the Free Maternity legislation and analyzing the political, technical, and budgetary and advocacy factors which were important in its successful enactment, and the other describing the process of scale-up through 2003) were produced this year and disseminated to health sector leaders from the region at the April 2004 EUROLAC meeting in Fortaleza, Brazil. Data collection for this study will be completed by September 2004.

7. Development of maternal health items for inclusion in Ecuador ENDEMAIN survey: QAP was asked to develop maternal health questions for inclusion in Ecuador's 2004 national demographic and health survey, ENDEMAIN. QAP completed the formative research phase on factors influencing the decisions of women and their families to give birth at home or in a formal health facility and to understand client perceptions of quality of obstetric care. We conducted 25 in-depth interviews, about 2/3 with women who had given birth in a health facility and 1/3 with women who had given birth at home. The formative research included a socio-drama in which participants acted out labor and delivery experiences at home and in a health care facility. The data were analyzed and used to refine survey questions on factors that influence decisions about where to give birth and client/family perceptions of quality of obstetric care. These questions were then field tested and revised for inclusion in the final survey instrument.

8. Eritrea nurse motivation: This study was to have tested the effectiveness of the Appreciative Inquiry approach to identifying problems and improving performance among nurses and other staff in some hospitals in Eritrea. Lack of support for the study among nursing professionals and government officials in Eritrea resulted in the study's cancellation.

9. Follow-up of HIV-positive mother-child pairs in Jamaica: As an outgrowth of QAP technical assistance to the national PMTCT program in Jamaica, this study was carried out in Year Two to assess the infant feeding practices and sero-conversion of children born to HIV-positive women who had participated in the Ministry of Health's pilot PMTCT program through December 2002. Out of the some 300 HIV-positive women who had received Nevirapine, only 63 women and their children were traced for the follow-up study. Forty-two out of fifty nine HIV-positive mothers (65%) report having received Nevirapine during labor, with all reporting that the medication was given to their infants. Fifty percent of infants whose mother breastfed at some point had a final positive HIV result compared to six percent of those who did not ($p<0.001$).

10. Improving the process for maternal mortality surveillance in Jamaica: Prior studies indicate that vital registration underestimates the maternal mortality rate (MMR) in Jamaica by 76%, and subsequent direct surveys give inconsistent results. The 1996 and 1998 direct surveys indicate that either there was a substantial recent decline in MMR or important measurement problems remain. Some of the unresolved measurement issues include: maternal deaths related to choriocarcinomas, HIV, and late maternal deaths often not counted; deaths due to accidental or incidental causes are not counted, although some have strong associations with the pregnancy, such as suicide secondary to postpartum depression, and homicide due to domestic abuse; and indirect obstetric deaths, especially after discharge, are often miscoded and not counted. The present study identified all registered deaths to females 10-50 years of age in the period 1998-2001, and then audited the medical records of these persons to determine possible pregnancies and causes, and carried out interviews with family and providers. Some preliminary findings from the not-yet-completed analysis are: most uncounted maternal deaths occur after postpartum discharge from hospitals, with many women readmitted to medical or surgical wards where the recent pregnancy/birth is not noted on death certificate; direct and indirect deaths due to cardiovascular problems are the largest cause of all maternal deaths and of uncounted maternal deaths; and HIV-related problems are a large and growing cause of maternal deaths.

11. Community follow-up of obstetric complications in Jamaica: Similar to many other countries, Jamaica provides extensive antenatal care but little postpartum care after hospital discharge, even to high-risk cases. In this study, the Jamaica Ministry of Health and QAP plan to develop and test a model for providing postpartum care to high-risk cases that can be adopted throughout the country. Formative research has begun and a kick-off workshop of about 40 key persons from throughout the country was held in May 2004 to explore objectives, barriers, and key elements of possible models, including focus on high-risk mothers (maternal complications, stillbirths, HIV, diabetes) and newborns (very low birthweight), a home visit at 5-7 days after delivery by the community-based nurse/midwife/community health worker teams, improved communication between hospital and community-based providers, and strong Ministry support.

12. Improving the quality of client purchases of anti-malarials from the private sector in Kenya: Prior work by QAP uncovered many problems associated with the private malaria drug market in Kenya, with retail drug sellers' performance measuring less than 2%. Previous QAP efforts developed and tested approaches to improve adherence of wholesale and retail sellers to national anti-malaria drug guidelines and to educate consumers. The proposed study to implement these approaches in other districts in Kenya has been cancelled due to changes in national malaria policy and short-term problems in the policy's implementation.

13. Proper application of malaria rapid diagnostic tests (RDTs) in the Philippines and Laos: QAP teamed up with WHO and the Philippine Research Institute for Tropical Medicine to develop and test instructions (job aids) for use of malaria RDTs in the Philippines and Laos. Job aids were developed for use of a dipstick diagnostic test and use of a cassette by low-level community health workers, and then tested, revised, and retested in the Philippines (n=154) and Laos (n=171). Preliminary analysis of the Philippines data indicates that it is difficult to get community health workers to check the expiration date and condition of desiccant in the test package and to get users to wait sufficient time to read the results.

14. Multi-country review of programmatic evidence on HIV and infant feeding: In collaboration with UNICEF, QAP examined program experience related to infant feeding and transmission of HIV from mothers to their children. The final report, which summarizes and analyzes 41 programs and studies, represents the first attempt of its kind to collect and analyze a wide range of worldwide program experience on the topic. The draft report was circulated widely and is currently being prepared for publication by QAP and subsequent international distribution. The paper will assist the international health community in updating and adapting the international (WHO) guidelines on HIV and infant feeding and in formulating national policies and programs. In addition, this study has led directly to a QAP project to design and test behavior change communication materials for the PMTCT program in Tanzania. Some results: The AFASS characteristics (accessible, feasible, affordable, sustainable, safe) of replacement feeding for each mother are vital to its success, yet it is rare that either counselors or mothers adequately explore these characteristics for the circumstances that the mother faces. Early cessation of breastfeeding is a major challenge for HIV-positive mothers who chose breastfeeding as their infant feeding option. None of the reviewed programs report much activity in the 'breast-milk feeding options' (i.e., wet nursing, heat treatment of breast milk, milk banks). The reviewed programs indicate that counseling does influence mothers about infant feeding choices and practices, but counseling is often poor and/or biased, and should occur during multiple sessions and not as a onetime event. The findings of the study were presented at the September 2003 International Conference on AIDS and Sexually Transmitted Illnesses in Africa in Nairobi, as part of a session with WHO and UNICEF at which the revised International Guidelines on HIV and Infant Feeding were presented.

15. Documentation and evaluation of collaboratives: A prospective study to document and evaluate QAP's experience with improvement collaboratives was initiated in July 2003; the study is being conducted by QAP Small Business partner EnCompass, LLC. The study is documenting the experience and lessons learned from the implementation of the collaborative approach in a diverse range of developing countries. The study also seeks to evaluate the impact of the collaboratives on the quality and outcomes of care, and, to the extent feasible, compare their impact to other approaches to improving care. A literature review was conducted and the overall methodological framework for the evaluation completed, including proposed data collection plan and reporting. Documentation activities are underway.

16. Low-cost measures of quality of care for obstetric complications (multi-country). This study will develop and test low-cost methods for measuring the quality of care received for normal in-facility deliveries and for two types of obstetric complications (probably hemorrhage and pre-eclampsia). The low cost methods will probably rely on patient records rather than direct observation, and assess the extent to which such a method is feasible, as reliable and valid as direct observation, and less costly. The study is being done in collaboration with the University of Aberdeen's IMMPACT program. Initial

planning for the study is underway to resolve technical issues. Potential sites for eventual testing of the methods developed are Eritrea, Jamaica, and Indonesia by IMMPACT.

17. Multi-country assessment of the quality of tuberculosis care and lab services: The study has been approved and is now in the planning phase to identify sites. QAP proposes to work in five to seven countries to improve the quality of TB care, especially laboratory/microscopy diagnostic services. The first part of the study will be a rapid assessment of the quality of TB case management and lab services. Based on the assessment results, interventions will be developed and monitored to improve quality of care, on site microscopy and sputa transportation, storage, analysis and reporting of results.

18. Rwanda HIV stigma study: Data were collected from 18 PMTCT sites in Rwanda, with six focus groups conducted at six sites, and in-person interviews conducted at the remaining 12 sites with 110 healthcare personnel. In addition, 220 charts were reviewed to document outcome indicators of PMTCT services. Interview and chart review data are being entered, and analysis will begin early in Year Three.

19. Rwanda ARV Adherence Study. This study was conducted at King Fayçal Hospital to assess levels of adherence among patients currently on ARVs and types of side effects experienced by such patients and to explore factors that enhance or impede adherence to ARVs among these patients. Data collected from 76 ARV patients have been entered, preliminary analyses completed, and the early results shared with the Treatment AIDS Research Center and USAID/Rwanda. The preliminary results show that most participants were male, married, highly educated, and employed—demographics that are largely representative of King Fayçal Hospital, but vastly different from the general population of HIV/AIDS patients in Rwanda. On average, the King Fayçal patients have been on ARVs for 18 months and have known about their HIV status for 34 months. Some 31% of the patients said they missed a dose last week; only 22% of patients said they have never missed a dose. As result of these outcomes and the fact that they were achieved at the most prestigious hospital in Rwanda, our Rwanda Government partners and USAID suggested that the study be expanded to four additional sites. A steering committee with representatives from key agencies met and selected sites in May, with data collection planned as soon as clearance is obtained.

20. Rwanda analysis of workforce needs for scaling up HIV services: This study was postponed due to funding delays. Rebecca Furth of Initiatives and Robert Gass of the New York AIDS Institute traveled to Rwanda in September 2004 to plan the study and test data collection instruments. (See section 3.4.)

21. Functional Analysis of the PMTCT Program in Soweto, South Africa: The data collection for the study was completed in April 2004. Data are now being analyzed; a preliminary report is expected by September 2004, and the final report by December 2004.

22. Analysis of accreditation and regulatory options for South Africa: The study was completed and recommendations sent to the National Department of Health. The study recommends that the National Department of Health develop a policy on accreditation within its quality assurance framework. In the short-term, the NDOH should explore strengthening the internal mechanisms to ensure high levels of quality of care. In addition, external accrediting or auditing bodies should be used periodically to ensure that the internal mechanisms are working efficiently, as well as producing desired health outcomes. In the medium to long-term, the department should emphasize external third party accreditation of all facilities.

23. South Africa: Transporting sputum from clinics to lab facilities: This study was cancelled.

24. Job aids for counseling HIV-positive mothers about infant feeding in Tanzania: In cooperation with the University of Bergen (Norway) and the Tanzanian Ministry of Health, QAP is developing, piloting and evaluating a set of visual job aids for use in counseling HIV-positive mothers about infant feeding. Formative research identified many of the concerns of mothers and counselors and suggested that dramatic and colorful visual aids were called for. The resulting set of job aids has produced widespread enthusiasm in Tanzania and among other technical cooperation agencies interested in adapting the job aids for other countries. Data from the evaluation are being analyzed.

25. Tanzania HIV stigma study: This study was intended to document HIV stigma within the healthcare sector in Tanzania. A data collection tool was designed (based on a modified version of the one used by the Rwanda HIV stigma study) and data collectors identified. A survey on levels of stigma towards HIV/AIDS patients was conducted at the start-up of the infection prevention activities to assess whether improving health worker knowledge with respect to infection prevention and HIV epidemiology and setting up a hospital-based risk management program could reduce this stigma. Data from the baseline assessment of stigma are being analyzed and will be used to make recommendations for continuing medical education.

26. HIV/AIDS workforce study in Zambia: This study was completed and published during the past year. It looked at workforce needs, constraints, and realistic strategies related to scaling-up HIV/AIDS services to the entire country. Data were collected from 16 sites throughout Zambia, including interviews with 102 providers (e.g., doctors, nurses, volunteers), patient record reviews, and direct observations of 320 client-provider interactions, 42 laboratories, and 25 ARV dispensing units. The results proved to be a major contribution to the deliberations of the Zambia Central Board of Health and led to several additional study opportunities in Zambia. Some key results: Stand-alone VCT sites providing only VCT serve 18 times more clients per day than integrated VCT sites offering a range of services. 68% of counselors at stand-alone sites are lay counselors compared to only 18% at the integrated sites, and lay counselors achieve a higher performance (against standard) than all health professionals except nurses. To increase the VCT uptake rate from the current value of 2% to the targeted value of 6% in the country would require 81 additional full-time equivalent counselors. To train enough staff to integrate PMTCT into routine antenatal and postnatal care across the country will require an investment of $3.9 million over the next 4-5 years. The pharmacy workforce would need to be increased by 22% and the laboratory workforce by 8% nationally to reach the current national target for ARV services.

27. Health worker bonus study in Zambia: This study will test how performance-based bonuses for health center staff influence health center performance. It will attempt to answer: Can financial bonuses influence health center performance in priority areas? How much do bonuses increase staff motivation relative to no bonuses? Is a bonus system perceived as fair and rewarding as the current "everyone gets an equal share" approach? The study is made possible by the new Zambia health reform that provides cost-sharing with facilities and allows up to 10% of the shared costs to go for bonuses. The study has just begun in three districts in Zambia.

28. Health worker HIV training study in Zambia: This study originated in the results of the Zambia HIV workforce study, which found no correlation between length of training and provider performance. The new study will take an in-depth look at training programs and workplace enabling factors to identify the features that lead to competence and effective worker performance. The results will be used to assist program managers and decision-makers to apply evidence-based criteria for selecting appropriate and affordable training programs and to enable the rapid and effective scale-up of HIV/AIDS services in Zambia. The study has been divided into two parts: a feasibility component and a research component. The feasibility phase, which has just begun, will explore the current status of training programs, focusing on their viability, training cycle dates, and training details, to inform the final study design.

Directions for FY05

In Year Three, QAP will complete the OR studies currently being undertaken by the project, including electronic publishing of study reports, and will design and implement new OR studies to address key implementation issues, particularly how to most effectively and efficiently support and carry out improvement collaboratives in developing countries. Potential new study topics identified include:

- Evaluation of the cost and effectiveness of the IMCI CD-ROM in Kenya. The newly updated IMCI computer-based training that QAP has produced would be evaluated relative to a traditional training program, in terms of effectiveness and sustainability of knowledge about IMCI by health workers, and in terms of cost.

- Nicaragua Mother-Baby Program as a focused accreditation success. The Mother-Baby Friendly Program in Nicaragua, launched in 1993, appears to have been successful in achieving and maintaining its goals. This study would document that success and explore key attributes of the program that might have led to its success as a focused accreditation program, including community involvement, high level continuing support, and concern with efficiency.
- Evaluation of the impact of the Pediatric Hospital Improvement Collaborative on quality of malaria case management in children under 5 in Niger. The proposed research would evaluate the impact of the Niger PHI Collaborative on improving quality of care for febrile illness and malaria in children under age 5. In addition to studying quality of malaria care, the proposed research would serve as an in-depth case study of an improvement collaborative in a resource-poor setting.
- Improved Measures of SBA Competency. QAP recently completed a study that measured the competency of facility-based skilled birth attendants in four countries. Although the measurement tool and procedures were effective, they took too long to administer. In collaboration with WHO, this study would develop and field test shorter, more efficient methods for measuring SBA competency.

3.2 Computer-based Training

Background

In collaboration with 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.

An earlier version of this product was field-tested in Uganda. Results showed that participants who used the CBT program earned the same scores on post-training knowledge tests and the same scores later during field compliance observations as those who were taught in traditional classroom settings. CBT training was also found to be cost-effective, costing about 20% less than traditional training.

Activities and Results

At the end of Year Two, QAP completed development of the updated CBT program, *Integrated Management of Childhood Illness*. The current version of the IMCI CBT program has been significantly revised in terms of content and functionality. The new IMCI CBT program mirrors the traditional course more closely 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 that is intended to sustain participants' interest. It also explains how to use the program for those without previous computer experience.

In July 2003, the IMCI CBT program was tested for usability in Eritrea. In this testing, participants of different profiles (physicians, nurses, students, instructors) worked with the content and interactive exercises in the program. The collected feedback was very positive and demonstrated that even computer illiterate participants considered use of the program very easy. This formative evaluation was the first phase of a two-phase study. The first phase aimed to evaluate product design; the second phase aims to assess the actual effect of the product as well as costs associated with using the IMCI CBT.

In June 2004, planning began for the second evaluation phase of the study. Discussions were held with the Eritrean Ministry of Health and College of Nursing on the research protocol and logistical arrangements. After further discussions, it was decided the evaluation should be conducted in a different country, since Eritrea would not be conducting traditional IMCI training during the time frame planned

for the evaluation. Instead, the College of Nursing requested that the IMCI CBT be applied in Eritrea in October as part of the pre-service training of the latest class of nurses. Discussions were held in September with the Ministry of Health of Kenya as an alternative evaluation site. The research protocol is now being finalized.

QAP has also made substantial progress on the Spanish version of IMCI CD-ROM this year. The Spanish IMCI program was tested for usability in Bolivia in June 2003. Once again, the collected feedback was very positive, and diverse participants' comments indicated the program was easy to use. The program will be finalized by the end of 2004. In 2003, QAP held discussions with the National TB Program of Bolivian MOH on plans for evaluation of the TB Case Management CD-ROM. However, the evaluation did not take place due to political instability in the country. QAP plans to resume this activity later in Year Three.

Directions for FY05

The project's main CBT activity will be to implement and evaluate the effectiveness of the updated IMCI CD-ROM and to complete the Spanish version of the IMCI CBT. Field testing will provide recommendations for the design of large-scale delivery of the IMCI CBT program, including training delivery and cost considerations. QAP will continue to explore new opportunities to develop and refine CBT products that support the project's priority work areas.

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

QAP's Training Director participated in the course review for the ACTMalaria Management of Malaria Field Operations course, in preparation for its planned Fall 2004 implementation. QAP country teams also conducted the following training activities during Year Two:

- Ecuador: CQI teams training
- Peru: Train five CQI teams in Max Salud clinics and Management Unit
- Honduras: Training in CQI to district and hospital teams and facilitators
- Nicaragua: Training in IMCI guidelines for hospitals; training in triage and in organization and implementation of hospital triage systems

Directions for FY05

A priority activity in Year Three will be to create a central archive of training materials developed by various staff to make available throughout the project, particularly to support the project's improvement collaboratives. The QAP Training Director will participate as faculty for the regional ACTMalaria course, Management of Malaria Field Operations, in Southeast Asia.

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 in which we are implementing workforce development activities.

Activities and Results

Research on the Competency of Skilled Birth Attendants

This study was completed in Year Two and an article reporting its major findings accepted for publication in the November 2004 issue of the *International Journal of Obstetrics and Gynecology*. As a result of this research, QAP has been invited by the Making Pregnancy Safer Initiative to participate in consultations to finalize development of standards for skilled birth attendant competency and to refine methods to measure SBA competency. The final report of the study of enabling factors associated with skilled birth attendant performance in four countries is being finalized.

Eritrea Workforce Development Technical Assistance

During Year Two, QAP provided six expatriate African nurse tutors to work within the Ministry of Health College of Nursing and Health Technology in Asmara and in two regional Associate Nursing Schools to improve the quality of nursing education. A pre-service QA/QI curriculum was developed, pilot-tested and incorporated within College of Nursing and Health Technology and Associate Nursing schools. Further, improvements were made to the way clinical onsite training via preceptors are monitored and conducted. (See section 2.1.)

Rwanda Workforce Analysis for HIV Service Expansion

This study was proposed at the end of Year One and approved early in Year Two. However, delays in receipt of funding caused the study's implementation to be delayed until July 2004. The study will assess the number of health providers offering services countrywide and will detail the number (and amount of time) dedicated to HIV/AIDS services and also include an assessment of employment policies, a review of HIV/AIDS plans, and provide staffing projections for existing plans (models) and alternatives. The assessment of training capacity and numbers in need of training, originally included in the draft workplan, will be left to TRAC (Tulane University) who will use the findings from the QAP study in their assessment of training needs. Rebecca Furth and Robert Gass traveled to Rwanda in September 2004 to gather data to estimate the number of health workers in the public sector and, to the degree possible, the private sectors. They will also gather information to make an estimate of the number of health workers currently providing HIV/AIDS services in Rwanda. A third part of their objective includes creating data collection instruments and a detailed research protocol to guide the assessment of service provision time, performance, and staff motivation that will encompass the bulk of the study.

Rwanda Study of Health Provider Behavior that Stigmatizes Patients with HIV/AIDS

During Year Two, data were collected from 18 PMTCT sites in Rwanda, with six focus groups conducted at six sites, and in-person interviews conducted at the remaining 12 sites with 110 healthcare personnel. In addition, 220 charts were reviewed to document outcome indicators of PMTCT services. The data are now being analyzed and will be reported in Year Three.

Functional Analysis of PTCMT Staffing in South Africa

The Soweto PMTCT program has had high uptake and high acceptance of preventive treatment by pregnant mothers, as well as effective support group assistance. The USAID Mission provided funds to QAP to conduct a "best practices" analysis of the program and of the workforce strategies used. The final report of this study will be completed by December 2004.

Job Aids to Improve Infant Feeding Counseling for HIV-positive Mothers in Tanzania

The job aids package was launched in February 2004. Six nurse counselors and 60 women (30 from the intervention PMTCT site and 30 from a control site) were subsequently followed to assess the impact of the job aids in counseling. The data from the evaluation are now being analyzed and will be reported by the end of 2004. (See section 2.4.)

Zambia Workforce Analysis for HIV Service Expansion

The final report of this study was published and disseminated in July 2004. A presentation on the study's findings by Initiatives Inc. was accepted for the American Public Health Association (APHA) conference in November 2004.

Zambia "Bonus" Incentive Study

This study seeks to take advantage of a recent Zambian health reform that provides for retention by health facilities of up to 10% of fees collected to test whether performance-based bonuses for health center staff influence health center performance. The study will be carried out in three districts. As part of the study, assistance will be provided to the districts in operationalizing the new scheme. The first awards were disbursed in June 2004. A survey on staff motivation was conducted in July 2004. The second performance awards were scheduled for August, but the reorganization of the Central Board of Health and the changes in processes that followed created several challenges for districts. Districts were able to complete their assessments of health facility performance only in September 2004. Another staff motivation survey is planned for October, after the performance awards for the second quarter have been issued.

Zambia Training Study

An in-depth study of Zambian training programs, trainees and workplace support will be conducted to identify the cost effectiveness of different HIV/AIDS provider training programs. The study is meant to provide guidance for choosing appropriate training for the scale up of services. The feasibility section is completed; all training sites have welcomed in principle an external evaluation of competency. The findings from the feasibility are being incorporated into the design of the second phase of the study, which should begin in the second quarter of Year Three.

Directions for FY05

In Year Three, we will complete the ongoing workforce research studies. A new study to review the literature on strategies to reduce attrition of health personnel, especially nurses, has been proposed.

3.5 Regulatory Approaches to Quality

Background

QAP includes regulation as an important component of assuring quality healthcare. QAP has published technical materials on licensing, certification and accreditation, hosted international conferences addressing the importance of stewardship and regulation, assisted Ministries of Health to initiate regulatory activities, and performed operations research to better delineate the impact of regulation, especially accreditation, on health outcomes.

Activities and Results

International Coalition for Treatment, Access and Care for HIV (ITAC)

In Year Two, QAP continued active involvement in ITAC's Quality of Care Working Group, participating in monthly working teleconferences and meetings at ISQua and in Geneva. The Quality of Care Working Group has been tasked with developing a standards-based model for evaluating the quality

of HIV care and support across the continuum of care. QAP provided inputs to the development of the model, which uses an accreditation approach, and participated in a review of draft HIV accreditation standards in Geneva in May 2004.

Dissemination of Findings of QAP Accreditation Research

QAP organized a workshop on Accreditation in Developing Countries at the International Society for Quality in Health Care (ISQua) conference in Dallas, Texas, in November 2003. The workshop included presentations on QAP accreditation research in South Africa and Zambia as well as a presentation by the Director of Health Accreditation of the Ministry of Health of Thailand. The workshop presented lessons learned from accreditation development in these countries to inform other countries considering the development of an external quality evaluation system. Deputy Director Diana Silimperi also assisted in the development of a presentation given by Paul van Ostenberg of Joint Commission Resources entitled "Effective Registration and Licensing of Health Professionals and Facilities: a Critical Improvement Action in Developing Country Health Systems," which was based on QAP's work in Eritrea.

Accreditation and Regulatory Options for Improving Quality in Latin America

Under the LAC Health Sector Reform Initiative, QAP hired a consultant to prepare a desk study of experiences in Latin America and the Caribbean with regulatory options for assuring quality of care. The study focused on accreditation experiences in Argentina and Brazil, as well as experiences in Honduras and the Dominican Republic to assure that health care facilities meet minimum performance standards through licensing. Based on the study and other QAP accreditation and regulation work, QAP organized a breakout session on "Accreditation and Quality-Oriented Regulation" at the LAC HSR Final Conference in Guatemala in July 2004. The desk study report will be finalized by the end of the year.

Study of Accreditation and other Options for Quality Regulation in South Africa

The study was commissioned by the National Department of Health in South Africa to inform the development of a policy on accreditation within the country's quality assurance framework. The study reviewed the current initiatives in accreditation in South Africa and came out with recommendations for the NDOH for medium- and long-term strategies to assure the quality of healthcare through accreditation.

Directions for FY05

In Year Three, QAP will continue to identify opportunities for adapting and testing regulatory strategies for improving quality of care in developing countries, especially when linked to health sector reform and when applied to the growing private sector in health service delivery. QAP will continue to participate in the ITAC HIV/AIDS Care Standards and Accreditation Working Group and will respond to country requests for assistance to implement effective regulatory strategies to improve the quality of healthcare services. A new operations research study will be implemented to evaluate the cost-effectiveness of the Mother-Baby Friendly Accreditation Program in Nicaragua.

3.6 Technical Leadership/Communication

Background

Providing technical leadership in the fields of quality assurance and human resource management in the international health community is 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), including technical reports and other written products published by the project; presentation of project approaches and results at international professional conferences, presentations, and briefings to USAID, donor, cooperating agency, and host country audiences; publication of articles on

QA/HRM methods and results in peer-reviewed journals; and operation of an Internet website for the project.

Activities and Results

The project continues to exert technical leadership in the field of quality assurance internationally, demonstrating USAID's commitment to advancing the state of the art of this field through groundbreaking work to adapt and implement the improvement collaborative approach in developing countries. This year, particular efforts were made to disseminate information on QAP's adaptation of the improvement collaborative methodology and its ongoing applications of the approach in HIV/AIDS, malaria, acute pediatric care, and essential obstetric care, in conference presentations and briefings to USAID staff, national health authorities, and cooperating agency staff.

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

QAP results and approaches were promoted through numerous technical publications and presentations (see table below). During Year Two, eleven operations research reports and six case studies were published. QAP staff also contributed a chapter on QA institutionalization to a new manual on evidence-based practice in healthcare published by the Oxford University Press. One article on OR results (competency of skilled birth attendants) was accepted for publication to a peer-reviewed journal, and two other articles (PHI and Rwanda stigma study) are in preparation. After extensive technical review, the text was finalized for QAP's joint technical review of programmatic evidence related to HIV and infant feeding; the document is now being laid out for publication in July 2004.

Associate Project Director Rashad Massoud represented QAP's experience in spreading improvement in less developed health systems as part of a group advising WHO on the scale-up strategy for the 3 x 5 Initiative. WHO recently published the document "An Approach to Rapid Scale-Up: Using HIV/AIDS Treatment and Care as an Example" that draws on QAP's experiences in Russia and Rwanda (WHO/HIV/SPO/04.01).

QAP Technical Publications and Presentations: 6/30/03–7/1/04

Peer-Reviewed Journal Articles
SA Harvey, P Ayabaca, M Bucago , WN Edson, S Gbangbade, A McCaw-Binns A, and BR Burkhalter. Forthcoming. Are skilled birth attendants really skilled? An initial assessment of SBA competence in Benin, Ecuador, Jamaica and Rwanda. *International Journal of Gynecology & Obstetrics.*
Operations Research Reports
5/04 M Boucar, M Bucagu, S Djibrina, W Edson, B Burkhalter, S Harvey, and C Antonakos. 2004. Safe Motherhood Studies—Results from Rwanda: Competency of Skilled Birth Attendants; The Enabling Environment for Skilled Attendance at Delivery; In-Hospital Delays in Obstetric Care (Documenting the Third delay). 39 pp.
5/04 P Tavrow and W Rennie. Neighbor-to-Neighbor Education to Improve Malaria Treatment in Households in Bungoma District, Kenya. 11 pp.
4/04 P Tavrow, L Malianga, and M Kariuki. Using Problem-Solving Teams to Improve Compliance with IMCI Guidelines in Kenya. 13 pp.
4/04 A McCaw-Binns, BR Burkhalter, W Edson, SA Harvey, and C Antonakos. 2004. Safe Motherhood Studies—Results from Jamaica: Competency of Skilled Birth Attendants; The Enabling Environment for Skilled Attendance at Delivery; In-Hospital Delays in Obstetric Care (Documenting the Third delay). 33 pp.
4/04 J Huddart, R Furth, and JV Lyons. The Zambia HIV/AIDS Workforce Study: Preparing for Scale-up. Prepared by Initiatives Inc., QAP partner. 74 pp.
3/04 P Ayabaca, S Harvey, W Edson, B Burkhalter, C Antonakos, J Hermida, and P Romero. Estudios de maternidad segura—Resultados del Ecuador: Competencia del personal calificado para la atención al parto; El ambiente viabilizador para la atención calificada al parto; Demoras en el tratamiento de complicaciones obstétricas dentro de los establecimientos de salud (Análisis de la tercera demora). 41 pp.

<table>
<tr><th colspan="2">Operations Research Reports, continued</th></tr>
<tr><td colspan="2">2/04 B Kerstiëns, A Akii, N Mbona, A Zziwwa, and WN Edson. Improving the Management of Obstetric Emergencies in Uganda through Case Management Maps. 31 pp.</td></tr>
<tr><td colspan="2">11/03 S Gbangbade, SA Harvey, W Edson, B Burkhalter, and C Antonakos. Safe Motherhood Studies—Results from Benin: Competency of Skilled Birth Attendants; The Enabling Environment for Skilled Attendance at Delivery; In-Hospital Delays in Obstetric Care (Documenting the Third delay).</td></tr>
<tr><td colspan="2">10/03 JW Salmon, J Heavens, C Lombard, and P Tavrow with foreword by JR Heiby and commentaries by S Whittaker, M Muller, M Keegan, and AL Rooney. The Impact of Accreditation on the Quality of Hospital Care: KwaZulu-Natal Province, Republic of South Africa. 49 pp.</td></tr>
<tr><td colspan="2">9/03 H Abdallah and P Ayabaca. Measuring the Cost of Inefficient Use of Laboratory Resources: Ecuador. 19 pp.</td></tr>
<tr><td colspan="2">7/03 Y-S Lin. A Survey of Users of the Quality Assurance Kit. 18 pp.</td></tr>
<tr><th colspan="2">Case Studies</th></tr>
<tr><td colspan="2">8/03 J Shabahang. Using Team Problem Solving to Improve Adherence with Malaria Treatment Guidelines in Malawi.</td></tr>
<tr><td colspan="2">7/03 Y-S Lin. Quality in Action in Rwanda: Case studies (translation from French of five quality improvement case studies).</td></tr>
<tr><th colspan="2">External Publications by QAP Staff</th></tr>
<tr><td colspan="2">1/04 DR Silimperi, T Veldhuyzen van Zanten, and LM Franco. 2004. “Framework for institutionalizing quality assurance.” In Evidence-Based Practice Manual: Research and Outcome Measures in Health and Human Services, Albert Roberts and Kenneth Yeager, eds. Oxford University Press.</td></tr>
<tr><th colspan="2">Briefings for USAID and Cooperating Agency Staff</th></tr>
<tr><td colspan="2">6/04 D Silimperi and I Gomez presented the approach and results of the PHI collaborative (focusing on Nicaragua and Guatemala) to PAHO MCH staff</td></tr>
<tr><td colspan="2">6/04 J Riggs-Perla presented at AID/W results of assessment led by Gani Perla of private sector services for TB in Cambodia. Approximately 30 USAID staff attended.</td></tr>
<tr><td colspan="2">6/04 N Kak delivered the presentation “Improvement Collaboratives: A New Method for Scale-up and Spread of Best Practices” at the Africa Bureau SOTA meeting in Johannesburg, South Africa</td></tr>
<tr><td colspan="2">6/04 B Burkhalter presentation at Bloomberg School of Hygiene and Public Health, Johns Hopkins University: “Operations Research in QA: Past Shoulders—Present Costs—Future Speculations”</td></tr>
<tr><td colspan="2">6/04 B Burkhalter and L Ryan workshop for the PVO Child Survival and Health Grants Program on approaches to improving the quality of health care at the district level, PVO Mini-University, Johns Hopkins University.</td></tr>
<tr><td colspan="2">12/03 J Hermida briefing at AID/W LAC on EOC Improvement Collaborative</td></tr>
<tr><td colspan="2">11/03 B Burkhalter presentation at Brigham Young University: “Public Health Impact of PVO Programs.”</td></tr>
<tr><td colspan="2">9/03 B Burkhalter presented to CORE group: “Diffusion, Scaling-up, Scaling-down, and All That.”</td></tr>
<tr><td colspan="2">8/03 P Tavrow presented Kenya vendor-to-vendor and neighbor-to-neighbor to 20 health professionals from 19 countries, including 12 in Africa, at meeting with UCLA experts on malaria.</td></tr>
<tr><td colspan="2">7/03 D Silimperi conducted two briefings at WHO Geneva: “Improving the Care of Hospitalized Children with Common Infections and Serious Malnutrition in Eritrea” and “Quality IMCI in Eritrea.”</td></tr>
<tr><th colspan="2">Conference Presentations</th></tr>
<tr><td rowspan="2">6/04 Global Health Council, Washington, DC</td><td>MR Massoud, LP Provost (Institute for Healthcare Improvement), and D Nicholas conducted a half-day skill building workshop: “Improvement Collaboratives: An Approach to Spreading Best Practices.” About 30 attended.</td></tr>
<tr><td>D Silimperi poster: “Improving the Care of Seriously Ill.”</td></tr>
<tr><td colspan="2">5/04 MR Massoud workshop at 9th European Forum on Quality Improvement of Health Care in Copenhagen, Denmark: “Implementing Large-Scale Improvement.” About 100 attended.</td></tr>
<tr><td colspan="2">12/03 MR Massoud oral presentation at the National Forum on Quality Improvement in Health Care in New Orleans, LA: “Implementing Improvement on a Large Scale.”</td></tr>
</table>

<table>
<tr><th colspan="2">Conference Presentations, continued</th></tr>
<tr><td rowspan="9">11/03 International Society for Quality in Health Care Conference, Dallas, TX</td><td>B Burkhalter oral presentation: “Enabling Factors Affecting Performance of Skilled Birth Attendants (SBAs).”</td></tr>
<tr><td>D Silimperi oral presentation: “Implementing Accreditation in a Developing Country: Issues, Challenges and Lessons.”</td></tr>
<tr><td>D Silimperi oral presentation “Improving the Quality of Care for Hospitalized Children in Eritrea.”</td></tr>
<tr><td>MR Massoud oral presentation: “A Collaborative for Spreading HIV/AIDS Care in Rwanda.”</td></tr>
<tr><td>MR Massoud workshop: “A Modern Paradigm for Improving Health Care Quality.”</td></tr>
<tr><td>MR Massoud oral presentation: “Adapting Collaborative Improvement Methodology for National Scale Spread of Health Care Improvements in the Russian Federation.”</td></tr>
<tr><td>P Tavrow oral presentation: “Impact of Accreditation on Quality of Hospital Care in Southern Africa.”</td></tr>
<tr><td>S Harvey oral presentation: “Are Skilled Birth Attendants Really Skilled? A 4-Country Study of SBA Competence.”</td></tr>
<tr><td>O Nuñez oral presentation: “Instituting Quality Improvement Systems at the SILAIS Level in Nicaragua.”</td></tr>
<tr><td colspan="2">11/03 P Tavrow oral presentation American Public Health Association, San Francisco, CA at APHA: “Improving Private Prescribing Practices and Consumer Demand for Recommended Anti-malarial Drugs in Kenya”</td></tr>
<tr><td colspan="2">10/03 B Burkhalter oral presentation at the Second International Conference on Urban Health at the New York Academy of Medicine: “Observations on Urban Health”</td></tr>
<tr><td rowspan="4">9/03 5th International Conference on the Scientific Basis of Health Services, Washington, DC</td><td>P Tavrow presentation on leveraging private sector drug outlets to reduce malaria</td></tr>
<tr><td>S Harvey panel presentation: “Are Skilled Birth Attendants Really Skilled? A 4-Country Study of SBA Competence.”</td></tr>
<tr><td>MR Massoud plenary presentation: “Using Evidence for System Improvement.”</td></tr>
<tr><td>B Burkhalter, E-R Anbarasi, J Hermida, J, YM Kim, and P Tavrow panel discussion on the impact of job aids on healthcare performance in developing countries, presenting examples of QAP work in Niger (cotrimoxazole job aids for health providers and mothers), Kenya (malarial prescribing job aid for pharmacists), Indonesia (improving FP counseling), and Uganda (case management maps for obstetric care) and discussing cross-cutting issues in evaluating job aids.</td></tr>
</table>

Dissemination of QAP Results and Methods at International Conferences and Briefings

As detailed in the table above, briefings were conducted at AID/W on the strategy of Latin American EOC Improvement Collaborative and on the results of the quality assessment of TB services in the private sector in Cambodia. A presentation on collaboratives was made at the Africa SOTA meeting in June 2004. Two presentations were made at WHO in Geneva (on the PHI assessment and quality IMCI work in Eritrea), and one briefing was conducted at PAHO on the PHI collaborative, focusing on the work in Nicaragua and Guatemala. Tailored presentations on QA approaches were made to five cooperating agencies.

QAP staff made 20 oral presentations and one poster presentation and presented three skill-building workshops at four international and three national (U.S.) conferences. QAP publications and CD-ROM products were distributed at the June 2004 Global Health Council (GHC) meeting, the April 2004 EUROLAC Forum in Brazil, and at the Implementing Best Practices meetings in Uganda (June 2004) and India (September 2003). A CD-ROM in English and Spanish presenting reports and CQI tools from the OR Study on the Scale-up of CQI within Ecuador’s Free Maternity Program was created for the EUROLAC Forum.

Rachel Jean-Baptiste’s poster “The Management of Hospitalized Patients with Pulmonary Tuberculosis in Rwanda” was accepted for presentation at the Bangkok AIDS meeting in July 2004. Dr. Harvey of the Ministry of Health of Jamaica was also accepted to present a poster in Bangkok with the results of QAP’s

follow-up study of PMTCT program mother-child pairs in Jamaica. Diana Silimperi's proposal "Using collaborative learning to improve pediatric hospital care in developing countries" was accepted at the 2004 ISQua conference, and her paper "Improving pediatric hospital care in developing countries" was accepted for presentation at the 2004 APHA meeting. Lani Marquez' paper "Scaling up essential obstetric care systems in Ecuador, Honduras, and Nicaragua," and Initiatives' paper on the Zambia HIV workforce study were also accepted for presentation at the 2004 APHA conference.

Management of the Project Website

Electronic dissemination through the QAP website, access to QAP publications on other websites, and in-house printing of limited quantities of publications in response to current demand continue to be the predominant modes of dissemination of project publications and information. The project's website was redesigned in-house and launched with a new look in November 2003. The new website eliminates the outdated frames of the original website and provides direct access to individual web pages and publications. As part of the new website design, the publications section of the website was reorganized to facilitate location of publications by type, title, and author, and cross-linkages to QAP publications by country, strategic area, and research topic were added to other sections of the website.

Directions for FY05

In Year Three, we expect to publish at least 14 new operations research study and technical reports. We will continue to target the GHC, APHA, and ISQua conferences for presentation of QAP results and methods but will also respond to other conference opportunities as they arise, pending availability of funding.

A major new technical leadership activity in the coming year will be to launch a QAP Collaboratives Extranet website to support communication and data reporting for the improvement collaboratives the project is now managing in several countries. Intranet software acquired at the end of Year Two will have additional custom programming done by the manufacturer to create data reporting and display features. QAP's website will be updated to reflect current country activities and research and new sections added to the website on improvement collaboratives and quality regulation. Following the updating of the country and strategic areas text, we will translate the core website text on project activities and approaches into Spanish and French, to create fully navigable QAP website sections in those two languages.

4 Short-term Technical Assistance

ACTMalaria

ACTMalaria, the Asian Collaborative Training Network for Malaria, is a consortium of 11 countries in Southeast Asia. Its purpose is to foster collaboration in the areas of both training and networking in order to meet the needs of malaria control programs in Southeast Asia and the Mekong Valley and to improve communication between the member countries on malaria control problems affecting their common borders. Participants for their courses are drawn from all eleven member countries and even beyond (e.g., India). In 2003, QAP participated in the Curriculum Review and Development for the course titled "Management of Malaria Field Operations," one of two courses for which QAP has been providing technical guidance and faculty since 2001. QAP developed and taught a module on Quality Improvement at the last course in 2001 and has been asked to do the same at the next course in 2004.

International HIV Treatment and Access Coalition

QAP continued to participate in the International Coalition for Treatment, Access and Care for HIV (ITAC), serving on the Quality of Care Working Group. This group has decided to use a general framework of accreditation as a guiding principle to develop standards for HIV care, as part of the WHO 3x5 strategy. Draft HIV accreditation standards have been developed by WHO, and in May 2004, QAP

participated in a meeting in Geneva to review the draft standards. QAP's input focused on the need to develop a framework that more explicitly links accreditation with quality improvement, allowing countries to move forward with the introduction of ARV therapy into existing facilities.

Maximizing Quality and Access (MAQ) Initiative

During Year Two, QAP continued to actively participate and provide leadership in the MAQ Initiative, especially in the Subcommittees on Management and Supervision, and the newest subcommittee, Organization of Work. QAP provided significant contribution to the Organization of Work subcommittee's document, "Organizing Work Better," which was published this year in *Population Reports*. In addition, QAP participated in the Annual MAQ mini-university in May 2004, making a presentation on the collaborative improvement approach.

During the year, QAP was also active in follow-up activities for the MAQ LAC Regional Exchange that was held in April 2002. Technical assistance was provided to seed-grant recipients in three of the LAC MAQ countries (Nicaragua, Dominican Republic, and Guatemala) in the revision of the quality improvement workplans they had developed at the Exchange to establish realistic goals for improvement. In February and March 2004, a consultant hired by QAP conducted a field evaluation of the effects of the LAC MAQ Exchange in Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. The evaluation reviewed the impact of the exchange on each of the participating countries, the effectiveness of the Exchange model, and the progress in each country in carrying out improvement activities. Revisions to the original consultant report were requested by USAID and will be completed in the first quarter of Year Three.

Implementing Best Practices Consortium

The Implementing Best Practices Consortium (IBP), composed of WHO and a group of partner agencies, is an initiative to facilitate the introduction, adaptation, and utilization of best practices in reproductive health care programs throughout the world. IBP held two international seminars in the past year in which QAP participated. The first was held in Agra, India, in September 2003, and the second in Entebbe, Uganda, in June 2004. QAP's Thada Bornstein contributed to the materials developed for the program, co-presented a presentation on Community-Driven Quality at the Mini-University, and facilitated small-group sessions for the 23-member team from Tanzania, which focused on improving essential obstetric services. These sessions used a Process Improvement methodology and, focusing on the team's current program, identified an area for improvement and one or more best practices to adapt as an intervention. Additionally, QAP displayed several publications at the Info Baraza in the Uganda meeting and distributed 200 copies of CD-ROMs containing QAP publications.

5 USAID Strategic Objective Areas

5.1 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 Two, QAP began to apply the improvement collaborative methodology to spread family planning (FP) and reproductive health (RH) best practices in Jamaica and developed plans for a second FP improvement collaborative in Tanzania.

Activities and Results

Maximizing Quality and Access (MAQ) Initiative

During Year Two, QAP continued to actively participate and provide leadership in the MAQ Initiative, especially in the Subcommittees on Management and Supervision, and the newest subcommittee, Organization of Work. QAP provided significant contribution to the Organization of Work subcommittee's document, "Organizing Work Better," which was published this year in *Population Reports*. In addition, QAP participated in the Annual MAQ mini-university in May 2004, making a presentation on the collaborative improvement approach. The Organization of Work subcommittee disbanded after its intended product was published.

During the year, QAP was also active in follow-up activities for the MAQ LAC Regional Exchange that was held in April 2002. Technical assistance was provided to seed grant recipients in three of the LAC MAQ countries (Nicaragua, Dominican Republic, and Guatemala) in the revision of the quality improvement workplans they had developed at the Exchange to establish realistic goals for improvement. In February and March 2004, a consultant hired by QAP conducted a field evaluation of the effects of the LAC MAQ Exchange in Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. The evaluation reviewed the impact of the exchange on each of the participating countries, the effectiveness of the Exchange model, and the progress in each country in carrying out improvement activities. Revisions to the original consultant report were requested by USAID and were completed in the first quarter of Year Three.

Improving Adolescent-Friendly Reproductive Health Services in Jamaica

In January 2004, QAP began working with the Adolescent Health Working Group of the Ministry of Health of Jamaica to plan a small improvement collaborative to help operationalize national standards for quality health services for adolescents. QAP supported a baseline assessment of compliance with adolescent-focused RH standards at five clinics being supported by the Youth Now Project in the country's Southern Region. The assessment found that staff preparedness to address needs of adolescents, waiting times, patient rights and confidentiality, and availability of drugs and supplies were the areas most in need of change. QAP is now providing technical support to improvement teams in the five clinics to plan and implement activities to address these problem areas and spread successful interventions across facilities.

Family Planning Improvement Collaborative in Tanzania

At the end of Year Two, QAP reached agreement with the Reproductive and Child Health Services branch of the Ministry of Health of Tanzania to implement in Year Three an improvement collaborative to strengthen the quality and integration of FP and MCH services in Tanzania. Three districts in Dar es Salaam Region (Ilala, Temeke, and Kinondoni) were selected to participate in the collaborative, and a workplan was agreed to which seeks to better integrate FP services in nine facilities in the three districts (three sites per district). In September 2004, two nurses were trained for data collection and the baseline assessments of current family planning services were completed at all nine sites. The results of the baseline assessment will inform the direction and change package of the collaborative and identify priority improvements. The first Learning Session with the nine teams is planned for October 2004.

WHO Implementing Best Practices Consortium

As noted in section 4, QAP facilitated sessions at both of the IBP international seminars held in this past year: in Agra, India, in September 2003 and in Entebbe, Uganda in June 2004. An IBP meeting for 2005 has not yet been planned, but if one is held, QAP will participate.

Directions for FY05

QAP will continue its active participation in the MAQ Initiative. The family planning improvement collaborative in Tanzania will begin 9/04 with a quality assessment of current services in 9 clinics and

then expand improvements to another 10 clinics. In Jamaica, QAP will provide support through December 2004 to teams in the five clinics in designing and testing improved care processes that can then be applied on a national scale by the Mission's new Adolescent RH project.

5.2 SO2 Safe Motherhood

Background

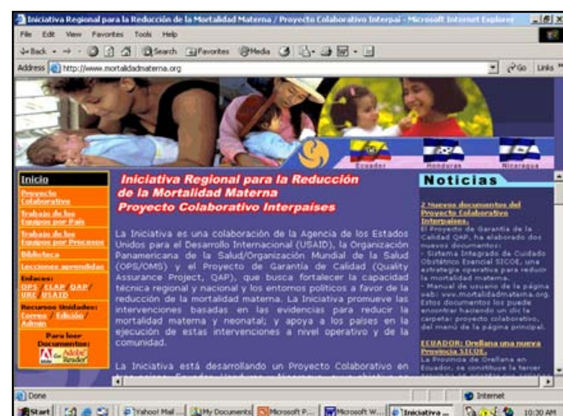
Improving the quality of and access to Essential Obstetric Care (EOC) and Skilled Attendance at Birth continue to be a major focus of the project's QA institutionalization activities and operations research program. In Year Two, QAP implemented the first-ever improvement collaborative in developing countries to spread best practices in essential obstetric care, in collaboration with the Ministries of Health of Ecuador, Honduras, and Nicaragua. Based on the success of the LAC EOC collaborative, QAP began developing plans for EOC improvement collaboratives in Africa and initiated work in Eritrea in the last quarter of Year Two. The project's safe motherhood research program expanded with five new studies—several addressing issues that emerged from the four-country SO2 studies that were completed this year. Country assistance in Nicaragua, Honduras, and Russia also emphasized institutionalization of quality improvements in maternal and neonatal care.

Activities and Results

LAC EOC Improvement Collaborative

In August 2003, QAP launched a multi-country collaborative in 5 regions of Ecuador, Honduras, and Nicaragua to establish integrated EOC systems, linking actions to improve community-level demand and access with improved facility-based care for normal deliveries (including active management of the third stage of labor), immediate newborn care, and management of obstetrical complications in hospitals.

Using rapid improvement methods and sharing results and ideas among themselves, 30 teams from public sector health facilities in the three countries have undertaken improvement activities in four main areas: institutionalizing continuous quality improvement to enhance compliance with evidence-based standards and improve critical care processes, establishing clinical training mechanisms to upgrade the skills of providers, adapting obstetrical practices to make them more culturally appropriate, and mobilizing communities to increase demand for, access to, and utilization of skilled obstetric care, particularly for the management of complications.



To facilitate communication among teams, QAP created a website for the EOC collaborative that was launched in November 2003. Teams upload their monthly monitoring data and short reports of the results of rapid quality improvement cycles directly to the website and view these results for other teams. The website, www.mortalidadmaterna.org, includes both public access and password-protected areas, including materials used at the learning sessions, prototype IEC materials, and pages for each EOC system and facility team to post their measurement data and improvement reports.

In less than 12 months of actual improvement activities, teams in each region have demonstrated large gains in compliance with critical standards of obstetric care (see table on p. 26). More importantly for the eventual scale-up of the improved care model to the larger health system in each country, the EOC Improvement Collaborative's activities have tripled in scope, to include 18 regions in the three countries as of September 2004. Ecuador has expanded to 3 of the country's 22 provinces, Nicaragua to 13 of the 17 SILAIS (combining its former maternal care work and

the EOC collaborative), and Honduras to 2 of the 9 health regions of the country. Results from the LAC EOC Collaborative demonstrate that rapid improvement in the quality of maternal and neonatal care services is possible when a comprehensive, systemic approach to addressing all components of the continuum of maternal care is implemented.

Africa EOC Improvement Collaboratives

Based on the results of the LAC Collaborative, QAP began planning in early 2004 a multi-country EOC Collaborative in Africa. Activities began in Eritrea in April 2004. The EOC improvement activities in Eritrea are carried out in close coordination with the bilateral TASC2 project, which will support the scale-up of successful improvements to other zones. Discussions were held with the Ministry of Health of Rwanda in May 2004; a final decision on whether Rwanda will participate will be made by the end of 2004. After several rounds of discussions with the Ministry of Health and USAID Mission in Benin, approval was obtained in September 2004 to proceed with the EOC Collaborative in that country.

Operation Research

As noted in section 3.1, in Year Two, QAP published the final country reports for the three SO2 studies that had been initiated at the end of the prior contract on SBA competency: enabling environment for skilled attendance at birth, and in-hospital delays in the management of obstetrical complications. The Jamaica results of the three studies were presented at a national workshop in Jamaica in May 2004. An article reporting the results of the SBA competency study was accepted for publication in the *International Journal of Gynecology & Obstetrics*. The other two study reports are still in preparation.

Based on these three studies' findings, in Year Two, QAP developed the following new SO2 OR studies: improving maternal mortality surveillance (Jamaica); development of a model for community follow-up of post-partum complications (Jamaica); determinants of choice of institutional delivery and perceptions of quality of care (Ecuador); low cost methods of measuring management of obstetric complications (multi-country); and development and testing of improved measures of SBA competency (multi-country).

As discussed in more detail in section 3.1, preliminary analysis of maternal mortality surveillance data in Jamaica found that 30% of maternal deaths occur post-discharge. The community-based postpartum care study will develop a new intervention to detect and more effectively manage postpartum complications in Jamaica. The feasibility study for the postpartum intervention was completed and a meeting held with key stakeholders in Jamaica to begin the design phase.

In Ecuador, QAP carried out formative research in March and April 2004 to refine and pre-test questions on client decisions about place of delivery and perceptions of obstetric care quality, to assess the impact of the MOH's maternal care quality program. The final questions were accepted for inclusion in a subsurvey of the national ENDEMAIN demographic and health survey, which will be completed in October 2004. QAP will then analyze the results to assess the relationship between choice of delivery site and perception of service quality.

In collaboration with the Initiative for Maternal Mortality Programme Assessment (IMMPACT) of the University of Aberdeen, QAP is developing a research project on improved methodologies for measuring performance in managing obstetric complications. The draft proposal is still in circulation among the principals, attempting to address practical ways of measuring the proposed indicators.

Based on QAP's study of skilled birth attendant competency, the Making Pregnancy Safer Initiative (consisting of WHO, the International Federation of Gynecology and Obstetrics, and the International Confederation of Midwives) has invited QAP to participate in consultations to develop international standards for skilled birth attendant competencies and has requested QAP assistance to refine methods for assessing SBA competence.

Finally, data collection continued in Year Two for the study initiated in 2003 to document the scale-up of maternal and neonatal care best practices through Ecuador's Free Maternity Program, where compliance

with key quality standards is being tied to receipt of funding and user satisfaction with services. The Free Maternity study is documenting lessons learned from the scale-up of the program in approximately 50 of Ecuador's 180 districts.

Improving Maternal Care through QA Institutionalization

As discussed in the country reports in section 2, QAP country programs in Honduras, Nicaragua, and Russia included significant activities to improve maternal care. In Honduras, in addition to the activities of the EOC Improvement Collaborative in Region 5, the work of quality improvement teams in Region 2 has focused on improving compliance with prenatal care standards, labor monitoring, and immediate postpartum care. In Russia, as part of the national scale-up of the quality improvement methodology, teams from 11 oblasts addressed pregnancy-induced hypertension and respiratory distress syndrome in neonates. Five oblast teams addressed anemia in pregnancy as part of spreading the improved models of care developed under the USAID-funded Women and Infant Health in Russia Project. Although these collaboratives ended in June 2004, teams plan to continue data collection through December 2004 to document the gains made. Final results will be presented at a national conference in Russia in 2005.

Directions for FY05

In Year Three, QAP will continue to manage the LAC EOC collaborative with field support and SO2 funds, supporting teams in sustaining gains achieved thus far and in making further improvements in weaker areas of their EOC systems. The coming year will see the scale-up of the EOC improvements to additional provinces/regions in each country. QAP expects by the end of FY05 to have expanded the LAC collaborative to a second region in Honduras, to eight other regions in Nicaragua (covering 13 of its 17 regions), and to 8 more provinces in Ecuador (to cover 11 of its 22 provinces). The Africa EOC Collaborative will be rolled out in Eritrea and Benin, and we will finalize selection of a third country and initiate field work there. QAP will also collaborate with the Making Pregnancy Safer Initiative (WHO/FIGO/ICM) to finalize standards for SBA competencies and field test assessment instruments based on these standards in one LAC and one African country. The study of low cost methods of measuring competency of managing obstetric complications and a new study to assess impact of the 10-year Mother-Baby friendly focused accreditation program in Nicaragua will be launched. Data analysis will be completed and results disseminated for the Jamaica mortality surveillance study and the Ecuador study of impact of QA activities on household decisions about delivery. The community postpartum follow-up intervention will be implemented in Jamaica and evaluated.

5.3 SO3 Child Health

Background

Over the last decade, QAP has worked in over 20 countries 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 to design and strengthen the health care delivery systems so that they can improve the quality and outcomes of child healthcare services. To achieve such results, QAP has developed or adapted for developing countries a variety of cutting-edge QA methods and tools such as quality improvement collaboratives, performance-enhancing job aids, computer-based learning, and certification of health facility performance. The project has applied these approaches within community-based care, primary care, and referral facilities.

Activities and Results

In Year Two, QAP continued to use its experience, skills, and methods to help countries implement a child health care model that cuts across the continuum of child health, from the community to hospitals, is driven by evidence-based standards (IMCI), focused on the most common conditions that cause morbidity and mortality, and spread by shared learning through a collaborative approach to improvement. Thus, the project's main SO3 focus was to apply rapid quality improvement and the collaborative learning approach

to effective implementation of IMCI at primary care and hospital levels: facility-based IMCI (at primary health care levels) in Eritrea, and hospital-based pediatric improvement for the care of sick children with serious infections and severe malnutrition in Eritrea, Malawi, Niger, Nicaragua, Guatemala and Tanzania.

Pediatric Hospital Improvement Collaborative (Eritrea, Niger, Nicaragua, Guatemala, Malawi, and Tanzania)

In 2003, in partnership with each country's Ministry of Health, QAP began a multi-country Pediatric Hospital Improvement (PHI) Collaborative to improve quality of hospital care for seriously ill children, starting with Eritrea, Niger, and Nicaragua. In 2004, Guatemala and Malawi joined the PHI Collaborative, and Tanzania will start in September 2004. In each country, the process began with assisting each MOH to adapt the WHO Referral Manual guidelines to its national standards, identify technical advisory groups and coordinating bodies for the PHI, agree upon the common indicators to measure progress, and selecting the initial group of hospitals to participate. Using the adapted guidelines, an interactive assessment of the selected facilities was then performed in each country by teams of national practitioners (including pediatricians, general practitioners, and nurses) who simultaneously introduced the guidelines, assessed current practices, identified existing best practices, and initiated on-site rapid improvements. These facilitator-assessors also served as leaders of improvement efforts in their own hospital.

During the year, PHI baseline assessments were completed in Niger, Nicaragua, Guatemala, and Malawi. Results of the assessments in Eritrea, Niger and Nicaragua revealed that out of 800+ children directly observed in 39 hospitals, only a minority of severely ill children were treated according to the guidelines (ranging from 6% in Niger to about 45% in Nicaragua). Management of severe malnutrition and dehydration needed the most improvement. Management of pediatric emergencies was also sorely lacking; only 1 of 39 hospitals performed to WHO emergency case management standards. Triage systems were present in only a few hospitals; providers lacked training and job aids to adhere to the standards; and management was hindered by poor organization (layout, patient flow, accessible supplies and medicines). Essential drugs and equipment needed for the management of common conditions, including emergencies, were usually present in most hospitals (although more of a problem in Niger). However, pediatric emergency care equipment was lacking or not functioning in many hospitals, and oxygen supply and/or correct use was lacking in most hospitals in all countries. Patient monitoring and nutritional support for hospitalized children were two common areas needing marked improvement in all three countries.

Following the initial assessment, teams in each facility began introducing changes in their current systems of care and monitoring their results, using a common set of PHI indicators. Most of the improvements identified required better use of existing resources and are expected to result in cost savings as well as improved clinical outcomes. After the initial interactive assessment, teams in each country came together for periodic learning sessions, at which a specific pediatric care process was the focus, to share experiences and ideas for improving care in that area. In this way, the teams become part of a national (and eventually, international) network, sharing and learning together. During Year Two, three learning sessions were completed in Eritrea, as well as a Training of Trainers in Emergency Triage, Assessment and Treatment (ETAT). Niger also completed three learning sessions; Nicaragua, four; and Malawi, one.

Improvement activities undertaken after the assessments in the first three countries have already shown results in terms of documented, sustained improvements in compliance with key pediatric care standards. PHI activities are also linked with efforts in each country to improve IMCI at the primary health care level.

The spread of PHI to new hospitals is also part of the workplan in each country, with representatives from the first group of facilities in each country serving as facilitator-assessors to introduce PHI to other regions or facilities. In this way, country-specific approaches and improvements can be spread more quickly. External technical support is minimized, and local capacity is developed through practical trials and shared learning across teams. Another significant aspect of the PHI Collaborative is that it is reaching

large portions of the hospital sector in each country. In Eritrea, the 10 participating hospitals serve 74% of the population; in Nicaragua, the 10 participating hospitals serve 45% of the population; and in Niger, 6 of the country's 10 national/regional hospitals and 8 of 33 district hospitals participate. Spread to all hospitals is part of PHI's strategy in each country.

The following table indicates the progress and approximate coverage of the hospitals involved in PHI by country.

PHI Implementation Status as of September 2004

Country	Status	Ultimate Scale Up Goal over next 1-2 years
Eritrea	10 hospitals in 4 *zobas* representing 74 % of country population	All 19 hospitals in 6 *zobas*
Nicaragua	10 hospitals in 10 regional health systems (SILAIS), representing 45% of country population	All 21 hospitals in 17 SILAIS
Niger	6 national/regional hospitals 8 district hospitals in 8 districts, representing 25 % of country population	All 10 national/regional hospitals All 33 district hospitals
Malawi	8 district hospitals in 8 districts, representing 30% of country population	All 27 district hospitals
Guatemala	13 hospitals (6 district, 2 regional, 5 departmental)	All 47 hospitals

Also during the past year, QAP continued its collaboration with WHO to develop generic materials and to adapt them for use in introducing the PHI (including ETAT) approach in a number of additional countries. The WHO and UNICEF country offices have been supportive partners in the implementation of PHI activities in Eritrea, Nicaragua, Tanzania, Malawi and Niger, often contributing significant funding of local costs. WHO is also interested in working with QAP in Kenya, Nigeria, and Cambodia to implement pediatric hospital care improvement interventions in those countries.

During the year, QAP refined the hospital assessment instrument based on the first PHI country experiences. The refined instrument is now available in English, Spanish, and French. Progress was also made in standardizing the technical and quality improvement content of the PHI learning sessions. Several supporting materials were developed or adapted, such as the ETAT training course, booklets for self-monitoring of the PHI common indicators, and forms for documenting mentoring visits and specific changes tested to improve the quality of care according to the standards.

IMCI Computer-Based Training

As was discussed in section 3.2, QAP completed the expanded and updated version of its computer-based training in IMCI, which parallels WHO's current IMCI training course and offers a cost-effective tool for enhancing impact of classroom training and reducing its duration. QAP will support the application of the new IMCI CD-ROM in two to three countries in Year Three.

Development of Jobs Aids to Improve Infant Feeding Counseling

Drawing on the review of programmatic evidence on HIV and infant feeding completed this past year, QAP collaborated with the MOH, Tanzanian Food and Nutrition Centre, local universities, WHO and UNICEF to design, based on formative research, an integrated package of infant feeding (IF) job aids for use in Tanzania's PMTCT program. The job aids and counseling brochures were field tested and revised, and based on excellent response, the materials will be rolled out in three of Tanzania's seven health zones in Year Three (see section 2.4).

Adolescent-Friendly Standards

QAP continues to collaborate with WHO on the development of standards for quality adolescent health services. The baseline assessment of adolescent RH services completed in Jamaica showed that waiting times, patient rights and confidentiality, availability of drugs and supplies, and staff preparedness to address needs of adolescents were the most important areas to improve. QAP presented QI approaches for developing adolescent-friendly health services to MOH representatives from eight Southeast Asian countries in a WHO Regional Consultation in February 2004.

Directions for FY05

Over the coming year, QAP will continue to provide leadership in child health through participating in international conferences, publishing and disseminating cutting edge technical materials, program and OR results, as well as providing technical assistance to national governments, international bodies and NGOs. PHI with a focus on pediatric AIDS treatment will be introduced in Tanzania (with PEPFAR funding) in September 2004. Improvements will continue in Eritrea, Nicaragua, Guatemala, Malawi and Niger, with a focus on sustaining gains and expanding to new hospitals.. Improvement activities related to nutritional management will be implemented in all six PHI countries. The updated IMCI CBT will be implemented to improve provider competency in Kenya and Eritrea in collaboration with each respective MOH. QAP will also initiate a new activity to facilitate collaborative improvement related to Essential Maternal and Newborn Care (EMNC) and PMTCT in selected African countries.

5.4 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. The support provided by QAP 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

Operations Research

In the past year, QAP supported operations research on HIV workforce and training issues to inform program improvement and scale-up in several countries (see section 3.1 for further discussion of these studies). Following on the analysis of the workforce implications of HIV/AIDS program scale-up conducted last year in Zambia, QAP initiated a second HIV workforce development study in Zambia through subcontractor Initiatives Inc. This study will identify key training program elements that lead to effective performance and analyze the cost-effectiveness of different training courses. In Rwanda, a comprehensive assessment of HIV workforce and training needs, options, and costs was initiated at the end of Year Two. Data collection was completed for the study of HIV stigma among healthcare providers in Rwanda. The study to document best practices and strategies that have led to high performance in the PMTCT Program in Soweto, South Africa, was also started.

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. An electronic archive of the program and research reports reviewed for the study was created on the QAP website, to provide a resource for PMTCT program managers. As was discussed in sections 2.4 and 5.3, 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 infant feeding job aids developed in Tanzania were also shared with WHO and the Academy for Educational Development's Linkages Project, which plan to adapt them for use in other countries.

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 begun a demonstration project in Rwanda to test approaches for HIV/AIDS case management in the community through local NGOs. An assessment of community-based services available to PLWHA in Rwanda from 43 NGOs was carried out. QAP expects to contract with three of these organizations in Year Three to initiate community-based case management.

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 undermine basic maternal and child health services. 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.

Improving the Quality of HIV/AIDS Care

Rwanda HIV/AIDS Improvement Collaboratives

In Year Two, 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 12 provinces of the country. Results include an increase in the percent of HIV-positive pregnant women receiving Nevirapine to 100% in 8 sites (previously best site at only 65%), and an increase in partner testing from 22% to 37% in the first 4 months of the collaborative. QAP also planned and launched at the end of Year Two, a second national HIV/AIDS Antiretroviral Therapy (ART) improvement collaborative in Rwanda, to improve the management and service quality of antiretroviral treatment in all 16 sites in the country that provide ARVs. (See section 2.2.)

HIV/AIDS Care Improvement Project in Russia

In the second half of Year Two, QAP began planning for a new activity in Russia, to follow on the national scale-up of the improvement collaborative methodology that was completed in June 2004. In collaboration with the American International Health Alliance (AIHA), QAP will use QI methods to design a model comprehensive system of care, treatment, and support for HIV-infected and AIDS patients, including collaborative meetings in which the territories will have the opportunity to share their ideas and experiences with one another. In Year Three, the model will be developed in Samara Oblast, Saratov Oblast, Orenburg Oblast, and St. Petersburg City with a plan for spread throughout these territories and to others in the Russian Federation.

Operations Research

To inform improvement strategies for the new ARV Collaborative in Rwanda, QAP conducted a study of antiretroviral therapy adherence in King Fayçal hospital in Kigali, the most prestigious treatment facility in the country. The study found that 31% of patients missed a dose in the previous week, and that only 22% of patients said they've never missed a dose. The Government of Rwanda and USAID have asked that the study be expanded in Year Three to four additional sites.

In Jamaica, as a follow-on activity to technical assistance to the national PMTCT program, QAP conducted a study on the infant feeding practices and sero-conversion of children born to HIV-positive women who had participated in the Ministry of Health's pilot PMTCT program through December 2002. The results of the study were presented at the International AIDS Conference in Bangkok in July.

Directions for FY05

Continued implementation of the two HIV/AIDS improvement collaboratives in Rwanda and HIV-related operations research will be the major focus of QAP's SO4 workplan in Year Three. Both the PMTCT-VCT and the ART Collaboratives in Rwanda will be expanded to 20 new sites each. The collaboratives are expected to achieve significant improvements in the percentage of pregnant women tested, HIV-positive women and their infants treated in delivery period, children tested at 18 months, and patients treated according to standards and adhering to therapy. The study of workforce/training needs for scale-up of HIV/AIDS care in Rwanda will be completed and will present options for the expansion of the HIV workforce to meet national goals of providing HIV/ART care to all in need within 5 years. The Zambia HIV training study will also be completed, to inform national policy and strategies in Zambia to meet targets of the country's Global Fund award.

5.5 SO5 Infectious Disease: Anti-microbial Resistance

Background

To reduce unnecessary and inappropriate use of antibiotics, QAP has developed job aids and provider training to help medical providers correctly diagnose and treat infectious diseases and effectively counsel clients on correct drug use. QAP research in previous years developed and evaluated job aids to improve correct provider use of and patient adherence to cotrimoxazole for the treatment of childhood pneumonia in Niger and to improve the correct dispensing of anti-malarials by private sector vendors in Kenya.

Activities and Results

Preventing Unnecessary Infections and Resulting Antimicrobial Use inTanzania

During the past year, QAP implemented a small infection prevention collaborative in Tanzania aimed at preventing nosocomial infections and in turn, reducing unnecessary antibiotic use. An initial assessment of infection prevention (IP) practices was conducted in 33 health facilities in Tanzania. IP improvement activities were then implemented in four hospitals, using the improvement collaborative methodology. The participating hospitals were three district hospitals in the Dar es Salaam region and one private hospital (Mikocheni mission teaching hospital), which joined the collaborative on its own initiative in October 2003). QAP used the improvement collaborative approach to discuss and plan quality improvement in infection prevention on a region-wide basis. The activities focused on high-risk areas of HIV transmission such as operating theaters, labor and delivery, and laboratory in the three district hospitals. Infection Control Committees at each hospital were trained. They developed priorities and work plans, agreed on priority areas for improvement based on the assessment, and subsequently developed indicators based on standards to track the improvements. Quality improvement teams were established for each focus area: waste disposal and appropriate handling of sharps, protective wear and hand washing/ scrub technique, and disinfection and sterilization of instruments.

Improving Private Sector Prescribing and Patient Adherence for Anti-malarial Drugs

QAP disseminated information on the vendor-to-vendor (VTV)/neighbor-to-neighbor (NTN) approaches shown effective in Kenya to increase treatment adherence at low cost at the Roll Back Malaria consultative meeting in Accra, Ghana in May 2004 and at the American Public Health Association meeting in November 2003. Plans to expand the VTV/NTN malaria interventions with the MOH in Kenya fell through due to changes in national drug policy and a lack of clear national guidelines.

Directions for FY05

QAP will continue discussions with USAID and MOH in Uganda and Malawi as possible sites for introducing the VTV/NTN interventions. In Tanzania, posters and job aids to reinforce IP practices will be developed in English and Kiswahili for national dissemination. QAP will also initiate new operations research to examine how to best design strategies to rapidly introduce new drugs as a result of antimicrobial resistance. The spread of resistance to chloroquine (CQ) and sulfadoxine-pyramethamine (SP) has necessitated the rapid introduction of new lines of treatment for malaria in many parts of the world, including Sub-Saharan Africa. Despite this fact, we have virtually no information about how caregivers and patients understand resistance or the need to change from one drug to another. QAP will use qualitative ethnographic methods to carry out applied research on local understandings of resistance in Kenya, to help the National Malaria Control Program successfully implement the recently announced change in first-line treatment.

5.6 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

The Malaria Collaborative focuses on improving case management for children less than 5 years old diagnosed with malaria. Work was initiated with 60 health centers and hospitals in four districts, but implementation of activities was delayed by difficulties in coordinating the necessary technical assistance in quality improvement to so many sites from the central level. In order to strengthen real collaboration between teams and ensure adequate support, in July 2004, the MOH and QAP decided to reduce the number of sites participating in this pilot phase to 23 sites (20 health centers and three district hospitals) in the four districts. All of these teams participated in the third learning session of the collaborative, held in July 2004. QAP also hired a local technical advisor who will focus on providing the necessary technical assistance to these sites.

Management of Malaria in the Private Sector

Prior work by QAP uncovered many problems associated with the private malaria drug market in Kenya. Discussions were held with Kenyan authorities to implement the vendor-to-vendor (VTV) and neighbor-to-neighbor (NTN) interventions developed by QAP in Bungoma District to other districts in Kenya, but the plans were cancelled when the Government of Kenya officially changed the national malaria guidelines and the recommended new anti-malarial drugs, which have not been published or circulated. Discussions have been initiated with USAID and the MOH in Uganda and Malawi as possible sites for implementing VTV/NTN in Year Three.

ACTMalaria

QAP has contributed content on quality improvement approaches to training courses delivered by the Asian Collaborative Training Network for Malaria (ACTMalaria) since 2001. ACTMalaria serves 11 countries in Southeast Asia. In the past year, QAP participated in the Curriculum Review and Development for the Management of Malaria Field Operations Course.

Design of Malaria Rapid Diagnositic Test Job Aid for Low-level Health Workers

In partnership with the WHO Western Pacific Regional Office (WHO/WPRO), QAP carried out quality design research in the Philippines and Laos to develop and test an illustrated rapid diagnostic test (RDT) job aid for community health workers with low literacy skills and little or no prior training. The RDT job aid was intended to substitute for the manufacturer's instructions, which were seen as overly technical and complicated for use by low-literacy individuals. In the Philippines, performance among community health workers using a cassette-style RDT improved from 57.6% correct with manufacturer's instructions to 74.4% correct with the job aid. In Laos, performance with the RDT cassette improved from 78.6% correct with manufacturer's instructions to 91.3% correct with the job aid. Performance among Philippine community health workers using a dipstick-style RDT improved from 47.1% using manufacturer's instructions to 65.9% correct with the job aid. Dipstick results were not available from Laos. The main obstacle to adequate performance in both countries was community health worker failure to wait a sufficient amount of time before reading test results. QAP and WHO/WPRO will address this issue in future rounds of job aid development.

Directions for FY05

QAP will present the RDT study results at a Roll Back Malaria (RBM) meeting in Geneva in November 2004. Implementation of the Malaria Collaborative in Rwanda will continue through June 2005. QAP will work to introduce the VTV/NTN initiative into one other African country. QAP will build on last year's RDT job aid research but will now focus on one or two African countries making the transition to artemisinin combination therapy (ACT). Given the high cost of ACT compared to previously used mono-therapies, RBM and many African governments are anxious to move away from presumptive treatment of all febrile cases and develop a low-cost method for diagnosing malaria employing RDTs.

5.7 SO5 Infectious Disease: Tuberculosis

Background

Tuberculosis continues to pose a serious threat to public health in many countries and has been exacerbated by the emergence of HIV/AIDS. Most countries with high burden of TB continue to 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. Poor compliance by providers and patients with the prescribed guidelines/therapy results not only in lower cure rates but also in the development of multi-drug resistant tuberculosis strains.

A well-designed TB program comprised of case identification, case management, and disease prevention, along with effective surveillance and monitoring systems can reduce tuberculosis rates. QAP has developed TB case management guidelines, using computer-based training, and has supported the development and testing of improved programmatic strategies in South Africa. 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 Two, QAP conducted two low-cost TB studies in conjunction with other ongoing country programs.

Cambodia Tuberculosis Assessment

The 2002 National TB Prevalence Survey in Cambodia found that the private sector is the dominant provider of TB services in Cambodia, yet little is known about the nature or extent of such services. These findings, combined with the fact that Cambodia could leverage the private sector in fighting TB, suggested the need to examine the nature of private sector TB services, particularly those of private

practitioners, pharmacies, and drug sellers. QAP conducted a rapid study in Year Two to document the nature and extent of TB services provided by private sector providers and examined TB patients' motivation in using the private sector. The study was carried out in Cambodia's four major provinces (Phnom Penh, Battambang, Siem Reap, and Kratie), conducting in-depth interviews with 162 doctors, 204 pharmacists or pharmacy staff, 126 drug sellers, and 60 TB patients. Physician respondents were largely selected on the basis of their location and patient/client load; pharmacies and drug sellers in high pedestrian traffic areas were chosen. The study found that 68% of TB symptomatics seek care from private physicians or pharmacies; only 31% were diagnosed on the basis of sputum tests, while 26% were diagnosed by X-ray. The study found that in general, TB case management among private providers in Cambodia is poor and that most pharmacies and drug sellers offer TB drugs and a large variety of other drugs for treating TB symptoms. Drug dispensing does not adhere with national guidelines, TB information given to clients is limited, client referral is low, and social stigma is strong.

The study's results were presented to authorities in the National TB Program in June 2004. QAP will work with the National TB Program in Year Three to support the development of national private-public mix strategies and pilot test alternative approaches to reduce harmful practices among private providers, pharmacies, and drug sellers and help bring them into compliance with the national TB control strategy.

Bangladesh Systems Analysis of Public and Private DOTS Delivery Systems

QAP commissioned a rapid systems analysis of the TB service delivery system in Bangladesh in order to assist the National Tuberculosis Control Program (NTP) in developing a strategy for expanding access to and improving the quality of TB services. The rapid assessment examined TB-DOTS service delivery within the public and NGO sector, including existing structures and functions for prevention of the spread of TB; promotion of DOTS; program capacity; and systems used for case detection, referral, case management, and general surveillance and monitoring of programmatic outputs and impact. Cross-sectional data were collected over a six-week period (May–June 2004). Ten government health facilities and 15 NGO clinics were purposively selected from the three city corporations of Rajshahi, Khulna, and Chittagong. Data were collected through interviews; skills observations using a structured, program-based observation checklist; and review of existing records and reporting formats.

The assessment found that case detection in the government facilities is low, although cure rates in public facilities are higher (around 78%). NGO clinics need to use strategies to improve their low cure rates. Most government facilities do not offer home visits for DOTS support, except to follow up defaulters. Furthermore, although the assessed facilities were moderately well equipped in terms of physical infrastructure and available personnel, there is room for improvement. The assessment found technical capacity and record keeping and reporting in government facilities to be adequate; what few gaps exist could be corrected by appropriately functional supervision and monitoring systems.

Directions for FY05

Based on the Cambodia study results, QAP will support the National TB Program in implementing a public-private mix model to use private pharmacists to screen and refer TB symptomatics, with a target of reaching 20,000 TB patients next year. QAP will also work with the NTP in Bangladesh to develop a package of evidence-based interventions to improve access to and quality of TB services. QAP will continue to support facility-based improvements in TB case management as part of QA institutionalization activities in five provinces of South Africa and will also conduct a rapid study on the effectiveness of DOTS supporters, a strategy that has been implemented on a national scale in that country. The approved multi-country study of the quality of TB diagnosis, treatment, and laboratory services will be launched. QAP also plans to present a training workshop on the use of QI methods to strengthen TB programs at the October 2004 International Union Against Tuberculosis and Lung Disease meeting in Paris.