

USAID HEALTH CARE IMPROVEMENT PROJECT

Task Order 1

FY08 Annual Project Report

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Table of Contents

LIST OF BOXES, FIGURES, AND TABLES.....	II
ABBREVIATIONS	V
EXECUTIVE SUMMARY	IX
1 INTRODUCTION.....	I
2 COUNTRY AND REGIONAL TECHNICAL ASSISTANCE	I
AFRICA	I
2.1 AFRICA REGIONAL BUREAU/ORPHANS AND VULNERABLE CHILDREN.....	I
2.2 BENIN	4
2.3 COTE D'IVOIRE	6
2.4 LESOTHO	8
2.5 NAMIBIA.....	10
2.6 NIGER.....	11
2.7 SOUTH AFRICA	15
2.8 SWAZILAND	19
2.9 TANZANIA.....	21
2.10 UGANDA	25
ASIA	29
2.11 INDIA.....	29
2.12 VIETNAM.....	30
EUROPE.....	32
2.13 RUSSIA.....	32
LATIN AMERICA AND THE CARIBBEAN.....	36
2.14 ECUADOR.....	36
2.15 HONDURAS.....	41
2.16 NICARAGUA.....	44
3 USAID GLOBAL HEALTH ELEMENTS	50
3.1 MATERNAL, NEWBORN, AND CHILD HEALTH	50
3.2 HIV/AIDS.....	54
3.3 TUBERCULOSIS.....	59
3.4 FAMILY PLANNING AND REPRODUCTIVE HEALTH	59
3.5 MALARIA	60
4 COMMON AGENDA ACTIVITIES	61
4.1 PROJECT MANAGEMENT.....	61
4.2 COLLABORATIVES METHODOLOGY	63
4.3 HUMAN RESOURCES PLANNING AND MANAGEMENT.....	64
4.4 KNOWLEDGE MANAGEMENT	65
4.5 RESEARCH AND EVALUATION	68
4.6 TECHNICAL LEADERSHIP AND COMMUNICATION	73
4.7 TRAINING	80
5 PERFORMANCE TRACKING PLAN	81

List of Boxes, Figures, and Tables

Box 1.	Improvements Observed at the OVC Service Delivery Level.....	2
Box 2.	Geographic focus of HCI assistance in South Africa	16
Box 3.	Tanzania: Priority indicators for QI teams in Tanga.....	24
Box 4.	Russia: Key provisions of the TB/HIV order drafted by teams in the St. Petersburg Spread Collaborative.....	34
Box 5.	HCI research priorities.....	69
Figure 1.	Benin: Improvement in counseling about birth planning at all ANC visits, ADD District, January-June 2008.....	5
Figure 2.	Benin: Improvement in newborn temperature control in 10 collaborative sites, ADD District, January 2007-May 2008.....	5
Figure 3.	Benin: Comparison of knowledge about components of a birth plan between counseled members of women’s credit associations and the comparison group, ADD District, April 2008.....	5
Figure 4.	Benin: Comparison of knowledge about maternal and newborn danger signs between counseled members of women’s credit associations and the comparison group, ADD District, April 2008.....	5
Figure 5.	Lesotho: Trend of registered TB patients tested for HIV in 10 hospitals, 2006-2008.....	9
Figure 6.	Niger: AMTSL coverage and postpartum hemorrhage rates in EONC Collaborative sites, January 2006–September 2008.....	12
Figure 7.	Niger: Improving newborn care and practice of immediate breastfeeding in EONC Collaborative sites, January 2006–September 2008.....	13
Figure 8.	Niger: Improving quality of case management for pre-eclampsia/eclampsia, 31 MOH facilities, Jan.-Oct. 2008.....	14
Figure 9.	Niger: Sustained high compliance with acute malnutrition case management in MOH Nutritional Recuperation Centers, Jan. 2006-Sept. 2008.....	15
Figure 10.	South Africa: Increase in HIV testing among pregnant women, FY08.....	17
Figure 11.	South Africa: Screening and treatment of opportunistic infections among HIV-positive clients on ART, FY08.....	18
Figure 12.	South Africa: Increasing testing of TB patients for HIV, FY08.....	18
Figure 13.	South Africa: Progress in linking ART patients to treatment supporters, FY08.....	19
Figure 14.	Swaziland: Coverage of TB-HIV co-infected patients with Cotrimoxazole, Manzini Region (3 clinics), Oct. 2007-Sept. 2008.....	20
Figure 15.	Swaziland: Coverage of TB-HIV co-infected patients with Cotrimoxazole, Hhohho Region (4 clinics), Oct. 2007-Sept. 2008.....	20
Figure 16.	Map of Tanzania showing regions supported by each PEPFAR implementing partner	23
Figure 17.	Tanzania: Planned roll-out of series of regional ART/PMTCT collaboratives.....	23

Figure 18. Uganda: Uptake of screening for TB at every visit among HIV-positive patients in general care and/or receiving ART, all three collaborative cohorts, January 2005-September 2008	27
Figure 19. Uganda: Retention of pre-ART patients in care in Private-for-Profit facilities	28
Figure 20. India: TB cohort analysis, Ibrahimpatnam Sub-district, April 2007-March 2008.....	30
Figure 21. Vietnam: HIV counseling and testing among TB patients, Thai Binh Province, 2006-2008.....	31
Figure 22. Vietnam: Increasing referral of TB suspects by the private sector, Thai Binh Province, July 2007-September 2008	31
Figure 23. Russia: Number of HIV patients enrolled in ART in four districts, St Petersburg, 2007-2008	33
Figure 24. Russia: Expansion of TB testing among HIV-infected patients, St. Petersburg and eastern cities of Orenburg, 2007-2008	34
Figure 25. Ecuador: Trends in maternal deaths in six provincial hospitals in participating in the Obstetric Complications Collaborative, 2006 and 2007	38
Figure 26. Ecuador: Progressive spread of AMTSL, as measured by delivery of Oxytocin, 2003-2008.....	39
Figure 27. Ecuador: Trend toward increase in monthly deliveries at HACAP intervention hospitals versus control hospitals, Jan. 2007-July 2008	40
Figure 28: Honduras: Improving compliance with prenatal care standards, 10 regions participating in EONC CQI, January 2007-August 2008.....	42
Figure 29. Nicaragua: Decline in maternal deaths due to obstetric complications, health facilities of 17 SILAIS, Jan. 2007-Sept. 2008.....	45
Figure 30. Nicaragua: Impact of cultural adaptation of delivery care on institutional deliveries in the Quilali Health Center, Nueva Segovia SILAIS, 2005-Nov. 2008.....	46
Figure 31. Nicaragua: Impact of improvement activities on case fatality rates for pneumonia and diarrhea in children under five and for newborn sepsis, consolidated data from 13 hospitals, Oct. 06-Sept. 07 and Oct. 07-Sept. 08	47
Figure 32. Nicaragua: Impact of VCT/STI Collaborative on VCT rates, 20 sites in five SILAIS, May-September 2008	48
Figure 33. Nicaragua: Increasing use of alcohol gel in neonatal wards of Infection Prevention Collaborative sites, June-November 2008.....	49
Figure 34. Botswana: Comparison of number of patients needing ART predicted by the HCI ART Framework with the prediction of the SPECTRUM Model.....	55
Figure 35. Results from the test of the ART Framework in Nicaragua.....	55
Figure 36. Uganda: Private-for-profit provider compliance with MOH HIV/AIDS and ART treatment guidelines at initial visit of pre-ART patients who initiated treatment in 2007.....	56
Figure 37. Uganda: Retention of patients in ART care at private-for-profit providers, patients who initiated treatment in 2007.....	57
Table 1. Niger: Results of EONC Collaborative phase I	12
Table 2. South Africa: HCI FY08 service delivery achievements versus targets.....	16

Table 3.	Number and percentage of women benefitting hose risk of PPH was reduced through active management of the third stage of labor, in maternal newborn collaboratives, five countries, 2007	53
Table 4.	Progress on HCI Research and Evaluation studies, FY08	70
Table 5.	HCI participation in national, regional, and international conferences, FY08	75
Table 6.	HCI briefings and presentations for USAID, international donor, and cooperating agency staff, FY08	77
Table 7.	Published reports, products, and informational materials, FY08.....	79
Table 8.	Articles published or submitted for publication in peer-reviewed journals, FY08.....	80
Table 9.	HCI FY08 achievements against HCI TOI performance targets	81

Abbreviations

ACT	Artemisinin combination therapy
ADD	Aplahoue-Dogbo-Djakotome (Benin)
AIHA	American International Health Alliance
AMTSL	Active management of the third stage of labor
ANC	Antenatal care
ANE	Asia Near East
ART	Antiretroviral treatment
ARV	Antiretroviral
BCC	Behavior change communication
CBO	Community-based organization
CCP	Center for Communication Programs
CDC	Centers for Disease Control and Prevention
CHMT	Community Health Management Team
CHMT	Council Health Management Team (Tanzania)
CMAM	Community-based management of malnutrition
COGES	Community health management committee (Benin and Niger)
CQI	Continuous quality improvement
C&T	Counseling and testing
CHW	Community health worker
CTC	Care and Treatment Center (Tanzania)
CTO	Cognitive Technical Officer
DHHS	Department of Health and Human Services
DHMT	District Health Management Team
DHT	District Health Team
DOTS	Directly observed therapy, short course
DST	Drug susceptibility testing
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EMEP	Eurasia Medical Education Program
EMNC	Essential maternal and newborn care
EMP	<i>Empresa Médica Previsional</i> (private medical provider financed through Social Security in Nicaragua)
ENC	Essential neonatal care
EOC	Essential obstetric care
EONC	Essential obstetric and newborn care
ETAT	Emergency triage assessment and treatment
ETR	Electronic Tuberculosis Register
FBO	Faith-based organization
FCI	Family Care International
FECECAM	<i>Federation des Caisses de Credit Agricole Mutuelle</i> (microcredit organization in Benin)
FHI	Family Health International
FP	Family planning
FY	Fiscal year
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GHC	Global Health Council
HBC	Home-based care
HCI	Health Care Improvement Project
HIS	Health Information System

HIV/AIDS	Human immunodeficiency virus/acquired immunodeficiency syndrome
HMIS	Health management information system
HQ	Headquarters
HR	Human resources
HRH	Human Resources for Health
HRSA	Health Resources and Services Administration
HSA	Health Service Area (Lesotho)
HTC	HIV Testing and Counseling Project
IBP	Implementing Best Practices Initiative
IC	Infection control
ICAP	International Center for AIDS Care and Treatment Programs at Columbia University
IDU	Intravenous drug user
IEC	Information, education, and communication
IMCI	Integrated management of childhood illness
IMNCI	Integrated management of neonatal and childhood illness
INSS	Nicaraguan Social Security Institute
IPT	Isoniazid preventive therapy
IPTp	Intermittent preventive therapy for malaria in pregnancy
IQC	Indefinite Quantity Contract
IUATLD	International Union Against Tuberculosis and Lung Disease
KM	Knowledge Management
LAC	Latin American and Caribbean
LQAS	Lot Quality Assessment Sampling
LS	Learning session
MAQ	Maximizing Access and Quality Initiative
MCH	Maternal and child health
MDG	Millennium Development Goal
MDR	Multidrug-resistant
MDT	Multi-disciplinary team
M&E	Monitoring and evaluation
MINSA	Ministry of Health (Nicaragua)
MNCH	Maternal newborn child health
MNH	Muhimbili National Hospital (Tanzania)
MOH	Ministry of Health
MOHP	Ministry of Health and Population (Egypt)
MOHSD	Ministry of Health and Social Development (Russian Federation)
MOHSS	Ministry of Health and Social Services
MOHSW	Ministry of Health and Social Welfare
MSH	Management Sciences for Health
NACP	National AIDS Control Programme (Tanzania)
NDOH	National Department of Health (South Africa)
NGO	Nongovernmental organization
NHLS	National Health Laboratory Service (South Africa)
NMS	National Medical Stores
NQAD	National Quality Assurance Department (Honduras)
NRL	National Reference Laboratory
NS	Nueva Segovia (Nicaragua)
NTCP	National Tuberculosis Control Program
NTP	National Tuberculosis Program

OGAC	Office of the Global AIDS Coordinator (Department of State)
OI	Opportunistic infections
OJT	On-the-job training
OR	Operations research
OVC	Orphans and vulnerable children
P4P	Pay for performance
PAHO	Pan American Health Organization
PAI	PharmAccess International (Dutch organization working in Tanzania)
PDOH	Provincial Department of Health (South Africa)
PEPFAR	President's Emergency Plan for AIDS Relief
PPF	Private-for-Profit
PHC	Primary Health Care
PHI	Pediatric hospital improvement
PISAF	<i>Projet Intégré de la Santé Familiale</i> (Integrated Family Health Project)
PLWHA	Persons living with HIV/AIDS
PMI	President's Malaria Initiative
PMTCT	Prevention of mother-to-child transmission of HIV
PNPEC	National Program of HIV/AIDS Case Management (Cote d'Ivoire)
POPPHI	Prevention of Post-partum Hemorrhage Initiative
PPH	Post-partum hemorrhage
QA	Quality assurance
QAP	Quality Assurance Project
QI	Quality improvement
QoC	Quality of Care Initiative (Uganda)
RAAN	North Atlantic Autonomous Region (Nicaragua)
RAAS	South Atlantic Autonomous Region (Nicaragua)
RAMNI	Accelerated Reduction of Maternal and Newborn Mortality (Honduras)
RCR	Referral-counter referral
RDT	Rapid diagnostic test
R&E	Research and evaluation
RH	Reproductive health
RHMT	Regional Health Management Team
RNTCP	Revised National Tuberculosis Control Programme (India)
RPM+	Rational Pharmaceutical Management Plus Project
RSD	<i>Regiones de Salud Departamentales</i> (Departmental Health Regions) (Honduras)
RSJ	Río San Juan (Nicaragua)
SCMS	Supply Chain Management System
SES	Standard Evaluation System
SILAIS	Local Integrated Health Care System (Nicaragua)
SNAP	Swaziland National AIDS Programme
SNIS	National Health Information System
SSH	Secretariat of Health (Honduras)
STI	Sexually transmitted infection
TA	Technical assistance
TACAIDS	Tanzania AIDS Commission
TASC	Technical Assistance and Support Contract
TB	Tuberculosis
TBA	Traditional birth attendant
TCS	HIV/AIDS Treatment, Care and Support
TOI	Task Order No. 1

TOT	Training of trainers
UNAIDS	United Nations Joint Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Emergency Fund
UNODC	United Nations Office on Drugs and Crime
URC	University Research Co., LLC
URL	Uniform Resource Locator
USAID	United States Agency for International Development
USG	United States Government
VAAC	Vietnam Administration for HIV/AIDS Control
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
XDR	Extensively drug-resistant

Executive Summary

The first year of implementation of the USAID Health Care Improvement (HCI) Project Task Order I was completed on September 30, 2008. In its first year, the project completed the transition from work previously funded under the Quality Assurance Project (QAP) and provided technical assistance in 16 countries, including three new countries (Cote d'Ivoire, Ethiopia, and Namibia) which had not been assisted by QAP.

Field programs in many countries, such as Lesotho, South Africa, Swaziland, Uganda, Russia, and Honduras, continued along similar lines as were implemented under QAP. In other countries, the statement of work requested by USAID Missions and host country governments has shifted to new areas or modalities of work. Technical support to national task forces and non-governmental organizations providing services to orphans and vulnerable children (OVC) has expanded considerably, to now include guidance to implementers in Ethiopia to conduct the first improvement collaborative aimed at improving outcomes and quality of OVC services. In Cote d'Ivoire, HCI assistance to the National Program of HIV/AIDS Case Management resulted in a national quality assessment of HIV/AIDS services. In Namibia, HCI conducted a qualitative assessment of the acceptability of male circumcision in the population and the capacity of health facilities to provide high quality circumcision services.

In Tanzania, HCI's work has shifted from direct support to pediatric AIDS improvement in selected hospitals to working in partnership with the National AIDS Control Program and the PharmAccess Foundation to support regional health authorities and PEPFAR implementing partners in leading their own ART and PMTCT improvement collaboratives at a regional level. In Nicaragua, new work related to quality improvement of family planning and infection control and prevention have been added to ongoing technical support begun under QAP for quality improvement in maternal and child health and HIV/AIDS services. Finally, in Niger and Ecuador, HCI support for long-established, large-scale quality improvement initiatives in essential obstetric and newborn care is transitioning to research on the process of spreading and institutionalizing evidence-based practices and continuous quality improvement within Ministry of Health systems.

In addition to country work programs, the project made important progress in the design of two important areas of the HCI statement of work that are new or different from QAP: the Standard Evaluation System for documenting QI activities supported by the project, and the Global Knowledge Management System for health care improvement information, which will feature a web-based resource on improvement results and approaches. The Standard Evaluation System (SES) is the central component of HCI's strategy to put in place new and more rigorous documentation, analysis, and synthesis processes that make clearer the linkages between the changes and improvements made by health care teams and the resulting impact on morbidity, mortality, and successful patient outcomes. Other steps in this direction taken this year were the development of the project's antiretroviral therapy improvement framework. This framework enables teams and managers to understand and tackle improvement interventions to bridge critical gaps in coverage of patients eligible for ART, retention in care, and clinical outcomes. The framework is being tested in Nicaragua, Tanzania, Uganda, and Russia. These efforts in stronger documentation and results reporting have a direct link to the development of the project's global knowledge management system, which will provide an outlet for making this information readily accessible to health programs and organizations engaged in improving health care in USAID-assisted countries. HCI's web-based health care improvement knowledge portal has been designed and is now being programmed, for launch early in 2009.

Other new activities under HCI in FY08 included: assistance to the Office of the Global AIDS Coordinator (OGAC) and the Global Fund to develop and field test quality of service indicators for HIV/AIDS, tuberculosis, malaria, and health systems strengthening; assessments and lab quality monitoring to expand understanding of quality problems affecting laboratories at peripheral health facilities and focusing quality improvement activities on lab issues; application of the employee engagement model to improve health

worker productivity and retention; and the development of an assessment tool to measure functional programs for community health workers.

Another area of emphasis for HCI in its first year was to consolidate the lessons from QAP in terms of adaptation of the improvement collaborative approach to define more clearly the salient features of a collaborative and to find ways to more efficiently harness the power of collaborative improvement to achieve even greater gains and faster, more efficient spread of improvements. These lessons have been applied in the design of both HCI field programs and the project's research and evaluation agenda, which has prioritized the development of research studies on spread, institutionalization, and the impact of QI on employee engagement. Eight research studies were completed in FY08, and work began or continued on another 15 studies, several of which had been initiated under QAP.

HCI continued QAP's legacy of global technical leadership in health care quality improvement, participating in technical consultations with the World Health Organization, several PEPFAR technical working groups, Saving Newborn Lives, the LAC Neonatal Health Alliance, BASICS, FANTA, the USG Working Group on OVC Programs, the Global Fund, and OGAC. HCI staff made 50 presentations at national and international conferences, conducted 20 briefings for USAID and cooperating agencies, and published four articles in peer-reviewed journals. HCI also published four technical and research reports and produced two computer-based training products in Spanish.

Finally, key staffing changes also occurred in the first year of HCI Task Order I. Dr. M. Rashad Massoud succeeded Dr. David Nicholas as HCI Project Director on July 1, 2008, and Dr. Lynne Miller Franco succeeded Dr. Bart Burkhalter as Director of Research. Ms. Lauren Crigler of Initiatives Inc. joined HCI as Human Resources Advisor, based in Bethesda, and Ms. Kim Ethier moved from the project's team in Moscow to Kampala, to serve as the Deputy Director for HCI's program in Uganda.

1 Introduction

This first Annual Project Report for Task Order 1 (TOI) of the USAID Health Care Improvement (HCI) Project summarizes the key activities and results of the contract during the first year of implementation, October 1, 2007, through September 30, 2008 (FY08).

The report narrative has four sections: 1) reports on country or regional technical assistance to improve health care; 2) project results that supported USAID's Global Health Elements; 3) activities carried out under the project's common agenda functions that benefit multiple countries; and 4) achievements against the project's Performance Tracking Plan, showing how the activities implemented during the project's first year contributed to the achievement of TOI objectives and performance targets.

2 Country and Regional Technical Assistance

Africa

2.1 Africa Regional Bureau/Orphans and Vulnerable Children

Objectives

In response to the observed need to significantly improve the current quality of services provided to orphans and vulnerable children (OVC) affected by HIV/AIDS, the Africa Regional Bureau funded HCI in FY08 to lead a Regional Quality Improvement (QI) Initiative for Orphans and Vulnerable Children. Working closely with donors, program implementers, and key OVC stakeholders, HCI has engaged these actors in the QI Initiative and strengthened their capacity to become champions of quality improvement for OVC programs. HCI's work during FY08 had four main objectives:

- Support USG country teams and their implementing partners in establishing and applying a standards-based approach to quality improvement of OVC services through capacity-building events and on-site and virtual technical support,
- Gather evidence of the impact of service standards on the quality of care provided to orphans and other vulnerable children,
- Strengthen communication about quality improvement among OVC program stakeholders, and
- Facilitate the development of the African Partnership for Quality Improvement in OVC programs.

Main Activities and Results

Support USG country teams and their implementing partners to improve quality of their OVC programs

- "Quality Programs for Orphans and Vulnerable Children: A Facilitator's Guide to Establishing Service Standards" was revised based first on feedback from participants at the first African Regional Training and Exchange event in September 2007 in Dar es Salaam and then on Office of the Global AIDS Coordinator (OGAC) Strategic Information group feedback. Now officially approved by OGAC, the guide is designed to assist OVC program implementers and government stakeholders in developing a consensus on what constitutes an OVC service for a child.
- Skill-building workshops were carried out for OVC implementing partners and USG teams on the rationale for quality improvement, developing service standards, and improving quality at the point of service delivery:
 - Training of stakeholders and coaches on QI in Addis Ababa, Ethiopia, March 3–14, 2008;

- OVC Task Force Training Workshop in Washington, DC, April 9–10, 2008;
 - Global Health Council Conference skill-building workshop, Washington, DC, May 27, 2008; and
 - Standards Development Training workshop in Nairobi, Kenya, July 7–10, 2008.
- The organization for Regional Training and Exchange Event on Improving and Measuring Quality of OVC programs was begun in collaboration with partners from Save the Children in Ethiopia and EnCompass LLC, which provided technical support in the overall design of the training.

Gather evidence on the impact of services standards on the quality of care

- HCI provided in-country and virtual support to international NGO and local NGO partners in Ethiopia to pilot test the existing service standards through a Partner Improvement Collaborative aimed at operationalizing the service standards at the point of service delivery. Quality improvement teams were formed at the community level to work on implementing changes that would allow them to achieve the service standards. HCI provided support throughout and helped develop tools and document QI teams’ improvements.
- HCI provided technical support to the USAID mission in Tanzania to delineate future steps toward reaching consensus for service standards development. Based on HCI recommendations, USAID organized a technical working group (TWG) on QI for OVC programs. HCI has provided support to develop the SOW for the TWG to develop service standards and identify ways to move those standards to the field and operationalize them. Additionally, HCI has collaborated with PACT in Tanzania to identify best practices to operationalize the Jali Watoto Guidelines and has supported PACT staff in guiding the learning groups in their QI processes. The PACT experience will inform the work of the QI TWG in their broader work on developing service delivery standards and using QI approaches in operationalizing those standards among implementing partners. Evidence gathered at the field level demonstrates that the guidelines have helped volunteers understand more clearly what their roles and responsibilities are and have motivated the volunteers.
- Examples of the results achieved by QI teams in Ethiopia and Tanzania are described in Box I.

Box I. Improvements Observed at the OVC Service Delivery Level

- Increased linkages with other services: *“For me, the service is better. Now the volunteer encourages us to be tested. The volunteer talks to me about ART.”* (Adolescent boy, 15 years old)
- Volunteers have a better understanding of their roles and responsibilities based on the standards: *“Before QI we reported numbers.... We reported scholastic materials and clothes. With QI we started to...document the results...whether the children are able to attend the class. Before QI we did not have a plan; now we plan and we know what to look for.”* (Volunteer, Dire Dawa [CBO], Ethiopia)
“We used to do the work from local experience, what we thought might work.. I was failing to explain to the community what my role and responsibilities were. Now I can explain what I might be able to do with the community.” (Volunteer, Kyala, Tanzania)
- Shift from commodity focus to service focus: *“The guidelines have helped me to understand that the services are not only pencils, pens, bags, etc., but it has to do with sitting together with families, discussing, sharing together. Families might benefit a lot from this but not so much from the tangible things.”* (Volunteer, Tanzania)
- Increased community sense of ownership: *“We used to take care of our children... This was our African tradition.... We forgot; this program is reminding us that we all need to work together to help our children, it is our responsibility.... This program is waking us up. This is our responsibility....”* (Most Vulnerable Children Committee, Tanzania)

Strengthen communication about quality improvement among OVC Program stakeholders

- HCI organized 10 monthly Quality in Focus calls, providing a forum for program implementers and OVC stakeholders to discuss experiences, lessons learned from the field, and key issues related to QI for OVC programs. The calls covered topics such as: measuring quality of OVC programs, efforts to develop an African Partnership for Quality Care for OVC, moving standards to the field, collaboratives, and coaching. The number of participants on each call ranged from about 15–35.
- Developed the Quality Improvement section on the OVCsupport.net web site, which hosts a compendium of resources, descriptions of QI efforts in different countries, and examples of standards and other quality improvement tools used in various countries. The QI section of the web site was officially launched in July 2008.
- Presented a poster about the QI Initiative in OVC Programs at the HIV Implementers Meeting in Kampala (June 2008) and led a satellite session attended by about 20 OVC implementers.



Facilitate the development of the African Partnership for Quality Improvement in OVC programs

- Conducted background research on 12 organizations involved in Regional and/or national initiatives in the area of HIV/AIDS to inform on best practices and challenges in forming regional partnerships. In addition to the background research, HCI conducted informal interviews with OVC stakeholders and program implementers to further clarify what the mission, functions, and structure could be; findings have been fed into a draft concept paper for the partnership.

Directions for FY09

HCI will continue to provide tailored support to USG countries teams and their implementing partners in establishing and applying a standards-based approach to quality improvement of OVC services. This support will include both direct and virtual technical assistance as well as capacity-building trainings and the development of an “Improvement Guide” and an e-learning program that will help guide partners through the improvement process both at a national level and at the point of service delivery.

The upcoming year will focus on gathering further evidence of 1) the impact of service standards on the quality of care provided to OVC and 2) best practices based on experience at the service delivery level. In order to continue facilitating the exchange of lessons and best practices across organizations and countries, HCI will support and facilitate South-to-South exchanges, monthly Quality in Focus calls, and build on the Quality Improvement section of the web site to include more country resources and experiences in QI. HCI will collaborate with OVC stakeholders to refine the function and mission of the African Quality of Care Initiative for OVC and begin developing the structure and steering committee for the Partnership.

2.2 Benin

Objectives

HCI continued in FY08 activities begun under the predecessor Quality Assurance Project (QAP) to implement a demonstration collaborative with Benin's Ministry of Health (MOH) in Aplahoue-Dogbo-Djakotome (ADD) District. This collaborative is improving the quality of essential obstetric and newborn care (EONC) at the facility level. This year's work focused on rolling out the collaborative's second package of technical interventions to improve antenatal care (ANC) counseling and the quality of postnatal care (PNC) before discharge. HCI also sought to raise awareness of essential maternal and newborn health behaviors at the community level through the development and testing of a community intervention to improve mothers' knowledge and awareness of maternal and newborn care and care-seeking. The collaborative involved 10 facilities (the district hospital, three health centers, and six health posts), and the EONC education intervention was implemented in 24 communities. Because funding for this activity will not continue in FY09, a secondary objective of HCI assistance was to build capacity of the MOH and of staff of the bilateral PISAF Project to ensure that the QI tools, experiences, and lessons learned would be incorporated into ongoing programs.

Main Activities and Results

Improve the Quality of Facility Antenatal Counseling and Postnatal Care

The focus of HCI's staff technical support to the sites participating in the collaborative in FY08 was to provide coaching support to 1) help facilities maintain the improvements in the quality of maternal newborn health (MNH) care achieved in the previous 18 months, namely, performing active management of the third stage of labor (AMTSL), essential newborn care (ENC), and infection prevention, and 2) introduce the second package of EONC interventions: quality antenatal care counseling (birth preparedness, danger signs, and newborn care counseling) and facility postnatal care before discharge.

Dr. Mandy Rose and Mr. Sabou Djibrina visited Benin in November 2007 to facilitate the collaborative's second learning session. Dr. Rose met with national and regional MOH officials to garner support for HCI's institutionalization strategy and oriented PISAF staff to the collaborative model in preparation for PISAF's launch of several new collaboratives in the Zou-Colline Region.

During the year, HCI's two local advisors conducted regular supervision visits with district coaches and provided on-the-job training on coaching support to facilities in ADD District. HCI staff also trained facility leaders to train and supervise their staff according to standards using project checklists. Drs. Maina Boucar and Rose provided support for the collaborative's third learning session in April 2008.



Aide uses HCI job aid for group ANC counseling.

Thermal protection of the newborn.

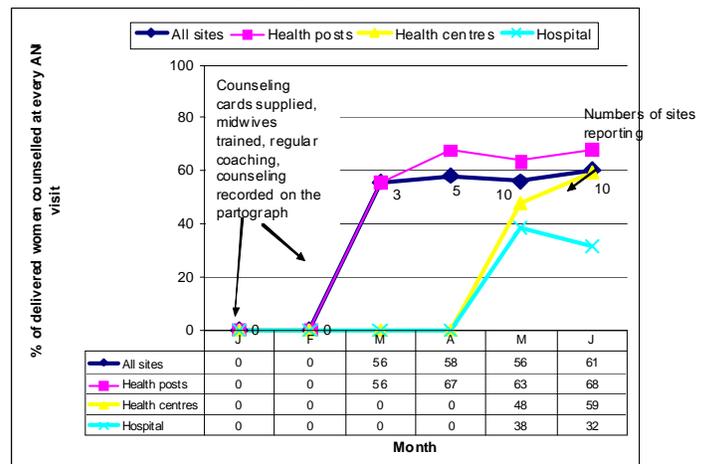
The collaborative concluded in September 2008 with the close-out of HCI activities in Benin. Figure 1 shows that the ADD sites made good progress in incorporating birth preparedness counseling into every ANC visit, increasing compliance with this standard from 0% of delivering women in January 2008 to 61% in June 2008. Sites also maintained gains achieved in the previous year: Figure 2 shows that sites ensured adequate temperature control of the newborn in over 92% of deliveries.

Develop and Test Model for Improving Community EONC Awareness and Knowledge

Ms. Marie-Eve Hammink visited Benin in October 2007 to provide technical assistance to finalize the community maternal newborn and child health training curriculum and train trainers from the microcredit NGO FECECAM in the community EONC curriculum. Pre-testing of 10 lesson plans and materials for training FECECAM-supported women's groups to use the counseling cards ended in January 2008. HCI staff supervised the implementation of FECECAM's community trainings, which covered 24 small women's credit associations.

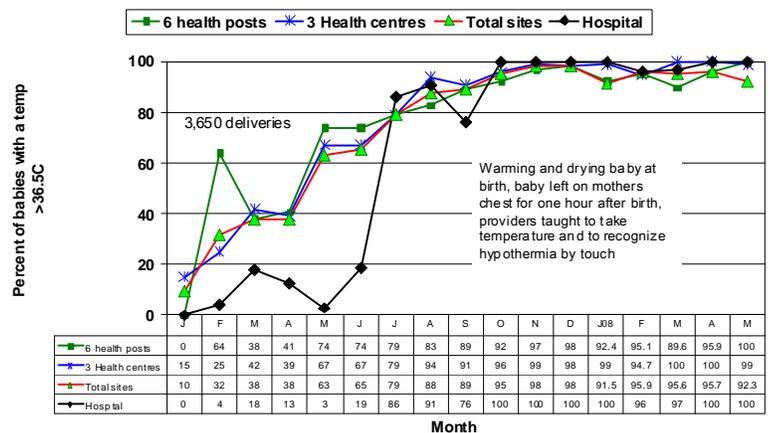
In April 2008, HCI staff conducted an evaluation to document the effectiveness of the counseling intervention. As seen in Figures 3 and 4, mothers who had received counseling had dramatically higher knowledge than mothers in other microcredit groups who had not been exposed to the training.

Figure 1. Benin: Improvement in counseling about birth planning at all ANC visits, ADD District, January-June 2008



Numerator: # of women delivered in the month for whom birth plan counseling was recorded for each ANC visit
 Denominator: All women delivered in the month who received ANC at the facility
 Data source: partograph

Figure 2. Benin: Improvement in newborn temperature control in 10 collaborative sites, ADD District, January 2007-May 2008



Numerator: Number of babies with temperature >36.5C within 1 hour of birth
 Denominator: All babies born in same month
 Data source: partograph

Figure 3. Benin: Comparison of knowledge about components of a birth plan between counseled members of women's credit associations and the comparison group, ADD District, April 2008

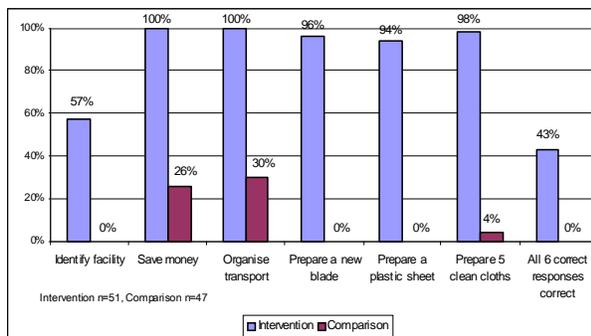
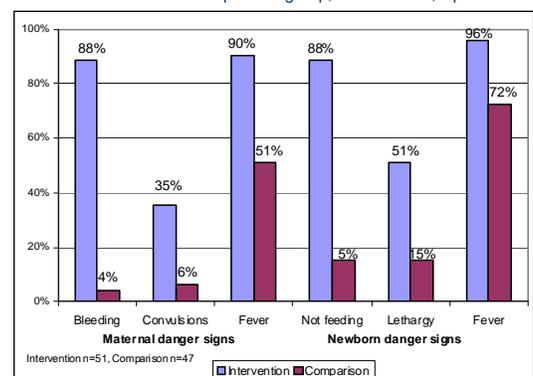


Figure 4. Benin: Comparison of knowledge about maternal and newborn danger signs between counseled members of women's credit associations and the comparison group, ADD District, April 2008



Build Local Capacity to Carry Out Quality Improvement in EONC and Transfer Lessons Learned

Drs. Boucar and Rose led a workshop in April 2008 for the ADD District Health Management Team (DHMT) to build its capacity to lead ongoing maternal and newborn care quality improvement work in the district. Dr. Zakari Saley from Niger visited Benin to lead another workshop, this one on quality monitoring and coaching for district managers and supervisors. In the ensuing months, HCI Benin staff also facilitated training and provided support to the DHMT for the scale-up of the intervention to the remaining 14 facilities in the district, funded by the United Nations Fund for Population Activities (UNFPA).

HCI staff also worked with the PISAF team to derive tools and lessons from the ADD experience that can be applied in other PISAF districts; these tools include guidelines for training providers in using HCI-developed counseling cards.

In May, HCI Benin staff participated in national and regional workshops to share lessons learned in ADD about the scale-up of AMSTL with the MOH and the POPPHI Project. In June 2008, HCI worked with the MOH and UNICEF to develop a national curriculum for training community volunteers (*relais*); that curriculum incorporates the counseling cards developed by HCI.

Directions for FY09

HCI's technical assistance to the MOH in ADD District ended in October 2008 with a final visit by HCI staff from Niger to assist the DHMT in planning for maintaining the gains achieved in the demonstration collaborative. Data reviewed during the visit showed that prior gains in all 13 indicators for AMSTL, essential newborn care, and infection prevention had been maintained through August 2008. UNFPA will continue to provide support to ADD beginning in January 2009 for further training, coaching, and learning related to QI in essential maternal and newborn care.

The MOH Department of Family Health wants to scale up nationwide the interventions piloted in ADD, including allowing women to have a chosen companion with them in the delivery room; introducing locally made, wooden warming tables and skin-to-skin care after delivery to keep babies warm; and making Oxytocin available in the delivery room for all deliveries. The MOH has appropriated the counseling cards and incorporated them into their national training curriculum for *relais*. PISAF is now starting a collaborative to apply the interventions in six districts in the Zou-Collines Region.

2.3 Cote d'Ivoire

Objectives

In early 2008, USAID and the Centers for Disease Control (CDC) asked HCI to conduct an assessment of the quality of the continuum of HIV/AIDS care in Cote d'Ivoire. This activity was intended to serve as a diagnostic for developing an improvement plan HCI would implement in collaboration with the National Program for HIV Care and Treatment (PNPEC) and Cote d'Ivoire's main partners in HIV health care, including International Center for AIDS Prevention (ICAP), Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Aconda Association, CARE, and UNICEF. The specific objectives of HCI assistance in FY08 were:

- Conduct a nationally representative assessment of the quality of HIV/AIDS care and
- Develop an integrated plan for quality improvement with PNPEC, donors, partners, and other stakeholders, including nongovernmental associations of persons living with HIV/AIDS (PLWHA).

Main Activities and Results

Design and Implementation of the Assessment

An HCI team visited Cote d'Ivoire in January 2008 to establish relationships with PNPEC and plan the assessment. Data collection instruments were drafted with the participation of all stakeholders. The quality assessment tools included instruments for medical record/register review of antiretroviral treatment (ART) and pre-ART patients, PMTCT clients, laboratory observations, and provider and patient interviews. Further revisions were made after field testing in April 2008.

The national HIV/AIDS quality assessment took place July 7–August 12 as a joint effort of HCI, PNPEC, and local implementing partners. Three assessment teams, led by HCI's Country Director, Dr. Jean Nguessan, Ms. Ya-Shin Lin of HCI Bethesda, and Mr. Sabou Djibrina of HCI Niger, worked with staff from PNPEC, other MOH offices, CARE, and ACONDA to assess 41 sites countrywide.

The assessment used a 12-month, retrospective cohort approach to examine the care experience of pre-ART patients (653 patients not yet eligible for ART), ART patients (772 patients started on ART at least 12 months earlier), and PMTCT clients (376 women enrolled in the PMTCT program at least 12 months earlier). Interviews were conducted with providers at the 41 sites to learn about processes of care and links between program components. In addition, the teams assessed nine laboratories and interviewed 81 patients in 11 sites.

The assessment documented major problems with patient retention in care. For the pre-ART cohort, compliance with selected care standards ranged from 68–96% at the patient's first visit but decreased to 19–70% in the second six-month period of care. Furthermore, only 32% of patients had a second visit within six months, despite a target of 100%. For the ART cohort, care quality at the first visit was excellent (90–96% compliance with technical standards), although contact information was recorded for only 58%. The compliance rate decreased to 77–92% during months 6–12. Retention in care was poor: Only 46% had a clinic visit in months 10–12 (target is 100%), and pharmacy records showed that only 38% picked up 10–12 months' worth of therapy (target is 100%).

The assessment found that only 67% of HIV-infected pregnant women received prophylaxis and that only 43% of exposed infants did. Postnatal care was significantly worse: Only 12% of exposed infants received Cotrimoxazole; only 9% were tested for HIV in the first 12 months; and only 17% were exclusively breastfed. Only 26% of mothers and 9% of infants had documented HIV care visits after delivery.

While over 95% of patients said they were treated well by staff and that staff explained their medical condition well, over 40% had been prevented from getting some type of care (clinic visit, drugs, or laboratory tests) due to cost, and 74% reported that they had not receive any support from community groups.

Planning for HIV/AIDS Quality Improvement Activities

HCI worked closely with PNPEC to analyze the data and prepare for the October 6–10 presentations of findings to the MOH, President's Emergency Fund for AIDS Relief (PEPFAR), and partners. Based on discussions conducted during these meetings, a plan for improving the quality of HIV/AIDS care was collaboratively developed. It proposes a national HIV/AIDS improvement initiative that would be implemented in two phases. In the first phase in FY09, PNPEC, with technical support from HCI, will lead a demonstration collaborative involving four partners and 40 sites. During the second phase in FY10, PNPEC and partners will lead the implementation of partner collaboratives, with expansion to 120 sites.

Directions for FY09

Planning for the first 14 months of the Cote d'Ivoire HIV/AIDS collaborative has taken place. Structures and roles have been proposed—including a coordination committee, experts group, technical committee, and coaches—and 40 potential participating sites have been identified for the demonstration phase. November 2008 witnessed the first steering committee meeting and experts' meeting. The objectives for the experts' meeting were to finalize and approve a proposed HIV/AIDS care change package and define indicators. Plans for the remainder of FY09 include a December 2008 collaborative training and workshop, followed by four learning sessions interspersed by action periods, during which QI teams will measure indicators monthly, supported by coaching visits. A mid-term collaborative conference is planned for September 2009.

2.4 Lesotho

Objectives

The overall objectives of HCI support in Lesotho are to strengthen tuberculosis (TB) directly observed therapy, short course (DOTS) implementation as well as TB-HIV-coordinated activities and case management in six of the country's 10 districts. HCI works closely with the MOHSW and its National Tuberculosis Control Program (NTP) and HIV/AIDS Directorate to expand TB-HIV coordinated activities to other districts. Specific HCI objectives in FY08 were to:

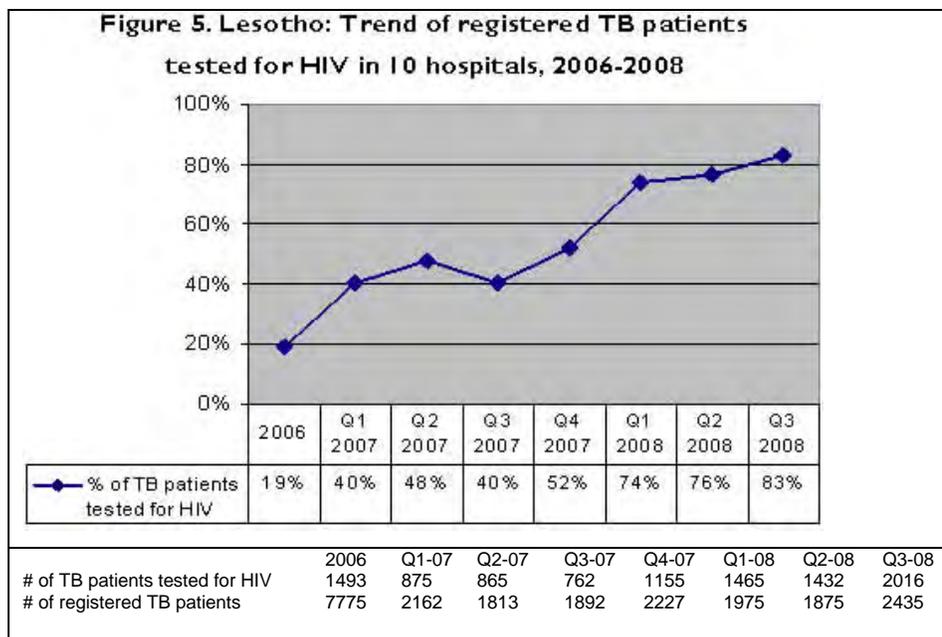
- Update policy guidelines on TB, TB/HIV, and multidrug-resistant (MDR)/extensively drug-resistant (XDR) TB,
- Continue support for TB-HIV activities,
- Expand access to TB services by involving the private sector,
- Improve transport of smears,
- Train staff in TB and TB/HIV management,
- Integrate TB with maternal and child health (MCH) services,
- Develop and implement integrated TB/HIV monitoring tools, and
- Support systems for monitoring MDR-TB.

Main Activities and Results

Policy-level activities: HCI assisted NTP to update the national TB guidelines and develop guidelines on MDR-TB case management. New guidelines have been drafted and are under review by various stakeholders.

TB-HIV coordination: HCI helped the NTP and HIV Directorates improve TB-HIV coordinated implementation strategies at facility and community levels. HCI provided direct support to 18 facilities in the six districts, visiting each facility regularly for face-to-face meetings with staff to provide ongoing mentoring and support to health care workers in improving their clinical, interpersonal, and program management skills. In addition, HCI facilitated regular meetings of TB and HIV service providers and program managers to discuss challenges in increasing uptake of TB screening among PLWHA and HIV testing among TB patients. These joint meetings led to significant improvements in HIV testing among TB patients and TB screening among PLWHA countrywide. Figure 5 shows that HIV testing among TB patients increased from 19% in 2006 to over 80% by the third quarter of 2008.

The positivity rate among these patients is staggeringly high: over 75%. Despite the sharp rise in TB-HIV burden and in the number of co-infected patients, the HCI-assisted hospitals have kept over 70% of TB-HIV patients on Cotrimoxazole prophylaxis. The percentage of patients on ART has risen from 8% in the fourth quarter of 2007 to 27% in the third quarter of 2008.



In addition, HCI has organized district-level meetings with clinic-based TB managers and health care workers to review performance data, develop strategies for performance improvement, and share best clinic practices.

Drug Resistance Survey: HCI worked with the Ministry of Health and the CDC to develop a survey protocol. Training on the protocol was presented for the five pilot districts: Mokhotlong, Leribe, Maseru, Mafeteng and Qacha's Nek. By September 30, 2008, 713 subjects had been recruited for the survey and 599 specimens of sputum collected for HIV testing. Of the cultures sent for testing, 41.3% were found to be resistant to first-line drugs.

Capacity building: A total of 950 health workers were trained on TB/HIV co-management; provider-initiated testing and counseling; recording and reporting of TB/HIV data; and TB/HIV data analysis, interpretation, and use at facility level. Trainees included 360 community counselors, 213 nurses (together with a few laboratory and pharmacy technicians), 123 nurse assistants, 66 ward attendants, and 72 doctors and nurse clinicians. Twelve TB officers and district TB/HIV coordinators were trained in the use of Electronic Tuberculosis Register (ETR) developed by CDC, and 86 home-based care givers and 18 preschool teachers were trained on how to recognize signs and symptoms of TB as well as how to support children on TB treatment.

Expand access to TB services through private sector: HCI also supported a number of private providers to expand the provision of TB services. HCI continues to work with the CDC-funded HIV Testing and Counseling (HTC) Project to assist private sector providers in integrating provider-initiated counseling and testing in their practices.

Strengthen integrated TB-HIV monitoring tools: HCI has trained staff in the newly developed TB and TB-HIV registers. HCI and NTP staff carried out joint supervisory visits of public and private health facilities. The visits involved checking: 1) TB registers and patient treatment cards in the TB clinic, 2) use of the screening for TB among HIV-infected clients and of the TB Suspects Register in the ART clinic, and 3) infection control measures being implemented both in the ART and TB clinics. Also, discussions were held with staff on problems encountered in TB control.

Directions for FY09

HCI's FY09 activities will focus on supporting the NTP in provider-initiated HIV testing and counseling, improving TB/HIV co-management in six districts, and strengthening recording and reporting in those

districts as well as nationally. We intend to train health care facility workers and Know Your Status lay counselors on TB/HIV as well as conducting support visits to the facilities. Refresher training to those trained in FY07 will also be conducted. For provider-initiated testing and counseling, the focus will include the following approaches: integration of HIV counseling and testing within TB services (identifying registered TB patients and TB suspects in outpatient departments and providing them with HTC), training of health care providers and lay counselors on the principles of HTC and refresher on HIV testing using rapid tests, and placement of lay counselors to introduce the HTC services in TB clinics. Support will also be provided to improve recording and reporting systems at all levels. We will also develop and print information, education, and communication (IEC) materials on TB/HIV for the community.

2.5 Namibia

Objectives

In Namibia, HCI implemented two activities in FY08: qualitative research on the acceptability of male circumcision and a training program to improve health care provider knowledge about HIV/AIDS. Our partners on the circumcision study included the Namibian Ministry of Health and Social Services (MOHSS), USAID, Constella Futures, CDC, the World Health Organization (WHO), the Joint United Nations Program on HIV/AIDS (UNAIDS), and other USG-funded implementers. The circumcision research will give decision makers appropriate information for scaling up this practice as part of a national prevention package.

Main Activities and Results

Male Circumcision Qualitative Research

This research examined current and historical practices and acceptability of male circumcision among the general population and health care providers in different regions of Namibia. HCI-collected qualitative data complemented other study components conducted by other partners, including quantitative research on the cost and impact of rolling out male circumcision under different scenarios. HCI also supported a mapping of Namibian health facilities and their capacity to provide safe circumcisions.

During the first half of FY08, HCI worked with other members of the Male Circumcision Task Force to develop the terms of reference and data collection tools and train data collectors. During the third quarter, data were collected in the regions of Caprivi, Karas, Kavango, Khomas, Kunene, Ohangwena, Omaheke, and Oshana: 46 focus group discussions and 34 key informant interviews were conducted. Focus group discussions were conducted separately by gender, age (18–34/35 and older), and circumcision status (circumcised/uncircumcised). The key informant interviews were conducted with traditional circumcisers and healers, business leaders, community leaders, HIV/AIDS activists, religious leaders, government officials, and political leaders.

Findings were presented to the MOHSS, USAID, CDC, and other implementing partners of the Male Circumcision Task Force August 19–20. The research found that male circumcision was associated with cleanliness, uncircumcised men were thought to be more susceptible to infections, and that male circumcision was strongly associated with certain populations. Focus group participants reported that key factors influencing the decision to circumcise included family, community, sexual partners, and social norms. Participants expressed a desire for the Government to disseminate more information on male circumcision. These findings will assist the MOHSS to design and scale up an appropriate circumcision strategy, which, along with the other prevention measures, will contribute to the reduction of HIV transmission.

Health Workforce HIV/AIDS Knowledge and Attitudes

HCI's second activity in Namibia was to support the MOHSS training program that seeks to improve health care provider knowledge of HIV/AIDS. This program will address the fact that stigma and discrimination can negatively affect the interaction of health workers with HIV-infected patients or those perceived to be HIV-positive. Uninformed staff may view HIV-infected patients as a threat to their workplace safety, and such attitudes can limit access to and utilization of HIV-related services.

During FY08, HCI trained 1082 health care workers on HIV prevention, workplace precautions, de-stigmatizing HIV services, stress management, and bereavement. These workers are in six of the country's 13 regions.

Directions for FY09

In FY09, HCI will extend the Health Care Worker Training program to additional regions, with a goal of training 1793 more workers. HCI will also ensure the production of the final report assessing attitudes and perceptions toward male circumcision in Namibia.

2.6 Niger

Objectives

Continuing assistance begun under QAP, HCI supported capacity development of the MOH to apply state-of-the-art QI methods to scale up quality health services for leading causes of maternal and newborn child mortality in Niger. Our main partners in this work have been the MOH Directorate of Maternal and Child Health, its Directorate of Care Management, the National IMNCI program, WHO, UNFPA, and UNICEF. Specific HCI objectives in FY08 were to:

- Maintain and institutionalize EONC Collaborative phase I gains for continued reduction of postpartum hemorrhage, improved basic newborn care, and better infection prevention; support the MOH MCH Directorate to scale up phase I interventions to 10 new districts,
- Introduce EONC Collaborative phase 2 for improved screening and case management of pre-eclampsia/eclampsia in 32 primary and reference public MOH maternities,
- Support the MOH to continue to scale up best practices and technical interventions developed in the QAP-supported Pediatric Hospital Improvement Collaborative, with a focus on case management of childhood malaria in compliance with national ACT treatment standards and on sustaining improvements in case management of acute malnutrition in the 17 MOH nutritional recuperation centers established with UNICEF funding and QAP technical support, and
- Assist the MOH to institutionalize a national QI strategy.

Main Activities and Results

Maintain EONC Collaborative Phase I Gains and Spread Interventions to New Districts

HCI provided regular coaching support in FY08 to 33 EONC phase I QI site teams to support ongoing improvement in AMTSL and essential newborn care; each collaborative site received about three or four coaching visits by MOH/HCI external coaches. In most sites, the head midwife has begun to provide peer-to-peer observation of site staff as a sustainable performance improvement strategy.

HCI also supported the introduction of the phase I EONC technical interventions in four new public maternities in two regions: two peripheral maternities in Maradi and two district hospital maternities in Zinder. HCI also helped regional MOH staff in Niamey Region conduct regular maternal death audits as an initial step to strengthen quality of maternal services and timely referral of maternal complications.

The MOH used several HCI-developed indicators (e.g., postpartum hemorrhage rates, in-facility maternal deaths) to conduct a mid-term evaluation of the National Health Development Plan 2005–2010. The best results were measured in EONC Collaborative maternities.

Results reported by the EONC sites, shown in Table I and Figures 6 and 7 demonstrate the sustained gains the collaborative has achieved. UNICEF has agreed to fund the extension of the phase I AMTSL/ENC package to all remaining district, regional, and national hospitals (11 district hospitals and six regional/national hospitals). HCI assisted the MOH to train trainers in each region; they will support the geographic extension of the phase I content in 2009.

Indicator	Dec 2005 (baseline)	2006	2007	Jan–Mar 2008	Apr–June 2008	July–Sept 2008
% births AMTSL applied	0%	34%	98%	99%	99%	99.5%
% births immediate breastfeeding	23%	44%	98%	98%	99%	99%
% compliance ENC standards (composite)	17%	35%	96%	97%	98%	99%
% compliance AMTSL standards (composite)	27%	51%	98%	97%	99%	100%
Postpartum hemorrhage (PPH) rate (#PPH cases/# births)	2.1%	0.6%	0.4%	0.2%	0.2%	0.2%
Total # births		28,937	40,510	12,895	15,330	12,284
Number of maternity facilities	NA	28 (ref only)	33	33	33	37
			(reference and primary level facilities)			

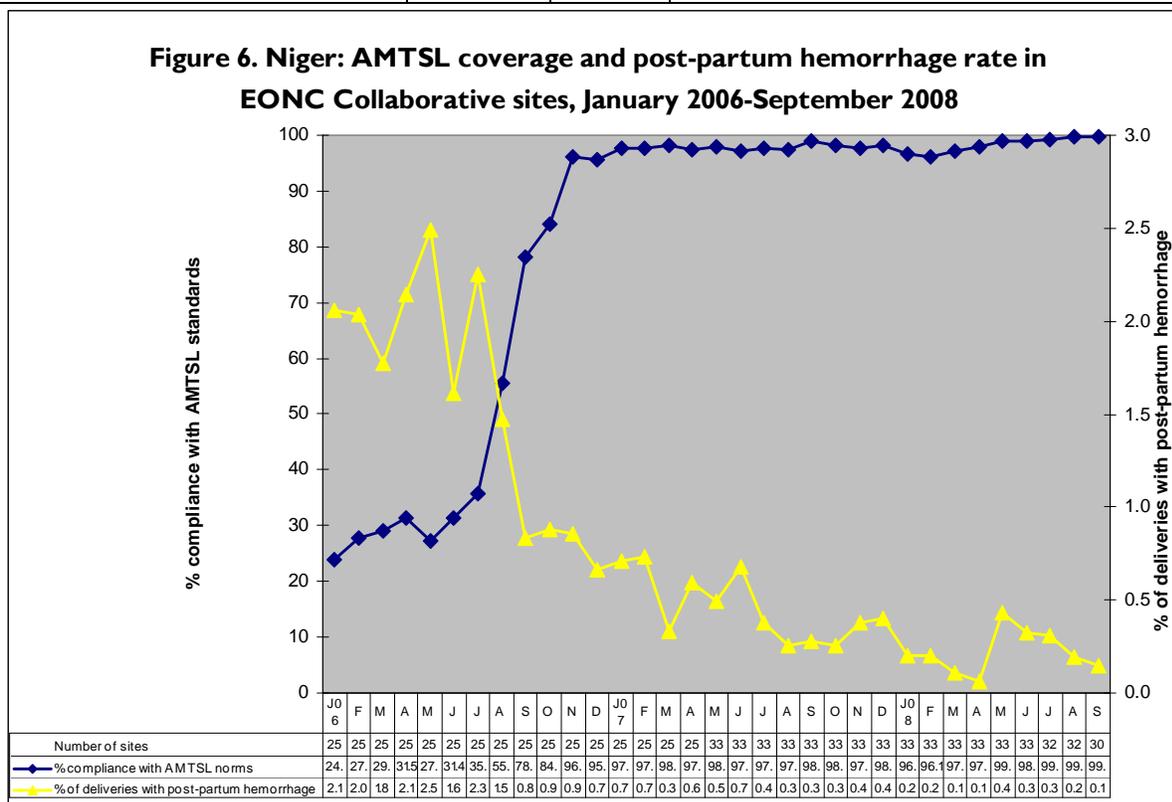
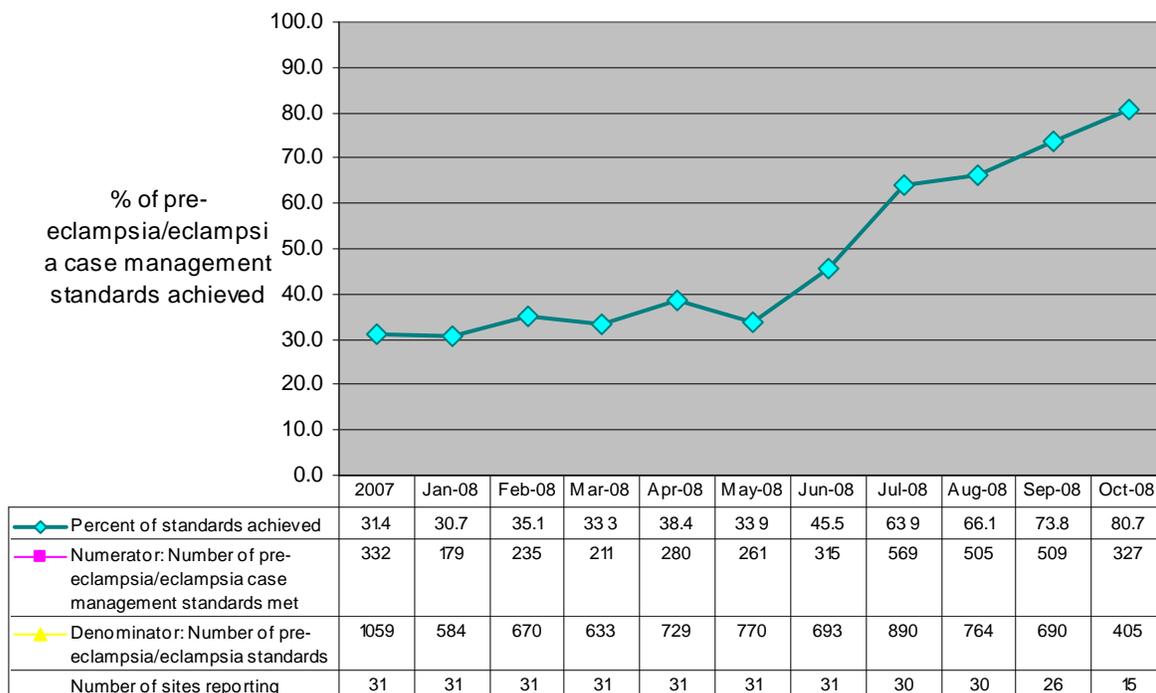


Figure 8. Niger: Improving quality of case management for pre-eclampsia/eclampsia, 31 MOH facilities, Jan.-Oct. 2008



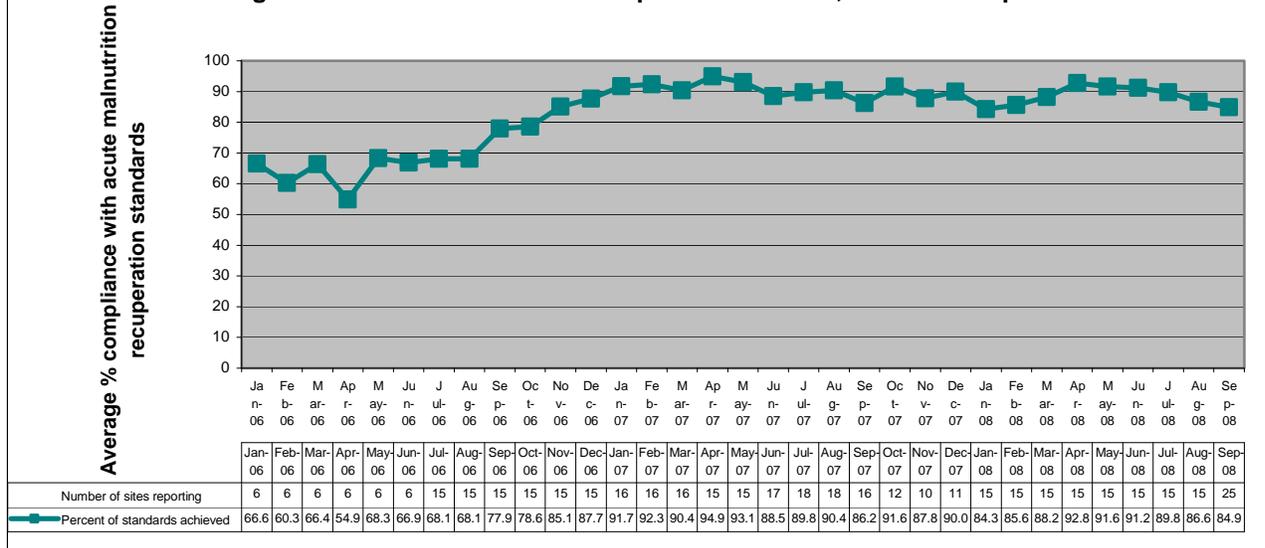
Support the MOH to Sustain the Gains and Scale up PHI Interventions

HCI assisted the MOH to develop a technical implementation package to improve malaria case management, based on the National Malaria Program’s latest guidelines. The package included training tools, essential norms/change package, indicators, chart review tables, and a list of essential drugs and equipment. HCI supported training of regional health staff trainers and providers in two demonstration districts (Doutchi and Tillabery) in quality malaria case management. HCI also provided coaching support to 17 MOH nutritional recuperation centers, nine ambulatory recuperation centers, and 15 districts to improve district-level referral/counter-referral for acute malnutrition. Figure 9 shows that compliance with standards for case management of children with acute malnutrition standards in the nutritional recuperation centers has been sustained at levels above 85% since January 2007.

Support to the MOH to Develop a National Quality Improvement Strategy

HCI helped the MOH finalize a National QI Strategy and associated Operational Plan. The strategy document defines a vision, mission, objectives, and strategies for incorporating QI into the Niger health system. The plan delineates 1) specific roles and responsibilities for key stakeholders and 2) key activities to be undertaken at each level of the health system. HCI assisted the MOH to organize, with funding support from WHO and other partners, a national workshop in May 2008 to discuss and finalize the National Strategy. Participants included representatives from all eight health regions and pre-service training institutions.

Figure 9. Niger: Sustained high compliance with acute malnutrition case management in MOH Nutritional Recuperation Centers, Jan. 2006-Sept. 2008



Directions for FY09

HCI will conduct two main activities in Niger in FY09: 1) research on institutionalization and spread of QI and 2) implementation of a collaborative focused specifically on strengthening the management of human resources. To institutionalize quality improvement throughout the Niger health system, the institutionalization study will identify the interventions that will enable the MOH to maintain the gains in quality of EONC and sustain the practice of quality improvement at collaborative sites. The study will also identify the key elements of an effective spread strategy for an EONC change package that the Niger health system can implement. The Human Resources Collaborative, to be implemented in the Tahoua Region, will apply the integrated QI team approach to develop, test, and implement solutions to critical gaps in human resource management at the facility, district, and regional MOH levels. The collaborative will also apply a specific new management approach, known as Employee Engagement, to increase health workers' self-efficacy and productivity so that they are more inclined to stay in the current job and perform better.

2.7 South Africa

Objectives

The HCI Project and its predecessor, QAP, have worked in South Africa since 2000. HCI's large program of technical assistance supports the Department of Health (DOH) at the national and provincial levels, providing mentorship and coaching to over 120 facilities in the Eastern Cape, Limpopo, North West, Kwa-Zulu Natal, and Mpumalanga Provinces (see Box 2). HCI supports facility-based interventions that have resulted in improved outcomes in several HIV and AIDS priority clinical and support services, specifically:

- Prevention of mother-to-child transmission of HIV;
- Basic health care and palliative care, including HIV/Tuberculosis co-infection;
- Counseling and testing (C&T);
- ART and provision of comprehensive care; and
- Policy/system strengthening.

Within each province, HCI works in close partnership with the Provincial Department of Health and other community and private service delivery systems. HCI is also working with several directorates at the national level—HIV and AIDS, Districts and Development, Primary Health Care, and Quality Assurance Directorates—to develop quality improvement and service integration strategies.

The objectives of HCI technical assistance in South Africa are to: 1) increase uptake of HIV and AIDS prevention, treatment, care, and support services; 2) improve prevention and treatment outcomes; and 3) increase efficiency of service delivery. These

objectives are being achieved through on-site training, coaching, and mentoring by HCI staff to help facilities operationalize national guidelines and standards, increase provider competency and compliance with national treatment and counseling norms and protocols, reduce stigma toward HIV-infected patients, and expand community outreach for both prevention and treatment support. HCI also provides support for monitoring and evaluation by using program-level information to improve overall efficiency and effectiveness and by strengthening facilities' use of patient information to track and improve patient progress through the continuum of care.

Box 2. Geographic focus of HCI assistance in South Africa

- Eastern Cape Province: 43 facilities in Chris Hani and Nyandeni Districts and Nelson Mandela Bay Municipality;
- KwaZulu-Natal Province: 12 facilities in Uthungulu District;
- Limpopo Province: 13 facilities in Greater Sekhukhune and Mopani Districts;
- Mpumalanga Province: 39 facilities in Gert Sibande, Ehlanzeni, and Nkangala Districts; and
- North West Province: 16 facilities in Klerksdorp and Potchefstroom in the Southern District.

Main Activities and Results

During FY08, there were improvements in all programs supported by HCI staff. As shown in Table 2, provision of care to target groups in HCI-assisted facilities exceeded all planned targets for the year. Within the five provinces, the technical assistance from HCI staff in integrating quality assurance (QA) tools and approaches has led to improved health outcomes. Improvements in patient flow and enhanced case management have enhanced service delivery efficiency. HCI has also supported the development of systems and procedures for facility- and community-based health care workers to undertake regular assessments to identify gaps in HIV/AIDS case management and improve follow-up of these clients. One such system is use of monthly chart audits at facilities, whereby the charts of PMTCT clients and those on ART are audited for compliance with the national HIV/AIDS guidelines. The system involves the whole team to note shortcomings and take appropriate action. To reduce missed opportunities and comply with national norms and standards, HCI staff has assisted primary- and secondary-level health care facilities to integrate health services better by streamlining systems and processes at community and facility levels. This has necessitated the development of 1) strategies to improve provider compliance with national protocols and 2) guidelines to improve outcomes among PLWHA. To achieve this, HCI collaborated with provincial DOH and other stakeholders to develop simple job aids and algorithms to help health workers comply with HIV and AIDS treatment and care guidelines.

Table 2. South Africa: HCI FY08 service delivery achievements versus targets

Program	Indicator	Achievement	Target
PMTCT	# of pregnant women who received C&T for HIV	42,250	26,000
	# of pregnant women provided with a complete course of antiretroviral (ARV) prophylaxis	10,619	7,500
HIV counseling and testing	# of individuals who received counseling and testing and received their test results	113,669	23,000
	# of clients tested HIV-positive	42,319 (37.2%)	NA

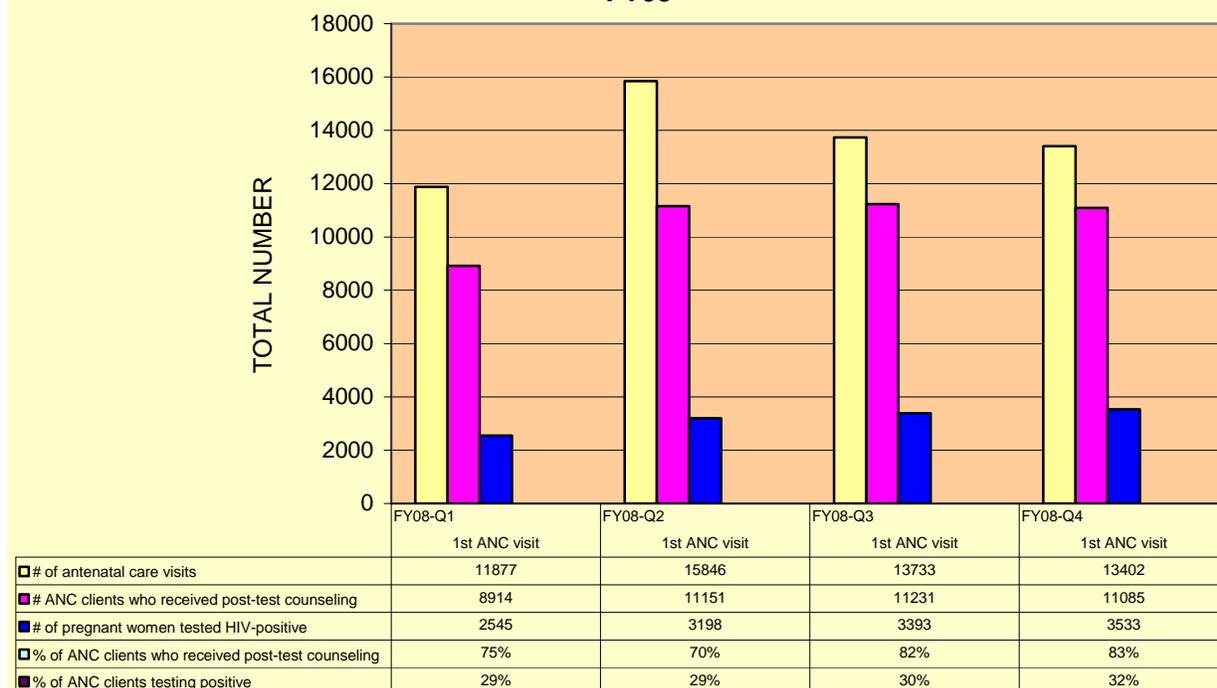
Program	Indicator	Achievement	Target
Basic health care (including TB/HIV)	# of individuals provided with HIV-related palliative care (including TB)	104,001	35,000
ART	# of HIV-infected individuals receiving ART at the end of the reporting period	18,820	8,000
Strategic information	# of individuals from PEPFAR organizations trained in QI methodology	889	850

In addition to assistance to DOH facilities, HCI provided QI training to 889 staff from PEPFAR-supported implementers at the request of USAID/South Africa in order to build capacity and enable these organizations to develop high quality, sustainable interventions. After overcoming several difficulties due to resistance and logistics, this process exceeded the FY08 target of 850 staff.

Key results from HCI-assisted facilities in FY08 follow.

PMTCT services expansion and support: HCI-assisted facilities not only expanded the number of pregnant women who were tested and counseled for HIV infection, but actually raised the coverage of HIV testing among pregnant women from 75% in the first quarter of FY08 to 83% in the fourth (Figure 10). At the same time, sites were able to sustain coverage of over 90% with Nevirapine to babies born to these HIV-positive mothers and delivered Cotrimoxazole to over 80% of these babies.

Figure 10. South Africa: Increase in HIV testing among pregnant women, FY08



Palliative care: basic health care and support and TB/HIV: Figure 11 shows the increase in the number of HIV-positive clients who were on ART, screened for opportunistic infections (OIs), and referred for treatment. Figure 12 shows a rapid rise in the provision of TB/HIV services in HCI-supported facilities. Despite the large increase in volume of TB patients, assisted facilities were able to increase the percentage of TB patients tested for HIV to 87% by the fourth quarter of FY08.

Figure 11. South Africa: Screening and treatment of opportunistic infections among HIV-positive clients on ART, FY08

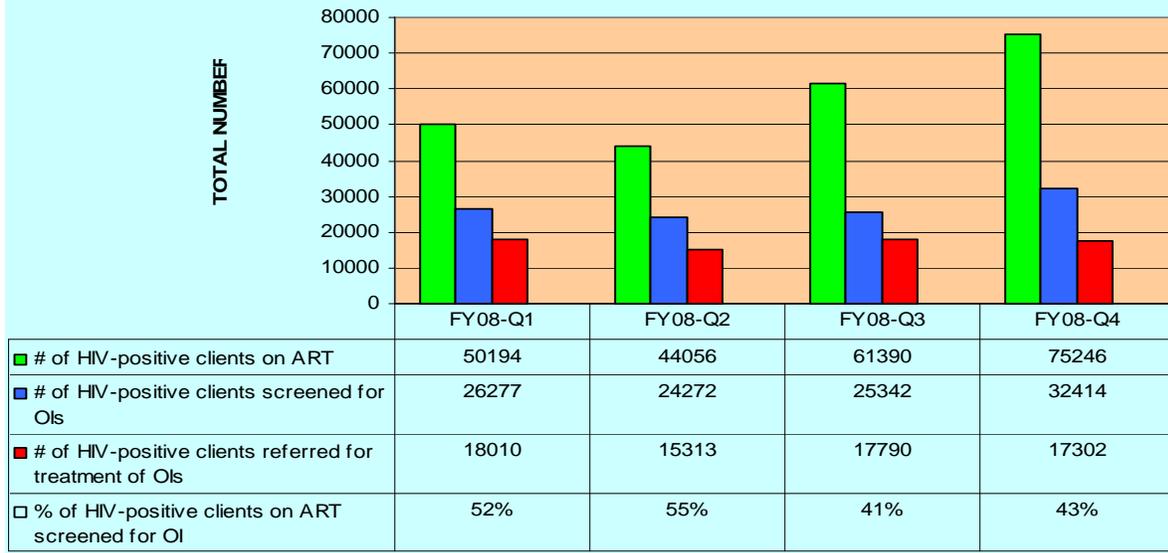
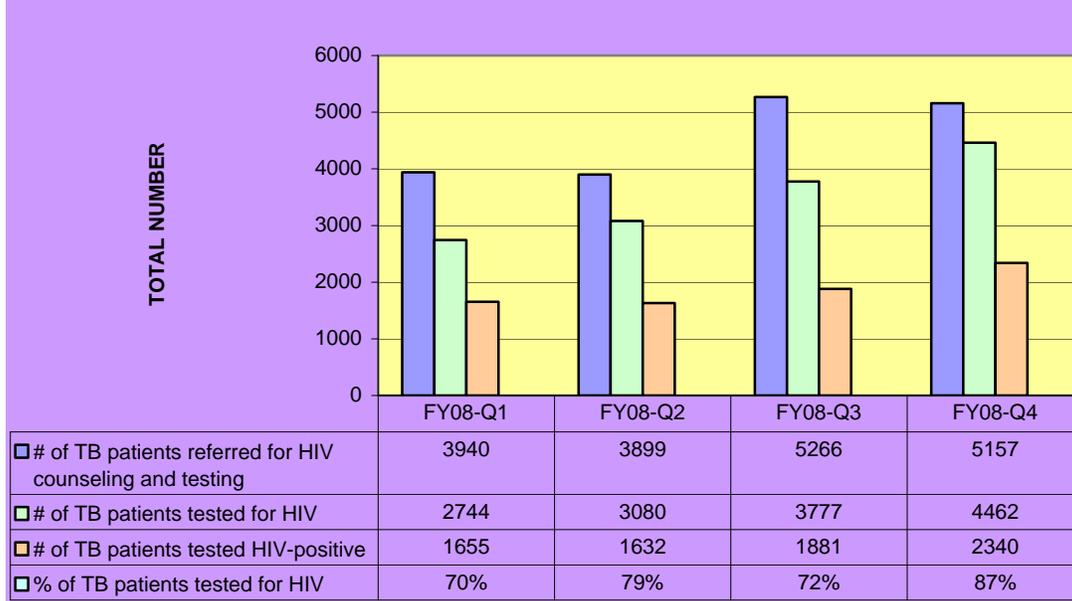
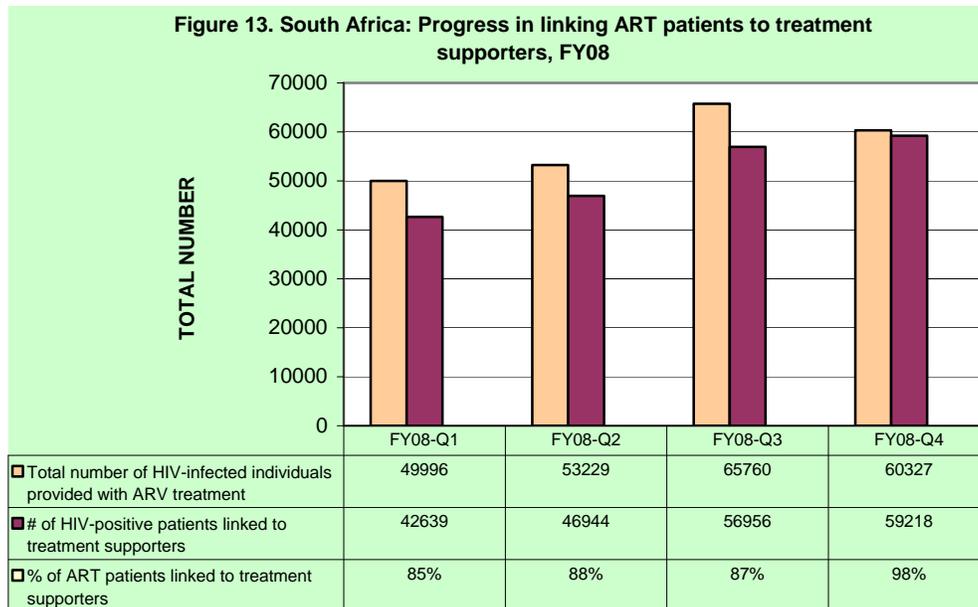


Figure 12. South Africa: Increasing testing of TB patients for HIV, FY08



Comprehensive care/ARV services: The HCI program in South Africa has devoted considerable effort to improve the follow-up of patients on ART and consequently provide a continuum of care for these patients by developing relationships and involving ART-accredited facilities with community- and home-based organizations. HCI has partnered with three such organizations (Phaphamani, Amakhumbuzza, and Arthurseat in Mpumalanga, Kwa-Zulu Natal and Limpopo Provinces) to further build local capacity and expand access to quality services for PLWHA. This support includes ongoing mentoring and onsite capacity building in quality improvement techniques to improve home-based care, including assistance to PLWHA and their caregivers to better adhere to treatment regimens. Data in Figure 13 show that even though the total number of ART clients continued to grow, percentage coverage of ART patients with treatment supporters rose (to 98%) by the fourth quarter of FY08.



Directions for FY09

HCI will continue to build on Year One's success in integrating QI tools and approaches at the community, facility, and district levels. HCI will expand coverage of its services to new geographic areas in the country. During FY09, HCI will continue to assist the Government of South Africa and non-governmental agencies to: (a) increase uptake of HIV and AIDS prevention, treatment, care, and support services; (b) improve prevention and treatment outcomes; and (c) increase efficiency of service delivery. The project also expects to place additional staff as well as fund community-based organizations to improve quality of care and strengthen the continuum of care for PLWHA.

2.8 Swaziland

Objectives

HCI is supporting the Ministry of Health and Social Welfare (MOHSW) to strengthen TB control and the implementation of TB-DOTS as well as build national capacity to coordinate TB and HIV services. The project has helped Swaziland make significant strides in TB control by increasing political commitment to TB; providing strategic direction to TB control and TB/HIV integration at all levels; building the capacity of the National Tuberculosis Control Programme (NTCP) and the Swaziland National AIDS Program (SNAP) to plan, direct, and monitor TB/HIV interventions; strengthening monitoring and evaluation systems; and supporting communication and social mobilization activities. HCI is providing technical support to all 19 TB diagnostic units in the country and 44% (71 out of 162) of clinics in all four of its regions.

The specific objectives of HCI assistance in Swaziland in FY08 were to:

- Increase integration of TB and HIV services at all levels;
- Increase TB case detection and treatment success;
- Build capacity of the NTCP at national, regional, and service delivery levels to plan, monitor and direct interventions for TB control; and
- Decrease the burden of MDR/XDR-TB in Swaziland.

Main Activities and Results

Policy support: HCI assisted the NTCP and SNAP to develop guidelines for TB/HIV services integration, TB infection control, and management of drug-resistant TB. HCI also worked with those organizations and the private business sector to develop TB/HIV workplace guidelines. The project also assisted the NTCP to update the National Tuberculosis Five Year Strategic Plan 2006-2011.

Integration of TB and HIV care: HCI continued to work with NTCP and SNAP to ensure the implementation of TB/HIV collaborative activities. HCI worked closely with the CDC-funded HTC Project to assist both the NTCP and SNAP to implement the TB/HIV policy guidelines. HCI hosted four quarterly meetings of the national TB/HIV coordinating committee and supported a one-day workshop to brainstorm and develop strategies for the implementation of TB screening in HIV care settings. The project also hosted a stakeholders meeting in April 2008 to gain consensus on the approach and train stakeholders in the implementation of TB screening in HIV care settings. HCI assisted the national TB/HIV Coordinating Committee to develop an intensified TB screening tool and pilot-test it for three months at Good Shepherd Hospital, Mbabane Government Hospital, and Baylor pediatric clinic. HCI also procured two mobile units that have been installed at Mbabane Government Hospital and Raleigh Fitkin Memorial Hospital. Each unit has three consultation rooms offering private space for HIV counseling and testing. HCI also provided training in TB/HIV co-infection management to 377 health workers in TB and HIV care settings. Data from sites in Manzini and Hhohho Regions (see Figures 14 and 15) show that an increasing proportion of co-infected patients are receiving Cotrimoxazole prophylaxis: up in Manzini from 55% in the first quarter of FY08 to 78% in the fourth, and from 45% to 86% in Hhohho.

Support for Global Fund applications: The Global Fund for AIDS, Tuberculosis and Malaria (GFATM) is a major source of funding for NTCP activities. HCI helped the NTCP ensure that the objectives of Swaziland's Round 3 Global Fund grant were met. This included addressing conditions precedent for the phase II grant, assisting in the implementation of grant-related training and community mobilization activities, writing the quarterly and other periodic GFATM reports, and supporting monitoring of Global Fund indicators. The project also supported the MOHSW in the development of its Round 8 proposal for \$11,839,000, which was approved for implementation in April 2009.

Strengthening laboratory services: HCI continued to work with the MOHSW in strengthening the capacity of laboratory staff in smear microscopy and culture and testing for first line drug susceptibility. HCI funded in-

Figure 14. Swaziland: Coverage of TB-HIV co-infected patients with Cotrimoxazole, Manzini Region (3 clinics), Oct 2007-Sept 2008

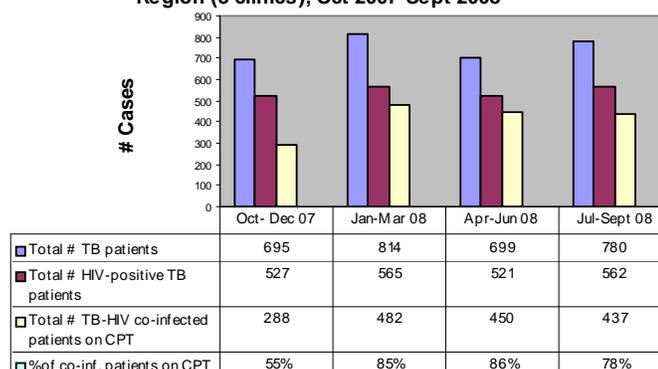
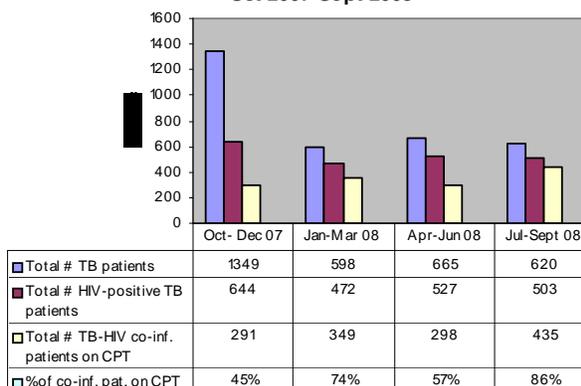


Figure 15. Swaziland: Coverage of TB-HIV co-infected patients with Cotrimoxazole, Hhohho Region (4 clinics), Oct 2007-Sept 2008



country training for four microscopists to complement six trained in 2007 under the Global Fund grant. HCI facilitated discussions of strategies for implementing laboratory support supervision checklists that were developed jointly by HCI, CDC, the NTCP, and the National Reference Laboratory (NRL) in FY07 and supported quarterly meetings between the NRL, clinical laboratories, and the NTCP to strengthen laboratory-related supervision of microscopy services at peripheral levels, implement internal and external quality control, reduce of sputum turn-around time, and improve availability of laboratory supplies.

Increase community awareness about TB and involvement in treatment support: HCI assisted the NTCP and SNAP to increase the number of community groups trained, supervised, and supported in community-based TB-DOTS. HCI worked with the HTC Project and local PLWHA groups to develop community training materials to improve knowledge about TB and TB/HIV and supported training of leaders of 10 HIV community support groups on TB/HIV, stigma, and discrimination. The project helped the NTCP develop messaging around the emerging threats of MDR- and XDR-TB and design a community MDR/XDR awareness strategy. HCI facilitated development of IEC and behavioral change communication (BCC) flyers, pamphlets, bill boards, and newspaper ads and other messages and materials and assisted the NTCP to print 20,000 TB/HIV flyers and pamphlets.

Integration of TB with ANC and MCH services: HCI assisted the national TB/HIV Coordinating Committee to develop monitoring and evaluation indicators for TB/PMTCT activities and has begun work on a screening algorithm for TB in expectant mothers and children in MCH services.

Improved data recording and reporting: HCI continued to assist the NTCP in monitoring TB and TB/HIV indicators monthly. HCI facilitated four quarterly data and performance review meetings with facility staff from 15 TB diagnostic health units and has trained TB clinic health care providers in the use of monitoring tools for TB/HIV activities. The project also continued to train and support health facility staff in the use of the ETR. HCI also assisted the NTCP to develop new MDR-TB registers and treatment cards.

MDR/XDR-TB response: In addition to assisting with the development of MDR-TB guidelines, HCI assisted the NTCP to quantify and project needs for second line pharmaceuticals and personal protection equipment (such as N95 respirators for MDR/XDR), develop MDR-TB communication materials, and produce reporting and monitoring tools for MDR/XDR-TB. HCI supported the development of Swaziland's application to the World Health Organization's (WHO's) Green Light Committee for second line anti-TB drugs. Lastly, the project has recruited a full-time doctor to assist in the management of MDR-TB countrywide.

Directions for FY09

HCI will work with the NTCP to establish and implement a drug-resistant TB program and implement a coherent strategy for management and prevention of drug-resistant TB. HCI will support the MOHSW to implement "the three I's" (Intensified TB case finding, Isoniazid preventative therapy, and Infection control in health care settings), prioritizing health facilities providing HIV and TB care in Manzini and Hhohho Regions. HCI will also support the implementation of HIV/AIDS treatment and care for TB suspects and patients co-infected with HIV. The project will work with selected TB diagnostic centers to strengthen defaulter tracing and TB DOTS. HCI will also support regional health officials in Lubombo to implement a coherent patient transfer system that enables tracing and documenting treatment outcomes in order to reduce number of patients not evaluated.

2.9 Tanzania

Objectives

HCI's main activity in Tanzania is to support the MOHSW, regional and district-level stakeholders, and implementing partners in undertaking ART and PMTCT quality improvement activities. HCI here is in

close partnership with the National AIDS Control Program (NACP) and the Dutch NGO PharmAccess Foundation (PAI). HCI also continues to work with PMTCT implementing partners to develop capacity for infant feeding counseling in the context of HIV/AIDS, using job aids and training materials developed under QAP. The specific objectives of HCI's technical assistance program in FY08 were to:

- Build the capacity of the MOHSW, Regional Health Management Teams (RHMTs), and Council Health Management Teams (CHMTs) to implement and institutionalize QI for PMTCT and HIV/AIDS care and treatment, i.e., ART, at national, regional, and district levels;
- Facilitate the development of a national QI guideline for ART and PMTCT services to guide stakeholders across all levels of care in their roles and responsibilities for improving the quality of care for PLWHA;
- Build capacity at national, regional, and facility levels in infant and young child nutrition in the context of HIV/AIDS by supporting PMTCT implementing partners to train trainers and conduct training in the use of nationally endorsed counseling job aids;
- Improve the ability of referral hospitals to identify children with HIV infection and other serious illnesses and treat them in compliance with standards of care stipulated in the nationally adapted WHO Referral Care Manual; and
- Assist Muhimbili National Hospital, the country's main and largest tertiary care and teaching hospital, to develop a QI program to address maternal and newborn case fatality and other priority problems.

Main Activities and Results

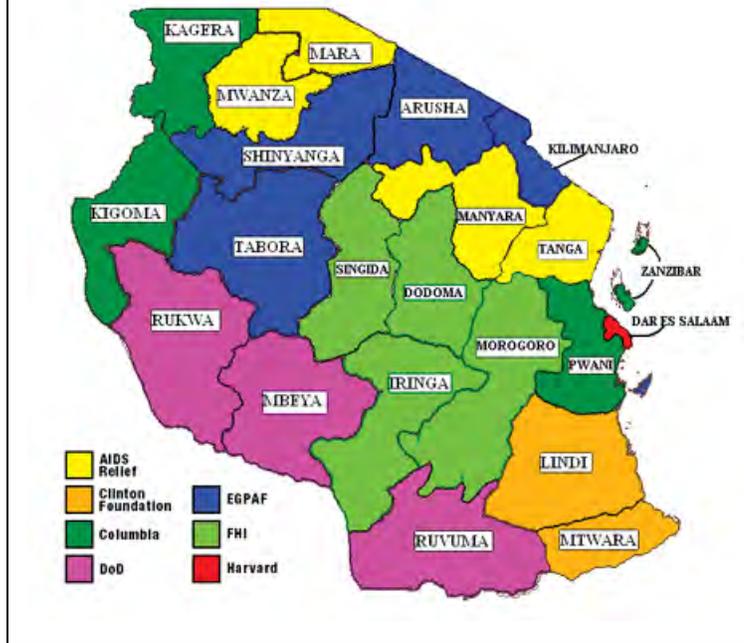
Build the Capacity of the MOHSW, RHMTs and CHMTs and Partners to Implement QI in ART and PMTCT Services and Launch a National Partnership for Quality Improvement

In the first quarter of FY08, HCI and PharmAccess conducted a situational analysis of QI practices across all implementing partners. The analysis indicated variations in QI practices, tools and indicators across partners; lack of a team approach to QI; and weak involvement of RHMTs, CHMTs, and health facilities in the implementation of QI for ART and PMTCT. HCI and PharmAccess then developed, with inputs from the NACP technical staff and all care and treatment partners, a concept paper detailing how a national QI program for ART and PMTCT services could be implemented with the participation of RHMTs, CHMTs, and implementing partners; it was subsequently approved by the NACP leadership.

In January 2008, Drs. M. Rashad Massoud and Stephen Kinoti visited Tanzania to lead a mini-forum on quality improvement for representatives from USAID, CDC, PharmAccess, AIDS Relief, Family Health International (FHI), Columbia University/ICAP, and EGPAF. The forum aired critical issues for the roll-out of QI for ART and PMTCT and developed a consensus on how the partners would work together to implement a series of regional ART/PMTCT collaboratives in the respective regions where they assist regional health authorities and sites (Figure 16 shows regions supported by each partner). A regional QI model for ART/PMTCT describing how RHMTs, CHMTs, and implementing partners will be working in partnership to oversee QI activities for ART/PMTCT in regions and districts was developed in line with the national quality improvement framework.

HCI and PharmAccess submitted a draft guideline for ART/PMTCT quality improvement to the NACP in August 2008. The guideline lays out concepts to guide the strategy of scaling up QI activities through successive regional partner collaboratives. It also describes the aims and structure for ART/PMTCT quality improvement activities, the relationship to PharmAccess' assessments and accreditation activities and GTZ infrastructure strengthening, and HCI's role in providing technical support. It describes how QI capacity will be developed through a collaborative initially involving a few districts in one partner-supported region, and then, as the RHMT, CHMTs, and partner develop experience in guiding QI activities, these activities will be extended to the entire region. The implementing partner would then introduce QI activities in other regions that it supports. (Figure 17 depicts the roll-out plan for the series of regional ART/PMTCT collaboratives.)

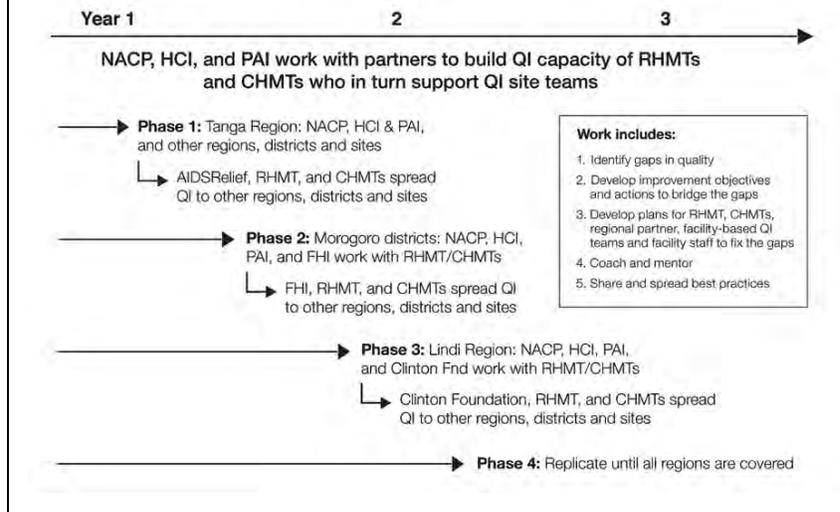
Figure 16. Map of Tanzania showing regions supported by each PEPFAR implementing partner



The first regional ART/PMTCT partner collaborative was launched in May 2008 with AIDS Relief in four of the eight districts of Tanga Region. Box 2 lists the key indicators that QI teams in Tanga will monitor. The collaborative was expanded in late July to include the region's other four districts. At the first learning session with new sites, the RHMT, CHMTs, and AIDS Relief were more actively engaged in facilitating sessions and leading discussions than they had been in the first learning session with the initial sites.

In September, HCI and PharmAccess supported the RHMT, CHMTs, and AIDS Relief to conduct a second learning session for teams in the initial four districts to share innovations, achievements, and challenges encountered in the previous four months and reinforce the culture of teamwork. The session also trained QI teams to analyze processes of care related to ART/PMTCT, apply the Plan-Do-Study-Act Improvement Model in testing changes, and document improvements. Innovations shared by teams included changing flow patterns, introducing exit desks, improving patient appointment systems, and extending

Figure 17. Tanzania: Planned roll-out of series of regional ART/PMTCT collaboratives



Box 3. Tanzania: Priority indicators for QI teams in Tanga

- Proportion of pregnant women attending ANC tested for HIV
- Proportion of pregnant mothers tested and enrolled in PMTCT and at a care and treatment center (CTC)
- Proportion of HIV-exposed infants receiving ARV prophylaxis
- Proportion of exposed infants receiving Cotrimoxazole prophylaxis
- Proportion of HIV-infected women receiving infant feeding counseling during pregnancy and during labor and delivery
- Proportion of patients started on ART within the past six months showing clinical improvement
- Proportion of patients with documented contact-tracing information
- Proportion of patients started on ARVs who are lost to follow-up
- Proportion of HIV patients from CTC receiving CD4 test once every six months
- Proportion of days in a month that any ARV is out of stock
- Proportion of HIV-positive patients assessed at every visit for active TB

clinic hours. The next regional ART/PMTCT collaborative is planned to start in November in Morogoro Region, where FHI is the lead partner.

Build Capacity at National, Regional, and Facility Levels in Infant Feeding Counseling

In the activity of integrating infant feeding counseling into PMTCT services, by the end of FY08, HCI had trained regional trainers in 19 of Tanzania's 26 regions, including eight new regions supported by EGPAF and Columbia/ICAP: Arusha, Shinyanga, Tabora, Kilimanjaro, Kagera, Kigoma, Coast, and Zanzibar. Capacity building in infant feeding counseling has been conducted with the support of PMTCT implementing partners, whose staff receive training from HCI and then replicate it for facility-based infant feeding counselors.

The Tanzania Food and Nutrition Centre's National Coordinator for Infant and Young Child Nutrition officially requested that the QAP-developed training package be made the basis for national materials on infant feeding in the context of HIV/AIDS.

The PMTCT Unit of NACP recently released its PMTCT Program Management Monitoring and Evaluation Guidelines. The guidelines mandate monitoring the proportion of HIV-infected pregnant women who received infant feeding counseling. HCI worked closely with the

PMTCT Unit to ensure that infant feeding counseling received priority attention. The recently developed NACP "Facilitator's Guide for Family Support Groups for PMTCT Mothers" refers to the messages and usage of the QAP-developed job aids for five of the 20 health talks outlined in the guide.

Strengthen Capacity of Referral Facilities to Diagnose and Treat Children with HIV Infection and Other Serious Illnesses

During the first half of FY08, HCI continued to support the MOHSW IMCI Unit and local CHMTs in providing coaching to QI teams in the spread sites of the Pediatric Hospital Improvement (PHI) Collaborative in Arusha, Tanga, and Manyara Regions. Reinforced this year was an intervention to expand the use of the HIV clinical screening algorithm adapted from the generic WHO IMCI HIV screening algorithm to all entry points, including outpatient departments and Reproductive and Child Health Clinics. This effort will guide health providers in identifying, counseling, testing, and referring HIV-positive patients to the care and treatment centers. HCI also assisted in providing training in coaching and QI facilitation for peer coaches from the facility teams.

The MOHSW IMCI Unit has continued to spread the PHI intervention package (including: introduction of an emergency triage assessment and treatment [ETAT] process; improved availability and accessibility of emergency equipment, drugs, and supplies; standardized case management of common childhood illnesses through application of critical care pathways; use of the HIV screening algorithm; improved flow

of pediatric patients with separate pediatric outpatient clinics; and use of quality monitoring data) to new regions and districts, including Mbeya and Morogoro rural district hospitals.

Support QI Program at Muhimbili National Hospital

At the request of the Muhimbili National Hospital management, HCI assisted in developing a QI program for the entire hospital. Capacity for QI was established and departmental QI teams formed. Tools for baseline hospital assessments were developed and pre-tested. All clinical departments conducted baseline assessments and developed policies, procedures, and case management guidelines for priority areas. In 2009, Muhimbili QI teams will begin using the baseline assessment data to prioritize quality improvement objectives based on gaps identified, develop interventions packages, and initiate improvement activities. This work will be facilitated by the return to Muhimbili University Department of Health and Allied Sciences of Dr. Festus Kalokola, who has just completed his tenure as HCI Country Director in Tanzania, and by Dr. Elizabeth Hizza, who will continue to support the QI work 30% of her time supported by Muhimbili National Hospital. The hospital will continue QI activities using its own funds in the areas of Maternity, General Pediatrics, and Medical Records. These departments will implement mini-collaboratives on standardized case management and infection prevention, among other topics.

Directions for FY09

HCI will continue to work in partnership with PharmAccess and the NACP to support implementing partners, RHMTs, and CHMTs to implement regional ART/PMTCT improvement collaboratives, beginning in Morogoro and Lindi. Technical assistance will strengthen the capacity of the NACP to provide technical leadership and coordination for the regional QI activities and to provide coaching and mentoring to RHMTs and CHMTs. The “QI Guideline for PMTCT and Care and Treatment and Support Services” will be published and disseminated to all regions and partners. HCI will also support the implementing partners during implementation and assist partner institutions to identify QI focal persons at regional, district, and facility levels who will take the lead in supporting QI efforts. HCI will also work with NACP, PharmAccess, and ITECH to build the capacity of zonal training centers to train staff in QI methods. HCI will assist with the scale-up of regional infant feeding counseling training to the remaining implementing partners: AIDS Relief, FHI, DOD, and their partners AMREF and EngenderHealth in Tanga, Mwanza, Mara, Manyara, Morogoro, Singida, Iringa, Mbeya, and Rukwa.

2.10 Uganda

Objectives

HCI is providing technical support to the MOH HIV/AIDS Quality of Care (QoC) Initiative to use the collaborative approach to strengthen the quality of ART provision and related services. In three years, the QoC has established a structure for sustainable QI in 120 health facilities. High patient load, high staff attrition and turnover, irregular ART logistics, and poor partner coordination remain as challenges to implementation. QAP started work in 2005 as a demonstration collaborative with 57 sites in all 12 regions; it spread to an additional 32 sites in 2007 and another 31 in early 2008. In FY08, the main objectives of HCI assistance were to:

- Develop and strengthen the HIV/AIDS quality improvement system in health services at national and regional levels through support to the Quality of Care Initiative and capacity building of the Core Team and regional coordination teams;
- Prepare demonstration sites for graduation from the collaborative;
- Expand the collaborative to an additional 31 sites (2nd wave of spread sites);
- Develop a strategy for building District Health Team (DHT) capacity to implement and coach QI activities; and

- Strengthen integration of TB, family planning (FP), PMTCT, pediatrics, logistics, and laboratory services in the QoC Initiative.

Main Activities and Results

Strengthen Core and Regional Technical Teams

In October 2007, regional teams were expanded and made multidisciplinary in order to focus on priority areas: pediatric care, laboratory assessments, data management, and logistics. HCI trained 48 new regional team members in QI methods and tools. During the training, HCI built regional teams' capacity to coach facility teams and provide leadership for QI activities. Two additional Regional Coordinators' Meetings were held in FY08 to share experiences in coaching and improve supervision and mentoring in data management, logistics, pediatrics care, lab services, and adult care in participating facilities.

Drs. M. Rashad Massoud, Stephen Kinoti, and Nigel Livesley visited Uganda in February–March to support the local HCI team in designing the next QoC expansion, which will increase the scope of both content and geographic coverage. Headquarters staff led a workshop to discuss modern quality improvement methodologies, the Chronic Care Model, and how principles of chronic care could improve HIV outcomes in Uganda. An approach was developed to improving HIV care based on aspects of the Chronic Care Model, and the new approach will be added to the March 2008 Learning Sessions.

Graduate Demonstration Sites from the ART Collaborative

Following 30 months of technical support in quality improvement from HCI and the MOH, the original 57 demonstration sites “graduated” from the collaborative at their fifth learning session in June 2008. These sites should have developed sufficient capacity to carry out quality improvement activities independently and will no longer hold learning sessions, will collect data on a sample basis and receive coaching visits on a quarterly rather than monthly basis. A new learning session format was tested to better harvest learning and best practices from site teams through small group work rather than site by site presentations. The small groups discussed lessons learned for a specific topic (e.g., data management, organization of care changes, indicator-specific changes, and sustainability/institutionalization) and presented their conclusions at a plenary discussion. These discussions provided ample time for sites to digest and generate successful practices and allowed all participants to actively participate in thematic discussions. Each group identified three or four key best practices that emerged as a result of their shared experiences, addressed challenges to implementation, and identified solutions. Examples of facility-level best practices identified during the learning session for QI institutionalization included carefully structured task shifting, involving facility management in improvement decisions, and integrating QI activities into other services by enrolling members from other departments into QI teams or working on cross-cutting issues.

HCI coaches visited the graduated sites in September 2008 and found that the performance of teams was varied. HCI is continuing to revise its approach and exploring ways to support teams that are not performing well independently.

Support First Wave Spread Sites in ART Collaborative

The first wave spread sites showed significant progress and improvement in their facility work over the past year. In general, these sites are picking up and applying QI concepts faster than the demonstration sites, having had the benefit of learning best practices from those sites. During FY08, two learning sessions were held for this group. Learning session 3 was held in November 2007 to share best practices across sites and to improve knowledge of pediatric care (pediatric counseling and ART management), TB/HIV integration, and the use of cohort analysis for the clinical monitoring indicator. Sites shared best practices in improving ART logistics management and in data management through

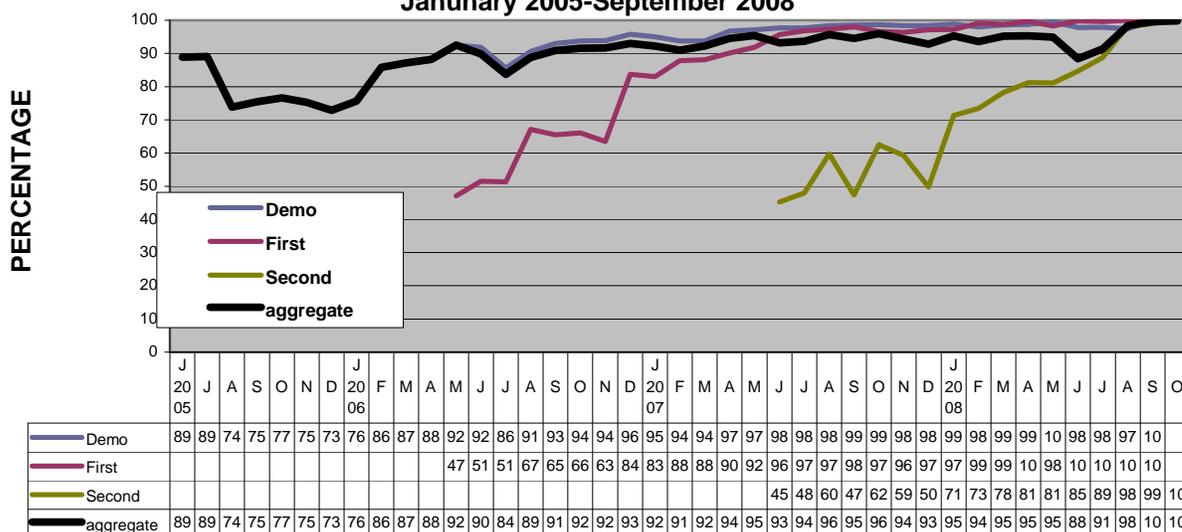
changes in filing systems. Learning session 4, in May 2008, covered an introduction to the NuLife Project (Food and Nutrition Interventions for People Living with HIV/AIDS), experiences in family planning and HIV service integration from EngenderHealth-supported facilities, improving reporting on logistics with the Supply Chain Management System, and an introduction to the Chronic Care Model.

Expand the ART Collaborative to at Least 30 New Sites

HCI added 31 “Second Wave Spread Sites” to the ART Collaborative in January 2008. The first learning session focused on QI principles and tools, indicators, baseline data collection, and facility QI teams. Thirty sites returned in March 2008 for the second learning session where participants shared experiences of baseline data collection, planned QI activities, and continued to learn about systems and processes, using flow charts and other principles of quality management. Participants developed action plans for the 2nd action period, focusing on improving patient records, data collection, and prompt reporting. The third learning session was held in August. These lower-level health facilities, which have increasing patient loads and fewer trained staff to run the HIV clinic than the previous groups, have generally been slower to pick up the concepts of QI for HIV/AIDS care.

The HCI team continued leading monthly Core Team meetings, making site visits, and providing monthly support supervision and coaching to all collaborative sites. Over the past six months, the project has seen continued improvements and sustained levels of achievements in the quality indicators that the sites monitor. Figure 18 presents data reported by teams in each of the three collaborative cohorts (demonstration, first wave spread, and second wave spread) for active TB assessment for HIV-infected patients. The spread sites raised their performance on this indicator faster than the demonstration sites. Steps taken by the team to improve performance on this indicator include organizing the provision of TB and HIV treatment in the same clinic or on the same day and creating reminders and job aids about TB screening.

Figure 18. Uganda: Uptake of screening for TB at every visit among HIV-positive patients in general care and/or receiving ART, All three collaborative cohorts, January 2005-September 2008



Laboratory Quality Improvement

A January 2008 meeting with USAID, the MOH, and other stakeholders reported the final report and recommendations of the June 2007 Laboratory Quality Assessment. HCI then organized two-day training for laboratory staff from 85 facilities to address gaps detected by the assessment, including laboratory logistics. Laboratory staff were trained in QI principles and tools, which has led to increased laboratory participation by site QI teams. Teams have since increased the involvement of lab representatives, improved referral systems between labs, and used data to promote improved use of standard operating procedures.

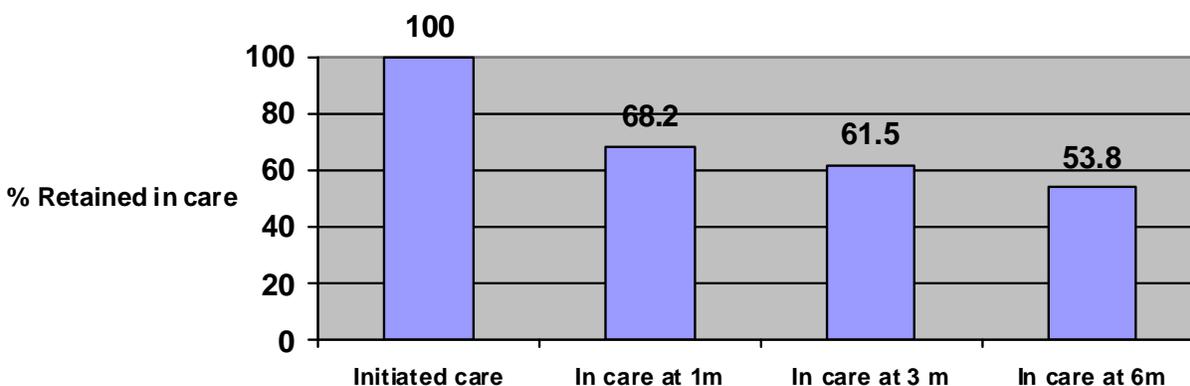
Strengthen Logistics Management at the Site Level

HCI has partnered with the Supply Chain Management Systems Project (SCMS) to strengthen logistics management at the site level through presentations and refresher trainings at learning sessions, joint site visits, and regular two-way communication about situations at particular sites. Through this partnership, SCMS is learning in more detail about complications at the site level and helping address them. The HCI sites rarely have stock-outs, and QI teams can be more productive in implementing improvements.

Quality Assessment of Private-for-Profit Sites

At the request of USAID, HCI assessed 30 of the 35 accredited private-for-profit (PFP) health facilities offering HIV/ART and TB services in April 2008. These sites are not receiving technical support from HCI. The assessment reviewed the quality of PFP ART programs in order to propose appropriate recommendations. Data were collected on the types of services offered, adherence with standards, and patient retention. Results show that the quality of care offered is good at initial visits but progressively declines (Figure 19): At six months after starting care, 46% of pre-ART patients are lost to follow-up. The major challenges to quality care in PFPs include retention of patients, follow-up care, and referrals/linkages with MOH facilities. HCI drafted a report on the findings and presented it to USAID for review.

Figure 19. Uganda: Retention of pre-ART patients in care in Private-for-Profit facilities



District Strategy Development

Over the past year, HCI has developed a strategy for building District Health Team (DHT) capacity to implement and coach QI activities: The primary focus of technical assistance will shift from facilities to these teams, with the goal of sustaining and institutionalizing a culture of continuous improvement in the DHT and levels below. HCI will build DHT capacity to coach teams to plan, manage, monitor, and spread QI activities in HIV/AIDS in their districts. Over the next three to four years, HCI will work

with DHTs in all 80 districts in Uganda. In order to ensure sustainability, HCI held a series of meetings—including a District Strategy Consultative Workshop in May 2008—with key stakeholders to review the plans to date and receive feedback on the most appropriate ways to integrate QI activities into the district structure. In September, HCI chose 15 districts to participate in Phase I of implementation in FY09.

Directions for FY09

HCI will continue activities to improve HIV care and ART in 114 of its original 120 sites. The project framework for improving care for patients on ART will be introduced to address quality gaps in access, retention, and wellness to improve service outcomes and universal access. HCI will follow up graduated sites through quarterly coaching visits and continue to support sites still participating in the collaborative with monthly coaching visits. The remaining 63 sites will graduate by the end of FY09. The primary focus of technical assistance will shift from facilities to District Health Teams as HCI moves from planning to implementing the District Strategy. The project will have up to four phases of implementation over the next four years, with 15–30 districts participating in each phase. The first two phases will begin in FY09. Each district coaching team will work with two or three facilities, including current and new sites. HCI will support the DHTs through monthly coaching visits for the first three months and quarterly visits thereafter. DHTs will have an opportunity to share their experiences in implementing QI activities and the progress of their sites in improving the quality of HIV services in learning sessions every four to six months. We will also build DHT capacity to manage the health care teams to improve their engagement and productivity.

ASIA

2.11 India

Objectives

Most TB treatment in India is provided through stand-alone TB clinics run under the Revised National TB Control Program (RNTCP). HCI is supporting the pilot testing of a package of interventions for increasing TB case detection, case-holding, and coordination of TB-HIV services in two sub-districts: Ibrahimpatnam and Shamirpet in Rangareddi District in Andhra Pradesh State. Both have significant TB and HIV issues. HCI's specific objectives include:

- Increase TB case detection through referrals of TB suspects by primary health care (PHC) facilities and private providers to TB facilities;
- Improve TB case management at TB facilities to reduce default rate;
- Strengthen capacity of district TB program managers and TB service providers in reviewing program data to identify quality gaps;
- Strengthen knowledge and skills of providers (TB and non-TB);
- Improve TB awareness among community and providers about “TB Anywhere is TB Everywhere”; and
- Increase treatment adherence through structured community involvement (schools, community institutions, workplace, etc.).

Main Activities and Results

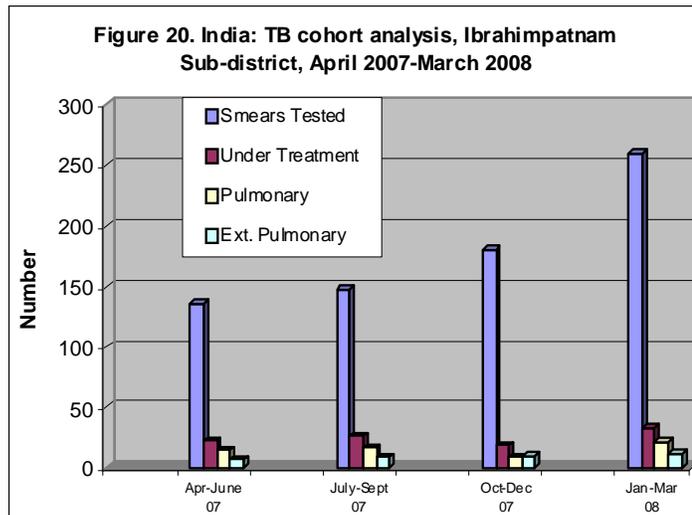
Strengthen Capacity of PHC and Private Sector Providers to Identify and Refer TB Suspects to TB Service Facilities

In the past year, HCI has provided training to public and private health care providers to promote early detection of TB suspects. Training was complemented by simple job-aids to remind providers of key

TB symptoms. HCI has convened quarterly meetings with public and private TB and non-TB service providers to discuss challenges with improving TB case detection and TB program outcomes. Through these activities, HCI has engaged non-TB service providers in addressing low case detection and determining how best to monitor TB patients. Figure 20 shows that these efforts have resulted in an increase in the numbers of sputum smears tested and cases detected.

Improved TB Case Management

HCI has also supported TB facilities to improve case management practices to reduce TB default rates. The project is helping TB facilities undertake monthly cohort analysis using TB registers to monitor patient outcomes. Defaulters are being followed up through community-based (Asha) workers to ensure treatment compliance and patient follow-up.



Engaging Opinion and Community Leaders in TB Detection

The project has worked with school teachers, elected community leaders, private doctors, pharmacists, and religious leaders to improve their awareness of the threat of TB, and inform them that the disease is easily treatable and free from RNTCP. Leaders were encouraged to escort anyone with TB symptoms to the nearest primary health center or TB facility. Educational posters in Telugu about TB signs and symptoms have been distributed. HCI also worked with community groups to promote community-based DOTS and the promotion of cough etiquette.

Directions for FY09

HCI will continue to work with sub-districts to improve TB case management.

2.12 Vietnam

Objectives

HCI is working in Thai Binh Province, a high HIV-prevalence province, where 6% of TB patients have HIV. HCI is supporting: 1) TB-HIV integration activities in all districts and all TB and HIV facilities in the province (population 1.8 million) and 2) partnerships between the National Tuberculosis Program (NTP) and private health providers for TB case-finding and case management. HCI's strategy in Thai Binh has been to use the improvement collaborative approach to spread best practices related to preventing and treating TB-HIV. HCI activities are being closely coordinated with the Global Fund's TB program. Specific HCI objectives in Vietnam in FY08 were to:

- Support national and provincial health authorities to develop guidelines and systems for TB/HIV integration,
- Expand access to TB services through the involvement of the private sector,
- Strengthen infection prevention and control in TB health care settings, and
- Develop tools and strengthen TB/HIV monitoring and evaluation processes.

Main Activities and Results

TB/HIV Policy Development

At the national level, HCI provided assistance to the NTP and Vietnam Administration for HIV/AIDS Control (VAAC) in the development of a national framework, guidelines, and training modules on TB-HIV integration; they are now being used nationwide. At the provincial level, HCI supported Thai Binh province in disseminating TB-HIV guidelines among TB and HIV health facilities. In addition, health care workers were trained in HIV and TB testing and TB/HIV management.

Strengthened TB/HIV Collaboration

HCI worked with the Thai Binh Department of Health to establish a collaborative mechanism for TB-HIV management. A provincial TB-HIV task force was established to promote collaboration between TB and HIV program managers. The DOH developed and issued terms of reference for district collaborative working groups, and a DOH-chaired task force meets monthly to lead the quality improvement process for the TB-HIV Collaborative. In addition, a cross-referral system was established between TB and HIV/AIDS programs. Referral and feedback forms were developed and implemented in all TB and HIV health facilities. A cross-referral system was also established between private and public non-TB service providers. Personnel from the private clinics were trained in TB/HIV management, TB symptoms, and referral procedures for sending suspicious cases to a TB hospital for tests. A feedback form was created which the TB hospital completes for each referred patient and returns to the private clinic.

With HCI's support, all the TB and HIV health facilities at the provincial level—including the provincial TB hospital, general hospitals, and health centers in all eight districts—now have the capacity to provide TB-HIV services, including provision of provider-initiated HIV testing and counseling for TB patients, voluntary counseling and testing for others seeking the service, and treatment and care for TB/HIV patients. Figure 21 shows how the proportion of TB patients counseled and tested for HIV has increased: from 19% in 2006 to 90% by the third quarter of 2008. The proportion of TB/HIV cases detected by primary health care facilities has been increasing in most regions. Figure 22 shows the increasing number of TB suspects referred by private sector providers.

Figure 21. Vietnam: HIV counseling and testing among TB patients, Thai Binh Province, 2006-2008

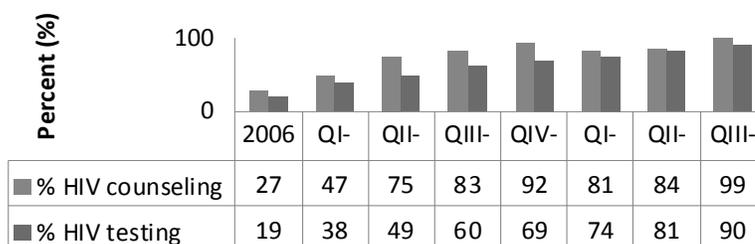
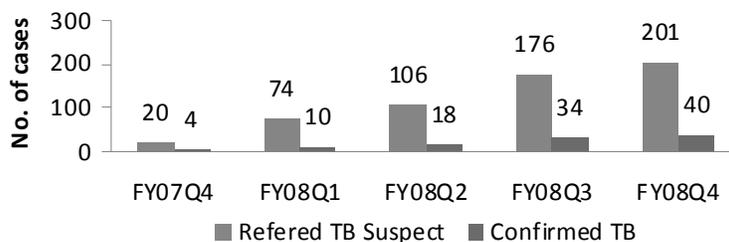


Figure 22. Vietnam: Increasing referral of TB suspects by the private sector, Thai Binh Province, July 2007-September 2008



Capacity Building in Public and Private Sectors

HCI, in collaboration with the Global Fund TB program, provided training on TB-HIV quality improvement to 40 TB and HIV health workers in Thai Binh. Sixty health workers from all provincial and district TB and HIV facilities were trained in HIV counseling and testing. Also, 150 general practitioners working at out-patient clinics at public health facilities and 88 private general practitioners were trained in TB and cross-referral for improving case detection and TB case management. Training in TB and TB/HIV was also provided to 226 community workers. HCI developed an infection control manual, and two training courses on infection control were provided for all 76 staff at the Provincial TB Hospital and for 40 health workers from TB control teams and infectious disease departments of all districts.

Strengthened Monitoring and Evaluation System

HCI worked with NTP to revise recording and reporting systems for TB/HIV and the public-private mix. The revised recording and reporting forms for TB-HIV collaborative management have been developed and implemented in all the TB and HIV facilities since April 2007. A patient registration book and referral/feedback forms were developed and provided to the private clinics involved in TB control.

IEC, Advocacy, and Social Mobilization

HCI supported two advocacy workshops on TB/HIV and the public-private mix for TB control to expand involvement of public and private non-TB service providers and increase understanding of TB/HIV co-infection. The project provided technical support to develop three documentary programs for local television to increase awareness about TB and TB/HIV. In addition, HCI developed and distributed 20,000 leaflets providing health information for HIV-infected people and TB/HIV patients. These pamphlets are distributed to HIV clients and TB patients when they visit health care facilities and to people attending PLWHA support group meetings.

Directions for FY09

HCI will continue working with Thai Binh Province in FY09 on improving the quality of TB-HIV services at the district and community levels. The main focus will be placed on improving quality and access of HIV counseling and testing services; providing TB testing for PLWHA and HIV testing for TB patients; improving the quality of TB testing; and strengthening cross-referral and data management. The project will also continue promoting public-private partnerships for TB control by piloting TB testing and treatment in private facilities and continuing to train public and private doctors.

EUROPE

2.13 Russia

Objectives

HCI's main focus in Russia in FY08 was on supporting demonstration and spread phases of HIV/AIDS treatment, care, and support system improvements in two regions:

- Access to Basic HIV/AIDS Care and ART (through spread collaboratives in St. Petersburg/ Leningrad Oblast and in Orenburg Oblast);
- Detection, Prevention, and Treatment of HIV-TB Co-infection (spread collaboratives in St. Petersburg/Leningrad Oblast and in Orenburg Oblast);
- Social Support for HIV-positive Families (demonstration collaborative in St. Petersburg); and
- Access to Drug Rehabilitation Services for PLWHA (demonstration collaborative in St. Petersburg).

In these activities, HCI worked with 188 state health facilities, social service organizations, and NGOs in all 18 districts of St. Petersburg and three districts in Leningrad Oblast and with 86 state health care facilities, social service organizations, and NGOs in Orenburg City and three cities (Novotroitsk, Orsk, and Gai) in the eastern zone of Orenburg Oblast. HCI's main partners are the Federal AIDS Center and Federal Center for TB/HIV Co-Infection; USAID-funded partners such as Healthy Russia Foundation, American International Health Alliance (AIHA), Doctors of the World, and other local NGOs; WHO; the United Nations Joint Programme on HIV/AIDS (UNAIDS); and the United National Office on Drugs and Crime (UNODC). HCI also supported improvement in the monitoring of HIV/AIDS care through assistance in applying CAREWare, software for managing HIV/AIDS care developed by the U.S. Department of Health and Human Services, in Russian settings.

Main Activities and Results

Access to Basic HIV/AIDS Care and ART in St. Petersburg/Leningrad Oblast and Orenburg Oblast

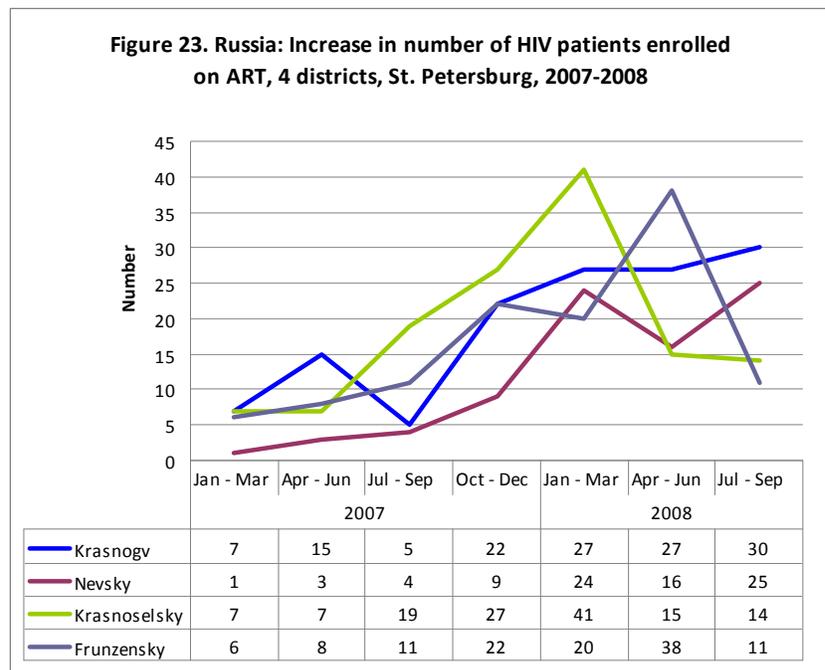
HCI organized learning sessions in Orenburg in October 2007 and April 2008 for the spread collaborative. Both sessions focused on cooperation among the primary health care services, TB services, and the AIDS center with a goal of improving follow-up for HIV-positive patients at the out-patient level. This follow-up is a critical step, given frequent patient migration between districts. Teams planned to arrange a system of communication between the 1) Oblast AIDS Center and the Orsk and Novotroitsk AIDS Centers and 2) infectious disease specialists in municipal polyclinics.

With the Healthy Russia Foundation, HCI also continued to support training voluntary counseling and testing trainers in St. Petersburg and Orenburg who then took the training to over 200 primary health care specialists. These trainings and the integration of counseling and testing services into primary care providers' responsibilities have led to higher client enrollment in HIV testing.

In June 2008, HCI partnered with WHO to conduct learning sessions in St. Petersburg and Orenburg on scaling up access to HIV/AIDS care. The St. Petersburg session reviewed lessons from organizational models used for delivery of medical-social care for PLWHA and developed recommendations for further improvement. Orenburg

participants discussed the need for establishing a database for HIV patients so that providers could regularly exchange information and improve patient retention. They also discussed the need for developing agreements on cooperation between polyclinics, NGOs, and departments of social protection of people in municipal districts so that patients with HIV could be referred for medical-social services.

Figure 23 charts progress in enrolling HIV-positive patients in ART in selected St. Petersburg districts. The increased number of patients on ART resulted from improved communication and coordination between infectious



disease specialists in polyclinics and the City AIDS Center, implementing a step approach for involvement of HIV-positive patients in medical follow-up at the district level, and better tracking of HIV-positive patients residing in the catchment area of each polyclinic. By September 2008, the coverage of newly detected HIV-positive patients with medical follow-up in St. Petersburg had increased to 89%, up from 54% in 2006.

Detection, Prevention, and Treatment of TB/HIV Co-infection in St. Petersburg/ Leningrad Oblast and Orenburg Oblast

HCI continued work on implementing Isoniazid preventive therapy (IPT) and institutionalizing algorithms developed by improvement teams for TB screening of HIV-positive clients at the municipal level. The third learning session of the TB/HIV Collaborative in St. Petersburg had been held in October 2007 (with participation by representatives of teams that had participated in the demonstration phase of the TB-HIV improvement work in St. Petersburg, Orenburg, Engels/Saratov, and Togliatti) in order to harvest lessons and best practices that could be applied in the spread phase. In the following month, HCI presented a two-day learning session for collaborative participants from Orsk, Novotroitsk, and Gai to design an algorithm to integrate IPT into TB care delivery for HIV patients. The third learning session for Orenburg sites was held in June 2008 to review progress toward and challenges of implementing TB screening in polyclinics. The teams proposed updating the Orenburg Oblast MOH's Order #666 on TB screening for HIV-positive people with a clearer description of tuberculin test administration and diagnostic processes and guidelines indicating when IPT can be administered and by whom.

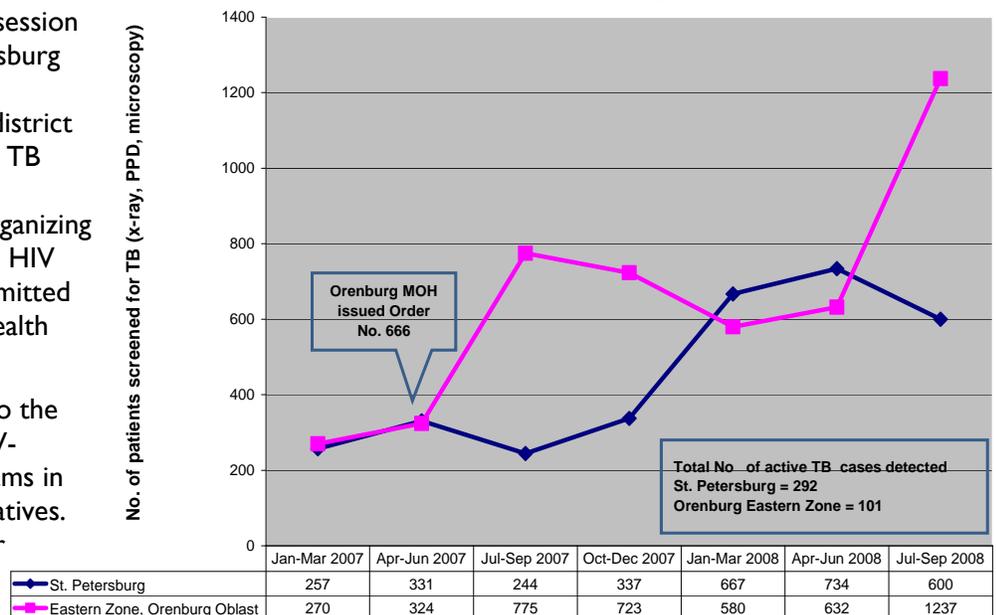
At the July 2008 fourth learning session for this collaborative in St. Petersburg and Leningrad Oblast, heads of polyclinics and TB dispensaries, district infectious disease specialists, and TB specialists worked out the key provisions of a draft order on organizing TB care delivery to patients with HIV (Box 4). The draft has been submitted to head specialists of the City Health Committee for review.

These efforts have contributed to the increase in TB testing among HIV-infected patients reported by teams in the two TB/HIV spread collaboratives. Figure 24 shows that the number of HIV-positive patients tested for TB in polyclinics has

Box 4. Russia: Key provisions of the TB/HIV order drafted by teams in the St. Petersburg Spread Collaborative

- Appointment of the city TB/HIV coordinator
- Authorization of district infectious disease specialists to serve as district TB/HIV coordinators
- Responsibility for TB screening among HIV patients assigned to local polyclinics
- Creation of reference offices at TB dispensaries or organization of consultations by TB specialists from TB services at polyclinics
- Inclusion of HIV patients in the beneficiary list for free TB drugs and allocation of funds
- Organization of ongoing HIV/TB training for infectious disease and TB specialists and lab services
- Monthly reporting of TB screening
- Twice-yearly TB screening of clients of mental and drug rehabilitation services

Figure 24. Russia: Expansion of TB testing among HIV-infected patients, St. Petersburg and eastern cities of Orenburg, 2007-2008



climbed steadily, reaching over 400 per month in the three eastern cities of Orenburg and 200 per month in St. Petersburg. Before 2007, people with HIV were not routinely screened for TB. Since then, 292 TB cases have been detected among HIV-positives in St. Petersburg and 101 in Orenburg's Eastern Zone.

Care for HIV-positive Mothers in St. Petersburg

The second learning session for teams in the demonstration collaborative on social services for families affected by HIV was held in St. Petersburg in July 2008. Participants from four of the eight districts presented on their progress to city and oblast health and social protection authorities, and content experts from local NGOs shared experiences in organizing social support for HIV-positive families. Discussions focused on the need to develop a regulatory document to institutionalize provision of social support for HIV patients and methodological recommendations/organizational guidelines on providing PMTCT and social support services for HIV-infected mothers and their families. Thereafter, HCI organized a working group of key experts, representatives of the City Committee for Labor and Social Protection, district social services, the chief infectious disease specialist of St. Petersburg, and NGOs to develop guidelines on PMTCT and the organization of social services for HIV-infected families at the municipal level. The group has drafted a decision for adoption by the City Committee that proposes a model for social support and follow-up services for HIV-positive families at the municipal level. Reflecting these efforts, the number of HIV-positive families provided with social support in St. Petersburg has grown: Over 170 families receive various social services; 30 of these families were transferred from City AIDS Center to municipal services for further follow-up; and 47 families were referred for services by providers from women's consultations and pediatric polyclinics.

Increasing Enrollment in ART through Integration of HIV and Narcological Services in St. Petersburg

HCI organized and facilitated a one-day learning session in November 2007 for teams in this demonstration collaborative. The session objectives were to review, six months after project inception, the current situation of care delivery to HIV-positive drug users and barriers to receiving treatment, to discuss the teams' achievements and failures, and to introduce participants to modern approaches of care delivery to HIV-positive drug users and evidence-based treatment of drug abuse. Anecdotal evidence suggests increased referrals to drug rehabilitation services: Specialists of Interdistrict Narcological Dispensary #1 have reported that 12 of the 15 patients who recently completed a three-month rehabilitation course at the Center were referred by infectious disease specialists from polyclinics in the three HCI-supported districts.

Improving Monitoring of HIV/AIDS Care

HCI continued to support the use of CAREWare software, which had been translated to Russian under QAP, in the Orenburg AIDS Center. HCI staff organized and facilitated two presentations of the results of the software's application in the Orenburg Oblast AIDS Center: 1) to representatives of the Novotroitsk and Orsk AIDS Centers and the Orenburg Oblast MOH in December 2007 and 2) to representatives of the Federal Service for Surveillance of Human Well-being and Consumer Rights Protection, the Central Research Institute for Health Information, PLWHA groups, the NGO Community of People with HIV, WHO, UNAIDS, and USAID.

Directions for FY09

HCI will continue to support the institutionalization of improvements in HIV/AIDS treatment, care, and support in St. Petersburg and Orenburg. Particular focus will be placed on increasing coverage of HIV-positive patients with medical follow-up and TB testing at polyclinics; increasing the number of patients on ART; and documenting the municipal organizational model for delivery of HIV care, including algorithms, district plans, referral mechanisms, and recording forms for use in other regions. HCI will

also develop a package of organizational guidelines for detection and prevention of TB in HIV-infected people and continue to cooperate with the Federal Center for TB-HIV Care in preparation of national IPT guidelines. Based on the work of the demonstration collaborative, HCI will develop a package of organizational guidelines for delivery of social support services for HIV-positive families at the municipal level and facilitate its approval by St. Petersburg City's Committee on Labor and Social Development. Finally, HCI will launch a new two-year initiative to improve the quality of maternal care to prevent maternal and neonatal mortality. This initiative will assist Russian partners in three regions with high maternal and infant mortality rates to address its root causes and develop guidelines and organizational recommendations to improve the quality of maternal and neonatal care.

LATIN AMERICA AND THE CARIBBEAN

2.14 Ecuador

Objectives

HCI's technical assistance to Ecuador in FY08 gave continuity and closure to three large-scale EOC improvement activities that had been initiated under QAP: a national EOC Collaborative operating in 12 of the country's 24 provinces, a demonstration collaborative on improving the management of obstetrical complications in six provincial hospitals, and a national campaign to spread AMTSL to all MOH facilities. In addition, HCI supported an operations research intervention study that had started in 2007 in four county hospitals to make delivery care more responsive to users' cultural expectations. The key objectives of HCI in Ecuador in FY08 were to:

- Strengthen the institutionalization of a Continuous Quality Improvement (CQI) system for essential obstetric care within the MOH structure in approximately 91 facilities, 12 (of 24) provincial MOH offices, and the MOH central office in Quito;
- Integrate newborn care into the existing EOC CQI work;
- Scale up improvements achieved in the management of pre-eclampsia, sepsis, and hemorrhage during the demonstration phase of the Obstetric Complications Collaborative;
- Consolidate the spread of AMTSL (first introduced in the EOC Collaborative) to all MOH facilities in all 24 provinces;
- Support the MOH in harvesting lessons from the EOC and Obstetric Complications collaboratives and organize their spread to the entire country; and
- Expand application of the approach to "Humanization and Cultural Adaptation of Delivery Care" (known by its acronym in Spanish, HACAP or *Humanización y adecuación cultural de la atención del parto*).

Main Activities and Results

Support Institutionalization of CQI in EOC in 12 Provinces

With the change in Government administration in August 2007, a new MOH technical team was appointed to lead the areas of maternal and newborn health. Through several meetings and discussion of documents, HCI worked to engage the support of the new MOH leadership for the obstetric care collaboratives and related activities. At the same time, the new authorities expressed interest in seeing the CQI approach introduced in all provinces. They created a staff position at the central level to be in charge of managing a national database of reports of compliance with EONC standards sent from MOH provincial offices.

A national meeting of EOC CQI coordinators from the 12 participating provinces had been held in August 2007 to identify the best practices from the collaborative and to discuss strategies for their further expansion to other provinces. Based on the conclusions of that meeting and the interest of

national authorities in a comprehensive, nationwide strategy, the EOC Collaborative, which had been started in one province in 2003, was brought to a close in December 2007. This move would enable a nationwide spread of the collaborative's lessons and best practices.

HCI provided technical support to help the new MOH staff member organize the national database and participated in quarterly meetings with provincial CQI coordinators to help analyze data and develop improvement plans. HCI staff accompanied MOH staff on visits to provincial MOH offices in Esmeraldas, Manabí, Guayas, Los Ríos, Orellana, Tungurahua, and Chimborazo to strengthen provincial capacity to manage quality improvement in EONC. The project also supported the MOH in conducting workshops in Guayas and Los Ríos to train provincial staff in CQI in the context of EONC. HCI provided training in CQI and in implementing improvement interventions in EONC to staff of the largest maternity hospital in Guayaquil, Enrique Sotomayor Hospital, which is operated by the non-governmental *Junta de Beneficencia*. In coordination with the MOH regional office, HCI trained four CQI teams at the hospital between March and July 2008. The four teams (emergency room, labor and delivery, outpatient services, and newborn care) continue to monitor compliance with EONC standards and implement improvement interventions.

HCI also supported the MOH in conducting a technical review and updating of the National Maternal and Newborn Care Norms and Standards. After a participatory process that included several national meetings with experts from several institutions, a new, updated, evidence-based set of norms was published and distributed in August 2008. HCI also worked with the MOH to update the "Manual of Quality Standards and Indicators for EONC," resulting in a new manual that the MOH approved, published, and distributed in August 2008.

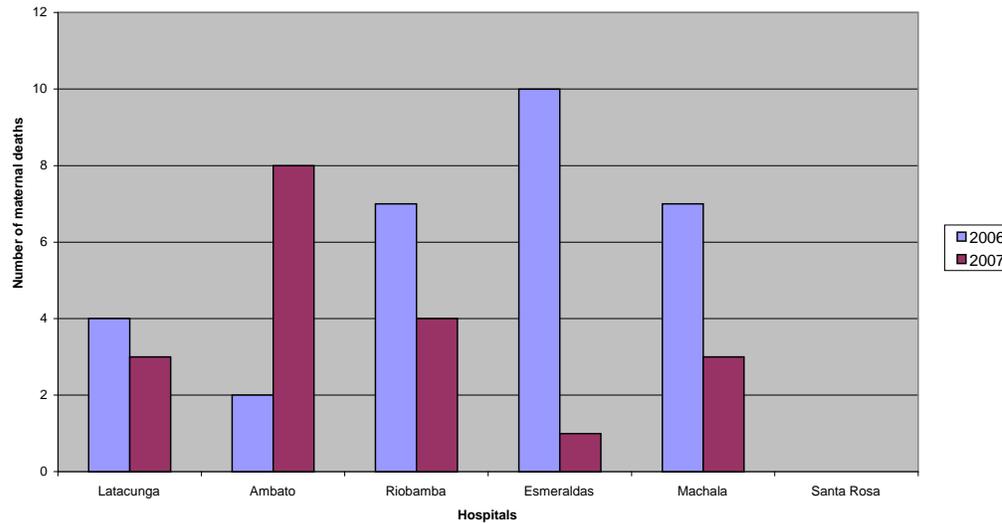
Scale up Improvements Achieved in the Management of Obstetric Complications

The Obstetric Complications Collaborative also ended in late 2007; it had started in six provincial hospitals in October 2006. The fourth and final learning session, in August 2007, yielded a series of recommendations for how MOH facilities could improve the clinical management of pre-eclampsia, hemorrhage, and obstetric infection/sepsis. Pre-eclampsia has traditionally been poorly managed, especially relative to diagnosis, which was generally done in the emergency room without measuring protein levels in urine. Stocking urine dipsticks in emergency rooms, training personnel in their use, as well as preventing and treating eclampsia with Magnesium Sulfate, were applied successfully in the collaborative hospitals. For hemorrhage management (most frequently, postpartum hemorrhage), HCI improved the prevention and management of hypovolemic shock. There is still much to do to solve the problem of readily available blood at night, on weekends, and on holidays, a problem only partially improved through the collaborative. For obstetric infections, HCI introduced a standardized protocol for use of antibiotics and an indicator to verify compliance with the protocol.

HCI worked with the MOH to develop detailed guidelines and indicators for the management of each of these complications. These standards included, for the first time ever in Ecuador, guidelines for immediate treatment of these complications at peripheral (county) facilities and for their referral to larger provincial hospitals.

Figure 25 shows that the demonstration collaborative significantly improved compliance with guidelines for the management of pre-eclampsia and hemorrhage and reduced maternal deaths from these causes in four of the six participating hospitals (in one hospital—a small, rural facility—no deaths occurred).

Figure 25. Ecuador: Trends in maternal deaths in six provincial hospitals participating in the Obstetric Complications Collaborative, 2006 and 2007



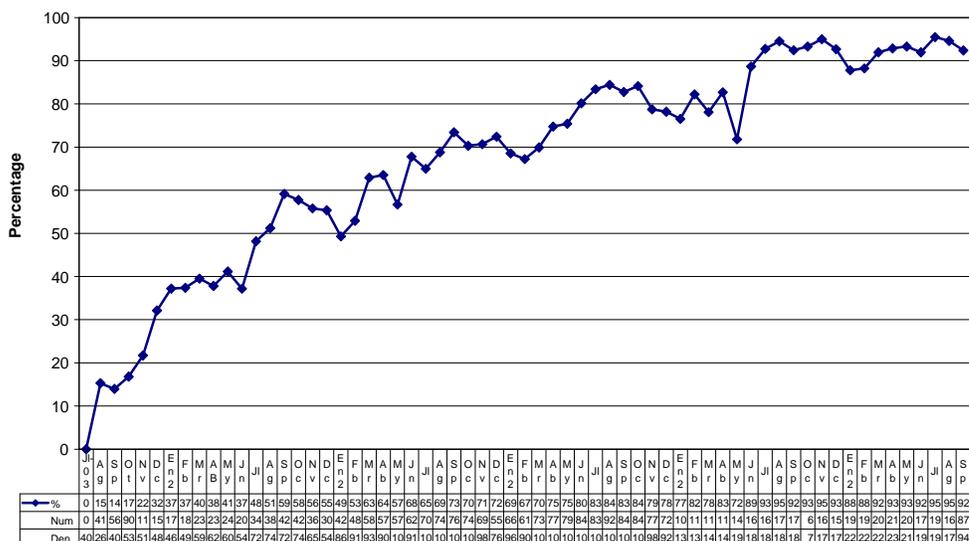
Consolidate the Spread of AMTSL to All MOH Facilities in All 24 Provinces

Based on the AMTSL scale-up workshops in July 2007 and with the participation of 21 provinces, HCI provided follow-up support to the central MOH and several provincial MOH offices to increase reporting of compliance with the AMTSL indicator by facilities and provinces. From 75 facilities reporting AMTSL compliance in June 2007 as part of the EOC Collaborative, the scale-up workshops raised the number of reporting facilities to 96, out of approximately 152 MOH facilities that attend deliveries. This indicates a scale-up of 28% with a relatively simple intervention and coverage with AMTSL by the end of the period by 63% of MOH facilities. Importantly, the criterion used to count these facilities is actual monthly reporting of the AMTSL indicator by each facility to the MOH provincial and central offices. Many more facilities reported having an “AMTSL team,” but were not counted as practicing AMTSL unless they reported the Oxytocin data. Figure 26 shows that the collaborative and spread sites together achieved and sustained compliance with AMTSL in over 90% of deliveries.

Integrate a Stronger Newborn Care Component with EOC CQI

Working with the MOH Child Health Program, HCI developed six standards and indicators for normal newborn care and the management of newborn complications. The standards cover management of infections, including sepsis; management of respiratory distress; and management of the low-birth-weight and/or premature newborn. HCI also developed standards and indicators for managing premature rupture of membranes and the use of cortisone in premature births. These standards and indicators, together with corresponding data collection instruments, were tested in two hospitals near Quito.

Figure 26. Ecuador: Progressive spread of AMTSL as measured by delivery of Oxytocin, 2003-2008



The MOH convened a meeting of its newborn care experts to review the HCI-developed standards and indicators. They were approved and officially published by the MOH in August 2008, accompanied by a Ministerial resolution that makes their implementation mandatory in all MOH facilities. These standards and indicators were disseminated to provincial teams of all provinces during three workshops in July and August 2008. However, to date, the Child Health Program has not been able to provide sufficient follow-up and coaching to the provinces, which, in HCI’s experience, is critical for their implementation and for motivating improvement activities based on monitoring compliance. The MOH recently requested HCI’s technical assistance in planning and implementing a new collaborative to improve newborn care in the country’s main hospitals in 2009.

Support the MOH to Spread the Best Practices and Lessons from the EOC and Obstetric Complications Collaboratives to the Entire Country

HCI and the MOH invested considerable effort into “harvesting” lessons learned from the EOC and Obstetric Complications collaboratives and identifying and describing the nature and content of interventions implemented by CQI teams that were successful in overcoming obstacles to implementing evidence-based EONC practices. Short improvement reports that had been posted by CQI teams in the collaborative web site, www.mortalidadmaterna.org, were systematically reviewed, and one-day meetings were held with selected members of provincial and facility CQI teams to extract their experience and distill what the successful interventions were. A document summarizing the key interventions and lessons from the collaborative was produced in June 2008 and, following review by local experts, was approved by the MOH and published jointly by the MOH and HCI in July. The logic behind this emphasis on distilling the learning of the collaborative teams is the belief that new CQI teams in the spread phase do not have to “discover” again how to improve EONC processes but rather can immediately apply the experience of the CQI teams from the demonstration phase.

The MOH’s new spread strategy is to introduce the package of EONC interventions refined in the QAP/HCI-supported collaboratives to all 24 of the country’s provinces. The EONC spread will be funded and led by the MOH MCH program head in each province and the heads of Obstetrics and Pediatrics in each main provincial hospital. The EONC spread package includes a more extensive newborn component than was implemented in the original EOC Collaborative. In June and July 2008, HCI helped the MOH train approximately 210 members of MOH offices and hospitals from all 24 provinces in three regional workshops; teams learned about the recently updated national maternal and

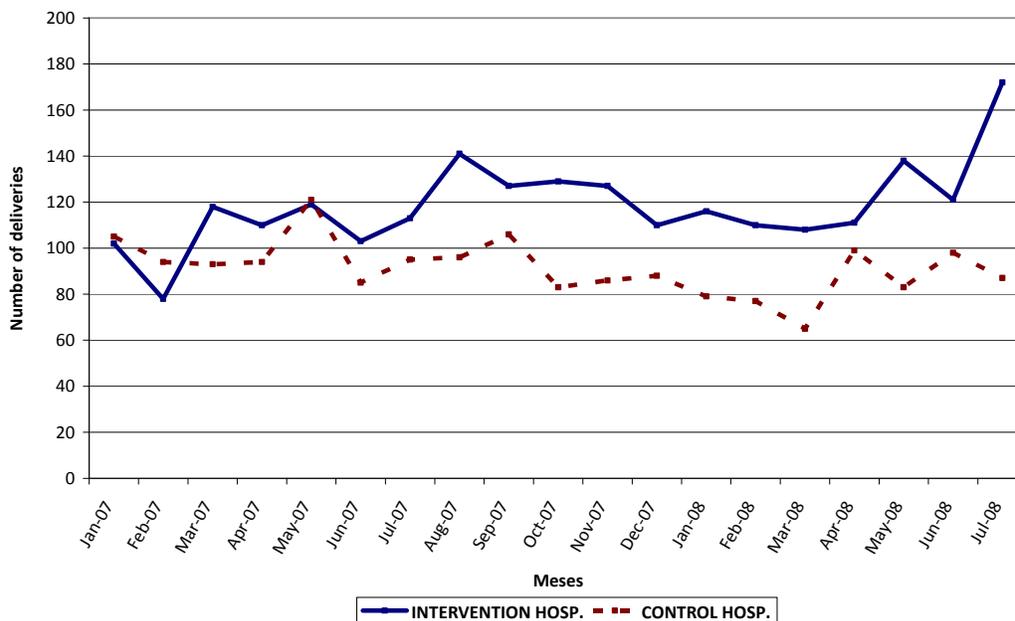
newborn care standards, the Lessons Learned document, and basic QI methods. They were also oriented to the role provincial MOH offices will have in the spread. HCI also provided additional training in CQI and coaching to 12 clinicians—officially appointed as National EONC Coaches—who had participated in the demonstration phase of the EOC Collaborative. These trainers have begun to train EONC teams in the provinces of Esmeraldas, Imbabura, El Oro, and Cotopaxi and have been active in reviewing the contents of the new EONC norms and standards. Provincial spread teams in each province will now lead the scale-up of the revised norms.

Expand Application of Humanization and Cultural Adaptation of Delivery Care

The intent here is to make delivery care more culturally acceptable to local users, who are mostly members of indigenous communities. HCI made regular coaching visits during 2008 to support improvement teams in the four intervention hospitals of Canar, Alausi, Saquisilí, and Chillanes to establish changes to delivery care. The improvement teams comprised care providers, traditional birth attendants (TBAs), and representatives of users’ committees and local governments. Changes, identified through discussions among the team members, included: allowing a family member to be present during hospital delivery; improving clothing and delivery room temperature; allowing the mother to choose the birthing position; allowing traditional herbal teas and traditional foods before, during, and after delivery; allowing a more active role for the TBA and/or including her as a member of the delivery care team; changing visiting hours to accommodate family members; and improving interpersonal treatment by hospital staff toward mothers and families. Most of these changes were implemented by March 2008.

Home interviews were conducted with users to measure satisfaction with delivery care in the intervention and control facilities, and data were collected from birth certificates in the local Vital Statistics offices: These measures determined trends in delivery setting (i.e., institution versus home). The presence of family members during delivery increased noticeably in intervention hospitals (from 16.5% to 42.9% of deliveries) compared to control hospitals (from 5.2% to 17.2%). Data on client satisfaction also improved more strongly in intervention hospitals. These results correlate with a trend toward increases in the number of institutional deliveries in the intervention hospitals (see Figure 27). The full report on this study was completed in October, and a summary report is in preparation.

Figure 27. Ecuador: Trend toward increase in monthly deliveries at HACAP intervention hospitals versus control hospitals, January-July 2008



HCI also participated actively in several national meetings of the MOH aimed at institutionalizing the approach to increase cultural responsiveness in delivery care throughout its facilities. An important highlight was the MOH's publication in August 2008 of its official "Guide to Culturally Adequate Delivery Care," which was distributed to facilities nationwide. HCI played a key role in planning and writing this publication, a role nurtured by the experience gained during the operations research study.

Directions for FY09

Under HCI's Research and Evaluation component, the work in Ecuador in FY09 will combine technical support for implementation of large-scale improvement activities with a primary focus on research to document the spread of EONC best practices and institutionalization of CQI through the Ministry of Health system.

2.15 Honduras

Objectives

HCI provided technical support to the National Quality Assurance Department (NQAD) of the Secretariat of Health (SSH) in FY08 and supported the institutionalization of quality improvement in essential obstetrical, newborn, and child care in 11 health regions. HCI's work in Honduras is closely coordinated with that of other donors and technical assistance agencies working in maternal and child health and with USAID's health sector reform program led by Management Sciences for Health (MSH). The main objectives of HCI's assistance in Honduras in FY08 were to:

- Improve access to and the quality of maternal and child health services through the implementation of continuous quality improvement for EONC in 11 of Honduras' 20 health regions;
- Support SSH in institutionalizing CQI in maternal and child health care at the central, regional, and facility levels; and
- Support the implementation of new management models with a focus on quality within the framework of the new health sector reform process, including external quality monitoring, management agreements, and decentralized provider networks.

Main Activities and Results

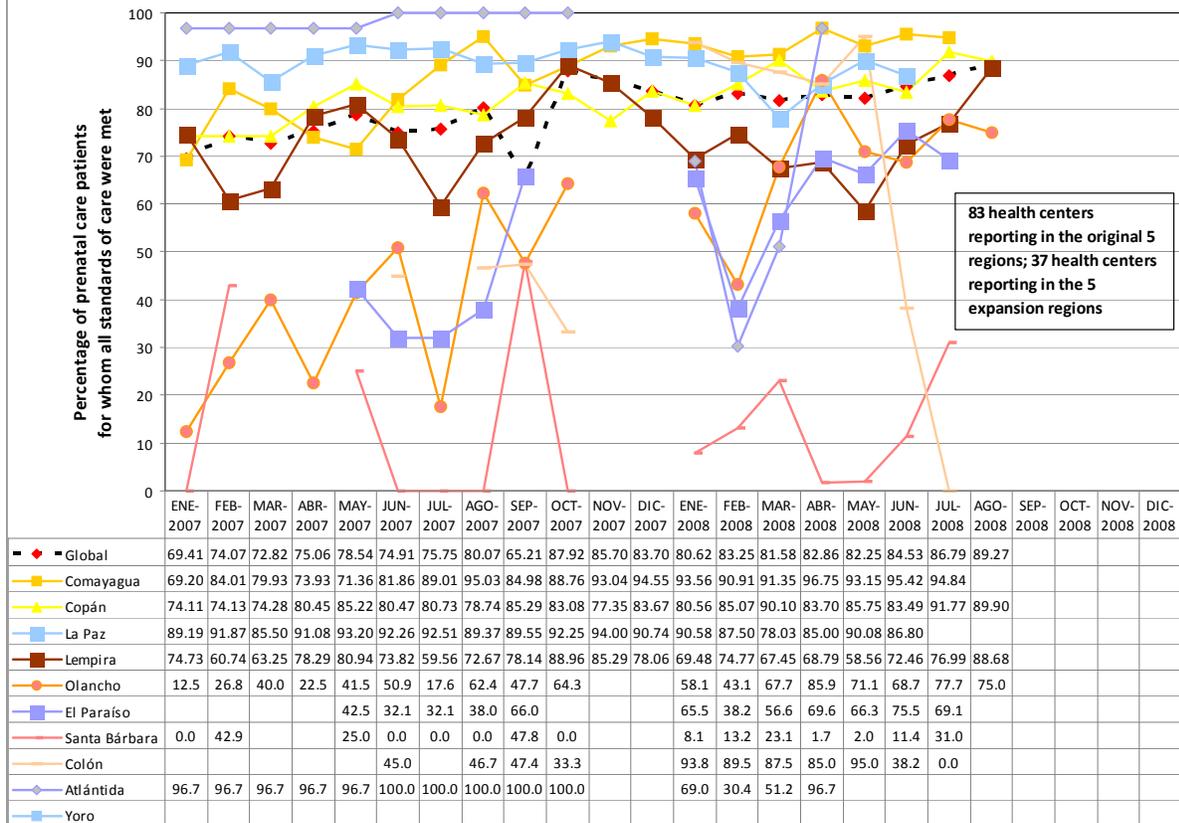
Implementation of CQI for Essential Obstetric and Neonatal Care

The technical focus of HCI's work with the SSH Quality Assurance and Family Health Departments continued as under QAP: assisting 11¹ of Honduras' 20 departmental regions to apply CQI to essential obstetric and newborn care through support to Departmental CQI facilitators and CQI teams in hospitals, maternity clinics, and health centers. HCI has worked closely with national and department SSH staff to support the implementation of the national Essential Obstetric and Neonatal Care Strategy, developed with QAP support in 2007, and to improve compliance with the guidelines issued last year for clinical management of basic EONC and management of maternal and newborn complications. This year's work emphasized improving the timely detection of prenatal complications (especially, high blood pressure, proteinuria, anemia, and HIV infection), improving immediate newborn care and the quality of prenatal care and referral processes at the primary care level, and community outreach to increase birth preparedness and awareness of danger signs. HCI also supported NQAD to develop indicators and monitoring tools to guide CQI activities in primary care facilities.

Given the high level of compliance with most EONC standards achieved by facilities in the initial five regions that QAP has supported since 2004, NQAD and HCI focused this year on strengthening CQI

¹ The 11 regions include the five that are priorities for USAID assistance and six expansion regions prioritized by the Government of Honduras' extension of coverage program funded by the World Bank.

Figure 28. Honduras: Improving compliance with prenatal care standards, 10 regions participating in EONC CQI, January 2007-August 2008



processes in the six expansion regions added in 2007. HCI assisted these regions in developing quality improvement work plans, building capacity of CQI teams at the facility level, and carrying out quality monitoring of maternal and child health indicators. Figure 28 shows that compliance with prenatal care standards in health centers has improved across all regions, although the expansion regions (reported in the bottom five rows of the data table, with one region not reporting), have not yet reached the level of quality care as the original regions (the top five rows). From January 2007 to July 2008, compliance with prenatal care standards in the 83 health centers reporting in the original five regions improved from 69% to 87% and from 30% to 63% in the expansion regions (37 health centers reporting from the six expansion regions). During the same period, compliance with immediate newborn care standards increased from 75% of deliveries to 96% in the original regions and from 36% to 52% in the expansion regions.

Beginning in 2009, the expansion regions will receive additional funds (approximately \$10,000 per region from USAID and another \$10,000 per region from the Spanish Government) to support quality improvement activities, including technical training, meetings with quality facilitators (coaches), CQI team meetings, and the purchase of inputs for maternity clinics.

An important related activity this year was HCI's active participation on the Technical Commission, which is charged with designing the Secretariat of Health's new National Plan for the Accelerated Reduction of Maternal and Newborn Mortality (known by its acronym in Spanish, RAMNI). Working with representatives from WHO, UNFPA, the United Nations Development Programme (UNDP), MSH, and the Social Security Institute, HCI ensured that RAMNI incorporated the EONC quality standards and monitoring indicators that HCI has helped SSH implement in the 11 regions. RAMNI was approved as official government policy and published in May 2008. Its implementation is intended to align various

health sector strategies—health sector reform, decentralization, health promotion, and the stewardship role of SSH in the health sector—and direct their implementation toward reducing maternal and newborn mortality. The implementation of RAMNI provides the impetus for now extending measurement of compliance with MCH standards and undertaking facility-based activities to improve quality to the entire country.

Since June, HCI assistance to SSH has focused on rolling out RAMNI at the departmental level. HCI has supported the development of regional action plans in all 20 regions. To support the expansion of the CQI process in the nine new regions, the Spanish Government has given NQAD 2 million lempiras (\$100,000).

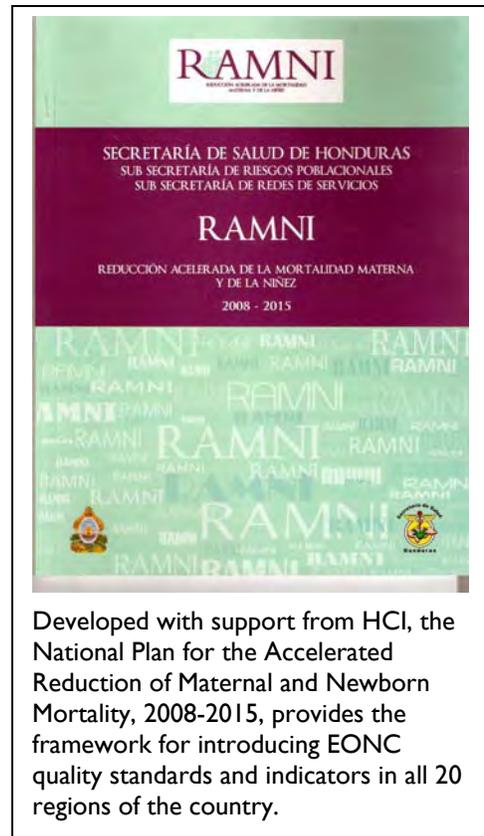
Institutionalize CQI

In addition to the support for quality improvement activities in EONC in the 11 regions, another important mechanism supported by HCI in the past year to institutionalize continuous quality improvement within SSH maternal and child health services is management agreements with hospitals and maternity clinics in the five USAID priority regions. These agreements are annual commitments between SSH and individual hospitals and maternity clinics that articulate

expectations for improving maternal and child health care and specify the transfer of funds to each facility based on the scores it achieves in “external monitoring”. Such monitoring is the quarterly monitoring, by a team from the national Extension of Coverage Unit, of indicators related to compliance with standards of care for the management of obstetrical complications and case management of childhood illnesses, including newborn complications. These agreements are also used with the decentralized provider networks (described below under “Implement New Health Sector Management models...”) as a mechanism for performance management.

HCI has supported SSH in performing the external monitoring and helped teams in both SSH facilities and decentralized provider networks to undertake QI activities to improve their performance on management agreement indicators. HCI’s Country Director, Dr. Norma Aly, credits the management agreements and the process of regular external quality monitoring that is part of the agreements with motivating facilities to institutionalize continuous assessment of indicators and to take extra steps to improve compliance with priority standards of care. The external monitoring has also prompted regional directors to make decisions based on the outcomes of the evaluations and provide support to facilities in order for them to improve their performance.

HCI also helped NQAD organize the Third National QA Congress, held September 17–18, 2008. Some 180 participants from all regions participated, along with 70 participants from the central level of the SSH, the Social Security Institute of Honduras, and cooperating agencies. The CQI teams that HCI has supported shared their experiences, successes, challenges, and lessons learned and heard from experts in the fields of health sector reform, essential obstetric care, and the management of obstetric complications.



Developed with support from HCI, the National Plan for the Accelerated Reduction of Maternal and Newborn Mortality, 2008-2015, provides the framework for introducing EONC quality standards and indicators in all 20 regions of the country.

Implement New Health Sector Management Models with a Focus on Quality

HCI continued to support quality improvement aspects of USAID's health sector reform program in Honduras by providing training and coaching in CQI to 10 decentralized provider networks in the regions of Copan, Lempira, La Paz and Comayagua. Decentralized provider networks are funded by SSH to deliver services to their catchment populations but have greater budget and administrative autonomy than most SSH facilities. These providers are being promoted as part of the "extension of coverage" health sector reform strategy, which in some cases is transforming SSH facilities into decentralized providers. In Lempira (a USAID priority regions), for example, 63% of municipalities have, since June 2008, begun to operate as decentralized providers.

HCI also provided support this year to the SSH Financing and Coverage Extension Unit to revise the quality indicators in management agreements for hospitals and maternity clinics. Major changes were made in the indicators for health service management and reform processes. Despite pressure to remove quality indicators from the management agreements, HCI was able to successfully negotiate for the EONC quality indicators, which have had such an important motivating effect on facilities, to remain as part of the new management agreements that were signed at the end of September 2008.

Directions for FY09

HCI will assist NQAD to train facilitators and teams in the new regions covered by RAMNI in EONC standards and quality improvement processes and will continue to support CQI coordinators in the 11 regions already engaged in EONC CQI. HCI will introduce a new technical support strategy of helping individual regions design and carry out focused collaboratives that address priority clinical problems within that region. Regional collaboratives planned for FY09 include: integrated management of childhood illness in La Paz, family planning counseling in Lempira, and management of obstetrical complications in Comayagua. The use of HCI's Standard Evaluation System tools (discussed below in section 4.6) will be expanded to all 11 regions currently carrying out CQI. HCI will also assist SSH in establishing two more EONC clinical training centers to serve the new RAMNI expansion regions. The SSH and USAID have also requested HCI assistance to develop a National Quality Assurance Policy articulating how the health system will assure quality of care in line with the health sector reform framework.

2.16 Nicaragua

Objectives

HCI's diverse program of QI technical assistance to the Ministry of Health and regional health offices in 16 of the 17 Integrated Health Systems (SILAIS) of Nicaragua grew out of QI activities in essential obstetric care begun in three municipalities in 2000. Support for national improvement collaboratives in EOC and pediatric care under QAP was expanded to add new initiatives to address quality in PMTCT, voluntary counseling and testing (VCT), and other aspects of HIV/AIDS services and the application of QI approaches by private providers and NGOs. Under HCI, the application of QI approaches has been expanded further to support a Quality Management Program for family planning services and a new collaborative on hand hygiene and infection prevention. HCI's principal partners in Nicaragua during FY08 were UNICEF, the Pan American Health Organization (PAHO), UNFPA, DELIVER, MSH/PRONICASS, FamiSalud, Luxemburg Assistance, PASMO/Population Services International, Institute for Reproductive Health, and the Capacity Project.

The specific objectives of HCI assistance in FY08 were to:

- Support quality improvement in essential obstetric and newborn care in 16 of the country's 17 SILAIS and among private health care providers that deliver services financed by the Nicaraguan Social Security Institute (INSS) and increase demand for institutional deliveries by improving the cultural responsiveness of delivery care services in 21 municipalities in 10 SILAIS;

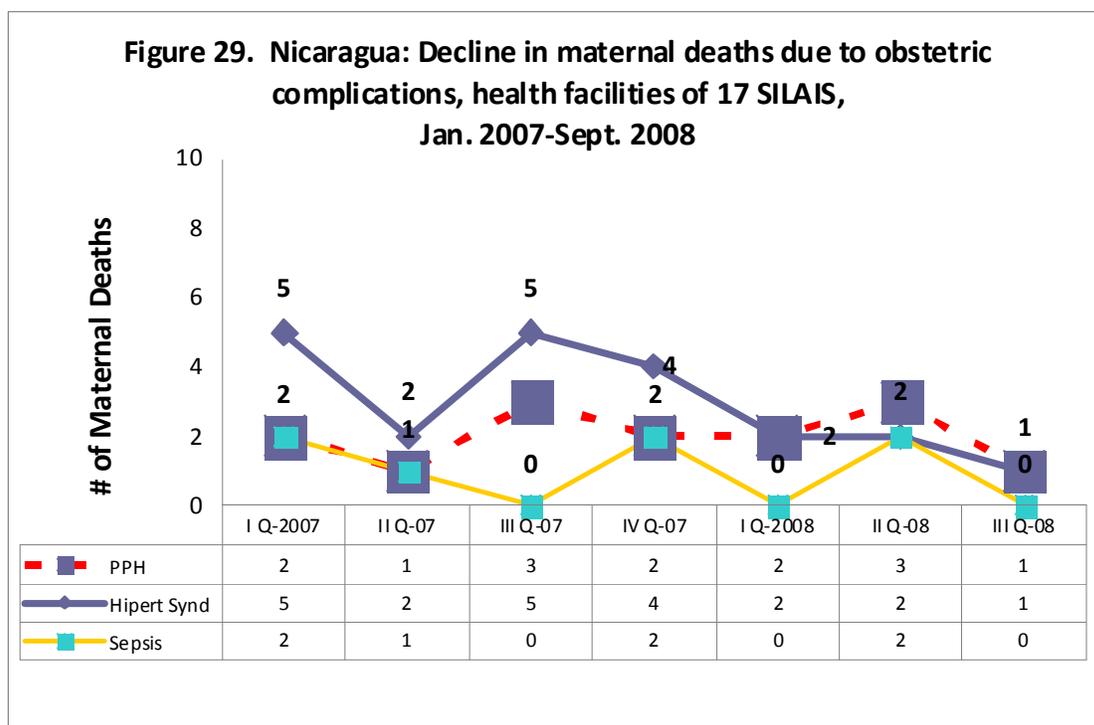
- Improve case management of severely ill children under five years old in 17 national and SILAIS hospitals;
- Support the organization of high quality HIV counseling, testing, and treatment services for populations most at risk for HIV in 14 SILAIS and support a collaborative on VCT for patients with sexually transmitted infections (STIs) in five SILAIS;
- Improve infection prevention and control in hospitals through standards development, training, and a demonstration collaborative in seven pilot sites; and
- Support USAID population activities by applying QI approaches to MINSA’s family planning program through a demonstration collaborative in eight SILAIS and in private medical clinics that provide services financed by the Nicaraguan Social Security Institute.

Main Activities and Results

Quality Improvement in Essential Obstetric and Newborn Care

HCI’s technical assistance in Nicaragua continued to support the Ministry of Health (MINSA) in implementing a national EOC spread collaborative in 16 of the country’s 17 SILAIS. This year, the collaborative focused on improving compliance with guidelines, revised in 2007, for the management of obstetric complications. National data comparing 2007 data with that of the first three quarters of 2008 suggest a declining trend in maternal deaths from pregnancy-induced hypertensive syndrome, postpartum hemorrhage, and sepsis (Figure 29).

HCI supported the development of new clinical rotations (in-service training) for the management of obstetric emergencies. Eight rotations took place at the following SILAIS hospitals: two each in Leon, South Atlantic Autonomous Region (RAAS), and Esteli and one each in Boaco and Jinotega. An average of 10 physicians and nurses from surrounding health centers were trained in each rotation. HCI also conducted training workshops in several SILAIS on prenatal technologies and the management of obstetric complications; training included use of the QAP-developed obstetric emergencies job aid and the problem-based learning methodology. A total of 387 health workers, including doctors and nurses, were updated on protocols for the treatment of obstetric complications. Additionally, HCI provided

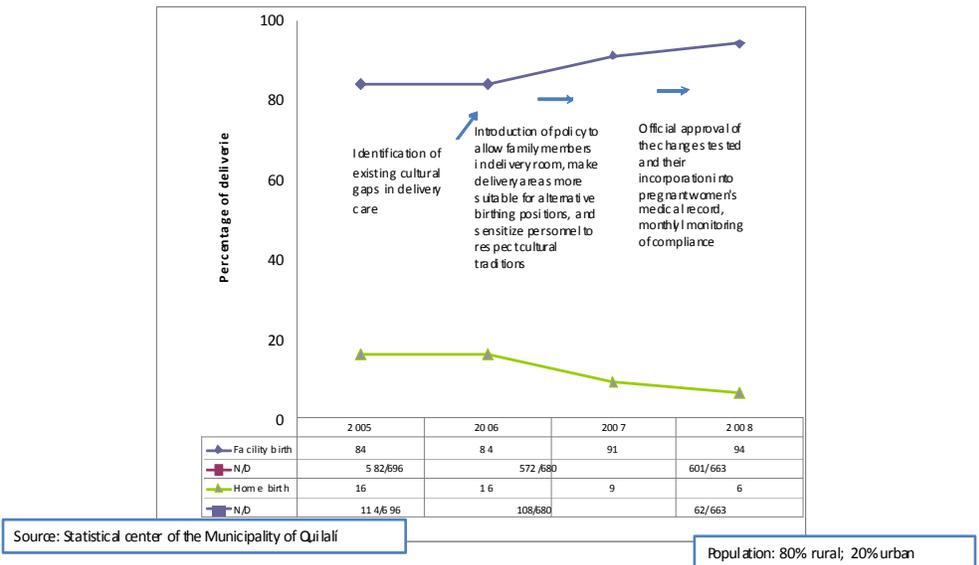


the same training to 38 nursing faculty from the Polytechnic University of Nicaragua and the Polytechnic Institute of Health (POLISAL) and to 362 recent graduates of three medical schools.

Advances were also made in the pilot activity for cultural adaptation of delivery care begun in six SILAIS in 2006 in 12 rural health centers that attend deliveries. During FY08, the intervention was spread to seven new health centers, for a total of 19 in nine SILAIS. As shown in results

from the Quilali Health Center in Nueva Segovia SILAIS in Figure 30, facilities are seeing a modest reduction in home births when more culturally acceptable alternatives are offered. Based on these pilot experiences, HCI, MINSA, and UNICEF prepared “Methodological Guide for Humanization and Cultural Adaptation of Delivery Care at Health Facilities,” which will be spread to additional sites in 2009.

Figure 30. Nicaragua: Impact of cultural adaptation of delivery care on institutional deliveries in the Quilali Health Center, Nueva Segovia SILAIS, 2005-November 2008



Improvement of Newborn and Pediatric Care

HCI continued technical support begun under QAP to national and SILAIS hospitals to improve case management of severely ill children through application of national protocols for the case management of common childhood illnesses, including use of zinc sulfate and low osmolarity oral rehydration solution for diarrhea. In January 2008, HCI launched with MINSA a new collaborative of eight SILAIS hospitals aimed at improving management of newborn asphyxia and sepsis. HCI facilitated learning sessions of pediatricians and obstetricians in hospitals in Chinandega, Chontales, RAAS, RAAN, Jinotega, Nueva Segovia, Boaco, and Estelí to examine care processes for newborn asphyxia. Since then, the collaborative has expanded to incorporate the three hospitals of Carazo SILAIS and 54 primary care facilities in the nine SILAIS.

During the year, HCI supported training in neonatal resuscitation, rational use of antiseptics in newborn care, neonatal and infant mortality surveillance, breastfeeding support, and emergency triage assessment and treatment in various SILAIS. HCI staff worked with MINSA to update pediatric quality standards and began the process of updating the national IMCI manual. HCI helped establish two new pediatric Clinical Training Centers in the SILAIS hospitals of Masaya and Boaco; it also worked with POLISAL faculty to update curricula for child and adolescent health and provide refresher training for faculty with respect to updated newborn and child health standards and guidelines.

The impact of QI activities on compliance with case management standards is seen in continuing declines in case fatality rates. Figure 31 compares data for October 2006–September 2007 and October 2007–September 2008: Case fatality rates for newborn sepsis and pneumonia declined by 9% and for diarrhea by 32%.

An important milestone was reached in March 2008 when the MOH and UNICEF awarded certification as “Mother and Baby Friendly” to the three facilities of the private

provider organization AMOCSA, which HCI has been advising in quality monitoring and improvement. AMOCSA is the first private provider in Nicaragua to receive such certification. Prior to the certification evaluation, HCI had provided skills training to members of the AMOCSA-Chinandega Maternal Breastfeeding Committee and had helped them carry out a self-evaluation of their services and their compliance with the “Ten Steps to Successful Breastfeeding.” HCI also assisted the municipalities of Diriá and Granada in Granada SILAIS to achieve “Mother and Baby Friendly” certification.

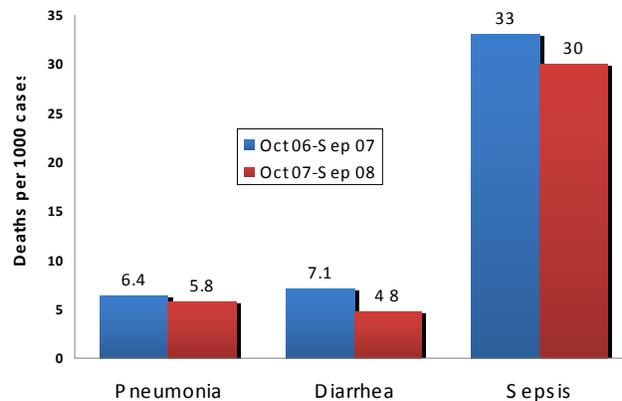
Promotion of Quality Counseling and Testing for HIV and Improved Care for PLWHA

HCI continued support for the organization of high quality HIV/AIDS services for high risk populations in 14 SILAIS, where 15 multidisciplinary teams have been formed, trained in integrated care of PLWHA, and are conducting ongoing monitoring of HIV quality indicators. To extend the coverage of laboratories able to diagnose HIV, 64 lab technicians were trained in health facilities in Matagalpa, Jinotega, León, Rio San Juan, Granada, and Carazo SILAIS. Assistance was also provided to MINS A to update quality standards and indicators for STI and HIV, including ART. HCI helped 1) facilitate workshops with health personnel on reduction of stigma and discrimination and 2) organize “Groups for the Reduction of Stigma and Discrimination” among health workers in seven SILAIS hospitals. Two of these hospitals (Masaya and Rivas) have since organized self-help groups for people with HIV/AIDS and their families to counsel on home care and offer psycho-social support.

In April 2008, HCI and MINS A started a new collaborative with 20 health centers from five SILAIS to increase VCT among patients with STIs. Figure 32 shows that in only five months, these teams have increased acceptance of HIV testing among STI patients from 9.6% to 25.8%. This achievement results from training staff in VCT and redesigning clinic registers to prompt providers to discuss HIV C&T.

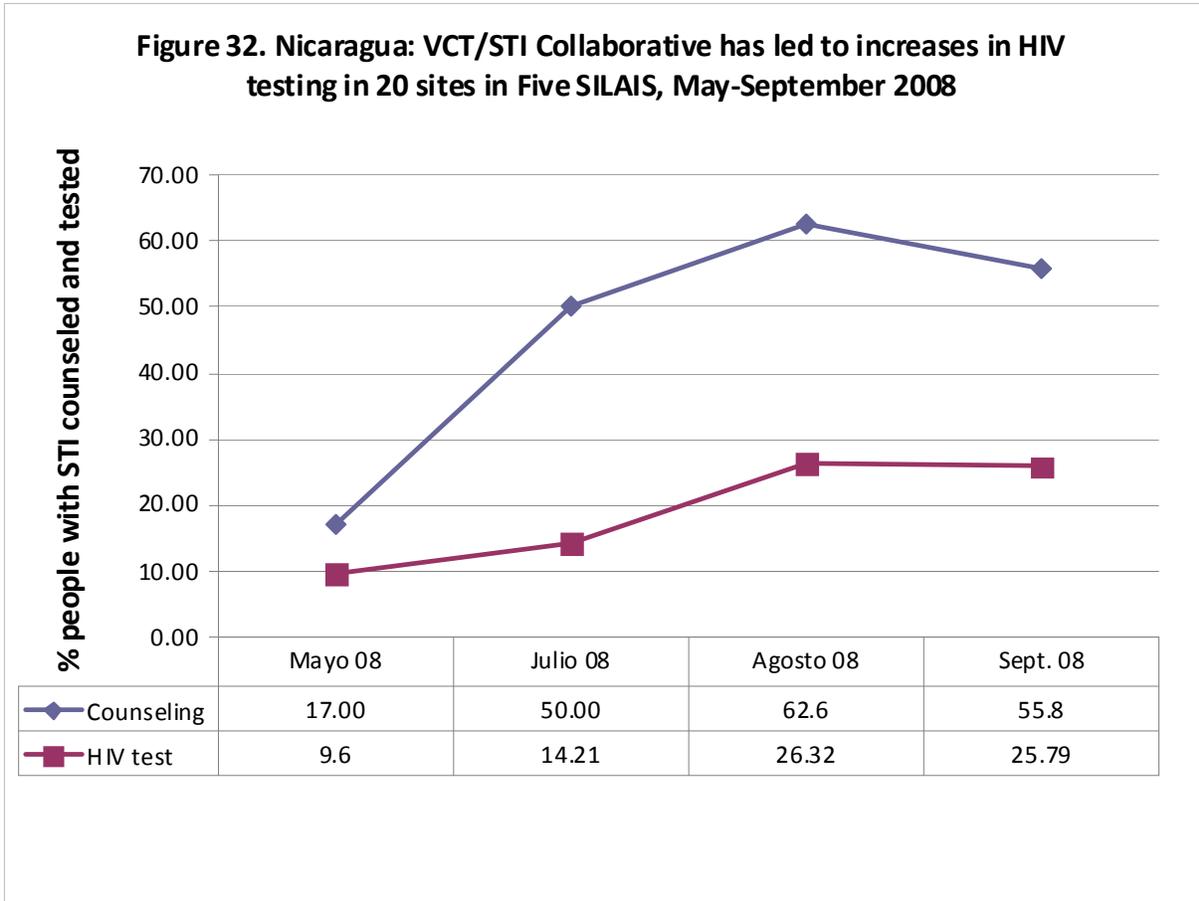
In September 2008, HCI Nicaragua and Bethesda staff undertook a rapid assessment of the quality of care and outcomes for patients on ART in hospitals in Chinandega, Masaya, León, Granada, and Rivas. The assessment found rates of retention of ART patients in care of around 75%—a level considered satisfactory but with room to improve. The assessment also identified shortcomings with clinical documentation and lack of follow-up regarding patient nutritional status and opportunistic infections, areas that will be addressed in future QI activities of the multidisciplinary teams.

Figure 31. Nicaragua: Impact of improvement activities on case fatality rates for pneumonia and diarrhea in children under five and for newborn sepsis, consolidated data from 13 hospitals, Oct. 06-Sept. 07 and Oct. 07-Sept. 08



Source: Statistics Departments of MINS A hospitals

Hospitals: RAAN, RAAS, Madriz, Nueva Segovia, Chinandega, Juigalpa, Boaco, Matagalpa, Jinotega, Masaya, Esteli, La Trinidad, Granada



HCI provided technical assistance to the Xochiquetzal Foundation, an NGO that works with high risk populations and PLWHA, to develop a quality improvement program for their STI and HIV services. HCI HIV/AIDS advisors also assisted faculty at the POLISAL School of Nursing to update their curriculum on HIV prevention and counseling and working with high risk populations.

Control of Nosocomial Infections

HCI began quality improvement work in infection prevention and control with MINSAs in March 2008. In conjunction with UNICEF, HCI supported MINSAs to develop a guide for the rational use of antiseptics and disinfectants for hand hygiene and other infection prevention practices, including prevention of catheter-related infections and pneumonia associated with mechanical ventilators. The guide proposes standards and quality indicators for infection prevention. Since then, 95 doctors and 190 nurses in 16 hospitals have been trained in the application of these standards and in conducting monthly monitoring of compliance. HCI staff provided coaching to hospitals in achieving compliance with correct use of three antiseptics and disinfectants for infection prevention and control. HCI also assisted two



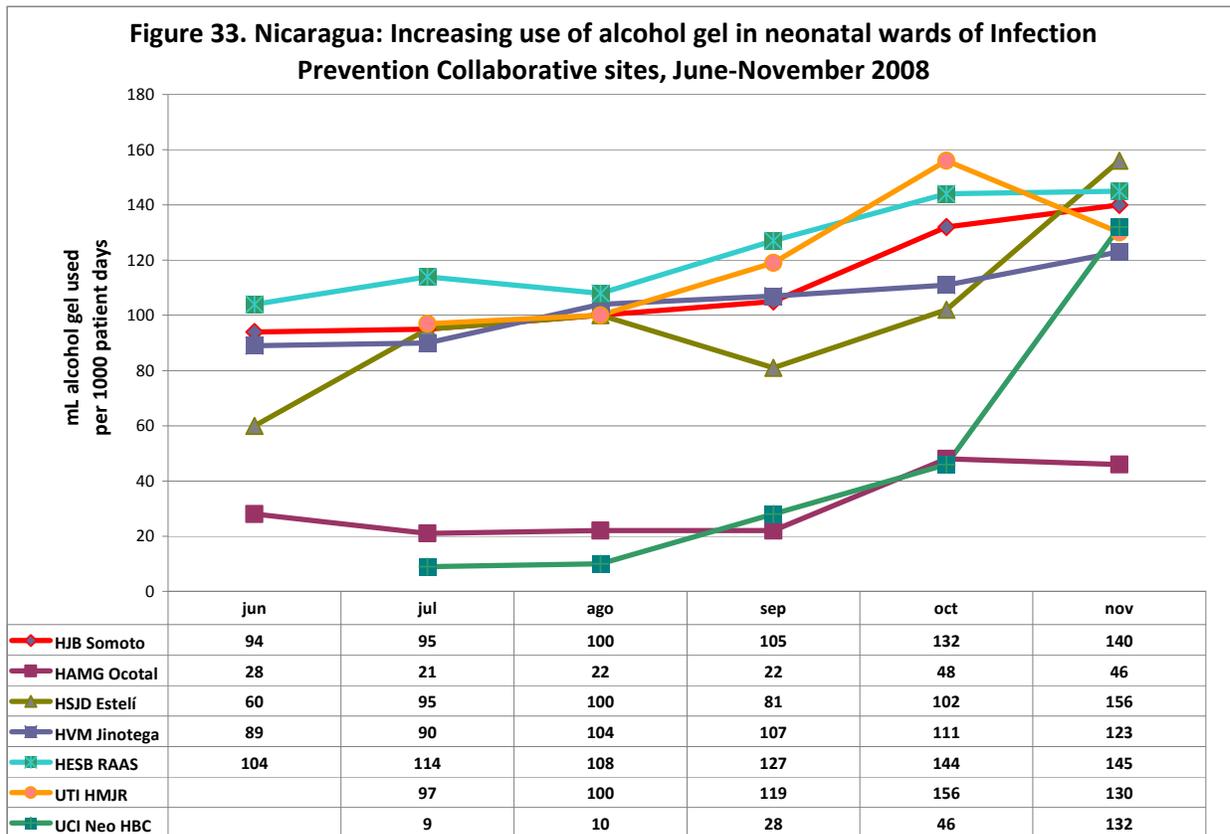
Physician in the National Children’s Hospital (Managua) applies alcohol gel before examining a newborn. Photo by Sergio Lopez.

national hospitals (Berta Calderon and Manuel de Jesus Rivera) and SILAIS hospitals in RAAS, Jinotega, and Chinandega to organize nosocomial infection surveillance committees. These experiences formed the basis of an HCI-prepared paper, published in September 2008, summarizing best practices for increasing providers' use of antiseptics and disinfectants; it has been disseminated countrywide.

A related activity was developed to address hand hygiene in high risk areas such as neonatal intensive care units: Sepsis is the second leading cause of newborn mortality in Nicaragua. In September, HCI started a demonstration collaborative with MINSA in seven SILAIS hospitals aimed at increasing the use of alcohol gel in the neonatal ward. Two learning sessions were conducted in September and November. Team-reported data (see Figure 33) show that six of seven teams have documented substantial gains in the use of alcohol. During the second learning session, teams shared results and interventions used to raise staff awareness and practice of hand hygiene, including increased availability of gel, reminders, wall posters, and orientation sessions.



Nurse in Ocotal shows hand hygiene reminder placed on cover of each patient chart. Photo by Aldo Rubio.



Family Planning Improvement

In early 2008, MINSA and USAID requested that HCI assist in strengthening the quality of family planning services offered in MINSA facilities. HCI has supported MINSA in reviewing and updating its family planning guidelines and standards to improve integration of family planning services with maternal care, particularly post-obstetric event contraception and use of long-term methods. The project also assisted MINSA in updating family planning counseling materials and job aids and in conducting refresher

training in family planning counseling for 187 providers. HCI conducted a “Prize for Knowledge” competition in which 148 providers from León and Carazo SILAIS participated on the basis on their mastery of family planning standards.

HCI has also planned, with MINSA and INSS, a new collaborative to be launched in early 2009 to strengthen post-obstetric event family planning and reproductive health services in 12 hospitals and 26 health centers in 10 SILAIS and with the AMOCSA network, which provides services under contract with INSS in León and Chinandega. The collaborative aims to increase integration of family planning services with maternal care, improve the quality of counseling and compliance with eligibility standards, and ensure informed consent.

HCI also assisted with assessing compliance with the Tiahrt Amendment in 57 hospitals and health centers in Jinotega, RAAN, Chontales, León, Estelí, Masaya, Carazo, and Chinandega. The assessment found that family planning counseling is usually provided in settings that lack privacy and that there is little visibility of information regarding contraceptive methods: The new collaborative will address these problem areas.

Directions for FY09

HCI will continue to emphasize support for quality improvement and expansion of maternal and newborn health services, the leading area of mortality. Technical areas of focus will continue to be postpartum hemorrhage prevention through AMTSL, infection prevention, improved case management of pre-eclampsia/eclampsia and hemorrhage, and the cultural adaptation of delivery care. HCI will start a new demonstration collaborative with MINSA to reduce C-section rates in five SILAIS. The project will assist MINSA in updating and publishing the second edition of the national guidelines for case management of severely ill children under five and continue to provide technical assistance and training in improving care for sick newborns. HCI will continue to support MINSA and NGOs in increasing the uptake of HIV testing and in improving the quality of HIV/AIDS treatment, care, and support services for people with an increased HIV risk. It will also assist MINSA to update and operationalize guidelines for family planning counseling and post-obstetric event contraception through a new collaborative aimed at increasing access to underutilized long-term methods.

3 USAID Global Health Elements

3.1 Maternal, Newborn, and Child Health

Objectives

Maternal, newborn, and child health (MNCH) improvement work was a priority technical area for the HCI Project in its first year of implementation, reflecting the substantial body of experience and expertise QAP had developed. Much of HCI’s MNCH work in FY08 supported essential obstetric and newborn care collaboratives in five countries, first referral integrated management of childhood illness (IMCI) improvement collaboratives in three countries, and child nutrition QI initiatives in two countries.

HCI’s specific objectives in MNCH quality improvement in FY08 were to:

- Promote awareness of leading quality problems in maternal newborn child health care;
- Promote the application of QI methods to address leading MNCH quality problems at scale;
- Apply QI methods to support a continuum of integrated and accessible MNCH health care services at community, primary, and reference levels; and
- Promote effective collaboration with technical partners, donors, and other cooperating agencies to achieve HCI MNCH aims.

Main Activities and Results

Provide Technical Leadership and Support Knowledge Management across HCI Countries Implementing MNCH and Nutrition Improvement Interventions

HCI implemented MNCH improvement work in several common priority MNCH and nutrition technical areas in over six countries in sub-Saharan African and Latin America. Through a combination of project core funding and field support, HCI supported maternal newborn improvement collaboratives in Ecuador, Nicaragua, Honduras, Niger, and Benin to improve routine and complications maternal newborn care. HCI also supported Pediatric Hospital Improvement collaboratives to improve district hospital IMCI care for children with serious infection and acute malnutrition in Niger, Nicaragua, and Tanzania. HCI child nutrition improvement work in FY08 included infant feeding counseling for PMTCT and HIV-free child survival in Tanzania and improved prevention, referral, and management of acute malnutrition in public MOH facilities in Niger (supported with UNICEF funding). Individual country MNCH improvement work is described in detail in the respective country sections of this report.

To ensure sharing of learning and approaches for MNCH improvement across HCI-supported countries, HCI headquarters MNCH staff employed a number of mechanisms in the project's first year:

- Quarterly email updates on project-wide MNCH improvement work;
- Creation of HCI maternal, newborn, child health, and nutrition technical working groups and list-serves to promote shared learning within common technical areas;
- Regular dissemination of state-of-the-art MNCH publications, literature, and evidence;
- Sharing among all countries innovative, tested MNCH improvement tools, including QI/training/supervision tools, job aids, and monitoring tools/indicators;
- Bi-annual telephone meetings to define project-wide MNCH improvement work priorities and to share best practices, with a special emphasis in Year One on applying QI approaches to institutionalize and scale up high impact MNCH interventions; and
- Development of three HCI MNCH technical briefs synthesizing cross-country quality challenges, QI methods, and scale-up strategies in three project-wide priority MNCH technical areas: 1) prevention of postpartum hemorrhage (PPH) through active management of the third stage of labor; 2) improved newborn care, including integration of newborn care into maternal health work; and 3) improved district hospital IMCI care for the child with serious infection and acute malnutrition. All HCI countries contributed to the development of the briefs, which will be finalized in the first quarter of FY09. The first, on PPH, also describes the scale of HCI work to prevent PPH in Ecuador, Nicaragua, Honduras, Niger, and Benin at the end of 2007 (outlined in Table 3).

Table 3: Reducing the risk of PPH through active management of the third stage of labor, maternal newborn collaboratives, five countries, 2007

Country	Number of public facilities participating in collaborative	Percentage and number of births where AMTSL was practiced	Percentage of country districts having at least one collaborative facility per district
Ecuador	168	87% of 17,035 births	72%
Honduras	41	100% of 62,753 births	69%
Nicaragua	77	97% of 56,943 births	88%
Benin	10	99% of 3,885 births	3%
Niger	39	98 % of 45,760 births	63%

HCI's MNCH staff advocated in several international forums during FY08 for effective QI methods for improving MNCH care and outcomes essential for the realization of Millennium Development Goals (MDGs) 4 and 5, including presentations at the Women Deliver Conference in London in October 2008; the Prevention of PPH Regional Latin America and Caribbean workshop in Nicaragua in March 2008; the Mesoamerican Forum on Maternal-Perinatal Health in Mexico in April 2008; the International Community-based Management of Acute Malnutrition Workshop, in Washington in April 2008; the International Forum on Quality in Health Care in April 2008; and the Global Health Council annual conference in Washington in June 2008. HCI staff also prepared the presentation delivered by Dr. John Borrazzo, Director of MCH at USAID, Washington, at the MDG Countdown Meeting in South Africa in April 2008.

Support USAID Evaluation of Functional Community Health Workers as part of USAID's Global MCH Strategy

As a key element of its strategic approach to maternal, child, and newborn health, USAID is addressing the MCH workforce crisis by increasing by at least 100,000 the number of functional community health workers (CHWs) serving in USAID priority countries by 2013. USAID requested technical assistance from HCI in July to develop a method and set of tools to evaluate and measure functional CHWs in USAID MCH-priority countries. HCI results under this activity in FY08 included an extensive literature review on CHW programs and the development of the first draft of a tool to assist USAID countries to evaluate and measure the presence of functional CHW programs. The CHW tool is based on the Human Resources for Health framework and task-shifting guidelines WHO proposed in 2008. USAID will pre-test and use it to measure functional CHWs in FY09.

Develop Proposals for New MNCH QI initiatives in MCH Priority Countries

HCI developed concept papers to initiate new maternal newborn improvement work in two USAID MCH priority countries: Mali and Bangladesh. The Mali concept paper proposes leveraging HCI maternal newborn capacity and gains achieved in neighboring Niger to support scale-up of postpartum hemorrhage prevention and essential newborn care in one region of Mali; this effort would be implemented in close collaboration with the Mission, MOH, and in-country partners. In FY08's last quarter, USAID Mali approved an exploratory in-country visit by HCI's West Africa Regional Director, Dr. Maina Boucar.

Also in that quarter, HCI submitted a concept paper to USAID Bangladesh proposing to support the Mission, MOH, and key partners as they scale up proven community-level maternal newborn interventions implemented by Projahnmo and the ACCESS Project in the Syhlet District. Specifically, HCI proposed to contribute technical assistance to leverage proven QI methods to assist the MOH and partners in scaling up improved maternal newborn care at community and facility levels.

Research and Evaluation

HCI completed two MNCH research studies that QAP had initiated: the evaluation of the impact of an improvement intervention on quality of district hospital childhood malaria and pneumonia care in Niger (described below) and the evaluation of the "Humanization and Cultural Adaptation of Delivery Care" approach in Ecuador (described in section 2.14 on Ecuador). HCI completed data collection for a new maternal newborn research study in Benin (described below) and initiated several concept papers for future HCI MNCH research, including a study to evaluate the spread and institutionalization of maternal newborn collaborative gains in Niger.

Impact of an Improvement Intervention on Quality of Malaria and Pneumonia Care for Children in Nigerien District Hospitals

HCI completed this year a QAP-initiated research study to evaluate the effect of the Niger Pediatric Hospital Improvement Collaborative on quality of district hospital care for pneumonia and malaria for children ages birth–five, as measured by compliance with WHO guidelines. The study employed a case-control pre- and post-intervention design and included two intervention PHI Collaborative sites and two control sites (all government district hospitals). Quality measures included observed rates of compliance with adapted WHO guidelines for assessment and treatment of pneumonia and malaria in children ages birth–five, including evaluation and management of urgency signs, supplemented by exit interviews with children’s caretakers. Compliance with assessment standards (history, physical exam, evaluation of urgency signs) increased from 18% at baseline to 43% after the intervention in the hospitals that received the PHI intervention and declined on average from 19% to 18% in control hospitals ($p < 0.0001$). The size of the intervention effect on compliance with assessment guidelines (calculated as the end-line difference between assessment guidelines compliance in intervention and control hospitals) was 24% ($p < 0.0001$). The effect of this intervention on treatment measures, including correct diagnosis and classification of urgency status and choice and dosing of antibiotic or anti-malarial, was more variable, favoring the intervention group for correct dosing and more rational antibiotic/antimicrobial use.

Maternal Newborn Counseling and Task-shifting in Government Facilities in Benin

In October 2008, HCI completed a controlled pre-post interventional trial co-funded by the bilateral Integrated Family Health Project (PISAF) to evaluate the quality and impact of maternal newborn counseling by skilled and unskilled health care workers in government facilities in Zou/Collines Region of Benin. The research sought to determine whether a maternal newborn training intervention using pictorial counseling cards (developed under HCI in Benin as provider “job aids” and client “visual aids”) could improve the quality of counseling in routine maternal newborn care provided by skilled nurse-midwives and whether similar performance levels could be achieved among unskilled nurse aides as part of a task-shifting initiative to expand their role. Evaluation of the MNCH training and task-shifting intervention also assessed maternal knowledge, facility-based newborn care practices, and provider perceptions regarding task delegation. Fourteen public health maternities participated in the study: seven intervention and seven control sites. Study methods consisted of direct observation and exit interviews with pregnant and recently delivered women as well as in-depth interviews with skilled and unskilled providers. Preliminary results are expected to be available in the second quarter of FY09.

Directions for FY09

In FY09, HCI will continue to provide global technical leadership in applying QI methods to overcome leading quality challenges in maternal, newborn, and child health care. HCI will continue to provide technical assistance to USAID MCH priority countries and partners to apply state-of-the-art QI methods to implement and scale up high impact, evidence-based maternal newborn interventions and effective delivery approaches for leading causes of mortality. HCI will continue to advocate for increased awareness of quality problems negatively impacting maternal newborn child health outcomes and will conduct operations research to evaluate a range of QI methods in priority MNCH areas. HCI will promote improved basic and expanded maternal newborn child health and nutrition care in USAID priority countries, including strengthened linkages between community and facility services and improved integration of care across technical areas.

3.2 HIV/AIDS

Objectives

HCI's HIV/AIDS program is creating sustainable service delivery systems for quality HIV prevention, care, and treatment in developing countries. Through its technical assistance in quality improvement, HCI seeks to:

- Increase access to and use of HIV services and preventive practices, including counseling and testing, PMTCT, and ART;
- Improve provider knowledge and skills related to HIV prevention, care, and treatment;
- Improve performance of laboratories and diagnostic services;
- Develop and implement models and best practices for comprehensive, high quality HIV services; and
- Strengthen national policies and guidelines in support of HIV services.

Main Activities and Results

Development of the ART Framework

An important HCI advancement in its first year was the development of the framework for improving care for patients on ART, designed to improve the quality of HIV care and treatment. This framework measures and identifies gaps in the quality of care given to patients needing and receiving ART and uses continuous quality improvement methods to develop and test changes to reduce the gaps. The framework focuses on three indicators: 1) *coverage*, which measures the proportion of patients who are started on ART of those who require treatment; 2) *retention*, which measures the proportion of patients who remain on ART of those who were started on it; and 3) *clinical outcomes*, measuring the proportion of patients with healthy outcomes from those who ever started on ART. Healthy outcomes can be defined by CD4 count and viral load, if available, or by clinical symptoms, i.e., stable weight, functional status, and lack of new opportunistic infections.

To estimate the number of patients who require treatment each year for the coverage indicator, HCI developed a simple projection model, the "ART Improvement Framework," for facility-level use. A comparison of the output of this simple model and SPECTRUM, a UNAIDS-developed computer program that makes projections of the HIV epidemic at the national level is in Figure 34. It shows that the projection for Botswana from the Framework is comparable to that from SPECTRUM. A paper describing this model and its assumptions, as well as comparing the data for projections from ten other countries, will be written and submitted for peer review in FY09.

In September, Ms. Fazila Shakir of HCI Bethesda field-tested the ART Framework by collecting data on the coverage, retention, and clinical outcomes measures in Nicaragua. With the help of our country office and the Ministry of Health, HCI selected four hospital sites for continued collaboration on the ART Framework. Results from Chinandega SILAIS Hospital for each of the quality indicators are in Figure 35. The data required for the indicators were readily available in some hospitals, while others will need additional support to improve data collection practices.

Figure 34. Botswana: Comparison of number of patients needing ART predicted by the HCI ART Framework with the prediction of the SPECTRUM Model

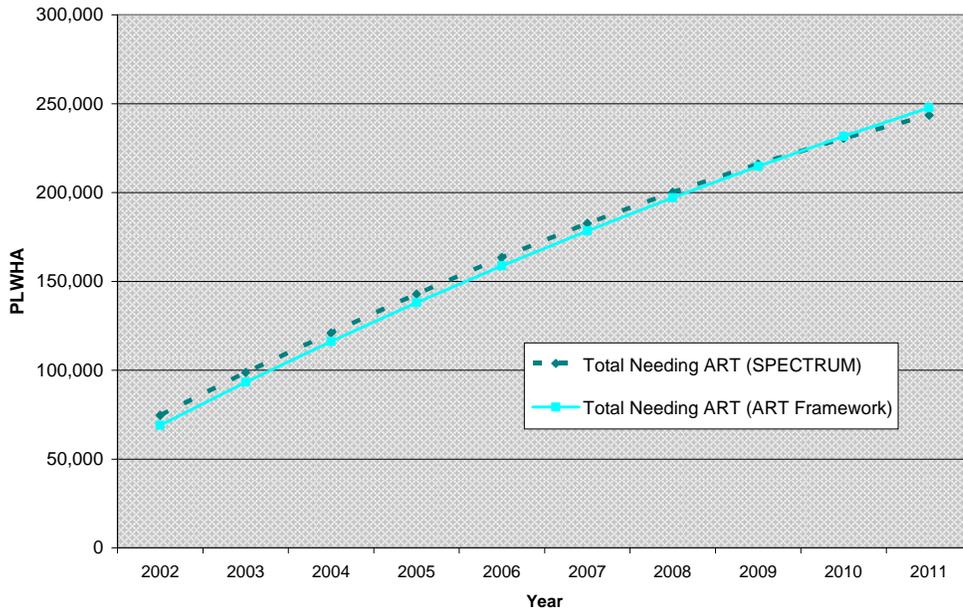
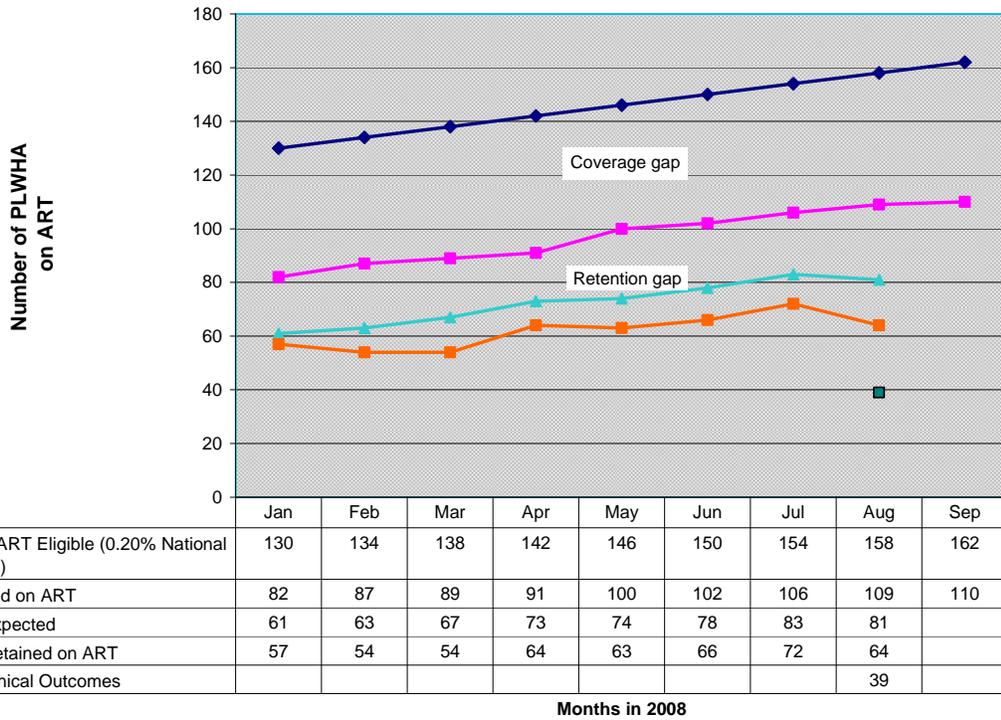


Figure 35. Results from the test of the ART Framework in Nicaragua



HIV Quality Assessments

HCI developed an assessment methodology for evaluating the quality of HIV care and treatment using retrospective reviews of cohorts of patients: 1) registered for HIV care but not eligible for ART and 2) initiated on ART. The methodology was piloted in March and April 2008 in eight sites in Uganda and three in Cote d'Ivoire. Subsequently, it was used for full-scale assessments of the HIV care system in Cote d'Ivoire (40 sites) and the private-for-profit sector in Uganda (30 sites). (See sections 2.3 and 2.10, respectively, for more discussion on the assessments in Cote d'Ivoire and Uganda.)

The assessment methodology addresses five main measures of HIV/AIDS care processes and outcomes: 1) provider compliance with standards of care at the patient's initial visit; 2) provider compliance with standards of care at visits 6–12 months after the initial visit; 3) coverage of expected or eligible patients in care; 4) retention of patients in care at one, three, six, and nine months after the initial visit; and 5) patient outcomes.

The Cote d'Ivoire and Uganda findings suggest that quality is generally good at the initial visit but declines in the second six months of care; moreover, compliance with standards is higher with clinical standards than psychosocial standards. Patients on ART were found generally to receive better quality care than patients not yet started on ART. Retention in care (high loss to follow-up) was the major HIV/AIDS care quality problem found in both countries.

Figures 36 and 37, presenting data from the Uganda private-for-profit facility assessment, illustrate the kind of findings generated by the cohort assessment approach.

Figure 36. Uganda: Private-for-profit provider compliance with MOH HIV/AIDS and ART treatment guidelines at initial visit of pre-ART patients who initiated treatment in 2007

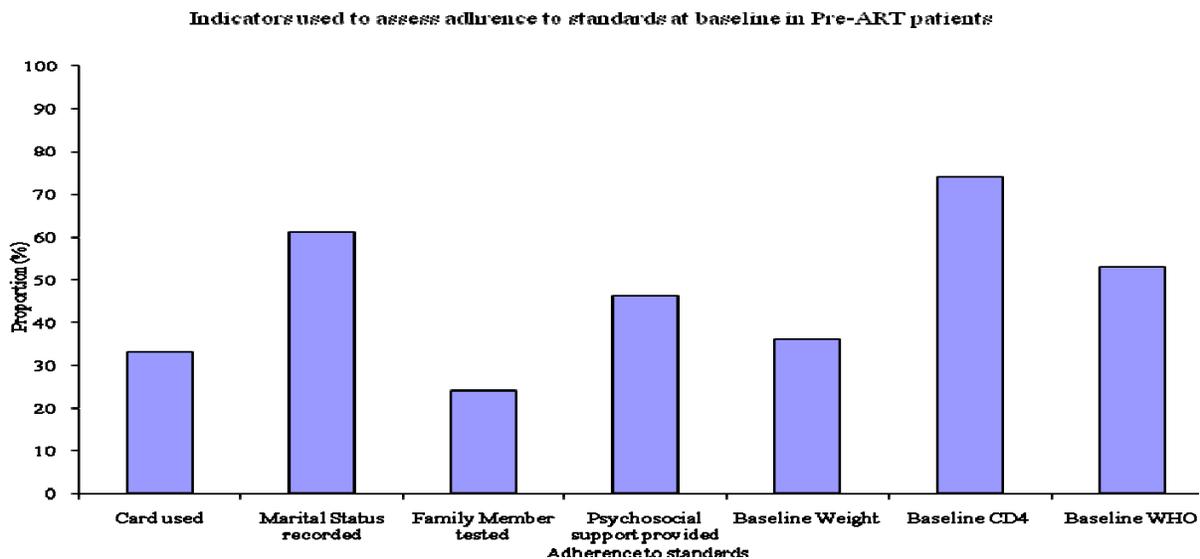
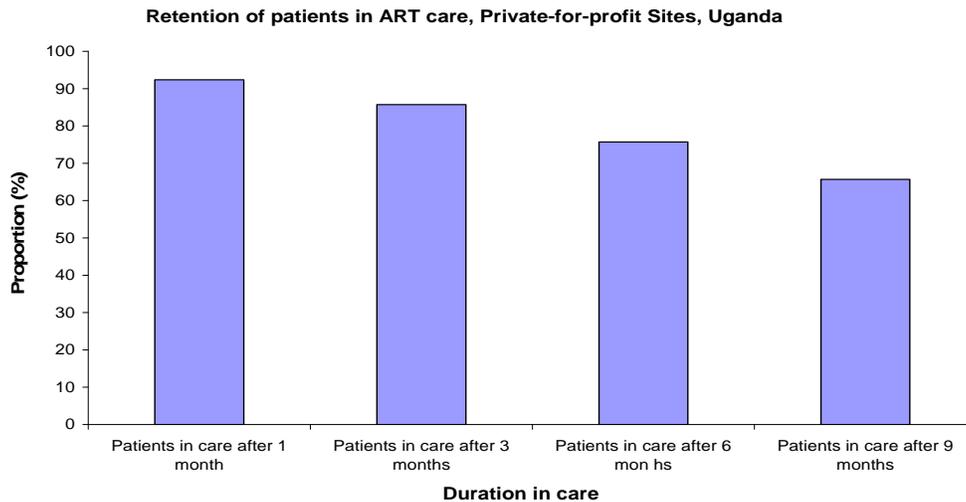


Figure 37. Uganda: Retention of patients in ART care at private-for-profit providers, patients who initiated treatment in 2007



Development of Quality of Services Indicators for OGAC and the Global Fund

USAID asked HCI at the start of 2008 to provide project coordination and technical assistance to the Global Fund and OGAC to develop a toolkit for monitoring the quality of HIV, TB, and malaria services. The purpose of the toolkit is two-fold: 1) to enable the Global Fund (and other donors) to *monitor* the quality of services provided through their grant programs and 2) to enable service providers to *improve* service quality through identifying those service areas where quality improvement is required and to design and implement targeted, needs-based quality improvement activities. Measuring quality of services would complement the existing system of grant performance assessment, which is mostly based on measuring programs' quantitative outcomes.

The project is guided by a Steering Committee composed of representatives of the project's co-sponsoring agencies and representatives of the Technical Working Groups: major technical partners, donors, implementing agencies, and country representatives. The toolkit will have four main sections: HIV/AIDS, Malaria, TB, and Health Systems. Inter-agency Technical Working Groups for each section will compile sets of indicators and methods to measure quality of services for the diseases. In April and May 2008, HCI developed a list of existing indicators of quality of service for the diseases and facilitated a meeting of the HIV/AIDS TWG to propose candidate indicators for field-testing.

HCI organized a meeting with the main stakeholders in July 2008 in Geneva to refine the purpose of the toolkit and clarify the types of indicators and dimensions of quality that would be the most appropriate to include.

The HIV working group started activities in July 2008. Due to the diversity of the HIV service areas, sub-groups are being created for each area. Activities have started in the PMTCT and ARV areas, and a set of indicators and methodologies has been proposed. HCI pilot-tested those indicators in Uganda in September.

The TB TWG was formed and first met in October 2008 to propose the structure and functioning of the group, a technical approach to designing indicators, mapping of existing tools and methodology, and a timeframe. TWGs for malaria and health systems are being formed.

HIV Laboratory Strengthening

In January 2008, Dr. Beth Turesson of HCI Bethesda staff, HCI Uganda staff, and a representative from the Uganda MOH presented results from the 2007 laboratory assessment to the QoC Initiative Core Team, USG, Uganda Government stakeholders, and the Uganda MOH. These presentations involved extensive discussion of the results, brainstorming, and development of recommendations for next steps for intervention. Following up, HCI Uganda staff, facilitators from various Ugandan institutions, and HCI HQ staff conducted laboratory-specific workshops for laboratory representatives from 85 of the 89 HCI-supported sites. Workshops included content on QI methods, data management, equipment maintenance, writing standard operating procedures, logistics training, lab safety, and specimen management and tracking. Participants brainstormed about suitable lab quality indicators that could be used at the facility level and solutions to problems in the Uganda lab system. The meetings and workshops generated a number of laboratory changes that may address deficiencies in the system and that will be tested, commitment to and ideas for more lab-specific indicators to be followed as part of the ART Collaborative, and commitment to form an Interagency Committee to manage progress in addressing lab issues.

In April, Dr. Turesson conducted rapid assessments at Zonal labs, the Regional Hospital lab, District hospital labs, and health center labs in the Tanga Region, the area selected for the first partner collaborative in Tanzania. She found: inconsistency in use of HIV screening algorithm use, lack of functional equipment, unreliable government supply system, lack of functional referral algorithm between labs, and inconsistent or weak lab documentation. To help integrate lab issues into the new ART/PMTCT Collaborative started in Tanga, a Laboratory QI Coach from AIDS Relief was identified in May to work with the HCI Uganda lab advisor to actively engage lab staff in ART/PMTCT improvement teams.

Technical Leadership

Following up on the joint trip to Uganda in March 2008, HCI worked with staff of the HIVQUAL Program at the New York State AIDS Institute to find ways to leverage each other's QI approaches. HIVQUAL has agreed to help HCI test and implement the new ART Improvement Framework. In May, HCI and HIVQUAL conducted a half-day seminar on applying QI methodology to HIV care and treatment for PEPFAR staff. John Pallen, co-chair of the PEPFAR Care and Support Technical Working Group, organized the seminar.

Directions for FY09

HCI will test and implement the ART Improvement Framework in Uganda, Tanzania, and Russia. Because these countries have concentrated and generalized epidemics on three different continents, results will be widely generalizable. The research design and protocol to test this framework has been drafted and is under review. Another trip to Nicaragua is planned for January 2009 to supplement the baseline data, dialogue with the quality improvement teams on reasons for quality gaps, and develop and test changes to improve the quality of ART programs. To help others measure the quality of care in their HIV/AIDS programs, the HIV assessment tools will be revised and published as a toolkit of the assessment tools, a data entry form, and analytical tools. In Tanzania and Uganda, the project will track results from lab improvement interventions to document best practices for wider dissemination. HCI will explore interest in other countries for laboratory improvement interventions. For the OGAC indicators, while awaiting Global Fund progress in gaining additional high level political support for the indicators, HCI will disseminate a report on the findings of the Uganda pilot test and develop field-testing guidelines and protocols. HCI also expects to provide technical support to each working group in designing indicators and specific data collection protocols in FY09.

3.3 Tuberculosis

Objectives

Tuberculosis remains an enormous burden in terms of global morbidity and mortality and disproportionately affects Africa, Asia, and Eastern Europe. The recent emergence of MDR- and XDR-TB could wipe out all previous gains from TB- DOTS. TB-HIV co-infection is also driving the greater TB incidence in many parts of Africa and Eastern Europe. URC, through HCI and bilateral projects, is working in about a dozen countries on TB and TB/HIV, affording HCI an opportunity to test different models for improving access to and the quality of TB and TB/HIV programs. HCI has developed tools and approaches for infection prevention and control that are being adapted for TB settings.

The objectives of HCI support for TB and TB-HIV programs are to: 1) assist target countries in operationalizing strategies for improving TB-DOTS implementation, 2) assist focus countries in implementing STOP TB-developed MDR/XDR surveillance as well as prevention and treatment strategies, and 3) assist national programs in high priority countries in designing operational strategies for controlling MDR- and XDR-TB. This work is funded primarily through field support.

Main Activities and Results

Support to TB and TB-HIV Implementation

As reported in the country sections of this report, HCI is supporting the development and implementation of strategies to improve control, treatment, and care of TB and TB-HIV in Lesotho, South Africa, Swaziland, India, and Vietnam.

Technical Leadership

HCI staff participated in the World TB Conference in Cape Town, South Africa, in November 2007: Staff from South Africa, Swaziland, and Lesotho made presentations on the findings of various quality initiatives. HCI Lesotho staff presented on TB work in that country at the HIV Implementers' meeting in Kampala, Uganda, in June 2008. HCI South Africa staff played a key role in the design and implementation of the National TB Conference held in Durban in July 2008, with Dr. Refiloe Matji of that office as conference chair and numerous presentations by URC staff from HCI and other projects. With the theme "Working as One," this conference brought together government officials, policymakers, health care providers and workers, representatives from the public and private sectors, and community members to exchange ways to strengthen local capacity to provide TB services.

Directions for FY09

HCI will continue assistance to operationalize strategies for improving TB DOTS implementation and TB-HIV integration at the district and facility levels in India and Vietnam. HCI will actively participate in WHO Stop TB XDR and Infection Control Working Groups to ensure that QI is included.

3.4 Family Planning and Reproductive Health

Objectives

HCI received no specific funding for family planning and reproductive health work during FY08. The project agreed to provide follow-up to the Asia-Near East (ANE) Bureau regional activity on Scaling Up Best Practices in Reproductive Health and Family Planning, which had been implemented under QAP, and to continue to participate in Implementing Best Practices (IBP) Initiative technical coordination activities.

Activities and Results

ANE Scaling Up Best Practices

Following QAP's May 2008 training in the collaborative approach for the Scaling Up Best Practices grantee team in Egypt, HCI provided long-distance follow-up to the implementation of the collaborative, which had been designed with support from HCI staff members Dr. David Nicholas and Ms. Thada Bornstein. The collaborative, which has teams in Kafr Shukr District of the Qalyubiya Governorate, was designed to help teams overcome obstacles encountered in scaling up an intervention of postpartum home visits. At the May workshop, the technical task force at Egypt's Ministry of Health and Population (MOHP), which is leading the collaborative, developed a work plan that specifies key roles, tasks, milestones, and dates for launching the collaborative.

HCI has continued to pursue dialogue with the Egypt team. However, delays have resulted from funding issues and changes in personnel, including recruitment of a new coordinator at Save the Children, which is overseeing and supporting the activity. The technical task force finalized the collaborative training curriculum and all supervision and monitoring tools in FY08. Official approval from MOHP was secured for all the training and health education materials that the collaborative will implement related to postpartum and neonatal care. The task force also revised the list of key indicators that the collaborative will monitor: Baseline data collection was in November 2008.

HCI also advised the Extending Service Delivery Project on replicating the Egypt collaborative training and workshop in Yemen.

QI in Family Planning

HCI continued to support self-selected teams in the ART Improvement Collaborative in Uganda to strengthen the integration of family planning services with HIV/AIDS care and support. The project helped the Nicaraguan MOH in updating standards and guidelines to improve the integration of family planning services with maternal care, particularly post-obstetric event contraception and the use of long-term methods. HCI also helped the Ministry update family planning counseling materials and job aids and conduct refresher training in family planning counseling (section 2.16 has details).

Directions for FY09

HCI will continue to participate in IBP Initiative technical coordination activities, including the annual IBP meeting in November 2008, and provide long-distance technical support to the Egypt collaborative. Support for family planning-HIV integration activities will continue in Uganda as part of the ART Improvement Collaborative. A new post-obstetric event family planning collaborative will be launched with Nicaragua's Ministry of Health, and a new HCI field program in Guatemala will support integration of family planning services with maternal health care.

3.5 Malaria

Objectives

HCI received no funding specifically designated for malaria work during FY08, limiting activities to those with alternate funding sources.

Activities and Results

Support to the National Malaria Control Center, WHO, and the Malaria Consortium in Zambia

Dr. Steven Harvey used QAP funding to provide technical assistance in February–March 2008 to the Zambia National Malaria Control Center, WHO, and the Malaria Consortium: They were conducting a

three-month surveillance visit to assess the competence of community health workers (CHWs) who had been trained in November 2007 to use rapid diagnostic tests (RDTs) for malaria. The Foundation for Innovative New Diagnostics is funding surveillance as part of a 12-month follow-up study to measure the effectiveness of the half-day training and job aid, both previously developed and field-tested with QAP technical support. A March 2008 visit found that CHWs using the job aid after having received three hours of training performed significantly better (93% correct interpretation of the RDT results) than those not given the job aid (54% correct interpretation) or given the job aid but not training (80% correct interpretation) ($p < 0.05$). Study results were described in an article submitted to the online *Malaria Journal* in May and published in August: Harvey, SA, L Jennings, M Chinyama, F Masaninga, K Mulholland and DR Bell. 2008. Improving community health worker use of malaria rapid diagnostic tests in Zambia: package instructions, job aid and job aid-plus-training. *Malaria Journal* 7:160 (22 Aug 2008). The open access article is available at: <http://www.malariajournal.com/content/7/1/160>.

Directions for FY09

HCI will continue to look for new opportunities to implement QI activities related to malaria prevention and case management.

4 Common Agenda Activities

4.1 Project Management

Objectives

The administrative team's goal during the first year of the HCI Project was to effect a smooth transition from QAP while setting up systems and processes that will ensure effective and efficient project management throughout the Indefinite Quantity Contract (IQC). The new IQC contract mechanism and HCI priorities required a number of adjustments to project management from the predecessor project, including a shift in the priorities of the core-funded activities along with an increase in the number of Missions buying into the contract and the scope of their demands. Specific objectives for project management in the contract's first year included:

- Establish the budgeting and financial tracking system;
- Improve existing project policies and procedures and establish new ones;
- Conduct project launch event;
- Develop formats and templates for new reports and deliverables;
- Conduct monthly priority-setting meetings, quarterly technical reviews, and other regular meetings;
- Submit First Year Work Plan and Performance Tracking Plan;
- Submit quarterly Performance Monitoring Reports;
- Execute subcontracts for TOI subcontractors; and
- Complete work planning and budgeting for FY09.

Main Activities and Results

Project Staffing

Dr. David Nicholas retired as HCI Project Director July 1 and took part-time status with the project in a senior technical capacity. He was succeeded as HCI Project Director by Dr. M. Rashad Massoud. Dr. Bart Burkhalter stepped down as Director of Research and was succeeded by Dr. Lynne Miller Franco on April 1. Dr. Burkhalter also took part-time status. Contracts approval has been requested for these changes in key personnel.

Initiatives Inc. hired Ms. Lauren Crigler to join HCI as Human Resources Advisor, based in Bethesda. Ms. Kim Ethier moved from the project's team in Moscow to Kampala, to serve as the Deputy Director for HCI's program in Uganda. Due to limited requests for training assistance, the position of Training Director was eliminated, effective July 1. Former Training Director Ms. Thada Bornstein will continue to provide short-term assistance to HCI over the coming months, providing long-distance support to the team in Egypt.

Coordination of Technical Activities

The first formal mechanism for coordinating activities under the IQC was the project launch event in December 2007. Directors of each field office came to URC headquarters (HQ) to meet with technical and administrative staff, the CTO, and IQC partners. The entire team developed administrative policies, technical direction, and a long-term vision for the project.

Ongoing project progress has been monitored and managed through a group of recurring meetings. During the first week of each month, a monthly priority-setting meeting was held at HQ to review progress and prioritize major activities. Quarterly review meetings were conducted at HQ in October 2007 and March and July 2008 with the attendance of the project's Cognitive Technical Officer (CTO) and field staff participation by phone to review progress, analyze issues, and set priorities for future activities. In addition, at the end of the project's first year, a new monthly Senior Management team meeting was established to occur between quarterly review meetings and permit more in-depth discussions of specific technical areas and country programs.

Budget Management

Full budgeting, tracking, and accounting systems were set up during the first quarter of FY08 and will be used for the duration of the IQC. The cost code system allows all existing funding streams and activities to be budgeted, tracked, and reported at a very detailed level. While line item expenses will continue to be tracked according to the existing parameters of USAID and URC policies, the coding framework can now easily incorporate future activities, funding streams, task orders, and geographic areas not currently in the IQC.

Reporting and Deliverables

The preparation of deliverables and other reporting to USAID are managed centrally at HQ and conform to the deliverables schedule outlined in Section F.6 of the TOI contract. Templates and formats were established for the annual work plan, the performance monitoring reports, trip reports, research and technical reports, the annual project report, the annual self-evaluation report, and financial and other deliverables.

Directions for FY09

In addition to ensuring continued adherence to policies and procedures and maintaining efficient management of the project, the administrative team will continue to refine and improve on administrative and financial management processes, particularly those at the field offices. In order to improve the efficiency and effectiveness of financial processes, we will begin using new financial software in field offices. We are testing QuickBooks in two offices; the software transition will be incremental to prevent disruptions or significant expense. The transition will be rolled out to other offices based on the experience in high performing offices.

A mid-project review is planned for May 2009 in Bethesda, timed to coincide with the annual Global Health Council conference in order to leverage visits by senior managers and technical staff from the field. Those unable to participate in the review in person will be connected by phone and WebEx. This review will check overall progress toward meeting Task Order 1's performance objectives and targets

while offering a technical sharing opportunity across country teams. The project's Technical Advisory Group will also convene, probably in one of the HCI field presence countries; similar future meetings could rotate locations in order to draw from the best global expertise possible.

4.2 Collaboratives Methodology

Objectives

The evaluation of QAP's collaboratives offers a wealth of information about the range of strategies used to implement collaboratives and lessons learned about their essential features in developing countries and essential steps to their implementation. At the start of HCI, this information had not been synthesized such that project staff could maximize its use. Given HCI's mandate to spread the use of the improvement collaborative approach, a key need in the project's first year was to summarize our understanding of this QI approach based on QAP's five years of implementation experience. Specific objectives for collaboratives methodology development in FY08 were to:

- Synthesize and document the HCI approach to improvement collaboratives, to serve as a basis for capacity-building and advocacy materials and
- Expand and document HCI thinking on spread and institutionalization.

Main Activities and Results

Dr. Lynne Franco, who leads the technical working group on collaboratives methodology development, convened the group at the project launch in December 2007. The group is addressing issues related to spread, institutionalization, and sustainability of the results of collaboratives and how HCI will measure these outcomes as part of the project's monitoring and evaluation system. Technical staff at the launch workshop reviewed findings from the QAP-conducted collaborative evaluations for their implications for HCI programming.

During the second and third quarters of FY08, the working group developed and circulated for review by all technical staff an overview document entitled *The Improvement Collaborative: An Approach to Rapidly Improve Health Care and Scale Up Quality Services*. It defines the improvement collaborative approach as adapted and refined by QAP and HCI and articulates the essential elements and key steps in implementing collaboratives. It was published in June 2008.

The synthesis report on the evaluation of QAP-supported collaboratives was also published after extensive review by technical staff, in June 2008. The Russia site visit report was published in August 2008, and the remaining six site visit reports will be published next quarter.

Stemming from the new direction of HCI's work in Tanzania to support HIV/AIDS quality improvement efforts of multiple implementing partners working in different regions, HCI is developing a strategy for managing a new kind of collaborative—the partner collaborative—designed to coordinate QI efforts of multiple partner organizations in a common technical area. The first partner collaborative was launched in Tanzania in May 2008.

Directions for FY09

HCI research in FY09 will largely focus on institutionalization and spread, with large-scale studies beginning in Ecuador and Niger. The project will continue to refine strategies for facilitating spread, institutionalization, and sustainability of improvements in the quality of care and QI activities through collaboratives. The collaboratives overview document will be published in French and Spanish.

4.3 Human Resources Planning and Management

Objectives

HCI's objective in human resources in FY08 was to develop new and effective ways to improve the status of human resources through the application of QI and other management approaches, such as employee engagement. Specifically, our focus was to develop a strategy to increase worker productivity and improve worker retention through improved management practices and the application of best practices in human resource management and to begin implementing this strategy in at least one country.

Main Activities and Results

Development of the HCI Human Resources Planning and Management Strategy

Workforce development activities began with the development of a strategy that uniquely positions HCI to tackle issues closest to the quality of care at the facility and community levels by integrating quality improvement with the most progressive lessons learned in the private sector about human resources management and human performance improvement. Specific components of this strategy include:

- Assessing components of the performance management system: Quality teams will find solutions to performance support using Plan-Do-Study-Act cycles and testing solutions.
- Employee engagement: HCI will explore ways to increase employee engagement through performance management and participation on quality improvement teams.
- Conducting job analysis in HIV treatment settings: Viewing the job from the providers' perspective and developing rationalized job descriptions.

In FY08, HCI explored ways to apply the improvement collaborative approach in implementing this strategy to improve human resources systems that impede the delivery of quality care, including low health worker motivation, inefficient task allocation, turnover, and weak supervision systems. HCI's health workforce strategy adapts these improvement approaches to strengthen and improve human resources and human resource systems by engaging health care workers, their communities, supervisors, and decision-makers in the development, testing, and implementation of practical and sustainable solutions to problems such as poor organization of care, low worker motivation, lack of incentives for quality care, high turnover, weak management capacity at the district level, and low productivity.

Implementing a Human Resources Collaborative in Tahoua, Niger

Working with the Ministry of Health and the Tahoua Regional and District Management Authorities, as well as in-country partners and collaborators, HCI prepared for the January 2009 launch of a collaborative to improve health worker productivity and retention through strengthened performance management and employee engagement. During the last quarter of FY08, preparation and planning activities for the collaborative included discussions with central and regional authorities in Niger to design the collaborative and select appropriate sites and preliminary data-gathering on the human resources sector in Niger and specifically in the Tahoua Region.

Development of a District Health Management Collaborative

Ms. Lauren Crigler, HCI Senior Workforce Advisor, traveled to Tanzania in April 2008 to assess the feasibility of incorporating activities to improve the availability of human resources for ART/PMTCT at the district level into the partner collaborative being implemented in Tanga Region. While it was later decided that this activity would not proceed at this time, planning did progress in Uganda for the launch of a District Health Team (DHT) Strategy in FY09. The goal of the strategy is to sustain and

institutionalize a culture of continuous improvement in the DHTs and build their capacity to coach teams to plan, manage, monitor, and spread QI activities in HIV/AIDS in their districts. Fifteen districts were selected to participate in a demonstration collaborative on strengthening district health management in FY09.

Global Technical Leadership in Human Resources

In October 2008, Dr. Nigel Livesley participated in a WHO expert meeting on Task Shifting in HIV/AIDS care to share QI approaches to improving human resource processes and efficiency.

Ms. Crigler represented HCI on USAID's Human Resources for Health (HRH) Consultative Working Group, chaired by USAID/PEPFAR, discussing different approaches to improve human resources in PEPFAR-supported countries and to reduce duplication of efforts between projects. Two meetings were held in September 2008 to coordinate efforts and to meet with Dr. Mubashar Sheikh, Executive Director of the Global Health Workforce Alliance, housed at WHO in Geneva.

Ms. Crigler presented on HCI's work on employee engagement at the community level at the September 2008 Global Health Mini-University at USAID.

Community Health Worker Assessment

HCI developed a method and set of tools to evaluate and measure functional CHWs in priority USAID MCH countries. A rapid literature review on CHW programs was conducted in August 2008 and a tool developed that can evaluate and measure functional CHWs. The CHW tool draws on the HRH task-shifting guidelines WHO has proposed and other HRH frameworks developed with USAID support. The tool is currently being vetted by USAID; next steps will include testing the tool in at least two countries.

Directions for FY09

HCI's priority human resources management activity for 2009 is to launch the HRH collaborative in Niger in January and develop there a change package for improved human resources management, both at the facility level (changes that can be implemented by health workers) and at the system level (changes that can be implemented by managers and central level officials). The project will publish a white paper that describes these creative approaches, including the application of the employee engagement model and gather the required data from field applications to learn more about the possibilities of scaling up and applying these concepts more widely. We plan to launch a second HRH project in another country during 2009, either through a collaborative or working directly with a Ministry of Health to apply improved management practices and employee engagement to improve retention and performance of health workers.

4.4 Knowledge Management

Objectives

The TOI objective of improving the cost-effectiveness of QI in USAID-assisted countries calls for the development of a global system for harvesting and sharing knowledge gained from health care quality improvement activities. URC's subcontractor for the development of the project's knowledge management (KM) web site is Johns Hopkins University Center for Communication Programs (CCP). HCI's FY08 objectives in KM were to:

- Design a global health care improvement KM system that makes information about tested improvement strategies and interventions available through an openly accessible, web-based database;

- Conduct 1) focused research with potential users of the HCI KM system and 2) usability testing of prototype web pages to inform the design of the web site; and
- Link the HCI KM system with all HCI Project country, Research and Evaluation, and Global Health Element teams and ensure that these teams continually contribute to the technical content of the KM web site and health care improvement database.

Main Activities and Results

Creation of a Temporary Project Web Site

A temporary site at the URL www.hciproject.org was launched in January 2008 to provide basic information on the new project, house new HCI publications, and link to the larger body of technical reports and resources on the QAP web site. It will function as the project's website until the CCP-developed site assumes the URL.

Design of the KM Web Site

In the second quarter of FY08, URC and JHU CCP staff held a series of working meetings to develop the technical specifications for the site, which is intended to serve as a global hub of information-sharing in health care improvement and be linked with the project's QI documentation and evaluation processes. The KM web site will provide a systematic way for archiving lessons and improvement information from QI activities in a readily searchable web-based database. Specifications call for user interfaces for the database in English, French, and Spanish that will make it easy for users in developing countries to share information about their improvement processes and results. The searchable database will include "improvement reports" about specific QI experiences and profiles of and tools from specific improvement collaboratives. The site will also feature tools and reference materials related to improvement methods and to improvement in key topic areas addressed by HCI: HIV/AIDS, human resources management, maternal and child health, services for orphans and vulnerable children, malaria, reproductive health and family planning, and tuberculosis. The site will highlight both HCI resources and experiences as well as those of other organizations working in health care improvement worldwide.

The site will also receive content through the information-harvesting processes at CCP that support its other USAID-funded web sites, including the INFO Project web site, the Reproductive Health/AIDS and Sexual and Reproductive Health Integration web site, the Interagency Youth Working Group web site, the MAQ IUD Toolkit, and the Injectables Toolkit. CCP has expanded the list of key words that guide the addition of information into its One Source databases to include more QI and health topics of interest to HCI.

The basic graphic design (look and "feel") and structure of the HCI KM web site were finalized in the third quarter of FY08. In the fourth quarter, work began on 1) designing the technical content of the various sections of the web site (e.g., improvement methods, HIV/AIDS, maternal and child health, tuberculosis, malaria) and 2) developing short improvement stories that describe interventions by improvement teams in specific areas of care. This work will be completed in early 2009, and the site is expected to be formally launched in the third quarter of FY09.

Development of a KM Web Site in Spanish

In keeping with TOI's knowledge management mandate of supporting dissemination of improvement experiences among country-level practitioners, plans were developed in FY08 to redesign the Spanish language www.mortalidadmaterna.org web site—created under QAP to support EOC collaboratives in the LAC region—to enhance its value as a knowledge-sharing platform. In June 2008, Dr. Jorge Hermida developed a scope of work for reprogramming the web site to broaden its focus beyond providing teams participating in EOC collaboratives with a web-based mechanism for posting their

monitoring data to serve as a hub for exchange of experiences related to implementing best practices in obstetric and newborn care. The new site, which would still be in Spanish only but would be linked to HCI's KM web site, would add content related to improvement of newborn care and include a threaded discussion capability as well as the ability for users to post reports and documents. The site would facilitate access to technical materials organized by topic (i.e., prenatal care, delivery care, immediate newborn and post-partum care, and management of obstetrical and newborn complications) and link to other web sites with tools and technical resources on specific topics. The central structure of the site would be sections, organized by topic, for sharing experiences and lessons learned on how to improve care and implement effective maternal and newborn care interventions or best practices. These sections would be fed by reports from country or agency programs, quality improvement programs, individual facilities, as well as from the literature.

In July, HCI contracted—with Seven Studio in Quito, the firm that had re-launched, under QAP, the mortalidadmaterna web site after it had been corrupted by hackers—to redesign the site as a maternal and newborn health care improvement resource in Spanish. The new site will use the URL www.maternoinfantil.org. Two local consultants were hired in Ecuador to summarize best practices and identify key reference materials in Spanish for the site.

Development of a KM Web Site to Support the LAC Neonatal Health Alliance

Peg Marshall of USAID/LAC asked HCI in April 2008 to lead a small web committee of the LAC Neonatal Alliance—a coordinating group, made up of USAID, PAHO, Save the Children, BASICS, JHPIEGO, the CORE Group, and HCI/URC, that aims to support the implementation of the LAC Regional Action Plan for Neonatal Health. The Alliance web committee was tasked with exploring options for a web-based tool to facilitate the exchange of information among countries on their efforts to reduce neonatal mortality and morbidity and implement the Regional Action Plan. Dr. Hermida and Ms. Lani Marquez represent HCI on the web committee, which also includes representatives of Save the Children, PAHO, and USAID. After exploring several options, and in the absence of new funding to support the web tool, the committee agreed that the best option would be to piggyback an Alliance web site onto the redesigned maternal and newborn health web site that HCI is proposing to develop from the mortalidadmaterna.org site.

It was agreed that Seven Studio in Quito would program a complementary set of web pages for the Alliance that would be managed separately and have additional pages in English and French. During the last quarter of FY08, HCI worked with representatives from PAHO and Save the Children to define the basic content and site structure for the Alliance web site, which will have the URL www.alianzaneonatal.org. PAHO and Save the Children will each contribute \$5000 toward the estimated \$11,273 cost to design and host the site for one year. Save the Children will channel its contribution through HCI, while PAHO's Quito office will directly fund the design of the web site. The content of the site, expected to be launched in the second quarter of FY09, will be jointly managed by Alliance members. HCI and Save the Children funds will support the maintenance of the site once designed.

Development of a QI Section on the OVCsupport.net Web Site

As HCI's Knowledge Management Director, Ms. Marquez worked closely with the HCI OVC team to develop the structure and content for the OVC QI Initiative web pages that were added to the OVCsupport.net web site in June 2008.

Directions for FY09

HCI's priority tasks in knowledge management next year are to complete the construction of the HCI KM site, launch the site, and promote its use among HCI staff and partners as well as others groups working in health care improvement that are not directly associated with HCI. In the first quarter of

FY09, the design of KM site improvement information and collaboratives databases will be finalized and programming begun. Screen text for the main web sections will be finalized and user testing of the database interfaces will start in January 2009. The “soft” launch of the HCI KM site is expected to occur in March, with the formal launch and promotion of the site to begin in May. HCI will also launch the saludmaterna.org site and finalize the content for the alianzaneonatal.org site with other members of the LAC Newborn Health Alliance in the second quarter of FY09.

4.5 Research and Evaluation

Objectives

The role of research and evaluation (R&E) in the HCI Project is to support a learning system by which project staff, country counterparts, and the broader international community can draw lessons from experiences in quality improvement. R&E assists HCI field programs to increase their cost-effectiveness by helping them 1) acquire evidence about their own program to enable improvement and 2) apply lessons from other HCI field programs. HCI’s R&E component also provides global technical leadership in quality improvement in developing countries by documenting, synthesizing, and effectively disseminating the results of research and evaluation. Key R&E objectives laid out in the HCI Year One work plan included:

- Finalize written procedures for HCI studies,
- Develop a Standard Evaluation System for the project,
- Identify and develop a protocol for at least one R&E study related to the TOI scope of work in each HCI-assisted country,
- From the studies identified, launch at least five studies in FY08, and
- Provide technical assistance to other R&E studies initiated by field offices.

Given limited specific research funding available in Year One and the need to clarify broader research priorities as outlined in the Task Order #1 scope of work, the R&E unit modified its objectives for the year to:

- Identify overall research priorities for the project;
- Develop concept notes on two or three priority areas;
- Support HCI country programs in strengthening “local QI as research”; and
- Develop tools and provide technical support to improve the rigor of data collection, analysis, and synthesis in the context of QI through the development of the project’s Standard Evaluation System.

Main Activities and Results

Develop a Standard Evaluation System

A cornerstone of collaborative improvement is the sharing of tested changes across teams and synthesis of improvements and organizational learning. Documentation of changes and analysis of their results within QI teams is thus a key input into the improvement process. Historically, this has been a weakness in QI efforts and results in significant loss of learning opportunities. The R&E team reviewed current systems in HCI country programs for documentation, analysis, and synthesis of learning and developed a series of tools that will comprise the project’s Standard Evaluation System (SES). The tools developed in FY08, which represent best practices to date and innovations to address current gaps, include:

- An *SES Journal for QI teams*, which is used to document changes implemented and plot and annotate their results, as a means to analyze the effects (positive or negative) of their improvement efforts;
- An *SES Synthesis Form for QI teams*, which is used to summarize teams' learning to date to share with other teams during learning sessions;
- An *SES Excel Database for QI teams* to house the data for the collaborative indicators and generate time series charts of their results;
- An *SES Excel Database for collaborative managers* to accommodate data from multiple site teams and generate time series charts of individual teams and pooled data; and
- *Norms for Data Presentation* to ensure that all HCI-generated time series charts have adequate information for those viewing them to understand and interpret what is being presented.

Six countries agreed to test the SES tools: Honduras, Uganda, Tanzania, Niger, Benin (under PISAF), and Russia. To date, all have introduced the SES Journal, but none has used the synthesis form. The testing for the SES QI team-level tools will continue in FY09. Preliminary results indicate that the SES tools are viewed positively by collaborative managers and coaches, that introducing the journal requires follow-up and additional explanation, but that with such follow-up support, teams come to see how it helps them with their improvement efforts. The R&E team is considering collaborative-level SES tools that will help collaborative managers synthesize learning across teams.

Define HCI Research Priorities and Concept Notes for Key Topic Areas

While country programs can develop their own research priorities based on their own specific needs, there are topics of research that reflect broad project priorities across country programs. Box 5 lists the priority topic areas defined in FY08 for HCI research and evaluation. The R&E team drafted concept notes for the first four topics and circulated them among technical staff for review and discussion.

Key questions addressed in these notes include:

Spread: What models of spread are being implemented? What are the “results” of these models in terms of sustainability and institutionalization? What are the factors that influence effective spread? What are best practices for addressing barriers to effective spread?

Institutionalization and sustainability: What happens post-collaborative (or post-support)? Do sites continue to implement aspects of QI in their work? Does QI transfer to other topics at sites? What factors influence effective institutionalization of better care practices and QI at the facility level? What activities are needed at higher levels of the system to support these gains?

QI, team work, and employee engagement: What are teams actually doing in their QI work? How does working in a QI team (and in a collaborative) affect team dynamics and working environment? What is the relationship of QI and employee engagement?

Transfer of capacity to implement collaboratives: What are key factors of success in transferring capacity to implement improvement collaboratives? How can we more effectively implement partner collaboratives?

Box 5. HCI research priorities

The first three topics will be the focus of HCI research in FY09.

- **Spread**
- **Institutionalization**
- **QI, teams, and employee engagement**
- Transferring capacity to implement improvement collaboratives
- Cost-effectiveness
- Application of QI to HRM
- Valid results showing effectiveness of QI
- Added value of a collaborative
- Community-level QI
- Perceptions of consumers
- Impact of non-collaborative QI approaches
- Knowledge management

Implement, Monitor, and Provide Technical Assistance to R&E Studies

Table 4 lists all studies that were completed, are ongoing, or were initiated by HCI during FY08. All studies receive R&E oversight funded through the project’s Common Agenda funds. Other sources of funding for each study are noted in parentheses in the “Country” column.

Table 4. Progress on HCI Research and Evaluation studies, FY08

Country	Title	Content
Studies completed this year		
Global (Common Agenda)	Collaborative evaluation	An evaluation of QAP’s work in applying the improvement collaborative approach in 35 collaboratives in 14 countries (2003–2007). Using document review; field visits; interviews with teams, coaches, and collaborative managers in six countries; and reviews of other collaboratives, this evaluation found that the collaborative approach, as adapted by QAP, was robust and feasible in developing country setting, producing clear gains in compliance with standards and scaling up best practices across several key technical areas. High rates of compliance were achieved in many settings within 8–18 months of working on improvements. Additionally, data seem to indicate that participating in collaboratives had a significant impact on individuals, teams, and institutions. [Report published in June 2008.]
Ecuador (MCH funds)	Humanization, cultural adequacy, and demand generation for quality maternal care	This study developed and tested several interventions in government health facilities in rural settings with TBAs, users, and local governments to improve cultural adequacy of delivery care in health facilities and thereby increase humanization of facility birthing for indigenous populations. Results demonstrate that the approach succeeded in producing increases in users’ satisfaction, at various degrees according to type of change. Data also suggest moderate increases in use of hospitals for delivery care and reductions in home deliveries. These results were reviewed by the government and programmed for national adaptation pending the final report. [Full final report is available in Spanish; summary in Spanish is in preparation.]
Namibia (Mission)	Current and historical practices and acceptability of male circumcision	This qualitative study 1) explored the current and historical practices and acceptability of male circumcision among the general population, health care service providers, and other key stakeholders in Namibia and 2) mapped capacity among Namibian health facilities to carry out male circumcision. Using 46 focus group discussions and 34 key informant interviews, the study assessed perceived benefits and disadvantages, key influences affecting how decisions about circumcision are made, and levels of awareness about how circumcision can prevent the spread of HIV, among other issues. It found that participants overall expressed generally positive attitudes toward and perceived benefits of circumcision. Study participants overwhelmingly supported a role for the Government of Namibia in disseminating information about male circumcision, especially the relationship between circumcision, health, and HIV. [Report has been drafted and submitted to USAID and the Government of Namibia for review.]
Niger (MCH Core)	Baseline assessment for pre-eclampsia and eclampsia	Baseline assessment of quality of care for prevention and treatment of eclampsia in pregnancy and delivery using direct observation and record review in 10 primary maternities and five referral hospitals: Results found quality of care to be low, with average compliance with standards less than 33% for both pre-eclampsia and eclampsia at both levels of care. [Report available in French.]
Russia (Common Agenda/Mission)	Accessibility of ART in St. Petersburg and Orenburg City, Russia	This study investigated the barriers preventing people with HIV/AIDS from accessing specialized medical care, specifically ART, and developed recommendations to increase ART availability and treatment adherence in HIV-positive, hard-to-reach (“hidden”) patient groups in St. Petersburg and Orenburg. Structured interviews were held with 551 PLWHA—including injection drug users, commercial sex workers, and PLWHA in self-registered groups—as well as with focus groups and subject experts. [Report is available in Russian and in draft in English.]

Country	Title	Content
Rwanda (QAP and HIV Core)	ARV adherence study	Study of adherence behavior of patients on fixed-dose versus multi-drug combination antiretroviral therapies and the validity of the “pills taken only” criterion for adherence (on schedule and compliant with food restrictions): 653 patients from four health facilities in Rwanda were interviewed. Whether on fixed-dose or multi-drug combinations, most reported taking at least 95% of their prescribed ARVs. However, regimens containing AZT were associated with lower adherence, and measures of adherence were significantly lower when correct timing and food restrictions were taken into account. [Report published in September 2008.]
Rwanda (QAP and HIV Core)	HIV/AIDS stigma study	Study of stigma (fears, perceptions) and discrimination (practices) among Rwandan healthcare providers towards patients with HIV and AIDS: Data were collected from 110 providers at six facilities in November 2003–February 2004. Results indicate that providers continued to have negative attitudes and fears (some unfounded) about their safety in working with these patients. They report that discriminatory practices are common. It concludes that as long as providers do not feel safe in providing services to HIV-positive patients, some amounts of discrimination will continue. [Report published in September 2008.]
Zambia (Infectious Disease Core)	Development and testing of malaria RDT job aid (Phase 2)	Study of impact of job aids with or without training on performance of rapid diagnostic tests for malaria among community health workers: Based on a sample of 79 CHWs divided into three groups (receiving manufacturer’s instructions, job aid, or job aid plus training) and using structured observations, the study found that manufacturer’s instructions would result in only about half of the 16 key RDT steps being completed properly, while the job aid increased this to 80% and the job aid plus training to over 90%. [Findings published in the online <i>Malaria Journal</i> 22 August 2008.]
Ongoing Studies		
Bangladesh (Infectious Disease Core)	Bangladesh: Assessment of stores system for tuberculosis	This study, funded by WHO and QAP, documented TB drug and supply storage conditions and adherence to National TB Program (NTP) procedures at district and sub-district levels in 60 health facilities. The study found many inadequate physical conditions of facilities’ drug store rooms, adequate quantities of drugs for the estimated patient load, appropriate Inventory Medicine Destroy procedures maintained in only 22% of sites, and mixed findings with respect to quality assurance. Recommendations for improvement were presented to the NTP, WHO, and NGO representatives in a national workshop. [Report available in English.]
Benin (MCH Core)	Evaluation of impact of community intervention on mothers’ knowledge on EONC	This pre-post intervention-control group study examined the impact of a community IEC activity on mothers’ knowledge on key EONC messages. The intervention included using counseling cards at group health education sessions led by women’s credit associations. Based on a sample of 51 women in the intervention group and 47 in the control group, Preliminary analysis of results indicates that women who attended sessions had significantly more knowledge than the control groups for how to stay healthy in pregnancy, how to prepare a birth plan, and post-partum and newborn danger signs. [Final report expected in FY09.]
Benin (MCH Core)	Validation of quality indicators for EONC	This study compared mothers’ report of services to what was recorded on the partograph related to examination of the mother and newborn, counseling, checking for breastfeeding, and birth registration. Preliminary results indicate lack of concordance for examination of mothers and newborns (concordance of about 65%) while counseling and other tasks had concordance rates of over 85%. [Final report will be completed in FY09.]
Benin (MCH Core)	Task-shifting in maternal and newborn care counseling: Evaluation of	This pre-post intervention trial evaluates the quality and impact of counseling by skilled and unskilled health care workers in government facilities in Zou/Collines, Benin. Baseline and endline data were collected on quality of counseling, maternal knowledge, and facility-based newborn care practices before and after the training and introduction of a pictorial set of counseling cards. Fourteen public health

Country	Title	Content
	the quality and impact of counseling by skilled and unskilled health care workers in Zou/Collines, Benin	maternities were included in the study: seven intervention sites and seven control sites. Study methods consisted of direct observation and exit interviews with pregnant and recently delivered women as well as in-depth interviews with skilled and unskilled providers. Data are being cleaned and analyzed. Preliminary results are expected to be shared during the second quarter of FY09.
Cote d'Ivoire (Mission)	Assessment of VCT, PMTCT, care, and treatment for HIV/AIDS	This assessment of the quality of HIV/AIDS care and services (VCT, PMTCT, ARV) in Cote d'Ivoire was carried out by PNPEC, URC, district health teams, and key PEPFAR implementing partners. The assessment covered 41 sites countrywide and used a cohort approach in examining patient records for three cohorts: pre-ARV, ARV, and PMTCT. Other methods of data collection included interviewing head physicians and patients and evaluating laboratory procedures. Results indicate that the quality of care provided during early visits was acceptable, but that follow up care was intermittent and difficult to base on previous information. Patient retention was a significant problem. The results of the assessment are being used to design a quality improvement plan that includes the use of collaboratives. [Report in English is in preparation.]
Ecuador (MCH Core)	Validity of self-assessments in EOC collaboratives	This study is measuring the validity of QI teams' self-assessment of their performance (compliance with standards assessed through their own review of patient records) in comparison with external assessments by expert clinicians done on the same patient records. Data were collected from a sample of 12 hospitals covering records for 1875 deliveries. Data have been entered and cleaned, and initial analysis completed (including kappa statistics, agreement rates with confidence intervals, and "p" values). Further analyses and writing of the final report will be done during the second quarter of FY09.
Nicaragua (Mission/Common Agenda)	Evaluation of cost-effectiveness of PHI interventions	This study, still in its pilot phase, will examine the cost-effectiveness of pediatric hospital improvement initiatives in terms of days of hospitalization, rational use of pharmaceuticals, and changes in readmissions for cases of diarrhea and pneumonia. The study involves retrospective analysis of clinical and pharmaceutical records from 2005 to the present. The analysis is complicated by the many political and social events that have impacted provision of health services over the period of the interventions, including a seven-month doctors' strike. Discussions on sampling and analysis approaches took place in August, and they will be finalized in January 2009.
Niger (MCH Core)	Evaluate impact of PHI Malaria Collaborative	This study examined the effect of a multi-faceted quality improvement intervention on quality of malaria and pneumonia care in children ages 0–5 years in Nigerien public district hospitals, using a case-control pre- and post-intervention observational design. Preliminary analyses (bivariate) indicate significant improvements in the intervention group for assessment standards, as compared to the control group. However, fewer improvements were seen in diagnosis and treatment. It should be noted that clustering of cases within a few providers may influence final results. [Final report expected in second quarter of FY09.]
Tanzania (Mission)	Pediatric HIV screening algorithm validation	WHO developed and showed effective an algorithm for identifying HIV infection in pediatric patients; it that is far cheaper than blood tests. A study to test the algorithm's effectiveness in field conditions in Tanzania with respect to its false positive rate has collected data, and the analysis is nearing completion. Preliminary analysis indicates the approach is cost-effective.
Tanzania (Mission/HIV Core)	Sequential validity of self-assessment for ART-PMTCT	This is a study of the validity of QI teams' self-assessment of their own performance as part of a collaborative, considering all the steps in the self-assessment process, from writing, retrieving, and abstracting records to communicating the results to QI team members. The feasibility of this study was determined in the Tanzania Pediatric

Country	Title	Content
	Services	Hospital Improvement Collaborative; the full study is underway in the ART/PMTCT Collaborative in Tanga Region, based on the results of feasibility study.
Tanzania (MCH Core)	Maternal health services evaluation for Eastern, Central, and South Africa	Similar to the Kenya study, this one is examining the competency (knowledge and skills) of skilled birth attendants in Tanzania. Preliminary findings indicate knowledge at moderate levels (average 56%) as well as some skills at moderate levels (competence in active management of the third stage of labor and manual removal of the placenta both averaged 55%). Key weak areas included immediate newborn care (36%), neonatal resuscitation (25%), organization and sustainability of referral/ counter-referral systems, and use of maternal and neonatal health standards. [Report will be finalized in FY09.]
Tanzania (HIV Core)	Assessment of quality of laboratory services	This preliminary assessment of the quality of HIV laboratory services in the Tanga Region resulted in the development of lab-specific indicators and recommendations for improvements. Follow-up activities are planned for January of 2009 to include data collection based on indicator reporting and results from improvement changes tested in the labs.
Uganda (HIV Core/ Mission)	Assessment of ART services	Assessment of the quality of ART and pre-ART care in eight sites in Uganda, using a cohort approach: This study also served as a pilot of the assessment methodology that has since been applied in larger assessments in the Uganda private-for-profit sector and the Cote d'Ivoire assessment. [Report to be finalized in FY09.]
Uganda (Mission)	Assessment of patient triage systems	Rapid assessment of triage systems in HIV treatment programs in nine facilities: Preliminary results indicate that most facilities have a triage system, although it was unclear how well they functioned in the small facilities. [Data analysis still in process.]
Uganda (Mission)	Assessment of the quality of ART services in the private-for-profit sector	This assessment, using the cohort approach to exam the quality of pre-ART and ART care, covered 30 of the 33 private-for-profit sites accredited to provide ART in Uganda. Major findings include very poor documentation (patient records were available for only 327 of the 1500 patients identified for chart review), good quality of care at the first visit but declining with subsequent visits, and patient retention as a major barrier to good care. [Report has been submitted to USAID and will be finalized in FY09.]

Directions for FY09

HCI will initiate studies that address spread, institutionalization, and employee engagement in collaboration with country programs. These studies are expected to result in significant learning on factors that positively or negatively affect spread and institutionalization; effective strategies to overcome them; and mechanisms for measuring and tracking spread and institutionalization of improved care and implementation of QI. The R&E unit will continue to provide technical support to country programs in strengthening the rigor of data collection and analysis in the context of the work of QI teams. HCI will continue to develop and test aspects of the Standard Evaluation System and other tools that support the work of QI in its country programs that will result in: 1) improved documentation, analysis, and sharing of changes that led (or did not lead) to improvement at the point of service delivery, 2) improved synthesis of learning across teams, and 3) improved (enhanced) implementation packages for spread.

4.6 Technical Leadership and Communication

Objectives

FY08 objectives for Technical Leadership and Communication included:

- Provide global technical leadership for USAID's worldwide efforts to improve health care in developing countries;

- Advocate for endorsement and adoption of QI approaches, policies, and programs by international, regional, and national organizations supporting health care in developing and middle-income countries; and
- Refine and disseminate methodologies, tools, and best practices in the application of quality improvement and human resources management approaches to improve health care, through publications, presentations, and other media.

Main Activities and Results

Launch HCI Project with Staff and Partners

Two events to officially launch the HCI Project were conducted at URC headquarters in Bethesda, MD, in December 2007. During the first week of the month, the country directors of HCI field offices traveled to Bethesda to meet with the CTO, headquarters staff, and representatives from the approved partners under Task Order I (EnCompass Inc., Family Health International, Initiatives Inc., Johns Hopkins University Center for Communication Programs, and Management Systems International). During this first project launch workshop, all parties were engaged in administrative and technical planning of HCI's core technical areas and common agenda activities. Project priorities, administrative procedures, and technical strategies were discussed, and planning took place for first year's activities under TOI.

The second launch event was a one-day conference held at URC on December 17 for potential partners under the IQC. Representatives from BroadReach Healthcare, Harvard School of Public Health, the Institute for Healthcare Improvement (IHI), MAXIMUS, the New York State AIDS Institute, and Singapore Health Services Pte. Ltd. met with the HCI senior staff and the CTO to review the priorities, planned first year activities of TOI, and funding mechanisms of the IQC. Dr. Sherry Kaufield, Executive Director of the Joint Commission International, joined the meeting by telephone.

Conduct Advocacy about QI Approaches with and Provide Technical Assistance in QI to International Organizations and USAID Partners

In October 2007, Dr. Nigel Livesley participated in a WHO expert meeting on Task Shifting in HIV/AIDS care to share QI approaches to improving human resource processes and efficiency.

In March 2008, Dr. M. Rashad Massoud participated in the annual meeting of the Steering Committee of the WHO Child and Adolescent Health Division.

During April–June 2008, HCI staff participated in technical meetings with the PEPFAR Care and Support Technical Working Group, the PEPFAR HIV-FP Integration Technical Working Group, WHO, New York State AIDS Institute (HIVQUAL program), Saving Newborn Lives (Newborn Indicators), LAC [Latin American and Caribbean] Neonatal Alliance, BASICS, FANTA, and Implementing Best Practices (IBP).

During the July–September 2008 period, HCI staff participated in technical meetings with the PEPFAR Care and Support Technical Working Group, the USG Working Group on OVC Programs, the Global Fund, OGAC, and the LAC Neonatal Alliance.

Participate in Selected National and International Conferences

As detailed in Table 5, HCI staff made 50 presentations at international, regional, and national conferences during FY08.

In September 2008, with CTO approval, four abstracts for HCI presentations were submitted to the International Forum, which will be held in March 2009 in Berlin: M. Rashad Massoud: Spread mini-course (with IHI); Dr. Massoud: “Learning from the South” (with Dr. John Ovretveit); Dr. Lynne Miller Franco:

Findings from collaboratives evaluations; and Dr. Victor Boguslavsky: Spread of HIV care decentralization in St. Petersburg, Russia.

Table 5. HCI participation in national, regional, and international conferences, FY08

<p>Policies and Business Mechanisms in the Central Europe and Russia Health Care Sectors Conference, Bucharest, Romania September 23–25, 2008</p>	<ul style="list-style-type: none"> • M. Rashad Massoud delivered the conference keynote address on “Improving Health Care” (travel funded by the conference organizers)
<p>National Conference on Adherence in the Era of HIV Drug Resistance, Moscow, Russia, September 23-24, 2008</p>	<ul style="list-style-type: none"> • Olga Chernobrovkina delivered the oral presentation “Service Delivery Models for PLWHA in St Petersburg and Orenburg”
<p>International AIDS Meeting in Mexico City, August 3-8, 2008</p>	<ul style="list-style-type: none"> • Lynne Miller Franco presented the poster “The evidence base for programming for children affected by HIV and AIDS in low prevalence and concentrated epidemic counties: what do we know and what should we do?” (travel funded by URC G&A)
<p>Uganda Society for Health Scientists, 9th Annual Conference, July 24-25, 2008</p>	<ul style="list-style-type: none"> • Ibrahim Kirunda presented on “Quality of integrated family planning” (results from the family planning-HIV integration work in Uganda)
<p>XVIII Congress of Obstetrics and Gynecology, Guayaquil, Ecuador, July 14-15, 2008</p>	<ul style="list-style-type: none"> • Jorge Hermida and Patricio Ayabaca presented on QI in maternal care and scale-up of AMTSL; they facilitated a workshop on AMTSL together with the POPPHI Project
<p>National TB Conference, Durban, South Africa, July 1-4, 2008</p>	<ul style="list-style-type: none"> • Refiloe Matji served as the conference chair • Donna Jacobs-Jokhan made two oral presentations: “Integration of healthcare improves continuity of care and health service outcomes” and “Using a quality improvement model to scale up tuberculosis/HIV services in Mpumalanga” • HCI staff helped facilitate satellite sessions on “Infection control for TB” and “Effective communications for TB” • Fatema Zannat presented “Tuberculosis drug storage and quality assurance: First national assessment on a tuberculosis drug storage system in Bangladesh, 2007”
<p>HIV/AIDS Implementers Conference, Kampala, Uganda, June 3-7, 2008</p>	<ul style="list-style-type: none"> • Anthony Musisi presented the poster “The Integration of Tuberculosis-HIV/AIDS Care in 89 Health Facilities in Uganda” • Francis Ocen presented the poster “Challenges to Quality Laboratory Services Delivery in HIV/AIDS Care and Management, Uganda’s Case Scenario” • Lynne Miller Franco made the oral presentation “Improving evidence-based OVC programming in low prevalence and concentrated epidemic countries” and presented the poster “Care that counts: the quality improvement initiative for orphans and vulnerable children programs” • Dorcas Amolo and Lynne Franco led a special satellite session entitled “OVC Satellite 4: Care that Counts—Improving the quality of OVC services—QI for OVC Programs” • Samson Haumba made the oral presentations “HIV positive women partner with the National TB Programme and Health Care Improvement Project in Swaziland to combat TB-HIV co-infection in Swaziland” and “Partnership in capacity building for TB culture and drug susceptibility testing in Swaziland” • Biggie Mabaera of HCI/Lesotho made the oral presentation “Scaling HIV testing and counselling among tuberculosis patients and suspects” • Gael Claquin of HCI/Lesotho made the oral presentation “Using routine national TB data to customize site support in a high TB-HIV prevalence setting” • Victor Boguslavsky presented the poster “Expanding TB screening among HIV-positive patients and implementation of IPT in St. Petersburg, Orenburg and

	Saratov oblasts, and Togliatti city” and participated in a panel discussion on integration of HIV services as a representative of a country with a concentrated HIV epidemic
Global Health Council, May 27-31, 2008, Washington, DC	<ul style="list-style-type: none"> • Lynne Franco, Marie-Eve Hammink, Lori DiPrete Brown, and Samantha Dovey presented a full-day skill-building workshop on QI in OVC work • Beth Turesson presented the poster "Laboratory quality assessments to improve ART service delivery in developing countries"
Central European and Asian HIV/AIDS Conference, May 3-5, 2008, Moscow, Russia	<ul style="list-style-type: none"> • Olga Chernobrovkina, Senior Quality Assurance Advisor of HCI/Russia, delivered an oral presentation “Application of quality improvement methodology for implementation of TB preventive treatment in HIV patients” • Anatoly Vinokur, M&E Advisor of HCI/Russia, delivered a poster presentation “Application of CAREWare to monitor and evaluate HIV/AIDS treatment and care in Russia: Lessons from the pilot sites.”
Care Bundles, May 2008, Manchester, England	<ul style="list-style-type: none"> • M. Rashad Massoud delivered the keynote address at the “Care Bundles” conference in Manchester, England (travel funded by Healthcare Events, UK)
International Forum on Quality and Safety in Health Care, April 23-25, 2008, Paris, France	<ul style="list-style-type: none"> • M. Rashad Massoud led a mini-course on Large scale spread, together with Joe McCannon of IHI • Oscar Nuñez: presented on “Results of the Nicaragua PHI collaborative” • Victor Boguslavsky presented on Russia experience in a session on “Lessons learned from the developing world” and the poster “Results related to improving access to HIV/AIDS care in the original TCS demonstration collaborative in Russia” • Jorge Hermida presented “Results of the Ecuador collaborative to improve the management of obstetrical complications”
LAC Maternal/Perinatal Health Forum, April 14-16, 2008, Cuernavaca, Mexico	<ul style="list-style-type: none"> • The National Public Health Institute of Mexico invited Jorge Hermida to present HCI work on EONC collaboratives. Other speakers included Deborah Maine (University of Boston) and presenters from UNFPA, PAHO, WHO, and EngenderHealth.
POPPHI LAC Regional Conference on AMTSL, March 31–April 4, 2008 in Managua, Nicaragua	<ul style="list-style-type: none"> • Jorge Hermida was invited by POPPHI to present the panel “Working with LAC Ministries of Health to implement quality AMTSL at national scale: QAP practical experiences.” Ministry representatives from Ecuador, Honduras, and Nicaragua also spoke about their experiences scaling up AMTSL with QAP assistance. HCI funded the travel of the Ecuadorian MOH representative.
UNICEF Regional Meeting on Children Affected by HIV/AIDS, March 31-April 3, 2008, Bangkok, Thailand	<ul style="list-style-type: none"> • Bart Burkhalter presented the findings of the study of evidence for OVC programming in low prevalence and highly concentrated epidemic countries to UNICEF staff and country representatives from Asia at this regional UNICEF-sponsored meeting in Bangkok.
Global Forum on Human Resources for Health, March 2-7, 2008, Kampala, Uganda	<ul style="list-style-type: none"> • Benson Tumwesigye’s proposed presentation “Health workforce challenges and opportunities in improving quality of HIV/AIDS ART care in Uganda: Quality Assurance Project experience.” was accepted for presentation. • Nigel Livesley and Stephen Kinoti also attended.
First International Spread Summit, Amsterdam, February 4-6, 2008, organized by The Center for Excellence in Long Term and Social Care in Vilans, The Netherlands	<ul style="list-style-type: none"> • M. Rashad Massoud participated in this meeting with implementers of European QI programs (travel funded by URC).
National Forum on Quality Improvement in Health Care, December 12-17, 2007, Orlando, FL	<ul style="list-style-type: none"> • M. Rashad Massoud helped lead an improvement course on large-scale spread. Nigel Livesley also attended.

International Union Against Tuberculosis and Lung Diseases, November 8-12, 2007, Cape Town, South Africa	<ul style="list-style-type: none"> • Victor Boguslavsky presented the poster “Improving TB-HIV co-infection services in four Russian cities. • Neeraj Kak and Refiloe Matji organized a meeting in Pretoria for all HCI and URC staff attending the conference to share TB results and strategies.
American Evaluation Association, November 10, 2007, Baltimore, MD	<ul style="list-style-type: none"> • Lynne Miller Franco presented “The collaborative approach to quality improvement” • Mary Gutmann of EnCompass presented “Evaluating improvement collaboratives”
Annual Meeting of the American Society of Tropical Medicine and Hygiene, November 4-8, 2007, Philadelphia, PA	<ul style="list-style-type: none"> • Steve Harvey presented the poster “Malaria RDTs: can community health workers use them safely and effectively? A case study from Zambia”
American Public Health Association, November 3-7, 2008, Washington, DC	<ul style="list-style-type: none"> • Larissa Jennings: oral presentation “Healthsector-based stigma and discrimination: Evaluating attitudes and practices of health care providers toward HIV-positive patients in Dar es Salaam, Tanzania” • Stephen Kinoti: oral presentation “Building provider competencies in IMCI through CBT: Demonstration of a six- day CD-ROM interactive course” • Stephen Kinoti: poster presentation “Using the collaborative approach to improve pediatric hospital care in developing countries” • Kathleen Hill: poster presentation “Using the improvement collaborative model to influence national policy and implementation of evidence based maternal newborn practices in Niger” • Lani Marquez: poster presentation “Improving systems of essential obstetric care in Ecuador, Honduras, and Nicaragua: results and challenges”
WOMEN DELIVER, October 18-20, 2007, London, England	<ul style="list-style-type: none"> • Jorge Hermida presented on the Ecuador cultural adaptation of delivery care as part of a panel organized by Family Care International on Cultural Adaptation of Maternal Health Services • Maina Boucar presented on Niger’s EONC Collaborative results as part of a panel organized by the POPPHI Project on active management of the third stage of labor. • Kathleen Hill and Steve Harvey also attended.
International Society of Quality Assurance in Health Care, September 30-October 3, 2007, Boston, MA	<ul style="list-style-type: none"> • Jorge Hermida: oral presentation “Lessons from improvement collaboratives in developing countries: Findings of field evaluations of Quality Assurance Project-supported collaboratives” • Lani Marquez: poster presentation “Are web-based platforms to support quality improvement feasible in developing countries? Experiences from Ecuador, Honduras, Nicaragua, and Rwanda”

Deliver Trainings and Briefings on QI Approaches and Results

HCI staff conducted 20 briefings and presentations for representatives of USAID, international agencies, and other cooperating agencies during FY08 (see details in Table 6).

Table 6. HCI briefings and presentations for USAID, international donor, and cooperating agency staff, FY08

September 30, 2008: Dorcas Amolo briefed OVC focal persons from USAID Missions in Botswana, Zambia, South Africa, Kenya, Tanzania, and Malawi on the approaches and progress of the QI Initiative for OVC programs and explained the steps in defining quality standards and moving them to the field, at a side meeting during the Regional Inter-agency Technical Team conference in Dar es Salaam, Tanzania
September 2008: Lauren Crigler briefed Dr. Mubashar Sheikh, Executive Director of the Global Health Workforce Alliance, on HCI’s scope of work and strategies related to improvement of human resources processes
September 12, 2008: Global Health Mini-University: M. Rashad Massoud led the session, “The cutting edge:

improvement collaboratives in developing countries are evolving so rapidly that you probably need an update: and Lauren Crigler led the session, “Do you believe in yourself? In your job? Do you do good work? Are you valued? How employee engagement and quality intersect to support community health workers”
September 11, 2008: Marie Eve Hammink presented on the “Quality Improvement Initiative in OVC programming,” and Nigel Livesley presented on “Quality of care indicators and their uses” at the Post-Kampala Updates meeting at Save the Children
September 3, 2008: M. Rashad Massoud and Nigel Livesley made the presentation, “Improving care for patients living with HIV” to OGAC, USAID, and CDC staff during a webcast broadcast from URC Bethesda
July 1, 2008: Marie Eve Hammink presented on experiences from Ethiopia and Tanzania in improving the quality of OVC services; the audience was the USG Technical Working Group on OVC Programs, which included representatives from OGAC, USAID/Africa Bureau, Office of HIV/AIDS, and Health Resources and Services Administration
May 2008: Bart Burkhalter presented the methods and findings of the evidence base for OVC programming study to the UNICEF HIV/AIDS team leaders in New York and discussed implications of the study for such programming
May 2008: M. Rashad Massoud and Nigel Livesley presented on QI approaches to improve HIV care and treatment at OGAC
April 2008: Jorge Hermida conducted a briefing at USAID on the results of the TB-DOTS Improvement Collaborative in Bolivia
April 2008: M. Rashad Massoud presented on improving quality of care for HIV/AIDS together with Jim Heiby at a WHO meeting in Paris April 21–22; it had been organized by the NY AIDS Institute. The meeting focused on what should go into the quality improvement chapter of a manual being developed for distribution at the PEPFAR Implementers Conference in Kampala in June. The meeting had representatives from WHO, NY AIDS Institute, USAID, CDC, and several cooperating agencies.
April 2008: Kathleen Hill presented a case study of HCI malnutrition work in Niger at the International Community-based Management of Acute Malnutrition Workshop sponsored by FANTA
April 2008: Mandy Rose and Kathleen Hill presented on HCI’s newborn care QI work at BASICS
April 2008: Kathleen Hill presented on HCI’s integrated postpartum hemorrhage prevention and newborn care improvement work in Niger and Benin at the semi-annual POPPHI Prevention of PPH Workshop
March 2008: David Nicholas and Kathleen Hill presented on the Improvement Collaborative model to Saving Newborn Lives at Save the Children, including presentation of a case study on the Niger maternal newborn collaborative
March 19, 2008: Several HCI staff met with Dr. Elizabeth Mason, the recently named Director of the Child and Adolescent Health Division of WHO, to review HCI’s child health work.
February 21, 2008: Kathleen Hill and Mandy Rose conducted a briefing for the USAID maternal-newborn technical group to update USAID on HCI maternal newborn work in the LAC and West Africa regions
December 2007 and January 2008: Several HCI staff held two meetings with staff from the “Quality Project” at PAHO, a multi-year program focused on developing a regional alliance to improve patient safety in Latin America, to discuss possible areas of collaboration with HCI.

Publish Technical Tools and Reports on QI Interventions and HCI Research and Evaluation Results

During FY08, HCI published two collaborative evaluation reports and two technical reports. The project also published seven short informational publications (i.e., two- to six-page pamphlets) about QI results and approaches. (See details in Table 7.)

HCI contributed a section on QI approaches for OVC programs to the *Orphans and Vulnerable Children Support Toolkit CD-ROM Version 4*. The QI section contains resources and tools to aid OVC programs in developing and implementing quality standards for OVC services. The revised OVC Support Toolkit was launched in August at the Mexico City AIDS Conference.

In July 2008, HCI delivered to USAID/Bolivia the final version of the Spanish IMCI computer-based training CD-ROM, which had been initiated under QAP. The Mission will determine dissemination, pending negotiations with the Ministry of Health. HCI also delivered to the Ministry of Health of Bolivia in July an updated version of the 2003 Spanish Tuberculosis Case Management computer-based training CD-ROM. The Ministry of Health had requested HCI assistance in updating the TB CD-ROM to reflect the country's recently updated national TB standards and guidelines.

Table 7. Published reports, products, and informational materials, FY08

Collaborative Evaluation Reports (Date Published)
Gutmann M, TT Catsambas, and S McLaughlin. 2008. Russia Site Visit Report. <i>Collaborative Evaluation Series</i> . Published by the USAID Health Care Improvement Project. Bethesda, MD: University Research Co., LLC (URC). (August 2008)
Catsambas TT, LM Franco, M Gutmann, E Knebel, P Hill, and YS Lin. 2008. Evaluating Health Care Collaboratives: The Experience of the Quality Assurance Project. <i>Collaborative Evaluation Series</i> . Published by the USAID Health Care Improvement Project. Bethesda, MD: University Research Co., LLC (URC). (June 2008)
Technical Reports (Date Published)
USAID Health Care Improvement Project. 2008. The Improvement Collaborative: An Approach to Rapidly Improve Health Care and Scale Up Quality Services. Published by the USAID Health Care Improvement Project. Bethesda, MD: University Research Co., LLC (URC). (June 2008)
The Evidence Base for Programming for Children Affected by HIV/AIDS in Low Prevalence and Concentrated Epidemic Countries. Published by HCI, QAP, and UNICEF. (April 2008)
CD-ROMs (Date Published)
<i>Orphans and Vulnerable Children Support Toolkit CD-ROM Version 4</i> , includes a section on quality improvement developed by HCI (July 2008)
<i>AIEPI –Atención integrada a las enfermedades prevalentes de la infancia. Versión Beta. Capacitación interactiva a través del computador</i> (June 2008) The final version of the Spanish IMCI CD-ROM was delivered to USAID/Bolivia in July 2008
<i>Tuberculosis –Manejo de casos. Capacitación interactiva a través del computador</i> (June 2008) This updated version of the TB CBT produced for the Ministry of Health of Bolivia in 2003 was updated at Ministry request to reflect revised national TB guidelines. The revised Spanish TB CD-ROM was delivered to the Ministry of Health of Bolivia in July 2008.
Flyers Produced (Date Published)
The USAID Health Care Improvement Project: Human Resources Strategy and Activities (September 2008)
Integrating Family Planning into HIV Care/ART Services in Uganda (May 2008)
The HCI Project: USAID's Resource for Health Care Improvement (May 2008)
Niger: Quality Improvement for Maternal-Newborn Health Services (May 2008)
Improving Pediatric Care in Nicaragua (April 2008)
Improving Access to HIV/AIDS Care and Patient Retention in Russia (April 2008)
Using the Collaborative Approach to Improve Pediatric Hospital Care (January 2008)

Develop Articles for Peer-reviewed Professional Journals and Other Public Communication Channels

During FY08, HCI staff published three articles in peer-reviewed journals, and a fourth article was published based on the results of a QAP-supported study. Two other manuscripts were submitted for publication during the year. (See details in Table 8.)

Table 8. Articles published or submitted for publication in peer-reviewed journals, FY08

Journal Articles Published (Date published)
Harvey SA, MP Olortegui, E Leontsini, and PJ Winchl. 2008. "They'll change what they're doing if they know that you're watching": measuring reactivity in health behavior because of an observer's presence—a case from the Peruvian Amazon. <i>Field Methods Online</i> . (published 18 September 2008)
Harvey SA, L Jennings, M Chinyama, F Masaninga, K Mulholland, and DR Bell. 2008. Improving community health worker use of malaria rapid diagnostic tests in Zambia: package instructions, job aid and job aid-plus-training. <i>Malaria Journal</i> 7:160 (available from: http://www.malariajournal.com/content/7/1/160) (published 22 August 2008)
McCaw-Binns A, J Lindo, K Lewis-Bell, and D Ashley. 2008. Maternal mortality surveillance in Jamaica. <i>International Journal of Gynecology and Obstetrics</i> 100:31-36. (published January 2008)
Harvey SA, Y Blandon, A McCaw-Binns, I Sandino, L Urbina, C Rodriguez, I Gomez, P Ayabaca, and the Nicaragua maternal and neonatal health quality improvement group. 2007. Are skilled birth attendants really skilled? A measurement method, some disturbing results and a possible way forward. <i>Bulletin of the World Health Organization</i> 85(10):783-791. (published October 2007)
Manuscripts Submitted for Publication (Date submitted)
Edson W, P Ayabaca, B Burkhalter, and J Hermida. Waiting times for obstetric care in Ecuador. Submitted to the <i>Pan American Journal of Public Health</i> (September 2008)
S Leshabari, P Koniz-Booher, A Blystad, B Burkhalter, G Kwesigabo, and K Mulholland. Counselling tools on safer infant feeding practices improve nurse-counsellor performance and mother knowledge in the context of HIV in the Kilimanjaro region, northern Tanzania. Submitted to <i>Bio-Med Central</i> (January 2008)

Directions for FY09

HCI will emphasize publishing project results and approaches in peer-reviewed journals and in short informational publications rather than in long technical reports. A new series of HCI White Papers will be launched to describe new approaches being developed and tested by the project related to the ART Framework and health worker engagement. Priority conferences for presentation of HCI results and approaches in FY09 will be the IUATLD conference, the International Forum on Quality and Safety in Health Care, the Global Health Council annual conference, and the HIV Implementers' Meeting.

4.7 Training

Objective

HCI's training objective in FY08 was to assist in training development and implementation activities.

Activities and Results

Materials from the collaboratives training course developed under QAP have been published and preparations made for their translation into other languages for dissemination and future programmatic needs.

In follow-up to QAP participation in the ANE Workshop that launched the Scaling Up Best Practices Initiative in September 2007 in Bangkok, Dr. David Nicholas and Ms. Thada Bornstein traveled to Egypt in May 2008 to deliver a training course on QI and collaboratives and lead a workshop for Egyptian managers and planners who want to scale up a national best practice for postpartum home visits (including family planning services). The Egypt team that had attended the Bangkok workshop received a \$50,000 grant from the Scaling Up Best Practices Initiative for their scale-up project. The ANE Bureau has asked HCI to provide follow-up technical assistance to the Egypt team on how to apply the Improvement Collaborative approach to their scale-up topic.

Because of declining demand for training services under HCI, the position of Training Director was eliminated on June 30, 2008.

5 Performance Tracking Plan

Table 9 below summarizes the activities carried out by the project in FY08 that contribute to the achievement of TOI performance targets.

Table 9. HCI FY08 achievements against HCI TOI performance targets

HCI TOI Performance Target	Activities Implemented in FY08 Activities to Achieve the Target
Objective 1: Document the interventions supported by this task order to improve the quality of health care, how quality was measured, and the impact of these interventions	
<p><i>Performance target 1.1: 100% of QI interventions are documented in a consistent format which includes description of the intervention and quantitative measures of the success of the intervention over a defined time period, including a baseline measure.</i></p>	<ul style="list-style-type: none"> ▪ HCI's Standard Evaluation System (SES) has been designed and field testing begun in six countries: Honduras, Uganda, Tanzania, Niger, Benin, and Russia. Tools for documentation, analysis and synthesis of learning were created in English, French, Russian, and Spanish and have now been introduced in all six countries, including an SES Journal for QI teams to document changes implemented and plot and annotate their results; an SES Synthesis Form for QI teams, which is used to summarize teams' learning to date to share with other teams during learning sessions; an SES Excel Database for QI teams to house the data for the collaborative indicators and generate time series charts of their results; and an SES Excel Database for collaborative managers to accommodate data from multiple site teams and generate time series charts of individual teams and pooled data. All countries are using the SES journal, and preliminary results indicate that the SES tools are viewed positively by collaborative managers and coaches, but that their introduction requires follow-up and additional explanation to teams. We have found that with such follow-up support, teams come to see how the tools facilitate their improvement efforts. ▪ HCI's R&E team has begun developing collaborative-level SES tools that will help collaborative managers synthesize learning across teams. ▪ The R&E team has also developed Norms for Data Presentation to ensure that all HCI-generated time series charts have adequate information to understand and interpret the results presented.
Objective 2: Institutionalize modern quality improvement approaches as an integral part of health care in USAID-assisted countries	
<p><i>Performance target 2.1: Of health systems receiving technical assistance under task order #1 for more than 12 months, 75% have documented implementation of QI interventions independent of contractor assistance.</i></p>	<ul style="list-style-type: none"> ▪ The R&E team has developed a concept note to guide research on institutionalization that include ideas for measuring QI interventions that have been implemented independent of HCI assistance. ▪ Documentation of QI interventions independent of HCI assistance is included in major HCI studies on institutionalization and sustainability that are now under development in Niger and Ecuador. ▪ Ministry of Health-led QI activities that HCI has supported in Ecuador, Honduras, Nicaragua, Niger, and Uganda all include regular quality monitoring and continuous quality improvement activities that MOH staff conduct without outside assistance. ▪ In September 2008, three months after the June 2008 graduation of the 57 demonstration sites in the ART Collaborative, HCI made follow-up visits to these sites to verify what QI activities were being performed. Some sites were continuing with monitoring of key indicators and QI activities, while others were not. HCI Uganda is now exploring way to support teams that are not performing well independently.

Objective 3: Expand the evidence base for the application of QI to human resources (HR) planning and management	
<i>Performance Target 3.1: In at least two African countries, develop improvement collaboratives on HR management processes, including quantitative improvement goals, and achieving an average improvement over baseline performance of at least 10%</i>	<ul style="list-style-type: none"> ▪ A collaborative on HR management at the regional and district levels has been planned in Niger to start in early 2009. ▪ A collaborative to improve district health management, including HR management, has been will be planned in Uganda and the preliminary districts chosen. The first learning session will be held in early 2009. ▪ Discussions were held with USAID and national authorities in Tanzania regarding possibly launching a district health management collaborative, but it will not proceed at this time.
<i>Performance Target 3.2: Develop and evaluate 15 applications of QI methods to HR policy issues, of which at least three directly address the efficiency of health care processes or the productivity of providers.</i>	<ul style="list-style-type: none"> ▪ HCI has developed a strategy and tools to apply QI methods to human resources, drawing on WHO's task-shifting guidelines, other Human Resources for Health frameworks, and the Gallup organization's seminal research on employee engagement. ▪ The R&E team has developed a concept note to outline research on QI, human resource interventions, and employee engagements ▪ A research study was started in Benin to evaluate the quality of newborn care counseling provided by unskilled health care workers, as a task-shifting intervention. ▪ A study was started in Tanzania to assess the competency skilled birth attendants.
Objective 4: Expand experience with the improvement collaborative approach in USAID-assisted countries	
<i>Performance Target 4.1: Support the development of 7 phase I improvement collaboratives, including improvement goals expressed as quantitative indicators, and achieving an average improvement over baseline performance of at least 10% within 18 months after the beginning of the collaborative. Collaboratives with specified topics listed elsewhere in this statement of work contribute to the achievement of this target.</i>	<ul style="list-style-type: none"> ▪ Five new phase I improvement collaboratives were launched in FY08: Niger pre-eclampsia/eclampsia case management (phase 2 of the EONC Collaborative); three in Nicaragua (HIV screening among high risks group and those with STIs; hand hygiene/infection prevention, and neonatal asphyxia and sepsis); and the first Tanzania regional ART/PMTCT partner collaborative in Tanga Region. ▪ In Honduras, HCI has developed plans with three regions to implement their own mini-collaboratives in FY09; each has expressed its improvement goals as quantitative targets.
<i>Performance Target 4.1a: Support the development of at least one phase I improvement collaborative addressing district level health program management in Africa.</i>	<ul style="list-style-type: none"> ▪ A new phase I collaborative has been planned in Uganda to develop District Health Team capacity to lead, institutionalize, and sustain QI activities. Fifteen districts have been selected to participate in this demonstration, which will start in early 2009.
<i>Performance Target 4.1b: Support the development of two phase I improvement collaboratives addressing the chronic care of HIV/AIDS</i>	<ul style="list-style-type: none"> ▪ In FY08, HCI developed the ART framework which applies the chronic care model to HIV/AIDS care in developing country settings and focuses QI activities to reduce gaps in coverage, retention, and improved clinical outcomes. ▪ The framework has been applied as part of the national quality assessment

<p>patients across the continuum of care, from the level of self care to referral hospital care. At least one of these collaboratives must be in Africa.</p>	<p>carried out in Cote d'Ivoire and the ART and PMTCT quality assessments conducted this year in Uganda. The change package that will be applied in the new phase I collaborative which will be launched in Cote d'Ivoire in FY09 is based on the ART framework. The ART framework will be incorporated into the ongoing ART Collaborative in Uganda with the first and second wave spread sites.</p>
<p>Performance Target 4.2: Conduct at least three descriptive and intervention studies.</p>	<ul style="list-style-type: none"> ▪ HCI initiated, continued or completed 18 descriptive studies and 5 intervention studies in FY08 (see Table 4 for details). Of these, three descriptive studies (Collaboratives evaluation, Ecuador validity of self-assessment, Tanzania validity of self-assessment) and one intervention study (impact of the Niger PHI Collaborative) specifically addressed phase I collaboratives or methods used in collaboratives.
<p>Objective 5: Expand experience with the spread collaborative approach in USAID-assisted countries</p>	
<p>Performance Target 5.1: Support the development of 7 phase II spread collaboratives which extend improved practices to an average population of at least 100,000 beneficiaries and achieve levels of improvement of 75% that of the original phase I collaborative within 18 months. Contract activities listed elsewhere in this statement of work which extend improvements on this scale also contribute to fulfilling this target.</p>	<ul style="list-style-type: none"> ▪ In Niger, HCI assisted the MOH to scale up the EONC collaborative phase I content and best practices to 4 maternities in 2 regions and to train trainers and coaches who will support the spread of the phase I EONC package to all remaining hospitals (11 district hospitals and 6 regional/national hospitals) in 2009, with UNICEF funding for the spread. ▪ In Uganda, the ART Collaborative scaled up to 31 new sites in January 2008; ▪ In Russia in FY08, HCI supported four spread collaboratives (two each in St. Petersburg/Leningrad Oblast and in Orenburg Oblast). ▪ In Ecuador, HCI assisted the MOH to develop a spread strategy to scale up the EOC collaborative content and best practices for both essential obstetric care and complications to the remaining 14 regions of the country. This involved developing the "spread" package based on learning from the demonstration collaborative, establishing provincial spread teams, and training them in the content and in QI. ▪ In Benin, HCI staff assisted the PISAF (Integrated Family Health project) bilateral in spreading the change package developed and refined in a demonstration collaborative in ADD. With HCI assistance, PISAF has spread to 17 new sites, with the intention of spread to all 134 sites in their project zone.
<p>Performance Target 5.2: Conduct at least 6 studies of the process by which one facility team implements improvements developed by another team, including consideration of the role of documentation, direct exchanges between teams, and facilitation by experts.</p>	<ul style="list-style-type: none"> ▪ A concept note to guide research on spread was developed by the R&E team. A methodology for documenting the spread of improvements across teams will be developed in FY09 as part of research on spread. ▪ The large study on spread and institutionalization planned for Ecuador in FY09 will document factors which facilitate or inhibit the spread and uptake of improvements and best practices developed by demonstration sites by expansion sites.
<p>Objective 6: Expand the experience base for other specific QI approaches</p>	
<p>Performance Target 6.1: Apply and/or evaluate at least 6 QI tools, methodologies, or approaches in addition to those listed elsewhere in this statement of work.</p>	<ul style="list-style-type: none"> ▪ In Benin, a study was initiated to evaluate the impact of job aids on the quality of counseling for maternal and newborn care, using task shifting. ▪ The Niger EONC Collaborative is test the use of peer-to-peer observation and feedback as a potentially cost-effective QI method for sustaining supportive supervision and provider competence at scale

<p><i>Performance Target 6.2: In conjunction with at least two of the QI evaluations listed in this statement of objectives, incorporate a comparative analysis of established supervisory practices on the same topic, in facilities not participating in the QI initiative.</i></p>	<ul style="list-style-type: none"> ▪ No opportunities were identified in FY08
<p>Objective 7: Improve the cost-effectiveness of QI in USAID-assisted countries</p>	
<p><i>Performance Target 7.1: By the second year of the task order, develop a functioning global knowledge management (KM) system for improvement information.</i></p>	<ul style="list-style-type: none"> ▪ The global health care improvement knowledge management system and web site functioning are expected to be functioning in the second quarter of FY 2009 ▪ HCI has assisted the International AIDS Alliance and FHI to include a QI section to the USAID-supported www.ovcsupport.net web site, which went live in July 2008. This section is designed for communication and sharing of experiences, tools and lessons learned in introducing QI into OVC programs. To date, 6 countries have reported on their QI activities and shared documents and tools (Ethiopia, Namibia, Nigeria, Tanzania, Zambia, Rwanda)
<p><i>Performance Target 7.2: Conduct at least 15 studies and evaluations to (1) support the design of the KM system; (2) evaluate field applications of system content; and (3) validate selected submissions.</i></p>	<ul style="list-style-type: none"> ▪ User testing of the prototype submission forms for improvement reports and for collaborative profiles on the KM web site will begin in the second quarter of FY09. ▪ Protocols for evaluation of field applications of content from the site and validation of submissions to the site will be developed in FY09.
<p><i>Performance Target 7.3: Carry out 10 studies related to improving the cost-effectiveness of specific QI approaches or methodologies.</i></p>	<ul style="list-style-type: none"> ▪ One study was launched in FY08 in Nicaragua to examine retrospectively the cost-effectiveness of pediatric care improvements at the hospital level.
<p><i>Performance Target 7.4: By the end of the task order, the KM system has been accessed by at least 1000 users, 50 acceptable submissions from outside the task order have been received and posted, and the contractor has responded to 200 requests for information or assistance.</i></p>	<ul style="list-style-type: none"> ▪ Automated tracking of number of site users and other metrics of how the web site was used have been included in the specifications for the web site design developed with CCP ▪ The design of the KM web site will include several places where users can request assistance and information, either related to QI methods or to the application of QI to specific technical areas; response to such requests will also be documented. The site design also includes ability to send questions to the project's technical leads for specific topic areas. ▪ The Health Care Improvement Database which is being programmed for the web site includes a user registration feature for those submitting QI reports; the registration feature will permit tracking of who posts submissions and allow HCI to determine how many have been made outside the task order
<p><i>Performance Target 7.5: Within three months of the award, the contractor will negotiate with the current incumbent the transfer of all USAID-supported documents, reports, and other products on the web site</i></p>	<ul style="list-style-type: none"> ▪ The publications and technical content on QI methods on the QAP web site will continue to be live through September 2009; a link to the new HCI Project web site has been posted on the home page of the QAP site ▪ CCP has entered all QAP publications into CCP's One Source database which supports the INFO Project and all other CCP-designed web sites; the HCI KM web site will link to One Source through its general search capability. In addition, key QAP methodological documents and technical reports will be

<p>www.qaproject.org , and arrange for the uninterrupted global availability of its content.</p>	<p>accessible through the “HCI Publications” section of the web site.</p>
<p>Objective 8: Provide global technical leadership for QI in USAID-assisted countries</p>	
<p><i>Performance Target 8.1: The policy and program documents of three international organizations incorporate language explicitly endorsing an organized QI program as an integral component of the health services which they support.</i></p>	<ul style="list-style-type: none"> ▪ HCI assisted the International AIDS Alliance to add a section on Quality Improvement to its Toolkit for OVC Programs, which is available in CD-ROM and online.
<p><i>Performance Target 8.2: Contractor staff and their collaborators will produce 10 technical reports and papers related to describing QI interventions and measuring their impact, including 5 papers published in peer-reviewed journals.</i></p>	<ul style="list-style-type: none"> ▪ HCI published two technical reports (Collaboratives Evaluation summary report and the Russia Collaboratives Evaluation) and one article in a peer-reviewed journal (Malaria RDT) in FY08 that describe the impact of QI interventions. ▪ One manuscript evaluating the impact of a QI intervention was submitted to a peer-reviewed journal (Tanzania infant feeding counseling tools)
<p><i>Performance Target 8.3: The contractor will facilitate at least five articles or broadcasts in mass media which address the nature of QI activities and their results.</i></p>	<ul style="list-style-type: none"> ▪ In July 2008, the AIDSMAP web site published an article on HCI’s QI efforts to introduce HIV testing and counselling into TB clinics in Lesotho ▪
<p><i>Performance Target 8.4: At least once during the period of performance, the contractor will convene an external technical advisory group (TAG), consisting of experts in fields pertinent to the statement of work, with membership approved by the CTO.</i></p>	<ul style="list-style-type: none"> ▪ Terms of reference for the TAG and a list of potential candidates will be submitted to the CTO in early FY09.
<p><i>Performance Target 8.5: The contractor will support the development of new graduate level training programs in QI as applied in low- and middle income countries, or the revision of established programs, in two training institutions, such as medical and nursing schools, schools of public health, or ministry of health training institutes.</i></p>	<ul style="list-style-type: none"> ▪ No opportunities were identified in FY08.

