USAID HEALTH CARE IMPROVEMENT PROJECT
TASK ORDER 1

FY10 ANNUAL PROJECT REPORT

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This annual project report was prepared by University Research Co., LLC (URC) for review by the United States Agency for International Development (USAID). The USAID Health Care Improvement Project is made possible by the American people through USAID’s Bureau for Global Health, Office of Health, Infectious Diseases and Nutrition.
Patients waiting for care at Bwera Hospital, Uganda. The HIV care coverage improvement collaborative supported by HCI in FY10 worked to reduce patient waiting time for HIV care in Uganda by helping facility teams make changes to increase clinic efficiency. Photo by Douglas Mutebi, URC.

Plenary panel at the Round Table Meeting organized by HCI on January 10, 2010 in Kabul, Afghanistan to support the Ministry of Public Health in developing its new strategy for health care quality improvement. Photo by Najibulla Saidi, URC.

A nurse and community counselor provide PMTCT services to an HIV-positive mother in a rural clinic in Namibia. This year, HCI visited several hospitals and clinics in Namibia, Cote d’Ivoire, Uganda and Vietnam to field test performance criteria and indicators to measure the quality of HIV services. Results will contribute to the design of a monitoring and evaluation framework for five HIV service delivery areas: Counseling and Testing, Care and Treatment, PMTCT, TB/HIV, and Harm Reduction. Photo by Rhea Bright, URC.

Primary neonatal resuscitation training in Tambov Oblast, Russia. HCI is supporting collaborative improvement to achieve better maternal and newborn outcomes in Tambov and two other regions of Russia. Photo by Tambov Oblast Children’s Hospital, Tambov, Russia.
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Abbreviations

AAP  American Academy of Pediatrics
ABC  Abstinence-Be Faithful-Condoms
AIDS  Acquired immunodeficiency syndrome
AIM  Assessment and improvement matrix
AME  Annual medical examination
AMTSOL  Active management of the third stage of labor
ANC  Antenatal care
APHI  Afghanistan Public Health Institute
ART  Antiretroviral therapy
ARV  Antiretroviral
BGH  Bureau for Global Health
C&T  Counseling and testing
CBO  Community-based organization
CBT  Computer-based training
CCP  Center for Communication Programs
CCTP  Conditional Cash Transfer Program
CD-ROM  Compact disk read-only memory
CDC  Centers for Disease Control and Prevention
CEA  Cost-effectiveness analysis
CHAI  Clinton HIV/AIDS Initiative
CHMT  Council Health Management Team (Tanzania)
CHW  Community health worker
CPT  Cotrimoxazole preventive therapy
COTR  Contracting Officer’s Technical Representative
CQI  Continuous quality improvement
CRESAC  Regional Health Accreditation and Assessment Center
CTC  Care and Treatment Center (Tanzania)
DHT  District Health Team
DOH  Department of Health (South Africa)
DOTS  Directly observed therapy, short course
DSW  Department of Social Welfare (Tanzania)
EGPAF  Elizabeth Glaser Pediatric AIDS Foundation
EONC  Essential obstetric and newborn care
FHI  Family Health International
FP  Family planning
FY  Fiscal year
GF  Global Fund to Fight AIDS, Tuberculosis and Malaria
GHWA  Global Health Workforce Alliance
HBB  Helping Babies Breathe
HBC  Home-based care
HCI  Health Care Improvement Project
HCW  Health care worker
HIV  Human immunodeficiency virus
HQ  Headquarters
HR  Human resources
IC  Infection control
ICD  International Classification of Diseases
IDI  Ikatan Dokter Indonesia (private medical association)
IEC  Information, education, and communication
PSI  Population Services International
QOC  Quality of Care
QI  Quality improvement
QIP  Quality improvement project
QMAS  Quality management assurance system
QRM  Quarterly review meeting
RCH  Reproductive and child health (Tanzania)
RH  Reproductive health
RHMT  Regional Health Management Team
SES  Standard Evaluation System
SILAIIS  Local Integrated Health Care System (Nicaragua)
SNAP  Swaziland National AIDS Programme
SSH  Secretariat of Health (Honduras)
STI  Sexually transmitted infection
TA  Technical assistance
TB  Tuberculosis
TBCAP  Tuberculosis Control Assistance Program
TO1  Task Order 1
TO3  Task Order 3
TOT  Training of trainers
TWG  Technical working group
UNICEF  United Nations Children’s Emergency Fund
URC  University Research Co., LLC
USAID  United States Agency for International Development
USG  United States Government
VCT  Voluntary Counseling and Testing
WHO  World Health Organization
XDR  Extensively drug-resistant
Executive Summary

University Research Co., LLC (URC) and its subcontractor team completed the third year of implementation of the USAID Health Care Improvement (HCI) Project Task Order 1 on September 30, 2010. The HCI Task Order 1 contract is one of two global HCI Task Orders implemented by URC during FY10: HCI Task Order 3 (TO3), the other global task order with identical objectives as HCI Task Order 1, ran concurrently with HCI TO1 throughout the year. Some countries that had been funded through HCI TO1 in FY09 moved entirely into funding through HCI TO3 in FY10; other countries continued receiving HCI support exclusively through TO1; and still others received support through both global task orders during the year.

During FY10, HCI provided technical assistance through Task Order 1 in 19 countries (Afghanistan, Bolivia, Cambodia, Cote d'Ivoire, Ecuador, Guatemala, Honduras, India, Indonesia, Malawi, Mali, Namibia, Niger, Russia, Senegal, South Africa, Swaziland, Tanzania, and Uganda) and conducted research in two more: Benin and Ecuador. HCI assistance in Afghanistan, Guatemala, Honduras, Mali (Maternal and Child Health), Mozambique, Namibia, Care that Counts Initiative (programs serving orphans and vulnerable children), Russia, and South Africa received both TO1 and TO3 funding during FY10. This report describes the activities funded through HCI TO1.

HCI Task Order 1 Year Three was marked by continued rapid expansion in both the country programs' size and the number of field and headquarters activities. Annual project expenditures grew from $22 million in FY09 to $28 million in FY10. Under TO1, we provided technical assistance in quality improvement (QI) or conducted research in 26 countries, including new work in Mali to reduce maternal and newborn mortality, in Namibia to support patient safety and waste management, and in Senegal to apply improvement methods to community case management of childhood illness. At the same time, the project's management became more complex because of the concurrent implementation of two global task orders, and the need to maintain strict separation of activities by task order funding stream. New headquarters technical positions were added in the areas of community health, economic analysis, and quality of services indicators. The use of URC's subcontractors on the HCI IQC also increased sizably, with a new full-time staff position created for personnel from EnCompass LLC.

Most field programs continuing from Year Two expanded their activities in Year Three, although some of this expansion occurred through HCI Task Order 3. In Uganda, HCI implemented seven new focused improvement collaboratives that each addressed a separate aspect of improving care for patients and clinical outcomes. The demonstration improvement collaborative on antiretroviral therapy (ART) and prevention of mother-to-child transmission (PMTCT) in Cote d'Ivoire expanded to incorporate 80 new sites. In Mali, we launched a maternal and newborn health community-level improvement collaborative to complement the ongoing facility-level collaborative in Kayes Province. The work in Russia to improve care for mothers and infants in three oblasts grew to encompass five regional improvement collaboratives. In Guatemala, the basic facility and community maternal and newborn care improvement collaboratives were expanded to new health areas and facilities.

In addition to country technical assistance, we made important progress in the implementation of several key areas in the HCI statement of work: completion of the field testing of the Standard Evaluation System (SES) for documenting project-supported QI activities; completion of six studies documenting the cost-effectiveness of QI interventions and four studies on the validity of self-assessed data; and the continued expansion of our knowledge management system with a new public web site developed to support improvement activities in Russia.

HCI contributed to a number of international expert technical meetings, including those convened by the World Health Organization (WHO) and the World Alliance for Patient Safety, the Extending Service Delivery Project, the Maternal and Child Health Integrated Program (MCHIP), and the Global Health Workforce Alliance.
Two articles submitted for publication under TOI funding in FY10 were accepted by peer-reviewed journals, and two other articles were submitted to such journals in FY10. In addition, the project published three research reports, six technical reports, and four short reports/flyers under TOI funding in FY10. HCI staff conducted 18 technical briefings for USAID and cooperating agency staff. Staff participated in the technical program of 16 international, regional, and national conferences in FY10, making 26 presentations on QI approaches and results.
1 Introduction

This third Annual Project Report for Task Order 1 (TO1) of the USAID Health Care Improvement Project (HCI) summarizes the project’s key activities and results during the third year of implementation: October 1, 2009 through September 30, 2010 (FY10).

The report narrative has four sections: 1) reports on field support-funded country or regional technical assistance (TA) 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 progress made toward the fulfillment of TO1 objectives and performance targets by the end of the contract’s third year.

As part of our country work planning and reporting, we also recognize how improvement activities contribute directly and indirectly to reaching the Millennium Development Goals (MDGs), particularly Goals 4–6. Since these goals are the prevailing global framework for measuring the improved health outcomes from donor-funded programs, the value of assessing our contributions to goal attainment is clear. Our contributions to MDGs 1, 2, 4, 5, and 6 are highlighted in our annual work plans and quarterly reporting to the Contracting Officer’s Technical Representative (COTR). Table 1 summarizes how our field activities in FY10 contributed to attainment of each relevant MDG by country.

Table 1: Contribution of HCI field activities to relevant Millennium Development Goals

<table>
<thead>
<tr>
<th>MDG</th>
<th>How HCI country activities contribute to MDG attainment</th>
</tr>
</thead>
</table>
| **MDG 1:** Eradicate Extreme Poverty and Hunger | **Cote d’Ivoire:** Improve quality of programs targeting orphans and vulnerable children (OVC) in the areas of food and nutrition, shelter and care, and economic strengthening  
**Guatemala:** Reduce child malnutrition in children under two years by expanding access to and improving the quality of growth monitoring and promotion services  
**Mozambique:** Improve standards for OVC services in: food and nutrition, shelter and care, and economic strengthening  
**Uganda:** Support the NuLife Project to increase frequency of nutritional status assessments in HIV patients and delivery of ready-to-use foods with poor nutritional status |
| **MDG 2:** Achieve Universal Primary Education | **Cote d’Ivoire:** Increase school enrollment for vulnerable children affected by HIV through introduction of evidence-based education standards  
**Mozambique:** Increase school enrollment for vulnerable children affected by HIV through introduction of evidence-based education standards  
**OVC Care that Counts (Ethiopia, Kenya, Malawi, Nigeria, Tanzania):** Increase school enrollment for vulnerable children affected by HIV through introduction of evidence-based standards in the area of education |
| **MDG 4:** Reduce Child Mortality | **Afghanistan:** Reduce neonatal deaths by improving quality of care at public and private health facilities, as well as community-based health services  
**Guatemala:** Reduce neonatal and child health mortality by improving integrated preventive health care for children under six covered by the Conditional Cash Transfer Program and by increasing immunizations and preventive care among children under two years  
**Health workforce (Tahoua, Niger):** Reduce infant mortality by improving the quality of maternal and newborn care through increasing health worker productivity and engagement  
**Honduras:** Improve essential obstetric and newborn care (EONC) services through institutionalization of continuous quality improvement (CQI) and reduce case fatality from pneumonia and diarrhea in children under five years |
### MDG 4: Reduce Child Mortality, continued

<table>
<thead>
<tr>
<th>Country</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nicaragua</strong></td>
<td>Reduce neonate mortality from sepsis, asphyxia, and respiratory distress symptom; reduce pneumonia and diarrhea fatalities by training hospital providers on new integrated management of childhood illness (IMCI) guidelines; identify and treat infections during pregnancy; and prevent and control hospital nosocomial infections</td>
</tr>
<tr>
<td><strong>OVV Care that Counts (Ethiopia, Kenya, Malawi, Nigeria, Tanzania)</strong></td>
<td>Improve the quality of programs providing health, food and nutrition, social protection, and psychosocial support services</td>
</tr>
<tr>
<td><strong>Russia</strong></td>
<td>Reduce (maternal and) infant mortality by ensuring sustainability of services and programs to prevent mother-to-child transmission of HIV (PMTCT) and thereby prevent child abandonment by developing a model for medical and social support for HIV-infected mothers and their newborns and by improving maternal, newborn, and child health services</td>
</tr>
<tr>
<td><strong>Swaziland</strong></td>
<td>Reduce mortality by providing child-specific TB/HIV services through training; enable providers to provide Isoniazid preventive treatment to children under five; advise on decentralizing TB services to primary health clinics and expanding community-facility linkages; help increase antiretroviral therapy (ART) in TB clinics; strengthen multidrug-resistant (MDR) TB case management; and increase the capacity of national HIV and TB control programs to lead and manage the scale-up of adequate HIV and TB care and treatment services</td>
</tr>
<tr>
<td><strong>Tanzania</strong></td>
<td>Improve pediatric HIV/AIDS care and treatment, ART coverage, patient retention and improved clinical outcomes; improve quality of infant and young child feeding to reduce AIDs mortality by expanding the use of job aids and training in antenatal care and PMTCT sites</td>
</tr>
<tr>
<td><strong>Uganda</strong></td>
<td>Reduce infant mortality by improving early infant diagnosis of HIV</td>
</tr>
</tbody>
</table>

### MDG 5: Improve Maternal Health

<table>
<thead>
<tr>
<th>Country</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Afghanistan</strong></td>
<td>Improve delivery care quality at public and private health facilities, as well as community-based health services</td>
</tr>
<tr>
<td><strong>Guatemala</strong></td>
<td>Reduce maternal (and neonatal) mortality by scaling up best practices in EONC at the primary, secondary, tertiary, and community levels and by improving access to and the quality of family planning services</td>
</tr>
<tr>
<td><strong>Health workforce (Tahoua, Niger)</strong></td>
<td>Increase the percentage of skilled deliveries, reduce postpartum hemorrhage, and improve the quality of maternal hemorrhage case management in Tahoua; create a tool to count and assess new community health workers delivering MCH services</td>
</tr>
<tr>
<td><strong>Honduras</strong></td>
<td>Ensure quality of EONC services by institutionalizing CQI and improve obstetric and neonatal emergency referrals</td>
</tr>
<tr>
<td><strong>Nicaragua</strong></td>
<td>Increase early detection of complications by enabling providers to complete registration and partogram forms; improve diagnosis and management of essential obstetric and neonatal complications, including gestational and postpartum hemorrhage, puerperal and neonatal sepsis, birth asphyxia, and hyaline membrane disease; support programs’ organization and capacity for offering contraceptive methods in public sector and Social Security clinics; and improve management of family planning programs</td>
</tr>
<tr>
<td><strong>Russia</strong></td>
<td>Reduce maternal morbidity and abortion rates through better family planning and modern contraceptive methods</td>
</tr>
<tr>
<td><strong>Tanzania</strong></td>
<td>For pregnant and lactating mothers, increase TB screening in pregnant HIV-positive women, increase ART coverage, and improve well-being in ART patients and thereby their retention; and improve antenatal care, PMTCT, and treatment referrals and linkages, as well as counseling</td>
</tr>
</tbody>
</table>

### MDG 6: Combat HIV/AIDS, Malaria and Other Diseases

<table>
<thead>
<tr>
<th>Country</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bolivia</strong></td>
<td>Increase detection of new TB cases and TB cure rates by improving the quality and coverage of TB control activities, including sputum sampling and lab services</td>
</tr>
<tr>
<td><strong>Cote d’Ivoire</strong></td>
<td>Develop standards and indicators for peer education programs addressing HIV prevention and harmonize the courses that train peer educators; improve quality of PMTCT and HIV care and treatment services; and improve health care for vulnerable</td>
</tr>
<tr>
<td>Country</td>
<td>Actions and Objectives</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>India</td>
<td>Increase TB case detection and treatment success rates by involving private providers</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Improve diagnosis, management, and referral of TB patients by developing computer-based training for TB</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Improve OVC effectiveness to mitigate the impact of HIV/AIDS on children and families</td>
</tr>
<tr>
<td>Namibia</td>
<td>Increase provider knowledge of HIV/AIDS; improve medical waste management practices; strengthen procurement and logistics; improve health worker knowledge of infection control and occupational safety</td>
</tr>
<tr>
<td>OVC Care that Counts (Ethiopia, Kenya, Malawi, Nigeria, Tanzania)</td>
<td>Improve health care for vulnerable children</td>
</tr>
<tr>
<td>South Africa</td>
<td>Improve HIV prevention, care, and treatment services; expand linkages between communities and facilities through home-based care organizations; improve PMTCT, counseling and testing, TB/HIV, and ART services</td>
</tr>
<tr>
<td>Swaziland</td>
<td>Provide training to physicians and nurses on pediatric TB/HIV management; provide support for Isoniazid preventive therapy for children under five; increase TB treatment enrollment and strengthen TB DOTS by decentralizing TB services to primary health care clinics; expand linkages between communities and facilities; increase the quality of adult and pediatric HIV/AIDS treatment and ARV services for TB patients by introducing ART in TB clinics; strengthen programmatic and clinical MDR-TB case management; and increase national TB and HIV control program capacity to manage the scale-up of HIV and TB services</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Improve ART coverage, reduce viral loads, and lower likelihood of transmission; standardize quality of care in ART/PMTCT services, train in infant-feeding counseling to reduce mother-to-child transmission; and increase screening for TB in PLWHA and for HIV in TB patients</td>
</tr>
<tr>
<td>Uganda</td>
<td>Improve clinic efficiency and strengthen links to HIV services; and improve HIV care to retain patients, ensure TB assessments, and increase TB treatment completion rates in HIV patients</td>
</tr>
</tbody>
</table>
2 Country and Regional Technical Assistance

Africa

2.1 Care that Counts Initiative to Improve Quality of Programming for Orphans and Vulnerable Children (OVC)

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| Support USG country teams and their implementing partners to improve quality of their OVC programs | ▪ USG implementing partners (funded by PEPFAR) develop a harmonized vision for efficient and effective programs mitigating the impact of HIV/AIDS on vulnerable children and families  
▪ Build understanding and buy-in toward the science of improvement in Asia, based on the Care that Counts experiences in Africa | ▪ Sub-Saharan Africa  
▪ Asia  
▪ Haiti |
| Gather evidence on the impact of services standards on the quality of care | ▪ Demonstrate that applying service outcome-based standards make a difference in organizational practices, children’s well-being, and human resource engagement | ▪ Cote d’Ivoire  
▪ Mozambique  
▪ Tanzania |
| Strengthen communication about quality improvement among OVC program stakeholders | ▪ Strengthen the quality improvement (QI) champion networks based on sharing of experiences  
▪ Build the QI capacity of champions (leaders/facilitators) and other implementing partners through exchanges and the development of the OVC QI e-learning course | ▪ Worldwide |
| Coach the development of the African Quality Improvement Alliance for vulnerable children | ▪ Transition the QI support work from HCI to an Africa-based institution  
▪ Develop African ownership of the OVC QI process | ▪ Africa |

Main Activities and Results

HCI’s support for the Care that Counts Initiative in FY10 was carried out under TO1 through April 2010. As of May 2010, all Care that Counts activities, with the exception of the development of the e-learning modules, were conducted under TO3 funding.

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

During FY10, HCI’s implementation of the Care that Counts Initiative focused on providing technical support to several countries as they moved toward gathering evidence on whether the standards they have developed make a difference in improving children’s well-being and organizing teams to undertake improvement activities to reach those standards.

In October 2009, at the request of the United States Government (USG) Mission in Swaziland, HCI provided technical assistance to the Ministry of Health and Social Welfare to develop draft standards for improving OVC programs. In collaboration with the PEPFAR Team and the Ministry, HCI conducted a rapid situation analysis of existing OVC programs and led a three-day workshop to draft OVC standards. In February 2010, HCI supported the QI Task Force in Swaziland to carry out a workshop to review the draft standards with partners.
In January 2010, HCI supported the OVC Technical Working Group in Malawi to train staff from national nongovernmental organizations (NGOs) and community-based organizations on how to organize for the piloting of OVC service standards. Five non-governmental and community-based organizations (CBOs) participated in the workshop, which covered how to communicate standards to counterparts, how to form QI teams, how to organize for QI, and how to measure the results of improvement efforts using the Child Status Index.

HCI’s Care that Counts team also 1) provided technical assistance to the national OVC Task Forces in Kenya and Mozambique to refine their strategies for piloting standards and gathering evidence and 2) supported Tanzania to complete the development of a QI training manual that was tested in March 2010 during the training of national facilitators. The Care that Counts team also helped to facilitate a six-day training in Tanzania, which covered the following topics: 1) communicating standards; 2) understanding quality principles for Most Vulnerable Children (MVC) programs; 3) organizing for improvement at the point of service delivery; and 4) testing changes, including measuring changes in children’s outcomes.

In March 2010, HCI presented a concept paper to the USAID Office of HIV/AIDS (OHA) and the USAID Africa Bureau for a regional exchange between policy makers and implementing partners in Africa and Asia. Vietnam was identified as the best place to hold such an exchange.

Due to the earthquake in Haiti, the standards development workshop that had been requested of Care that Counts by USAID/Haiti was postponed until FY11.

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

HCI and Save the Children published the first case studies on the results of applying QI approaches to OVC programs in October 2009, describing the implementation process and results of piloting OVC standards in Dire Dawa, Ethiopia. Based on the high level of interest shown by members of the OVC community in this kind of evidence, HCI commissioned local consultants to write two more case studies about country experiences in applying evidence-based standards for OVC program: the Jali Wototo Program, implemented by PACT in Tanzania, and the Strengthening Community Safety Nets Project, implemented by ChildFund in Mekdem, Ethiopia. These two case studies will be published in FY11.

In Cote d’Ivoire and Tanzania, HCI collaborated with MEASURE Evaluation to develop training on how to gather evidence on changes in children’s well-being and developed a methodology to gather evidence on a sample of children.

**Strengthen communication about quality improvement in OVC programs and exchange of best practices**

URC partner EnCompass LLC was contracted to develop an e-learning course to build the capacity of local OVC program implementers in QI. Following review of the initial versions of the modules by HCI, USAID, and organizations at the field level, it was agreed that the most appropriate audience for the course is policy-makers and lead implementing partners (international NGOs or/and large local NGOs) to understand the QI Road Map and what it takes to engage in such efforts. As a result of this shift in the scope of the product, EnCompass re-oriented the technical content of the e-learning course and reduced the content to two modules: an introductory module and a longer module explaining the steps in the QI Road Map. During the last quarter of FY10, HCI’s Care that Counts team worked with EnCompass to finalize the script for both modules. The final products will be completed under TO1 funding in FY11.

In February 2010, HCI developed a short video to highlight how the science of improvement is changing OVC programming in Cote d’Ivoire. In the video, the rationale for the QI process is first shared by the Director of the National Program for OVC (PN-OEV) in Cote d’Ivoire, followed by reflections by the PEPFAR Community-based Programs Coordinator and local NGO representatives on how the standards have changed their understanding of what is a service to meet the needs of a vulnerable child.
In March, HCI presented on the Care that Counts Initiative at the Office of the Global AIDS Coordinator (OGAC), to inform USG policy makers about the results achieved thus far through applying the science of improvement to OVC programs. The meeting was well attended and included representatives of OGAC, USAID PL 109-95, USAID OHA, USAID Global Health Bureau, and USAID/Africa Bureau.

In an effort to increase collaboration and harmonization with UNICEF, HCI, and the USAID OHA Senior Advisor for OVC Programs visited UNICEF headquarters in New York in April to provide a briefing on the objectives of the Care that Counts Initiative, the standards development framework, and the concept of the African Alliance for UNICEF advisors for Children and HIV and AIDS and the Better Care Network. The discussion focused on how best to integrate efforts across donors. UNICEF’s Better Care Network is very interested in being part of the Quality Improvement Alliance for OVC Programs and thus has asked to be kept informed. This was a first meeting between UNICEF/NY and Care that Counts, and it is hoped that such meeting can lead to increased coordination and integration between USG- and UNICEF-funded initiatives to promote children’s well-being.

**Coach the development of the African Quality Improvement Alliance for Vulnerable Children**

HCI continued to lay the groundwork for the development of an African Quality Improvement Alliance for OVC. A small advisory group made up of USAID and HCI staff met with an organizational consultant hired by HCI to develop a proposed structure for the Alliance (i.e., an advisory board and secretariat) and define the membership, roles, and responsibilities of the advisory board and secretariat. The Alliance is to be housed within an existing African-based institution to promote regional ownership and sustainability. The initial focus was on the Regional Center for Quality Health Care as the most appropriate housing institution, possibly with a twinning program with an African school of social work/social development. After a concept paper on the Alliance was presented to the USG OVC Technical Working Group in May, USAID directed HCI to broaden its search for a suitable regional hub for the Alliance.

**Directions for FY11**

In FY11, HCI will continue to support national QI Task Forces and implementing partners to apply the Road Map for Quality Improvement of OVC Programs. A regional exchange will be held in Asia, and Care that Counts is expected to initiate support for two countries in Asia to engage in the QI process. HCI will carry out a QI standards development workshop in Haiti, complete the Communities of Excellence study in Ethiopia, and begin the transition of technical support for OVC quality improvement from HCI to the African Quality Improvement Alliance for Vulnerable Children. HCI will continue to gather evidence on the impact of standards and QI with the development of new cases studies on efforts in Kenya, Malawi, Mozambique, and Nigeria.

### 2.2 Cote d'Ivoire

**Overview of HCI’s Program in FY10**

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Care and Treatment (ART and PMTCT Collaborative)</td>
<td>▪ Improve quality of HIV care and treatment services in 41 pilot sites ▪ Spread phase started in May 2010 with 80 new sites</td>
<td>▪ 41 sites in 27 districts out of 83 in the country in 13 regions out of 19, including 7 Regional hospitals, 15 general hospitals, and 19 medical centers. ▪ The 41 sites serve 10.9 million people (out of 20.8 million population in the country).</td>
</tr>
</tbody>
</table>
| OVC Care | ▪ Improve quality of programs targeting OVCs  
▪ Develop outcome-based standards that define quality services for vulnerable children  
▪ Gather evidence that these standards are feasible at the point of service delivery and are actually making a difference in children’s lives | ▪ Four different sites or “platforms”: Abidjan, Yamoussoukro, Bouake, and San-Pedro (in 4 regions) will be used to pilot the draft service standards with 61 NGOs. |
|---|---|---|
| HIV Prevention: Abstinence | ▪ Develop outcome-based standards and indicators for peer education programs in prevention activities  
▪ Gather evidence on draft standards for peer education | ▪ The piloting of peer prevention standards involves six PEPFAR implementing partners and 28 CBOs and NGOs. These organizations are located in 4 regions: Abidjan, Yamoussoukro, Bouake, and San Pedro. |
| Laboratory strengthening | ▪ Participate in WHO-led lab accreditation activities to improve lab capacity to provide quality services to support HIV/AIDS care | ▪ 10 regions were visited for the baseline assessment: Lagunes, Fromager, Marahoué, Montagnes, Bas Sassandra, N’zi-comé, Haut Sassandra, Lacs, Sud-comoé, and Agneby  
▪ 25 of 26 labs in the country were assessed  
▪ The assessed labs were located in 8 regional hospitals, 2 teaching hospitals, 7 general hospitals, 2 reference labs, and 6 institutes of health |

**Main Activities and Results**

**ART/PMTCT Collaborative**

During FY10, HCI continued to assist the National AIDS Control Program (PNPEC) and implementing partners to conduct an improvement collaborative aimed at improving the quality of HIV care and treatment services and PMTCT in 41 sites. Of these sites, 38 provide ART, and 34 provide PMTCT services. Activities of the collaborative focused on improving patient retention in care. Patient retention also improved: Figure 1 shows that ART patient loss to follow-up fell from an average of 28.4% at baseline (July–December 2008) to 16% by August 2010. Changes made that contributed to this result include using local NGOs to search out patients who were late to their appointment; 2) Establishment of diary to track patient appointment (RDV).

![Figure 1. Côte d’Ivoire: Reducing percentage of patients lost to follow-up](image)

Changes made: 1) Using local NGO to search out patients who were late to their appointment; 2) Establishment of diary to track patient appointment (RDV).
Another key collaborative result was to improve follow-up of infants born to HIV-positive women. As seen in Figure 2, the proportion of children born to HIV-positive women who were tested for HIV rose from 15.3% at baseline to 89.5% by September 2010. Changes made include tracking children for HIV tests when vaccinated, using local NGOs to find lost patients and bring them back to the clinic, and improving counseling to prevent attrition.

Underlying much of the improved management of patient retention in care were improvements achieved through the collaborative in the management of patient records to allow for better monitoring of patients along the continuum of care. The change of assigning data management responsibility for reviewing indicators and patient information records continued to show positive results throughout the year. Completion of key items improved from 12.5% for ART patient records at baseline to 91.4% by September 2010, and from 7.8% to 80.0% for PMTCT patient records in the same period.

In March 2010, HCI trained 18 regional coaches, selected from members of the best sites who showed strong commitment and capacity to lead QI activities in their sites. These coaches are still members of QI teams in sites involved in the collaborative. At the fourth learning session of the collaborative pilot phase—held March 31–April 2, 2010 for the PMTCT sites and April 7–9 for the ART sites—representatives from all the pilot sites met to review results and contribute their experience to the development of the spread phase of the collaborative.

PNPEC and PEPFAR implementing partners selected 79 new sites to have in total 120 sites for the spread phase. PNPEC, PEPFAR, USAID, implementing partners, old and new sites, and other stakeholders participated in a national workshop in May to present the pilot phase results and organize the spread phase. During the workshop, HCI recognized the six best sites for their performance in the demonstration phase of the collaborative. We also updated the ART/PMTCT change package considering all the best practices of the demonstration phase. The effective changes developed in the demonstration phase that will be promoted among the new sites are summarized in Table 2.

Orientation visits to the new collaborative sites started in June 2010. In August, we held the first learning session of the spread phase of collaborative at the regional level. These learning sessions were organized in four regions (Bouaké, Abidjan, Daloa, and San Pedro). The regional coaches facilitated the first learning session and carried out coaching visits to 75 sites following the learning session.

**OV C care**

In October 2009, HCI worked with the national OVC program (PN-OEV) of the Ministry of Women and Social Affairs, to organize a national workshop to present and validate the OVC draft standards. This workshop was followed by three others at the regional level in November to engage stakeholders in standards implementation. A baseline assessment instrument to be used by the implementing partners was developed in partnership with PN-OEV, PEPFAR and MEASURE.
Table 2. Cote d’Ivoire: Effective changes developed by teams participating in the ART/PMTCT Improvement Collaborative

<table>
<thead>
<tr>
<th>Area of Changes</th>
<th>ART</th>
<th>PMTCT</th>
</tr>
</thead>
</table>
| Improving patient tracking and  | • Calling patients or contacts about missed appointments and encouraging them to return to the clinic  
| follow-up                       | • Using NGOs to trace lost patients and bring them back to the clinic  
|                                 | • Designating a staff member to be responsible for reviewing records for completeness each day  
|                                 | • Tracking children for HIV testing during vaccinations  
|                                 | • Setting up regular meetings of staff at the general hospital where women deliver and at the PMTCT site to share patient lists and information to track HIV-positive women and the children born to them.  
|                                 | • Improving counseling of pregnant HIV-positive women about the importance of returning for HIV testing of the infant |
| Increasing availability and     | • Involving the obstetrician-gynecologist (OB-GYN) in ART provision to HIV-infected pregnant women  
| competence of health workers    |                                                                                                                                                                                                 | • Training and involving guards in patient orientation |
|                                 |                                                                                                                                                                                                 | • Regular meeting between OB-GYN and HIV service providers |
| Service organization and        | • Recording appointments in two lists, one for the facility and one for the patient  
| scheduling                      | • Making appointments to provide drugs to patient and CD4 control on the same day  
|                                 |                                                                                                                                                                                                 |                                                                                                                                               |
| Availability of supplies and    | • Created triage station  
| equipment                       | • Provided thermometer to ensure patient’s temperature is taken at each visit  
|                                 |                                                                                                                                                                                                 | • New room designated for PMTCT activities |

The strategy standards will be tested through the “platforms”—local structures instituted by the Ministry of Women and Social Affairs (MFFAS) to bring together government social workers, CBOs, NGOs, and other stakeholders for OVC programs. In February 2010, we started piloting the OVC standards in four regions (platforms): Abidjan, Yamoussoukro, Bouake, and San Pedro. Across the four regions, 61 NGOs are participating in the piloting of OVC standards. HCI trained coaches, organized learning sessions in each region, visited NGOs and families of OVC, and dispatched the standards document to sites. Coaches are drawn from the staff of the MFFAS, PEPFAR technical partners, and NGOs and were trained to build their capacity in coaching NGOs in the four pilot sites. Sites were assigned the tasks of setting up QI teams, reporting on learning sessions to their members, and performing a baseline assessment using standards and the Child Status Index. Participating NGOs were asked to self-assess how many of the key actions included in the OVC standards were actually being performed in their programs. The NGOs were then supported in undertaking improvement activities to raise their performance to the standards.

Four coaching visits were organized in April, June, August, and September. April and June visits were organized with HCI, Ministry staff and social workers from platforms. The others visits were led by only social workers. A second learning session was organized in the four pilot sites in August 2010. Two supervision visits were carried out by HCI and PN-OEV staff in June and September to the four regions to mentor local coaches. NGOs were asked to re-assess their performance of the key actions included in the OVC standards in September. Between their baseline assessment in April 2010 and the repeat assessment, NGOs were able to increase the proportion of recommended key actions they were implementing from 45% in April to 86% in September. Another area of improvement was in updating and streamlining lists of eligible children to remove duplication and ensure that children served met eligibility criteria. Between April and August 2010, NGOs reduced the number of children served from 20,125 to 13,750 (a 32% decrease), signifying less duplication and better targeting of scarce resources.
**HIV prevention**

A new HCI activity in HIV prevention through peer education was started in FY10 with a rapid assessment of current HIV prevention activities, carried out in October 2009. In November 2009, a QI task force for prevention/peer education was established within the Ministry of HIV/AIDS (MLS), and in December 2009, HCI organized an exchange with an international team to discuss peer education strategies. Results from the rapid assessment were then presented to each HIV prevention implementing partner, and best practices in peer education for HIV prevention were identified.

In March 2010, a technical working group (TWG) on peer education was created. The TWG is comprised of the MLS, PEPFAR, UNFPA, HCI, and implementing partners (CARE, Family Health International (FHI), Center for Communication Programs (CCP), HOPE, and PSI). The peer education TWG developed the draft of peer education standards from March to June. The standards contain eight components: 1) program planning, 2) message development, 3) peer educator selection and training, 4) session facilitation, 5) peer educator retention, 6) supervision, 7) monitoring and evaluation, and 8) sustainability.

In May, HCI organized focus groups to review the draft standards with target groups for HIV prevention, including sex workers, youth, and soldiers. In June, we strengthened the capacity of the TWG in QI, and in July, organized a national validation workshop of the first draft of standards, assisted by HCI prevention consultant Kathleen Parker.

In August, we worked with the MLS to initiate piloting of the standards in the same four regions where the OVC standards are being piloted. Six PEPFAR implementing partners and 28 CBOs and NGOs are participating. HCI provided training for 38 coaches in QI, coaching techniques, and the standards. About 100 staff from the NGOs participated in the first learning session in August. An initial task for the participants was to self-assess their current application of the peer prevention standards. The baseline assessment among six PEPFAR implementing partners and 28 NGOs found that 57% of the 116 key activities defined in the standards for peer education were being implemented by the NGOs.

**Laboratory strengthening**

At the request of the USAID Mission, HCI also began in FY10 to participate in laboratory accreditation activities sponsored by the WHO Africa Regional Office to improve lab capacity to provide quality services to support HIV/AIDS care. During May–June 2010, HCI supported a training workshop for national assessors and then participated in the assessment of 25 national laboratories. Results (shown in Figure 3) were presented to the MOH, the Regional Health Accreditation and Assessment Center (CRESAC), CDC/PEPFAR, implementing partners, regional and general hospital directors, and
laboratories’ managers. Following the workshop to present the baseline findings, HCI participated in the adaptation of the WHO accreditation checklist for use as a national lab accreditation guideline.

Directions for FY11

All activities undertaken in FY11 will be under TO3. For the ART/PMTCT Collaborative, the main focus of HCI’s work will be to support regional QI coaches to work with teams to continue the ART/PMTCT improvement activities in 120 sites. We will also start a new QI activity with pharmacies and work to strengthen linkages between health facilities and community services for people living with HIV/AIDS. For the OVC work, we will conduct a national validation of the standards after the piloting phase, and the revised standards will be implemented in 12 new platforms. HIV prevention activities will include validating standards and supporting their implementation in 10 districts, strengthening the capacity of decentralized departments of the MLS to monitor improvement processes at the regional level, and developing QI tools to measure behavior change. Assistance to the 25 assessed laboratories will continue to help them work toward achieving the laboratory accreditation standards.

2.3 Mozambique

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalize the first draft of service standards</td>
<td>▪ Harmonizing across implementers and policy makers the development of outcome-based standards for services to mitigate the impact of HIV/AIDS on vulnerable children and families</td>
<td>Countrywide</td>
</tr>
<tr>
<td>Strengthen the QI Task Force chaired by the MMAS</td>
<td>▪ Develop a commitment, vision, allocation of resources toward improvement for OVC services within the QI Task Force, which is housed in the Ministry of Women and Social Affairs (MMAS)</td>
<td>Countrywide</td>
</tr>
<tr>
<td>Gather evidence on draft service standards</td>
<td>▪ The piloting of the draft service standards will try to answer four main questions: Are the standards doable are the point of service delivery? Are they actually making a difference in organizational practices (based on the dimensions of quality)? Are they making a difference in children’s well being? What are the best practices to implement the standards</td>
<td>Three regions with key implementing partners as identified by USAID/MOZ and MMAS: Gaza, Zambézia and Cabo Delgado</td>
</tr>
<tr>
<td>Validate the service standards</td>
<td>▪ Results from the piloting will be integrated in the final version to be endorsed by MMAS</td>
<td>Countrywide</td>
</tr>
</tbody>
</table>

Main Activities and Results

HCI assistance in Mozambique was funded under TO1 for the first six months of FY10 and under TO3 for the second six months.

Finalizing draft service standards

In the first quarter of FY10, HCI supported the implementation of a series of workshops to elicit feedback on the draft standards from implementing partners in various parts of the country and the engagement of experts from NGOs and other Ministries (Education, Health, Justice) to provide technical review of the standards related to nutrition, health, education, and protection. HCI organized the inputs from the different regional workshops and experts into a single document that was then reviewed by the national QI Task Force chaired by the MMAS during February and March 2010. The draft standards were finalized in the fourth quarter of FY10, with support from HCI under TO3 funding.
Piloting the draft standards

MMAS recognized and committed itself to pilot test the outcome-based standards before national endorsement to assess their feasibility and impact on improving the quality of services for OVC. During the second quarter of FY10, we reached consensus with the QI Task Force on the tools for the piloting and how to organize for piloting standards, including the selection of the three regions and organizations to participate in the piloting. The organizations selected using the criteria developed by the Task Force include: Gaza Province: Doullérs San Frontiére, Fundação para o desenvolvimento Comunitário, and Habitat for Humanity; Zambézia Province: Save the Children and World Vision; and Cabo Delgado Province: Aga Khan Foundation.

Directions for FY11

All activities in FY11 will be conducted under TO3. In FY11, HCI will work closely with MMAS staff and international NGOs to develop their capacity to provide coaching support to districts and QI teams at the point of service delivery. Case studies of improvements made by QI teams will be developed. A national level meeting will be organized with the MMAS to share the results of piloting with other Ministries and organizations working in the area of care for vulnerable children (Ministries of Education, Health, and Justice; UNICEF, Plan International, Handicap International, HACI, HIV/AIDS Alliance, Action Aid, etc.). HCI will support the MMAS to incorporate the findings from the piloting into a revised version of the standards. Training in QI will be provided for implementing partners in three new provinces (Sofala, Manica, and Tete).

2.4 Namibia

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of Intervention</th>
</tr>
</thead>
</table>
| Care for the caregivers/stigma reduction | ▪ Improve health care provider knowledge about HIV  
▪ Train health workers on HIV prevention and stigma reduction  
▪ Train 26 focal persons as Trainers of Trainers (TOTs)  
▪ Conduct 10 counseling sessions and 34 follow-up visits  
▪ Provide technical support to regions that intend to conduct training and counseling sessions  
▪ Advocate for development and submission of projects by regional/district authorities to local institutions | All 13 regions         |
| Injection safety                     | ▪ Promote medical injection safety  
▪ Technical review of the TOT manual  
▪ Train 26 TOTs for all the 13 regions  
▪ Conduct mentorship sessions for the trained TOTs  
▪ Conduct joint supportive supervision with the regional and district trainers and/or supervisors  
▪ Procure buffer stock of safety boxes for use during emergencies/stock-outs  
▪ Orient Medical Officers in injection safety and rational use of medicines  
▪ Enhance implementation of behavior change strategies to reduce demand for and prescription of injections: Community involvement  
▪ Strengthen and simplify the monitoring and evaluation (M&E) systems for the management information system | All regions             |
### Infection prevention
- To improve health worker knowledge on infection control and occupational safety
- Finalize and ensure availability of infection control guidelines
- Conduct a survey on the current practices that contribute to hospital-acquired infections and develop an infection prevention and control (IPC) strategy
- Establish/strengthen infection control committees at the regional, district, and facility levels
- Train health care workers on infection control and occupational safety
- Strengthen the procurement and supply of IPC commodities
- Develop information, education, and communication (IEC) materials on IPC
- Establish, supervise, and strengthen site- and district-level monitoring and reporting systems according to Ministry of Health and Social Services (MOHSS) requirements for IPC

**Five regions, in 10 facilities (two facilities per region)**

### Waste management
- To promote safe management of health care waste
- Finalize and increase availability of health care waste management policy guidelines
- Conduct a survey on the current situation of health care waste management to identify specific areas that require strengthening
- Jointly with MOHSS develop national and regional waste management plans for health care waste management
- Establish and/or strengthen committees to monitor implementation of policy at the regional, district, and facility levels
- Build capacity of all health care workers in health care waste management
- Ensure compliance/application of safe health care waste management practices in all health care facilities and disposal sites
- Develop IEC materials and job aids on health care worker management
- To establish and strengthen facility- and district-level monitoring and reporting systems according to MOHSS requirements for health care worker management

**All regions**

### Main Activities and Results

HCl assistance in Namibia was funded under TO1 for the first six months of FY10 and under TO3 for the second six months.

#### Care for the caregivers/stigma reduction

During FY10, HCl provided support to regions and districts to reinforce HIV/AIDS information in the facilities and train caregivers in HIV prevention. The program aims at changing health care worker (HCW) behavior to ensure that those seeking help for HIV-related issues get access to high-quality care and to raise awareness among HCWs regarding their individual protection against HIV transmission. These objectives are achieved by providing staff of the Ministry of Health and Social Services (MOHSS) training on Abstinence-Be faithful-Condons (ABC), de-stigmatization, stress management, and bereavement sessions in order to increase general knowledge regarding HIV/AIDS, decrease stigmatization in the health care settings, and support reporting of needle stick injuries. By March 2010, 237 health care providers had been exposed to ABC, de-stigmatization, stress management, and bereavement sessions.

#### Injection safety

By the end of the second quarter of FY10, HCl completed the final review of the TOT manual, to be used for training key MOHSS staff for the injection safety and waste disposal program. The National
A training manual for medical injection safety was completed in August 2009 and approved by the MOHSS November, 2009. The manual has been used to train 96 MOHSS staff as trainers for the medical injection safety project. A total of 1,480 staff had been trained on injection safety and waste management—1,030 professionals and 450 non-professionals (including cleaners, waste handlers, and incinerator operators)—by the end of FY10. HCI is creating awareness of prescription practices and the need to reduce the prescription of unnecessary and unsafe injections. Audits from facilities reporting by end of the quarter indicate that most injections prescribed are antibiotics and analgesics. The average number of injections prescribed per person was 1.68 by end of Q4 (2010). At the beginning of the project in 2004, that average was 14.5. The aim of the project has been to keep this average to 2 and below.

HCI supports facilities with improving safe injection practices through training and mentorship on injection safety and by creating awareness of standard precautions for infection control. Improvement is evident in the preparation and process of giving injections. Facilities where injections are reconstituted according to standard have been maintained at above 90% throughout the quarter among facilities reporting. High standards have also been maintained in the use of barriers when opening glass vials (90%), and injections are prepared in clean, designated areas in 99% of facilities reporting. Hand washing before and after injection procedures is also being observed by healthcare workers, with a compliance rate of 86% among facilities reporting. Injection sites are cleaned according to standard. A compliance rate of over 90% is also observed in the discarding of needle and syringe without recapping.

**Infection prevention and control**

An important focus of HCI assistance in FY10 was to support and develop the capacity of District Implementation Teams and Infection Prevention and Control Committees who in turn support facilities to ensure adherence to MOHSS IPC standards and guidelines. By the end of March 2010, 34 District Implementation/IPC teams had been formed to spearhead IPC activities. HCI also supported the revision of the MOHSS IPC Guidelines, which provides standardized best practices for infection control procedures in the Namibian healthcare setting. The guideline addresses issues like hospital-acquired infections, standard precautions, sterilization and decontamination of instruments, as well as TB infection control. A thousand copies have since been distributed to all 13 regions.

**Waste management**

HCI’s main activity in the area of waste management was to support the MOHSS in developing a comprehensive National Waste Management Policy. In February 2010, HCI organized a national workshop to review and make final comments on the draft waste management policy. The National Waste Management Policy was approved and printed this year and is now awaiting launch by the Ministry in Q1 of FY11. The policy aims at preventing and reducing health risks associated with exposure to healthcare, household, radiation, and other waste for healthcare workers, waste handlers, and the public by promoting environmentally sound waste management practices and at reducing exposure to toxic pollutants associated with waste combustion processes.

During the second quarter of FY10, HCI developed a consolidated Waste Management Guideline to replace the 13 Interim Waste Management Guidelines from the 13 regions. Health care waste is segregated at the point of generation and treated accordingly in most regions.

**Directions for FY11**

All activities in FY11 will be carried out under TO3. In FY11, HCI will work at the national level to transition the injection safety program to a technical assistance model that will be co-located at MOHSS. HCI will work with the MOHSS to strengthen integration of injection safety and waste management in pre- and in-service training institutions. The district infection control committees will also be strengthened to spearhead infection control activities at the district level. HCI will also continue to support capacity building of healthcare workers, concentrating at pre-service training institutions. At
the regional level, HCI will work in collaboration with University of Stellenbosch Department of Infection Prevention and Control to conduct trainings for staff from the Central Sterilization Services Department, which plays a key role in IPC in Namibia relative to decontamination and sterilization. HCI will also finalize the review, printing and distribution of post-exposure prophylaxis and waste management guidelines and the quality assurance policy.

2.5 South Africa

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/ activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| Support the national health system to expand the use of QI approaches | ▪ Support the National Department of Health to institutionalize quality assurance in the South African health system  
▪ Finalize the national supervisory policy and national PHC supervisor’s manual incorporating quality supervision  
▪ Develop and disseminate National Clinical Audit guidelines  
▪ Finalize the National Core Standards for health care facilities | National |
| Increase quality of HIV prevention, care, and treatment services | ▪ Increase number of health care providers trained in QI methodology  
▪ Increase number of facilities providing high quality PMTCT services  
▪ Increase number of facilities providing high quality counseling and testing (C&T) services  
▪ Increase number of facilities providing high quality Basic Health services for HIV-infected individuals  
▪ Increase number of facilities providing high quality TB/HIV services  
▪ Increase number of facilities providing high quality ART services  
▪ Increase compliance with guidelines in PMTCT and ART services | Two million total population served by these facilities  
▪ 550,000 HIV patients covered  
▪ Five out of nine provinces in the country, serving 214 facilities (9% of all Primary Health Care facilities in the five provinces)  
▪ Thirteen of 52 (25%) districts covered by HCI staff |
| Expand linkages between communities and facilities through work with home-based care (HBC) organizations | ▪ Increase number of HBC organizations supported  
▪ Increase number of HBC workers trained on QI methodology | 10,000 HIV patients provided with home-based care  
▪ Six home-based care organizations in four provinces |

Main Activities and Results

During the first six months of FY10, all HCI assistance was funded through TO1; beginning in April 2010, all HCI assistance in South Africa was funded under TO3.

National level policy support

At the request of the National Department of Health (NDOH), HCI supported quality improvement for community-based integrated management of childhood illness (IMCI) and antenatal care as part of the
Department of Health’s (DOH) national plan to improve maternal and child health in 18 priority districts. In addition, HCI was asked to help implement quality improvement activities as part of the national accelerated PMTCT plan, which attempts to speed up the implementation of PMTCT services. These activities were undertaken at a national level, in terms of protocol and guideline development, as well as at a district and facility level, where HCI staff facilitated the development of integrated implementation plans and collaboration among all relevant stakeholders. Ongoing quarterly reports are provided to supported districts, as well as to National DOH managers.

In November 2009, HCI was involved in making presentations and facilitating working sessions at the national DOH Quality Symposium, held in Johannesburg. This event was chaired by the Chief Director of the Office of Standards Compliance, with the late Deputy Minister being the guest of honor. The event was followed by the Service Excellence Awards for health, a Ministerial prerogative. HCI staff was part of the selection committee to determine winners for each category.

HCI also participated extensively as a member of the technical working group in the revision of the National Core Standards for Health Establishments, as well as development and piloting of relevant assessment tools for both hospital and primary health care levels. The DOH is planning to use the standards for accreditation of all health care facilities in the country. This process forms the basis for a national accreditation system within South Africa, as the country plans for the implementation and roll-out of the National Health Insurance scheme. HCI provided assistance to the Office of Standards compliance within the NDOH with the development of a concept paper on different accreditation options for South Africa and substantive recommendations. The final paper was presented to the NDOH in February 2010.

Based on the project’s extensive experience with clinical chart audits, HCI assisted with the development of National Clinical Audit guidelines, which aid health care workers to perform clinical audits at facility level. HCI was also asked by the Department of Health to support a new “1000 Quality Improvement Project” (QIP) Initiative in all nine provinces of the country. This initiative sought to document QIP initiatives, in six distinct priority areas (including patient safety, waiting times, access to medication, infection prevention and control, cleanliness and staff motivation and attitudes) at a thousand facilities by March 2010. With over 200 HCI-supported facilities in the country involved in QI activities, HCI was able to provide 25% of the required number.

Increase quality of HIV prevention, care, and treatment services

In the first six months of FY10, HCI provided direct support under TO1 for QI in HIV/AIDS services to 214 facilities in five of the South Africa’s nine provinces. HCI also expanded the use of mobile ART outreach teams in two provinces to cover whole districts, where requested, such as UThungulu district in KwaZulu-Natal Province. HCI staff provides mentoring support to facility teams approximately every two weeks, reviewing data on quality indicators and helping to problem-solve when deficiencies are identified.

Directions for FY11

In FY11, all HCI activities in South Africa will be conducted under TO3. HCI will provide support for the development and roll-out of the NDOH chronic disease management model, which will include HIV. The project will develop a partnership with NDOH to work on health systems strengthening and district level clinical supervision. At the district level, the project will focus on six ministerial priorities and will provide support for the implementation of clinic supervision, implementing the learning system in all districts supported by HCI. At the facility level, the project will strengthen the HIV prevention program, strengthen TB/HIV collaboration at all levels of care and will improve infection prevention & control activities at all supported facilities through conducting risk assessments, developing infection prevention and control plans, and providing ongoing mentoring and support.
2.6 Swaziland

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen TB DOTS by expanding decentralization of TB services to PHC clinics and linkages between communities and facilities</td>
<td>▪ Increase TB treatment enrollment and success</td>
<td>Swaziland is estimated to have 14,000 TB patients among its a total population of 1,132,000. HCI activities cover all the four regions of Swaziland (100%), serving 7 (100%) hospitals, 11 (100%) health centers, and 79 out of 162 (49%) clinics. These include clinics under the Private-Public Mix (PPM), NGO clinics, and clinics serving the military and prisons.</td>
</tr>
</tbody>
</table>
| Increase access to comprehensive, decentralized and quality TB/HIV services by increasing integration of TB and HIV at regional and facility levels | ▪ Increase the percentage of the adult population that knows their HIV status  
▪ Increase the number of HIV-infected people receiving the comprehensive care package, which includes Cotrimoxazole prophylaxis, TB screening, and Isoniazid preventive therapy | An estimated 11,000 TB patients are co-infected with HIV nationally. (This represents 80% of TB patients and 4% of HIV-infected patients.) |
| Increase access to quality adult and pediatric HIV and AIDS treatment/ ARV services for TB patients by increasing referral linkages and introducing ART in TB clinics | ▪ Increase the number of TB patients receiving high-quality ART services | 4000 of Swaziland’s 60,000 TB patients need ART (national estimate). HCI support to hospitals that provide ART care and TB treatment in FY10 increased from 3 out of 7 (43%) to 7 of 7 (100%). HCI in FY10 supported 3 out of 11 health centers (27%) in providing ART care and treatment at the TB clinic and 8 (73%) to refer to an ART clinic. It also supported 10 out 162 PHC (6%) clinics to provide ART care and treatment. |
| Increase access to quality MDR-TB case enrolment and management in Swaziland                    | ▪ Establish proper MDR-TB management practices  
▪ Establish regionally based MDR-TB clinical teams | It is estimated that 0.9% and 9.1% of the new and re-treatment TB cases have MDR-TB. Each year witnesses 1000 MDR-TB suspects and 300 new cases. The scale of support is national and includes all four regions, all hospitals, all health centers, and 12 out of 162 (7%) clinics. |
Strengthen national capacity to lead and manage roll out of adequate HIV and TB care and treatment services

- Reduce impact of TB and HIV epidemics
- Strengthen M&E systems at national level
- Strengthen drug management and procurement to ensure uninterrupted drug supply
- Contribute to health system strengthening
- Provide TA for soliciting Global Fund grants and build capacity for implementation

National scale

<table>
<thead>
<tr>
<th>Institutionalize modern quality improvement approaches as an integral part of health care</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Improve quality of patient care</td>
</tr>
<tr>
<td>- Strengthen documentation of QI activities</td>
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</tbody>
</table>

National scale

Main Activities and Results

Strengthen TB DOTS

HCI staff assisted the National TB Control Program (NTCP) and Regional Health Management Teams (RHMTs) to decentralize the initiation of TB treatment to 10 primary health care clinics, decentralize TB sputum collection, and integrate intensified case-finding among persons living with HIV and AIDS (PLHWA). HCI participated in baseline accreditation assessments and capacity building of health care workers to implement decentralized services. In order to assist the NTCP to rapidly decentralize TB initiation service to public health clinics, HCI assisted the NTCP to develop a decentralization handbook as a guide to all partners and NGOs/CBOs intending to support decentralized TB services. HCI also conducted training for TB treatment supporters in collaboration with local partners and helped establish linkages between TB community treatment supporters and peripheral clinics and TB diagnostic units. In addition, HCI provided technical support for the implementation of the defaulter tracing system, which included strengthening recording and reporting, training adherence officers and facilitating their placement at TB diagnostic facilities, and providing cell phone air time to trace defaulters. Through these efforts, the number of treatment initiation sites rose from 22 to 34.

The national average case detection rate achieved was 73% among pulmonary smear-positive cases, up from an average of 68% in FY09. The WHO-recommended target is 78%. As shown in Figure 4, the national treatment success rate in FY10 was 70%, an improvement over FY09's level but still below the WHO-recommended target of 85%.

HCI also continued to advocate for increased political commitment for TB and specifically coordinated MOH efforts with other stakeholders to develop a contingency plan and statement declaring TB to be a national emergency, to develop advocacy documents on timely procurement of TB drugs, and to advocate for assigning more doctors to the TB hospital. HCI staff provided much-needed supportive supervision and mentoring to clinic facilities to apply the national TB guidelines and supplied job aids on TB drug dosages and management.

Increase access to quality TB/HIV services

HCI provided direct technical support for the implementation of Cotrimoxazole preventive therapy for TB patients co-infected with HIV. When stock-outs of Cotrimoxazole disrupted this important service in some clinics, HCI engaged PEPFAR, the Swaziland National AIDS Program (SNAP) and the NTCP to resolve the supply chain issues for drugs and commodities. In addition, review of facility TB/HIV data jointly with the NTCP regional TB coordinator and focal persons identified bottlenecks that were addressed to improve TB/HIV services. HCI supported three regions (Manzini, Hhohho, and Shiselweni) to operationalize their TB/HIV committees, spearhead joint planning for TB/HIV at the regional level,
develop joint TB/HIV plans, and foster TB/HIV decentralization. In Shiselweni, HCI supported a workshop for the RHMT to develop a joint TB/HIV plan, and in Manzini, HCI assisted the RMHT and partners to refine the TB/HIV facility accreditation tool and form a TB/HIV committee. In Hhohho, HCI supported training of the RHMT on TB/HIV and the development of a TB/HIV committee.

HCI also provided resources to decrease the TB burden among HIV patients by promoting the WHO-recommended strategy of TB infection control in congregate settings, Isoniazid preventive therapy, and intensified TB case finding (the “three I’s”) in HIV care settings. Health care staff were trained on the three I’s, and HCI staff conducted basic infection control assessments using an HCI-designed checklist to guide direct observation and staff interviews. HCI staff accompanied the NTCP TB/HIV coordinator to conduct supportive supervision to strengthen the implementation of the three I’s, recording and reporting of TB/HIV activities, and adherence to TB/HIV policy guidelines.

**Increase quality of adult and pediatric HIV and AIDS treatment and access to ARV services**

HCI supported the scale-up of ART treatment initiation from five TB clinics in FY09 to 12 in FY10. ART initiation at the TB center clinic, Mbabane Government Hospital TB clinic, and the country’s biggest TB clinics began in FY10 following intense preparations and the training of 53 health care workers. To facilitate the provision of ART in the TB clinics, reviews of patient flow were performed and a standardized process designed with the doctors from the ART units, SNAP, NTCP, and URC. HCI, NTCP, and SNAP staff also conducted joint visits to selected TB diagnostic units country-wide in order to assess and discuss ART provision in these TB clinics.

**Improve MDR-TB services**

HCI continued to conduct advocacy and lobbying for the Government’s involvement, resources, and commitment to the MDR-TB program. HCI’s drug-resistant TB Coordinator provided technical
assistance to the NTCP at the program and facility levels to improve clinical management of drug-resistant TB. As a result, the hospital now has five medical doctors, up from two in the previous reporting period.

In addition, HCI assisted NTCP to establish an MDR-TB program within the NTCP, leading to the hire of a focal doctor to coordinate drug-resistant TB activities at the national level and two nurses for MDR activities in the NTCP. The Government also provided financial resources for procuring second-line anti-TB drugs from quality-assured sources using the Global Drug Facility mechanism.

HCI also provided support for the establishment of the National Clinical Team and Regional Drug Resistant TB Mobile Clinical Teams. HCI assisted in updating the drug-resistant TB recording and reporting forms at the national level for proper planning and improvement in the quality of patient management and worked to improve data management at the central level on all confirmed patients to track their initiation on treatment. HCI provided technical assistance to project needs for second-line anti-TB drugs and assisted the TB hospital in decentralizing MDR-TB services to other facilities. For example, drug-resistant TB patients from Hhohho region are being managed at Piggs Peak Hospital to bring drug-resistant TB services closer to patients.

**Institutionalize modern QI approaches**

HCI worked with the Ministry of Health and Social Welfare's National Health Quality Manager to incorporate additional quality indicators for HIV care and treatment beyond TB, introduce documentation tools, and participate in the training of QI coaches. HCI worked with the Ministry's HIVQUAL initiative to institutionalize QI approaches in 32 facilities countrywide. At the facility level, HCI staff continued to support QI teams at TB clinics. New multi-disciplinary team members were trained on QI and assisted to develop improvement objectives and indicators. Tools for documenting QI interventions and electronic databases for recording and analyzing improvement results were introduced at the facility level, and QI teams were supported through monthly meetings to review indicators and resolve issues revealed through data analysis. Over the course of the year, several teams improved their capacity to present data during monthly meetings. At the community level, HCI staff provided training to TASC community-based peer educators on QI approaches.

**Directions for FY11**

HCI's main objective in FY11 will be to increase access to comprehensive and decentralized quality TB/HIV services through integration of TB and HIV services at national, regional, facility and community levels with appropriate resources provided for the management of both susceptible and drug-resistant TB. Key activities will include expanding TB screening, TB diagnosis and treatment initiation and follow-up to more peripheral primary care clinics by providing appropriate training, tools and mentoring and addressing issues related to MDR-TB. In addition, in order to increase access to quality HIV/AIDS care and support services for HIV-positive TB patients, we will help to expand the provision of HIV care and support services in TB clinics. HCI will facilitate the implementation of the adult and pediatric HIV care and treatment guidelines in relation to HIV care and support for children infected with TB and integrate pediatric care issues with the general advocacy and social mobilization activities on TB/HIV. HCI will provide support to implement care and treatment guidelines for ART/TB co-management, build capacity of TB clinic and PCH clinic staff to manage provision of ART to TB patients, and ensure seamless reintegration of patients initiating ART treatment in TB clinical settings into ART services on completion of TB treatment. All FY11 activities will be under TO3.
2.7 Tanzania
Overview of HCI's Program in FY10

<table>
<thead>
<tr>
<th>QI interventions and other activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide support to the Ministry of Health and Social Welfare and implementing partners to strengthen and scale up the Partnership for ART/PMTCT QI in the regional demonstration collaboratives</td>
<td>▪ To expand the scope of the Tanga ART/PMTCT collaborative to include laboratory services</td>
<td>▪ <strong>Tanga Region:</strong> 2009 pop. of 1.9 million; 27 care and treatment centers (CTCs); 3.8% adult HIV prevalence; 14,139 PLWHA estimated to need ART; 11,333 on ART</td>
<td>AIDS Relief, GTZ</td>
</tr>
<tr>
<td></td>
<td>▪ Expand the scope of the Morogoro ART/PMTCT collaborative to include field testing of the ART Framework</td>
<td>▪ <strong>Morogoro Region:</strong> 2009 pop. of 2.1 million; 2 CTCs; 4.2% adult HIV prevalence; 17,692 PLWHA estimated to need ART; 8767 on ART</td>
<td>FHI / TUNAJALI</td>
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<td></td>
<td>▪ Integrate HR QI into the Mtwara ART/PMTCT collaborative</td>
<td>▪ <strong>Mtwara Region:</strong> 2009 pop. of 1.3 million; 26 CTCs; 3% adult HIV prevalence; 7619 PLWHA estimated to need ART; and 5660 on ART</td>
<td>CHAI EGPAF</td>
</tr>
<tr>
<td>Provide TA to implementing partners, National AIDS Control Program (NACP), RHMTs and Council Health Management Teams (CHMTs) to spread the lessons learned from ART/PMTCT improvement collaborative to additional regions</td>
<td>▪ <strong>Lindi Region:</strong> 2009 pop. of 0.8 million; 34 CTCs; 3.9% adult HIV prevalence; 6803 estimated PLWHA to need ART; 3648 on ART</td>
<td>▪ <strong>Iringa Region:</strong> 2009 pop. of 1.7 million; 39 CTCs; 14.7% adult HIV prevalence; 48,792 PLWHA estimated to need ART; 23,257 on ART</td>
<td>Clinton Foundation FHI / TUNAJALI AIDS Relief</td>
</tr>
<tr>
<td></td>
<td>▪ EGPAF/Clinton Foundation: Successfully implement ART/PMTCT QI in at least two regions</td>
<td>▪ <strong>Manyara Region:</strong> 2009 pop. of 1.4 million; 17 CTCs; 1.7% adult HIV prevalence; 4583 PLWHA estimated to need ART; 2350 on ART</td>
<td>EngenderHealth Muhimbili Univ. Department of Defense Dar es Salaam City Council Harvard Univ. Medical School</td>
</tr>
<tr>
<td></td>
<td>▪ FHI/TUNAJALI: Successfully implement ART/PMTCT QI in at least two regions</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>▪ AIDS Relief: Successfully implement ART/PMTCT QI in at least two regions</td>
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<td></td>
</tr>
<tr>
<td>Continue rolling out infant feeding (IF) counseling training</td>
<td>▪ Support implementing partners to extend IF counseling training</td>
<td>▪ <strong>Manyara and Dar es Salaam regions</strong></td>
<td>EngenderHealth</td>
</tr>
<tr>
<td>Implement quality improvement in IF</td>
<td>▪ Initiate demonstration IF QI collaborative in one region</td>
<td>▪ <strong>Iringa Region:</strong> 2009 pop. of 1.7 million; 39 care and treatment centers; 14.7 adult HIV prevalence; 48,792 PLWHA, estimated to need ART; 23,257 on ART</td>
<td>EngenderHealth</td>
</tr>
</tbody>
</table>
Provide TA to OVC partners to pilot test and validate the extent to which implementation of the standards improves the quality of OVC care

- Support QI capacity building for OVC partners
- Support pilot testing and dissemination of the standards
- Support pre-work, learning sessions, and coaching of QI teams
- Support QI team training
- Support development of OVC and SES tools
- Support development of training materials
- Support revision of the standards

Coast Region
- Iringa, Singida, and Dodoma regions
- Arusha, Manyara Kilimanjaro, and Tanga regions
- Morogoro region
- Mbeya, Rukwa, and Ruvuma regions

Africare World Education Inc.
FHI/ TUNAJALI
Department of Defense/ Walter Reed

Strengthen knowledge management in support of QI

- Synthesize lessons learned from the ART/PMTCT collaborative in Tanga

Interviews and document review were conducted at MOHSW, NACP, URC, PharmAccess, AIDS Relief, RHMT, and CHMTs and facility-based QI teams of Tanga region

Research and Evaluation

- Evaluate the ART Framework initiated at Saba Saba Clinic in Morogoro

Review data collected at Saba Saba clinic in Morogoro region

- Evaluate the scale-up of the PMTCT infant feeding counseling training program in Tanzania

Data collected from 20 sites in 5 districts of Iringa region

- Evaluate the sequential validity of self-assessment in a regional ART/PMTCT QI collaborative

Four rounds of data were collected from 9 sites of Mtwara ART PMTCT collaborative

- Descriptive study on the PQI and its spread

Data collected from RHMTs, CHMTs, and QI teams in Tanga, Morogoro, and Mtwara ART-PMTCT collaboratives

Main Activities and Results

Support for the MOHSW to strengthen and scale up the Partnership for HIV/AIDS Quality Improvement

In partnership with the National AIDS Control Program of the Ministry of Health and Social Welfare (MOHSW) and the Dutch NGO PharmAccess International, HCI has developed regional ART/PMTCT improvement collaboratives with PEPFAR implementing partners, Regional Health Management Teams (RHMTs) and Council (district) Health Management Teams (CHMTs) in four regions: Tanga, Morogoro, Mtwara, and Lindi. Implementing partners (IPs) involved include AIDS Relief, FHI/TUNAJALI, Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), the Clinton HIV/AIDS Initiative, and EngenderHealth. Through this approach, HCI is helping to build the capacity of regional and district teams and ART/PMTCT providers in QI methods to enable the redesign of essential ART/PMTCT care delivery processes and the evaluation of improvements through the tracking of priority ART/PMTCT monitoring indicators. HCI and PharmAccess launched the first of the four regional ART/PMTCT collaboratives, in Tanga Region, in FY08 and launched the other three collaboratives in FY09. During FY10, HCI launched a fifth improvement collaborative in Iringa Region, to reduce mother-to-child transmission of HIV through improved infant feeding practices.
Tanga ART/PMTCT collaborative

The Tanga regional collaborative, implemented with AIDS Relief, maintained gains in most indicators in FY10. Figure 5 shows the regional trend in daily Cotrimoxazole prophylaxis among HIV-exposed infants has largely been maintained and the performance of even the lowest performing facilities has continued to improve. Promising prospects of institutionalization were also seen in the decision of the Tanga RHMT to allocate its own funds for learning sessions held in June and July. In addition, Pangani and Korogwe CHMTs used their own funds to organize, with assistance from the RHMT and technical support from HCI, a learning session for 30 QI team members from four health centers.

Figure 5. Tanzania: Sustained improvement in Cotrimoxazole prophylaxis among exposed infants, Tanga Region, January 2008–September 2010

Morogoro ART/PMTCT collaborative

In Morogoro, HCI, NACP, PharmAccess, TUNAJALI-FHI, the RHMT, and the CHMTs worked together to support QI teams through coaching and mentoring sessions focused on improving TB screening for HIV-positive patients, increasing enrollment of HIV-positive pregnant women and children in care and treatment, reducing loss to follow-up, and expanding Cotrimoxazole prophylaxis. Other aspects of support included staff training on CQI principles such as data management, how to better organize QI teams, development of small tests of changes, and the use of performance measures in monitoring improvements. In terms of performance, positive trends have been observed across most monitoring indicators in this collaborative. For instance, Figure 6 shows that more HIV-positive pregnant women have been referred and enrolled into care and treatment centers. Changes leading to this result included intensive PMTCT health education sessions; conducting meetings among service providers to

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strengthen linkages between HIV-related service areas; same-day collection of CD4 samples at reproductive and child health (RCH) clinics instead of sending patients to CTC; and orienting providers to achieve better documentation in the PMTCT registers, which made it possible to identify patients from other catchment areas erroneously registered in their clinics.

**Figure 6. Tanzania: Increasing referral of HIV-positive ANC clients to care and treatment, Morogoro Region, Oct. 2008–Oct. 2010**

During this period, five RHMT members were tasked with overseeing the implementation of CQI activities and capacity building through on-the-job training and coaching. They have started to lead coaching and mentoring efforts and to facilitate learning sessions with HCI guidance.

The application of the ART Framework was spread from the Saba Saba clinic to five other sites in Morogoro municipality. Results from piloting the Framework were presented to stakeholders in a symposium in Dar es Salaam, facilitated by the HCI Director Dr. M. Rashad Massoud in March 2010. Attendees included officials from the MOHSW, USAID, CDC, WHO, and implementing partner representatives. These results indicated that the Framework can help narrow retention and wellness gaps for a group of more than 500 patients on ART.

**Mtwara ART/PMTCT collaborative**

During FY10, HCI, PharmAccess, EGPAF, and the Clinton HIV/AIDS Initiative (CHAI) worked with the RHMT and CHMTs to conduct a learning session and two coaching visits to teams in the Mtwara collaborative. Significant improvements were noted in follow-up CD4 testing for HIV patients after an expansion in the number of days when CD4 testing was available at sites’ laboratories. Screening for TB among HIV patients also improved—from 74% at baseline in June 2009 to 90% by July 2010—due primarily to revising the screening tool so that a single form could be used for over 24 months (rather
than a new form at each visit, which was cumbersome and hindered tracking patients’ TB status). Having the tool embedded in the patient file simplified the screening process, facilitated tracking monthly performance data across patients, reduced the number of forms needed, and reduced stock-outs of screening tools.

**Lindi ART/PMTCT spread collaborative**

The Lindi collaborative is the first partner spread collaborative in Tanzania, wherein the implementing partners—the CHAI and EGPAF—spread and financed the interventions developed in an initial region assisted by one partner (in this case, Mtwara) to a second region. CHAI bears the cost of running the collaborative while HCI provides technical assistance during coaching and learning sessions. Still in its infancy, the Lindi collaborative has already shown promising improvements in the outcomes of ART/PMTCT clients. Figure 7 shows a sustained increase in the proportion of exposed children receiving Cotrimoxazole in Lindi since the collaborative’s launch.

**Figure 7. Tanzania: Increasing coverage of HIV-exposed children with daily Cotrimoxazole, Lindi Region, May 2009 – August 2010**

**Regional spread by partners**

As part of the spread strategy, in February 2010, AIDS Relief, the regional implementing partner for Tanga, Mwanza, Mara, and Manyara regions, organized a five-day CQI training for sites in Manyara. Attended by 42 participants from Hanang, Hydom, Mbulu, Kiteto, Babati, Dareda, and Orkesumet districts, the training used HCI-developed CQI materials and tools. HCI staff and QI team members from Lushoto, Pangani and Bombo regional hospitals in Tanga participated and shared best practices from the Tanga improvement collaborative, such as: issuing Cotrimoxazole prophylaxis to HIV-exposed infants at child clinics instead of at CTC; weekly data cleaning and loss to follow-up verification; and introducing registers for tracking child contacts. The AIDS Relief technical team continues to support
the Manyara CQI program through quarterly supportive supervision visits. AIDS Relief plans to hold similar training workshops in the remaining regions in FY11.

Similarly, FHI/TUNAJALI has introduced CQI activities for ART/PMTCT in Iringa, Singida, and Dodoma regions. This followed an HCI-organized learning session in Mtwara attended by their regional program managers. The EGPAF team has introduced CQI activities in their ART and PMTCT programs in Tabora, Shinyanga, and Kilimanjaro regions. These partners are using HCI-developed training materials and tools to organize and document CQI activities.

**Scale-up of infant feeding counseling training**

During FY10, HCI Tanzania provided technical support to EngenderHealth in Manyara Region and to Muhimbili University, Dar es Salaam City Council, and Harvard School of Public Health in Dar es Salaam Region to conduct training for PMTCT counselors to enable them to provide infant feeding counseling in the context of PMTCT. Thirty counselors were trained in Babati district, Manyara and 10 in Dar es Salaam.

**Iringa infant feeding collaborative**

In August 2010, HCI and EngenderHealth, the regional PMTCT implementing partner for Iringa region, launched a new improvement collaborative on infant feeding. The collaborative was preceded by a baseline survey to assess the infant feeding practices and associated determinants among mothers. During the first learning session, 18 service providers and six CHMT members from Iringa Municipal and District Council were trained on basic concepts of QI and their application in improving the quality of infant feeding practices in the context of PMTCT. QI teams were formed in each of the collaborating CHMTs, two hospitals, and four health centers, and work plans were developed to guide implementation of key CQI activities to address five priority performance indicators:

1) The percentage of mothers seen at RCH services practicing exclusive breastfeeding;
2) The percentage of HIV-infected pregnant or lactating women who receive infant feeding counseling by a trained counselor;
3) The percentage of infants born each month who are put to the breast within one hour of birth;
4) The percentage of HIV-exposed children below 18 months whose status has not been determined who were put on Cotrimoxazole prophylaxis;
5) The percentage of HIV-exposed breastfeeding infants and young children (1-23 months) whose HIV status is being monitored.

HCI also conducted coaching and mentorship sessions to all collaborative sites in September 2010. The coaching was preceded by a one-day orientation on key QI concepts for five RHMT members. In total, 78 QI team members and other RCH-related service providers were reached during the coaching and mentorship sessions.

**Support for QI for OVC services**

HCI is supporting the MOHSW Department of Social Welfare (DSW) to make QI a key programmatic area for the Most Vulnerable Children (MVC) program. In March, HCI assisted the DSW in finalizing the QI Facilitator’s package and the QI team documentation tool for monitoring improvement processes at the community level. Together with the DSW and MEASURE Evaluation, HCI trained 39 national MVC facilitators from MOHSW and MVC implementing partners: FHI/TUNAJALI, PACT Tanzania, Save the Children, Catholic Relief Services, Tanzania Red Cross Society, Walter Reed/Department of Defense, Africare, Salvation Army, World Religions for Peace (WRP), and Pathfinder International. The national MVC facilitators and IPs can now communicate the QI guideline and MVC standards to various levels and use them to plan and implement MVC activities.
The availability of an OVC QI training package and national facilitators has enabled various partners to plan for QI activities within their regions of operation. Various partners have planned and budgeted for QI activities as well as QI training. The three major partners (FHI/TUNAJALI, Department of Defense, and WRP) were able to organize QI trainings in their regions, and UNICEF supported eight district councils. These trainings were facilitated by national facilitators and HCI’s OVC technical advisor. QI teams were formed at the community and district levels to track children’s well-being using the Child Status Index.

Research and Evaluation Activities

HCI carried out the following research and evaluation studies in Tanzania in FY10:

**Sequential Validity of QI Team Self-assessments in Tanzania:** This study evaluated the validity of self-assessments by service providers participating in the ART/PMTCT collaborative in Mtwara Region. The central questions were how valid were QI teams’ measures of their performance compared to measurement by external observers and did validity improved over time.

**Evaluation of the Partnership for Quality Improvement in Tanzania:** The partnership is a national CQI initiative aimed at building the capacity for a harmonized QI approach across national, regional, district, and health facility levels as well as among regional implementing partners organizations. This study evaluated the results achieved, the CQI capacity developed across stakeholders, and the potential for institutionalizing the partnership.

**Evaluation of spread of ART/PMTCT better care practices through collaborative learning:** This study evaluated various mechanisms used to expose and share better care practices and factors that facilitated or hindered sharing and uptake among teams participating in the regional collaboratives in Tanga, Morogoro, and Mtwara. Table 3 shows some of the changes for indicators shared across the collaboratives.

**Evaluation of the sustainability of the PMTCT infant feeding counseling training program in Tanzania:** This evaluation sought to assist PMTCT program implementers in making improvements to the national scale-up of the infant feeding training program. It examined program implementation during scale-up and its sustainability afterwards in five districts in Iringa. The study found that although the regional training-of-trainers had been completed, providers from only 13 of the 20 studied sites had received it. Furthermore, while infant feeding job aids were being used, 75% of sites had run out of mother take home brochures: Except for one facility, there was no clear procedure for reordering them.

Directions for FY11

All activities in FY11 will be conducted under TO3. HCI will continue to work with PharmAccess to support the MOHSW and implementing partners to roll out HIV/AIDS care quality improvement efforts countrywide in accordance with guidelines for improving HIV/AIDS care using an HCI-developed standardized training curriculum. HCI will continue to strengthen ongoing work in the demonstration collaboratives through promotion of intraregional spread of innovations, expansion of the application of the ART Framework, and development of community- and home-based HIV care quality improvement strategies. HCI will use best practices and lessons learned from Iringa’s ongoing infant feeding improvement collaborative to improve infant feeding counseling in the context of PMTCT nationwide and work with the MOHSW and PMTCT partners to adapt the 2010 WHO PMTCT guidelines. In addition, HCI will continue to provide technical support to DSW and implementing partners in implementing OVC service standards at the service delivery level and integrating QI activities into their routine programming in order to deliver quality services for better wellbeing of MVC and their households. An improvement collaborative for MVC services will be established in Bagamoyo district of Coast region.
Table 3. Tanzania: Changes implemented across collaborative sites as of March 2010

<table>
<thead>
<tr>
<th>Categories</th>
<th>Change ideas</th>
<th>Tanga (n = 6)</th>
<th>Morogoro (n = 10)</th>
<th>Mtwara (n = 9)</th>
<th>Total (n = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change ideas tested and disseminated as of February 2010</td>
<td>Provide exit desks with information for patients</td>
<td>100%</td>
<td>90%</td>
<td>89%</td>
<td>92%</td>
</tr>
<tr>
<td></td>
<td>Reduce loss to follow-up / retention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Form treatment support groups (“Buddy Groups”)</td>
<td>83%</td>
<td>50%</td>
<td>67%</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>Use home-based care workers, village health workers, and other community agents to verify clients’ addresses and status</td>
<td>67%</td>
<td>80%</td>
<td>100%</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td>Use treatment supporters from community-based organizations</td>
<td>67%</td>
<td>30%</td>
<td>100%</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>Issue a two-month ARV supply to clients residing far from the centers.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Organize patient filing system for easy retrieval and storage</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Implement loss-to-follow-up data verification and cleaning strategies</td>
<td>100%</td>
<td>100%</td>
<td>89%</td>
<td>96%</td>
</tr>
<tr>
<td>Cotrimoxazole prophylaxis to exposed infants</td>
<td>Establishment of mother-child register to link HIV-exposed children with their mothers</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Issue Cotrimoxazole in RCH clinics</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Use of home-based care providers to track infants missing appointments</td>
<td>33%</td>
<td>50%</td>
<td>89%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Provide exit information desks</td>
<td>50%</td>
<td>80%</td>
<td>89%</td>
<td>76%</td>
</tr>
<tr>
<td>Scale-up strategies</td>
<td>Establish satellite CTCs in existing health centers and dispensaries within districts</td>
<td>67%</td>
<td>10%</td>
<td>67%</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Establish mobile/outreach CTCs to bring services closer to more PLWHA</td>
<td>67%</td>
<td>30%</td>
<td>67%</td>
<td>52%</td>
</tr>
<tr>
<td>Screening for active TB during consultations</td>
<td>Forecast needs and order TB screening tools together with the rest of stationery</td>
<td>100%</td>
<td>90%</td>
<td>89%</td>
<td>92%</td>
</tr>
<tr>
<td></td>
<td>Embed TB screening tools in patients’ files</td>
<td>83%</td>
<td>100%</td>
<td>100%</td>
<td>96%</td>
</tr>
<tr>
<td>CD4 testing</td>
<td>Keep a CD4 test appointment register at the CTC</td>
<td>67%</td>
<td>70%</td>
<td>78%</td>
<td>72%</td>
</tr>
</tbody>
</table>
2.8 Uganda

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activities to attain objective 1: Improve the quality of HIV services available in Uganda</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverage collaborative</td>
<td>Increase the number of people receiving ART by improving clinic efficiency and strengthening links to the HIV clinic</td>
<td>14 sites</td>
</tr>
<tr>
<td>Retention collaborative</td>
<td>Improve patient retention</td>
<td>14 sites</td>
</tr>
<tr>
<td>Outcomes collaborative</td>
<td>Improve patient outcomes</td>
<td>10 sites</td>
</tr>
<tr>
<td>Laboratory collaborative</td>
<td>Improve laboratory services</td>
<td>14 sites</td>
</tr>
<tr>
<td>Data management collaborative</td>
<td>Improve data management</td>
<td>17 sites</td>
</tr>
<tr>
<td>Nutrition collaborative</td>
<td>Improved nutritional status</td>
<td>22 sites</td>
</tr>
<tr>
<td>Private sector collaborative</td>
<td>Improve care in private sector sites</td>
<td>13 sites</td>
</tr>
<tr>
<td><strong>Activities to obtain objective 2: Build a quality improvement structure that is integrated into all levels of the health system</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District-level activities</td>
<td>Increased quality of care in sites supported by districts</td>
<td>39 districts</td>
</tr>
<tr>
<td>Regional-level activities</td>
<td>Increased ability of regional coaches to provide independent QI coaching</td>
<td>12 of 12 regions</td>
</tr>
<tr>
<td>National-level activities</td>
<td>Increased focus on quality improvement in the national MOH</td>
<td>MOH</td>
</tr>
</tbody>
</table>

Main Activities and Results

In FY10, HCI re-designed our strategy in Uganda to support the Ministry of Health’s Quality of Care Initiative for HIV/AIDS services to work with groups of sites in smaller, more focused collaborative improvement efforts. Seven new focused collaboratives were started with the MOH in late 2009; they each engaged 10–22 facilities to work intensively to develop successful changes in a specific area of HIV and AIDS care. The underlying concept for this strategy was the project’s Framework for Improving Care for Patients on ART, developed in FY09. The Framework focuses QI team efforts on closing one of three key gaps in the quality of care given to patients needing and receiving ART: 1) the coverage gap, which measures the percentage of patients who are started on ART of those who require treatment; 2) the retention gap, which measures the percentage of patients who remain on ART of those who were started on it; and 3) the clinical outcomes gap, which measures the percentage 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 signs, such as stable weight and the stability of, absence of, or reduction in new opportunistic infections.

The seven new demonstration collaboratives addressed laboratory support, nutritional assessment and treatment of HIV-positive patients, ART coverage, clinical outcomes, retention in care, data management, and engaging the private sector in providing quality HIV care in line with MOH standards. All of the learning sessions for the new collaboratives were hosted by the Ministry and attended by representatives from each participating district and site in the collaborative. In addition, the coordinating team for each collaborative (which included MOH and HCI staff) began to guide sites through the processes of developing and testing changes to identify better practices that could be spread throughout the Ugandan health system.

**Coverage collaborative**

The coverage collaborative began in November 2009 with 14 facilities, all working to increase the number of persons accessing HIV care by improving efficiency in the clinics so that the same number of staff can care for more clients and by improving linkages of clients between care entry points and the
HIV clinic. The collaborative held two learning sessions in FY10. The first introduced teams to the collaborative’s objectives and change ideas. The second sought to harvest and share emerging best practices from the participating health facilities (Table 4). Five on-site coaching sessions were conducted and mainly focused on guiding health facility QI teams in identifying gaps and addressing the challenges in meeting the improvement objectives. Figure 8 shows results for the collaborative’s key indicator, number of clients started on ART per month. The rising trend in new clients on ART was hampered by a stock-out of ART drugs that began in April 2010.

Table 4. Uganda coverage collaborative: Changes implemented by teams and results

<table>
<thead>
<tr>
<th>Improvement objective</th>
<th>Changes implemented</th>
<th>Support provided by HCI</th>
<th>Results</th>
</tr>
</thead>
</table>
| Improve client waiting time | Triaging  
Nurse visits  
Re-allocation of duties  
Creating duty roster to avoid overlap of duties at the facility  
Pre-packing of cotrimoxazole  
Change in clients records filling to ease retrieval | Support focused on task shifting and involvement of administration and review of roles and tasks in the HIV clinic.  
Supported the clinic to evaluate changes by doing a follow up client flow assessment. | Time last client is seen in the clinic reduced from 5:00pm to 3:00pm  
Average time clients spend in the clinic reduced from >3hrs to 1 hour  
Average time clients spend in clinic reduced from 3.3 hours to <2 hours |
| Improve number of adults tested HIV positive enrolled in care | Support health centers to provide HIV CT and refer clients for care  
Strengthened provider-initiated testing and counseling involving all providers at different departments to identify clients for testing and refer positive clients to HIV clinic | Provided MOH monitoring tools  
Supported team in strategic information system. | The facility met target of linking 20 clients to the HIV clinic every month.  
Increase of clients enrolled from 30% to >60% |
| Improve linkage of exposed infants to care | Registration of mothers’ contacts and calling them to remind and request them to bring children for testing  
Involve other departments in identifying HIV-positive clients and referring them to care clinic for enrollment | Coaching focused on identifying gaps in linking children to care. | Increase in number of exposed children in PMTCT tested for HIV.  
% of HIV-positive clients who were enrolled in HIV clinic increase from <50% to >70% |
| Improve linkage between antenatal, PMTCT & ART clinic | Midwives in the maternity were educated about identifying and linking exposed infants to the HIV clinic on discharging the mothers.  
Assigned a counselor from HIV clinic to receive and counsel HIV positive mothers and enroll their exposed infants in clinic.  
Changed clinic days from 1 to 5 to foster registration of referred children. | Coaching | Started registration of exposed infants in the care clinic and number of exposed infants enrolled in care has increased. |
As part of the coverage collaborative, a study was carried out to assess the efficiency of human resources in six clinics. It focused on how much time patients spent waiting and with providers, productivity of health workers, and provider engagement—the extent to which the health worker is satisfied with her job, motivated and committed to doing it well—a predictor of employee retention and productivity. The assessment found that patients spent approximately 3.5 hours waiting for staff and about 30 minutes in contact with staff. This assessment highlighted two of the challenges in delivering good HIV care: staff have very limited time to spend with clients, and the current system uses staff time inefficiently (too busy in the morning and not busy enough in the afternoon). Any efforts to improve care need to acknowledge the problem of the limited amount of time that clients are seen by providers and develop strategies to address this issue. One way to do this is by helping staff work more efficiently, eliminating redundancies and waste in how care is provided. (Further discussion of the Uganda human resources assessment may be found in section 3.3 of this report.)

Retention collaborative
Since November 2009, HCI has supported 14 MOH facilities to improve patient retention in care. The overall objective of the collaborative was to increase the number of patients on ART retained in care. Facility staff interviewed clients to identify reasons for patients missing appointments and asked clients what changes could help them remain in care. The facility QI teams then chose improvement projects to implement some of the changes that clients suggested. Of the 14 facilities that started in the retention collaborative, 12 have QI teams which are working to improve retention. The changes introduced by sites to help improve retention include supplying two-month doses of ARVs to stable clients, giving the exact number of pills the client will need until his or her next appointment, patients collecting ART in groups, appointment registers, comparing pharmacy and clinic records, and updating patient’s follow-up status to remove the dead or transferred out.

There has not been significant improvement in the aggregated data but when we look at those sites that started with retention below 95%, there has been improvement. The same pattern exists when we look
at only those sites starting with retention below 90% or below 80%. The results of the combined changes are shown in Figure 9.

The improvements in retention have not been as impressive as we had hoped even in those sites with low baselines. One of the reasons for this is stock-outs which have been a national problem since April 2010. Despite this, the processes associated with working to improve retention have been beneficial to sites. Comments made by health workers and clients in the participating sites, listed in Figure 10, help to illustrate some of the qualitative results of this collaborative.

![Figure 9. Uganda retention collaborative: Proportion of ART patients retained in care, Nov. 2009-August 2010, 12 facilities](image)

<table>
<thead>
<tr>
<th>Month</th>
<th>% retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 09</td>
<td>82%</td>
</tr>
<tr>
<td>Dec 09</td>
<td>86%</td>
</tr>
<tr>
<td>Jan 10</td>
<td>85%</td>
</tr>
<tr>
<td>Feb 10</td>
<td>85%</td>
</tr>
<tr>
<td>Mar 10</td>
<td>88%</td>
</tr>
<tr>
<td>Apr 10</td>
<td>84%</td>
</tr>
<tr>
<td>May 10</td>
<td>86%</td>
</tr>
<tr>
<td>Jun 10</td>
<td>88%</td>
</tr>
<tr>
<td>Jul 10</td>
<td>88%</td>
</tr>
<tr>
<td>Aug 10</td>
<td>86%</td>
</tr>
<tr>
<td>Sep 10</td>
<td>86%</td>
</tr>
</tbody>
</table>

#### Figure 10. Uganda retention collaborative: Provider and patient feedback on the changes made

All sites have involved patients in developing strategies to improve care. This has improved the relationships between patients and providers:

- **Discussing problems with patients helps us know and manage them better. Patients are able to tell the real problem.** For example, some clients are open to discuss very private issues like husbands forcing them into unprotected sex and helped them accordingly. – Provider

- **The health workers were so rude to us, we would not ask questions even when our medications changed. It was difficult to understanding the prescription and if one missed any appointment they would be served last. I wanted to leave this hospital and go elsewhere. I think these people have responded to our complaints because health workers are treating us well and report early for work. This is great improvement.** – Patient

14 sites have improved and updated patient’s records to remove the dead and transferred so that they were able to measure retention. At one donor supported facility that had a ceiling on how many patients were able to receive ART. This improvement in data led to them being able to realize they were no longer at the ceiling; they were able to enroll 51 more patients in care:

- **We had no system of knowing the number of patients in our care, collecting data on retention has not only helped us know the number of patients in our care but has also helped in enrolling more patients on ART to replace the dead and those transferred out. Communication to our partners or management and making drug projections and ordering has been made easier.** – Facility manager

9 sites have started to give 2 months supply of ART. This change helped relieve patients of the distance and transport burden. Said one patient:

- **Travelling to the hospital for drugs every month was very difficult. I would lose 2 days of business every month to travel which also affected my health. When I discussed my problem and suggestions with the health workers, they accepted to give me treatment of more than one month. Now I have an obligation to remain adherent to treatment and keep my appointments to continue enjoying this. My business is not affected anymore and I am able to save money to cater for other things.**
Outcomes collaborative

The clinical outcomes collaborative, involving 10 sites, sought to improve treatment outcomes for patients on ART. An important intervention of the collaborative was to help the sites effectively use the revised MOH standard patient monitoring tools that included the patient HIV care/ART card, the pre-ART register, the ART register and the quarterly report form; routinely conduct ART adherence assessments and counseling; improve HIV/TB co-management; and routinely monitor clients. HIV/TB co-management included screening all HIV clients for active TB at every visit, linking the TB suspects to TB diagnostic centers, and linking cases to TB treatment and finally to ART care.

From October 2009-May 2010, the facilities were guided on how to ensure quality services through five on-site coaching sessions and two learning sessions. Changes implemented to improve HIV/TB care included introducing an appointment scheduling in which a specific and manageable number of clients are allocated a particular day for follow-up at the clinic, routine prescription of cotrimoxazole to all HIV clients, continuing education for clinicians on how to assess for clinical improvement and opportunistic infections, posting reminders about the need to assess HIV patients for TB, using expert clients to counsel non-adherent patients, and TB case follow-up in the community. Figure 11 shows that more sites have better patient outcomes since the collaborative started, and much of this success is due to improvements in TB management.

Laboratory collaborative

Following a baseline lab assessment on lab service delivery assessment in 2007, HCI started a laboratory improvement collaborative in 14 sites in August 2009. The objectives of the collaborative were to increase the number of infants and children enrolled in care through improved case detection and early infant diagnosis processes, increase CD4 test coverage among new clients and those in care, and improve the care and maintenance of automated equipment used to support HIV/AIDS care.

The lab collaborative sought to improve the link between HIV-infected infants and the HIV clinic by focusing on improving the dry blood spot testing for early infant diagnosis system and increasing adherence to CD4 testing schedules. Some of the changes made by the 14 participating sites include tracking contact details and location map for HIV-positive mothers on the infant exposure tracking card; integrating dry blood spot testing into immunization visits; informing the community about the need to test children and improving documentation so that exposed infants can be identified at the immunization clinics; indicating a patient’s CD4 results and due date for the next CD4 test on the patient’s card; using expert patients to check the patients’ cards to identify those eligible for a CD4 test; and instituting preventative maintenance procedures and log sheets to avoid breakdown of automated CD4 counters. The collaborative completed its work in September 2010.
Data management collaborative

Since November 2009, HCI has supported 17 facilities in the Ministry of Health Quality of Care Initiative to improve data management through strengthening practices of documentation, analysis and sharing of HIV care data generated at the health facility level. The collaborative aimed to support sites to accurately and completely use the MOH patient monitoring tools and to ensure efficient record management practices. Through on-site coaching and mentoring visits and learning sessions, HCI and MOH supported sites on the use of HIV care registers and patient cards, efficient storage and retrieval of patient files, and systematic tracking of QI efforts in the documentation journal and synthesis forms. By October 2010, all 17 sites were longitudinally monitoring the HIV patients in care using the MOH tools. Sites re-arranged their patient files sequentially and assigned individuals to coordinate retrieval on clinic days, leading to efficiency that resulted in clinic days ending 2-3 hours earlier than before the collaborative.

All facilities, though not consistently, use the documentation journals to document QI efforts and synthesis forms to share QI results during learning sessions. Nyenga Hospital is one good example that improved the proportion of patient cards accurately filled in by training all staff members on how to use these cards and monitoring completion of cards on a daily basis for TB assessment, WHO staging, presence of opportunistic infections, patient’s duration on ART, and adherence to ART. Data were compiled weekly and discussed with clinic staff. After four weeks, 80% of patient records were filled in completely and accurately, compared to 38% before the team’s intervention.

In six sites, HCI staff analyzed the changes that teams were testing and compared them to sites’ overall performance in managing clinical information, including improving storage and retrieval systems to reduce time required to retrieve patient files. The findings indicate that, through introducing various changes ranging from re-arranging patients files sequentially to separating pre-ART and ART files, the sites significantly reduced the time it takes to retrieve a single patient’s file on a clinic day. Such improvements, shown in Figure 12, ensure clinic efficiency, lessen the time patients spend in the clinic, and free up time for health workers to provide clinical care.

Figure 12. Uganda: Reduction in average retrieval time for patient records, Dec. 2009 vs. May 2010

![Average retrieval time comparison chart](chart-url)
HCI completed a cost-effective analysis of the data management collaborative in September 2010. The collaborative was found to have had a significant positive net benefit in the clinics providing HIV services. If the staff-time savings achieved from the efficient records management techniques were reproduced in all accredited HIV clinics across the country, it would equate to hiring between 328 and 1902 additional health workers. The collaborative recommended implementing these interventions in all clinics throughout the country.

**Nutrition collaborative**

HCI collaborated with the USAID bilateral NuLife to develop a QI approach to integrating nutrition care and treatment into HIV clinics. QI teams from facilities that previously had been supported by HCI were trained by NuLife on how to assess patients for malnutrition and prescribe ready-to-use therapeutic food to treat malnourished patients. Facility teams were then supported by regular coaching visits from MOH staff (regional nutritionists and regional QI coordinators) who would help the sites improve their technical skills and adapt their systems and processes to integrate nutrition support. Considerable success has been achieved in identifying and initiating treatment but default rates are still too high. Figure 13 shows the increase achieved in the percentage of HIV patients whose nutritional status was assessed at each visit. The number of people receiving treatment for severe and moderate acute malnutrition has grown steadily, from zero in February 2009 to 1184 by July 2010.

![Figure 13. Uganda: Percentage of HIV clients whose nutritional status is assessed and categorized in 44 HIV/ART clinics, Apr 2009−July 2010](image)

**Private sector collaborative**

HCI launched this collaborative in October 2009 to link government systems to private TB and HIV care providers. HCI worked with district teams to link 10 sites to the district and provide private sector providers with free access to TB drugs, laboratory reagents, HIV test kits, and Cotrimoxazole. Poor documentation was identified as one on the main gaps in the private sector facilities. To improve documentation sites decided to adopt and use MOH patient monitoring and reporting tools. As of July 2010, the collaborative had linked 13 private TB/HIV sites to government systems by introducing the MOH record system for HIV patients and improved documentation in 12 of those sites. In order to improve TB screening and case detection, one site started using the MOH’s intensified case finding form for TB for all their clients during triage. This site was able to detect six new cases of TB within one month, compared with one or none in the months prior to introduction of the tool. Another site was able to improve adherence to ARVs by reviewing with all providers how to screen for adherence.

**District health management collaborative**

This collaborative, launched in FY09, is strengthening the capacity of 39 District Health Teams (DHTs) to support quality improvement at the facility level within their respective districts. The collaborative’s focus was to train and coach DHTs to implement QI activities independently, carry out district-level...
improvement activities that affect HIV care in the districts, and monitor their performance using district QI documentation journals. Some of the improvements made by DHTs include: improving the timely ordering of drugs; increasing ARV buffer stocks; following up on orders with the National Medical Stores through telephone contacts; coaching sites in correct use of the standard MOH monitoring tools; reallocating ARVs among facilities to make most efficient use of available stores; mapping out CD4 machine availability in the region and assigning each facility to its closest CD4 center in order to reduce congestion of CD4 labs and improve communication between CD4 centers and their catchment facilities to inform sites when labs were not operational. Figure 14 shows progress achieved in the district management collaborative through June.

Figure 14. Uganda district health management collaborative: Results through June 2010

![Graph showing progress](image)

National Level Support

In partnership with the Ministry of Health, HCI hosted a chronic care design workshop with national and international participants in May 26-28, 2010 and designed a chronic care model that can be applied in Uganda and other countries. A follow-on workshop on May 31 introduced the chronic care model to over 200 Ugandan participants.

USAID conducted a formative evaluation of the Ministry’s HIV/AIDS Quality of Care (QoC) Initiative in June-July 2010. The purpose of the evaluation was to determine whether QoC is on track to achieve its program objectives, and to assess the program’s strengths and challenges in order to make programmatic and management improvements in MOH partner support to the initiative. Specifically, the evaluation was designed to provide insights regarding the QoC initiative’s impact on effectiveness, collaboration and coordination, capacity-building, institutionalization, sustainability, and progress I accrediting ART sites; outline the hindering and facilitating factors; determine lessons learned from implementation of the initiative; and provide recommendations.

The evaluation team found that the QoC has been largely effective in improving HIV services and has improved partner coordination, gaps exist, especially at the district level. Capacity has been built at national, regional, district and facility levels, but institutionalization remains weak and the initiative has not focused on structural issues such as staffing, lack of space, and resources. The evaluators found little evidence of facilities prioritizing and implementing improvement cycles and a tendency for sites to focus on simple issues rather than more complex problems, such as stock-outs and availability of CD4 testing. However, improvements in data quality have made it easier for QI teams to identify problems. The evaluation team recommended that after strengthening the Quality Assurance Department (QAD) in the MOH, the QoC initiative should be housed within the QAD in order to facilitate planning, budgeting and sustainability and to integrate the QoC initiative into other service areas at the health facility level. The evaluation team also noted that facility leadership, especially among nursing officers, is instrumental in quality improvement; consequently, QI work should be included in the basic job description of all managers so QI becomes an integral part of supervision.
Baseline assessment for a new palliative care collaborative

One outcome of the Chronic Conditions Design meeting was planning for a new palliative care intervention in Mayuge and Namutumba districts. The goal of this work is to develop and refine best practices for improving palliative care, support the scale-up of palliative care services in low-resource settings nationally and internationally, and engage and define the role of the district and national health system in setting up and sustaining quality palliative care services. The collaborative will support 13 sites, including nine providing ART and four non-ART centers, to deliver high quality palliative care. A baseline assessment conducted in August and September 2010 found that palliative care was not routinely provided to patients in these two districts. The main reasons were that drugs were not readily available and that staff were not trained in pain management.

Maternal newborn health program

This new program will be launched in FY11 with the goal of contributing to reducing neonatal mortality in Uganda. During the last quarter of FY10, HCI held meetings with the MOH and with different partners that are carrying out activities related to maternal and newborn care within the different districts, and work out the areas in which we can partner and collaborate.

Directions for FY11

All activities during FY11 will be carried out under TO3. During FY11, HCI plans to increase care for HIV patients by ensuring all facilities use the ART Framework to prioritize QI, implementing regional grouping with learning sessions focusing on three gaps, and work mainly through district and regional MOH coaches. HCI will support a new demonstration collaborative to improve pain management for patients in two districts and support activities to improve the active management of the third stage of labor, newborn care, and links between child health and HIV services in two other districts. HCI will implement the Chronic Care Model in one district in collaboration with the USAID bilateral project SUSTAIN. We will also support the central MOH to institutionalize QI further, develop QI training curricula and define capacity development plans for all areas of the MOH. In addition we will support the MOH to strengthen the QI skills of STAR and other partners working in Uganda.

ASIA

2.9 Afghanistan

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support the MOPH in building capacity for improvement nationwide</td>
<td>Adapt and institutionalize the science of improvement in Afghanistan.</td>
<td>Nationwide, initially focused on strengthening the MOPH at the central level while demonstrating practical improvement science through a series of improvement collaboratives.</td>
</tr>
<tr>
<td>Maternal and newborn health (MNH) facility collaborative</td>
<td>Reduce maternal and newborn mortality and morbidity through improved quality of care using the improvement collaborative approach.</td>
<td>In the demonstration phase, five provinces out of 34 in Afghanistan. The collaborative began in 2009 in Balkh and Kunduz and expanded to Parwan, Bamiyan, and Herat provinces in the third quarter of FY10. In Kunduz Province, one regional hospital, four comprehensive health centers, eight basic health centers, and two subcenters; total estimated catchment population is 477,677 out of the total population of 882,900. In Balkh Province, one regional hospital, one district hospital, one comprehensive health center, six basic health centers,</td>
</tr>
</tbody>
</table>
and one subcenter. Total estimated catchment population is 533,518 out of the total population of 1,144,800.

- The facilities and estimated catchment area for Parwan, Bamiyan and Herat provinces are to be determined.

- 5 provinces out of 34 in Afghanistan. The collaborative began in 2009 in Balkh and Kunduz and is expanding to Parwan, Bamiyan, and Herat provinces in 2010. In each province, this collaborative will focus on between 10 and 57 health posts (involving 1-2 CHWs per health post) in Kundiz and Balkh respectively, which are connected with three health centers in each province. Total estimated catchment area is 61,963. The coverage in the three new provinces is to be determined.

- One province of 34 in Afghanistan, Kabul. Four maternity hospitals within Kabul plus three private hospitals. Total estimated catchment area is 3,449,800 out of approximately 4,000,000 residents of Kabul.

### Kabul maternity hospital demonstration collaborative
- Reduce maternal and newborn mortality and morbidity through improved quality of care using the improvement collaborative approach.
- One province of 34 in Afghanistan, Kabul. Four maternity hospitals within Kabul plus three private hospitals. Total estimated catchment area is 3,449,800 out of approximately 4,000,000 residents of Kabul.

### Main Activities and Results

During the first four months of FY10, all HCI assistance in Afghanistan was funded through TO1; beginning in February 2010, all HCI assistance was funded under TO3.

#### Support to the MOPH to build capacity for health care improvement

As part of its technical support to the Department of Quality Improvement and Assurance of the Ministry of Public Health (MOPH) as it develops a strategy for quality in health care, HCI organized a one-day Round Table in January 2010 on quality improvement for senior MOPH officials, including her Excellency Dr. Nadira Hayat Burhani, the Deputy Minister for Health Service Provision. The meeting provided an opportunity for thoughtful conversation among members of the MOPH, partner organizations, and a panel of experts. The purpose of the seminar was to share relevant international health care improvement experiences with the MOPH so it can draw on them as it develops its national strategy and makes progress in improving the quality of health care services. Dr. M. Rashad Massoud, HCI Director, designed the meeting as a forum in which both local and international expertise could be brought to bear in approaching Afghanistan’s unique issues of quality. The experiences shared by the panelists represented a wide range of diverse health care systems, including those in South Africa, Malaysia, Palestine, Sweden, the United Kingdom, Rwanda, and Tanzania. Topics discussed included vision and prioritization, defining quality, leadership to create and sustain a culture of quality, empowering local staff and communities, adapting processes to the local context, using data for decision making, learning and spread, involving stakeholders, setting standards, training and resources for health workers, the challenge of partner and donor coordination, and different approaches to quality. The meeting was followed the next day by a debriefing where MOPH staff, the panelists, and other participants discussed the ideas of the first day in more detail.

Immediately following the Round Table meeting, the Unit for Improving Quality in Health Care was inaugurated by the Acting Minister of Public Health, and the MOPH convened the first meeting of the MOPH Task Force for the development of the Strategy for Quality in Health Care, with participation of different departments of the MOPH and partner organizations. A result of this meeting was the decision to develop a small group of technical experts who would work on the strategy development and present it to the larger group upon completion.

In December 2009 and January 2010, HCI developed a short QI course for the Afghanistan Public Health Institute (APHI) and MOPH to be included in the APHI curriculum. The short course consisted
of two 90-minute sessions on QI for postgraduates as part of their pre-service training. The sessions were held in February and March 2010.

Regional MNH facility collaborative in Balkh and Kunduz provinces

The first learning session for the demonstration phase of this collaborative in Balkh and Kunduz provinces was conducted in October 2009. QI teams were introduced to interventions and quality indicators related to improving ANC counseling, birth preparedness, hand hygiene, active management of the third stage of labor (AMTSL), and essential newborn care. Participants included representatives of the Provincial Public Health Offices (PPHO), implementing partners from the Basic Public Health Services (BPHS) Project, and health facility QI teams. Following the learning sessions in Kunduz and Balkh provinces, the first and second round of coaching visits were performed to all targeted health facilities in both provinces.

The second learning session was convened jointly for facilities participating in the Balkh and Kunduz maternal newborn care collaborative and was conducted jointly in Kabul in January 2010, to promote sharing between the teams. Representatives from Provincial Public Health Offices and implementing NGOs from both Balkh and Kunduz Provinces participated, as well as representatives from seven health facilities from Balkh and thirteen health facilities from Kunduz Province, totaling 38 participants.

Regional MNH community collaborative in Balkh and Kunduz provinces

In preparation for a community level MNH collaborative in Balkh and Kunduz provinces to complement the work of the facility collaborative, in November (Balkh Province) and December 2009 (Kunduz Province), HCI Afghanistan collected data through household surveys designed to measure baseline data on maternal knowledge, care during pregnancy, care during and just after delivery, maternal and newborn care during post-partum period, and family planning. In total, 660 women with a child 0-23 months were interviewed in Balkh province (300 in the intervention area and 360 in control areas) and 539 women with a child 0-23 months were interviewed in Kunduz province (299 intervention and 240 control). The results of the survey were used to determine baseline data and prioritize interventions for the collaborative. HCI also conducted a stakeholder workshop to orient and solicit feedback from MOPH officials, NGO partners, and CHW representatives on demonstration community collaborative objectives and strategy.

Key findings of the baseline surveys are shown in Figure 15. The surveys showed that women in Balkh reported that a higher percentage of their births were attended by a skilled birth attendant. However,
higher percentages of women in Kunduz reported that their newborns were dried immediately after birth and were wrapped in a blanket immediately after birth. Immediate and exclusive breastfeeding rates were below 50% in both provinces. The percentage of women receiving post-partum visits was very low in both provinces, although the rate was higher in Kunduz than in Balkh. Highlighting one of the reasons such visits are important, rates of maternal knowledge of postnatal care components, postpartum danger signs, and newborn danger signs all showed significant room for improvement.

**Kabul maternity hospital collaborative**

In coordination with the MOPH, HCI developed assessment criteria for identifying eligible public and private maternity hospitals that led to the selection of hospitals to be included in Kabul maternity hospital collaborative in December 2009. Four public hospitals (Malalai, Rabia Balkhi, Isteqlal and Khair Khana hospitals) and three private hospitals (Afghan, Mehdi and Sheeno Zadawere) selected to be included in the collaborative.

**Directions for FY11**

FY11 activities in Afghanistan will be carried out under TO3. At the national level, HCI will support the “helping babies breathe” initiative and will provide technical support, monitoring, and equipment including job aids for its successful implementation in seven Kabul national hospitals and five provincial/regional hospitals. At the regional level, HCI will fully implement the health facility collaborative in the three new provinces and aim to extend the improvement activities to an additional six provinces by the end of FY11. HCI will also conduct new studies, including community health quality improvement research in Kunduz and Balkh; data validity study design and implementation; and best practices spread strategy design and implementation.

### 2.10 Indonesia

**Overview of HCI’s Program in FY10**

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis CD-ROM and Computer-based training (CBT)</td>
<td>• Develop updated tuberculosis (TB) CD-ROM and computer-based training (CBT) package in Bahasa Indonesia for medical practitioners in Indonesia, especially those in the private sector • Support the Indonesian National Tuberculosis Program (NTP) in CBT and disseminating the CD-ROM</td>
<td>Product for national level application in Indonesia, with a population of approximately 240 million</td>
</tr>
</tbody>
</table>

**Main Activities and Results**

During FY10, HCI developed the content for the TB CD-ROM, including nine training modules, job aids, and other reference materials and translated them into Bahasa Indonesia. The content was submitted for review by the senior in-country TB expert, the Chief Pulmonologist from Persahabatan Hospital in Jakarta. In the fourth quarter of FY10, URC held a brainstorming meeting in Jakarta with the in-country expert and the team from the private medical association, Ikatan Dokter Indonesia (IDI). The media group OneComm was recruited to prepare the CD-ROM and is preparing graphics, layout and media programming while awaiting approval of the NTP. The CD-ROM review team has been selected and includes members of the NTP, IDI, and other in-country experts.

**Directions for FY11**

Upon the NTP's approval of the CD-ROM's content, the national level personnel and IDI headquarters staff will receive an orientation in use of the CD-ROM and accompanying materials. HCI will support the development of the strategy for distribution and dissemination of the CD-ROM package through IDI and the NTP. We will explore the use of web updates for the product.
## EUROPE

### 2.11 Russia

**Overview of HCI’s Program in FY10**

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MCH/reproductive health collaboratives (&quot;Improving Care for Mothers and Babies&quot;)</strong></td>
<td>Identify, introduce and test appropriate packages of interventions to reduce maternal and infant morbidity and mortality and abortions. Increase use of modern contraceptive methods</td>
<td>Three oblasts (Kostroma, Yaroslavl, and Tambov) out of 83 regions in Russia, 23 facilities covering 75% of births with some 500,000 women of reproductive age and infants served or benefited</td>
</tr>
</tbody>
</table>

### Phase I completed, results synthesized

<table>
<thead>
<tr>
<th>Activity</th>
<th>Interventions</th>
<th>Regions</th>
<th>Number of project facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevention of hypothermia and respiratory disorders among newborns</strong></td>
<td>Introduce a regime of temperature control, skin-to-skin contact and rooming-in based on QAP's successful experience in Russia 1998-2004</td>
<td>Yaroslavl</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tambov</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>16</td>
</tr>
<tr>
<td><strong>Broadening implementation of breastfeeding practices</strong></td>
<td>Introduce materials and training tools from the UNICEF baby-friendly hospital model</td>
<td>Yaroslavl</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tambov</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>12</td>
</tr>
<tr>
<td><strong>Optimizing labor management through the use of the partograph</strong></td>
<td>Introduce the WHO partograph with a companion algorithm on managing labor problems to reduce newborn asphyxia and birth trauma</td>
<td>Yaroslavl</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tambov</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
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</tr>
<tr>
<td><strong>Prevention of unwanted pregnancies, abortions, and STDs among teens</strong></td>
<td>Promote UNICEF Youth-Friendly Clinic model</td>
<td>Yaroslavl</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tambov</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>9</td>
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### Under ongoing development

<table>
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<tr>
<th>Activity</th>
<th>Interventions</th>
<th>Regions</th>
<th>Number of project facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improvement of primary neonatal resuscitation</strong></td>
<td>Support implementation of a new Russian regulation closely related to the 2010 update of the American Academy of Pediatrics’ Neonatal Resuscitation Program</td>
<td>Yaroslavl</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tambov</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>18</td>
</tr>
<tr>
<td><strong>Regionalization of perinatal care</strong></td>
<td>Reduce perinatal mortality and maternal morbidity through development of three-level regionalized systems of perinatal care, systems for identification of high-risk pregnant women and intrauterine transport of high-risk newborns, and scientifically-based protocols for prevention and management of preterm birth</td>
<td>Yaroslavl</td>
<td>Collaboration at the level of regions and institutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tambov</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tver</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Ivanovo</td>
<td></td>
</tr>
</tbody>
</table>

### Main Activities and Results

During FY10, all activities related to the MCH/reproductive health collaboratives in Russia were carried out under TO1, while the HIV and TB-related assistance was provided through TO3.
Collaborative on prevention of hypothermia and respiratory disorders among newborns

In 15 maternity hospitals (the 16th participating facility being a children’s hospital), the project introduced a package of interventions designed to maintain the “warm chain” for neonates. This involved, at many facilities, not only improvement in monitoring and control of ambient temperature, assuring a two-hour skin-to-skin newborn contact with the mother, but also major procurement—widespread installation of thermostat-controlled ceiling-hung heaters, replacement of windows, building remodeling to create single delivery rooms, as well as the repair of electrical systems. In May-June 2009, at initial region-level learning session, facilities selected this improvement goal, analyzed their systems and began to develop work plans. A brief written job aid was published and disseminated in September 2009. Implementation of interventions was tested intensively beginning in October 2009 and supported by project neonatology and quality improvement experts during quarterly site visits. Most facilities had adopted new policies and begun temperature control, remodeling and equipment installation before the learning sessions in October-November 2009. They exchanged experiences and results at a February 2010 joint learning session for all three regions, and the results were synthesized and discussed at the fourth learning session held in June 2010.

We compared the effects of the changes introduced on hypothermia (T<36.5°C) upon arrival at the postpartum room with those of diagnosis of respiratory disorders characteristic of the perinatal period (ICD-10 codes P22-P28) during the winter months of January-March 2009 and 2010. While our focus was on respiratory distress syndrome, shown to be related to hypothermia, we included the entire category of disorders in our audit, in order to minimize the impact of diagnostic errors within the category, and found them to be common. Among the nine hospitals for which comparative data on respiratory disorders were available, the rate of respiratory disorders declined sharply—by 60% among pre-term infants and by 40% among full-term infants, as shown in Figures 16 and 17.

Breastfeeding collaborative

In May-June 2009, at initial region-level learning sessions, the facilities selected this improvement goal, analyzed their systems, and began to develop work plans. The project organized courses on effective support and consultation of breastfeeding mothers using the 1993 WHO/UNICEF 40-hour curriculum “Breastfeeding counseling: A training course.” Some 45 providers from Kostroma and Tambov regions participated in two separate training sessions in November 2009 and in turn trained medical staff at their own facilities. Intensive support was provided by project pediatric experts during site visits. Teams shared their results and experiences at the third joint learning session in February 2010, which also
included a presentation from the coordinator of the “Baby-Friendly Hospital” initiative, Dr. Lyubov V. Abolyan. Good practices were identified at the fourth learning sessions in June 2010.

Facility teams implemented a range of interventions. At least three facilities adopted hospital-wide policies supporting breastfeeding. The importance of breastfeeding for infant nutrition and techniques to support it were incorporated into education programs for prospective parents at women’s consultation and maternity hospitals. Informational stands and slogans supporting breastfeeding were posted on maternity department and clinic walls. To support this, the project printed and distributed 10,000 informational brochures and 98 posters. Babies were placed at the breast immediately after birth in the delivery room—including at some hospitals, after caesarian section; at eight hospitals, skin-to-skin contact was maintained for at least two hours in over half of all births. Nipples and bottles were eliminated from maternity wards; babies unable to breastfeed were fed from a small cup. Universal rooming-in was supported, and new mothers were instructed on breastfeeding on demand. Seven facilities introduced breastfeeding support programs at children’s polyclinics, including information hotlines and, at two facilities, links with groups of volunteer mothers who provide peer support.

In June 2010, after 13 months of HCI-supported improvement activities, one of our leaders in implementing changes in maternity care, Michurinsk City Hospital No. 2 in Tambov Oblast, was inspected and certified as a “Baby-Friendly Hospital” under the WHO/UNICEF breastfeeding initiative. The project supported initiative staff in carrying out the inspection and review. As of the end of FY10, Tambov Oblast Children’s Hospital was also preparing for such certification; Dr. Abolyan used them as a basis to develop a certification program for children’s hospitals, and they are likely to be the first hospital in Russia to receive it. Our partners there pioneered an effort to establish exclusive breastfeeding among sick babies who had not been breastfed upon transfer from the maternity hospital. Figure 18 show the positive trends in exclusive breastfeeding maintained at three and six months of age following delivery in the intervention facilities.
Collaborative on optimizing labor management through use of the partograph

The project introduced a change package designed to improve management of labor through introduction of the WHO partograph, adoption and posting of algorithms for managing complications, training doctors and midwives on these key elements and proper use of partographs, and daily and monthly chart audits. Use of the partograph was first introduced in Russia in the early 1990s, but it has never been mandated and is highly controversial. Due to this controversy, it was agreed, at initial learning sessions, that one participating facility, Yaroslavl City Clinical Hospital No. 2, where the partograph had been introduced two years previously, would serve as a pilot facility to test the feasibility and acceptability of using the partograph for 100% of births begun vaginally. This hospital began implementation and training all maternity department staff in June 2009. An additional three facilities introduced the partograph between August and October 2009. In September 2009, the project published a change package, and from November to December distributed 6000 partograph forms to Kostroma and Tambov regions. Implementation was supported through training and audits by obstetrics experts during quarterly site visits and learning sessions; an intensive discussion of the merits and disadvantages of the partograph was held during the third joint learning session in February 2010. Results were synthesized and discussed at the fourth learning session held in June 2010.

Of 13 hospitals indicating their intent to adopt this change package, eight had fully done so, as indicated by consistent partograph completion rate in at least 90% of vaginal births during the period from April-June, 2010. For those eight hospitals, we compared rates of diagnosis of hypoxia, asphyxia, and birth trauma for the April-June 2010 period (after full implementation) with those in the period April-June 2009 (pre-intervention). During the earlier period, the partograph was used at only one of the eight hospitals, Yaroslavl City Clinical Hospital No. Two, where it was completed in 60% of births. We found a highly statistically significant reduction in the combined relative risk of hypoxia and asphyxia. The risk in the 2010 period was only 57% of that in 2009 (Figure 19), with no significant differences among hospitals. Analysis of the effect of its use on birth trauma found a non-significant reduction of 27% in risk in 2010 compared to 2009. Audit results and analyses suggest that the partograph permitted physicians to more accurately assess labor timing and progress and reduced over-diagnosis of weak labor and over-use of contraindicated interventions such as induction of labor and vacuum extraction in cases of possible hypoxia.

Figure 19. Russia labor management collaborative: Optimizing outcomes with the partograph and algorithms

<table>
<thead>
<tr>
<th>Relative Risk in 2010 vs. 2009:</th>
<th>0.57</th>
</tr>
</thead>
<tbody>
<tr>
<td>95% CI (0.42, 0.78)</td>
<td></td>
</tr>
<tr>
<td>Stratified by hospital and</td>
<td></td>
</tr>
<tr>
<td>combined by Mantel-Haenszel</td>
<td></td>
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<tr>
<td>method p=0.0003</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr-Jun</td>
<td>Apr-Jun</td>
</tr>
<tr>
<td>Number of cases</td>
<td>Number of live births</td>
</tr>
<tr>
<td>108</td>
<td>1493</td>
</tr>
<tr>
<td>Percent of cases</td>
<td>7.1%</td>
</tr>
<tr>
<td></td>
<td>3.5%</td>
</tr>
</tbody>
</table>
Collaborative to prevent unwanted pregnancies and sexually transmitted diseases (STDs) among teens

At the first project learning sessions in May-June 2009, facilities selected this improvement goal, analyzed their systems and began to develop work plans. Guidance documents for the UNICEF “Youth-friendly Clinic” model were distributed at this time, and a large number of publications and educational materials on teen reproductive health were provided to participants at the third learning session in February 2010. The project printed and distributed 35,000 educational brochures as well as over 1,600 reference books for hospitals and texts for schools. Training of trainers on reproductive health and contraception counseling was provided for 11 gynecologists from the three regions in March 2010. Through June 2010, two facilities in Kostroma region and one facility in Tambov regions were successful in fully implementing a change package that included creating “Youth-friendly clinics” along the UNICEF-supported model, training staff on counseling teens, and provision of services to teens, including pre- and post-service counseling and provision of contraceptives. In addition, the Kostroma Center for Family Planning and Reproductive Health created a counseling training program for staff of other facilities in the oblast. Our Kostroma partners also took part in mass anti-abortion activities in July 2010, which included an activity at a youth discotheque and distribution of over 17,000 educational leaflets. As a result, these programs covered much of the region. Experience was synthesized at the fourth learning session in June.

During the period from January-April 2010, after implementation of the project, 2,459 girls visited these three youth-friendly clinics, an increase of 50% over the same period in 2009, just before implementation of the project. From this number, 502 girls were tested for STDs, an increase of 30% over the same period in 2009. Between the two clinics that also counseled boys, the number of visits grew from 265 in January-April 2009 to 352 in January-April 2010, a 33% increase. The Tambov site, City Polyclinic No. Five, analyzed the uptake of contraceptives among teens counseled and found that in 2010, 337 teens accepted barrier contraception, compared to 123 a year earlier, and 98 teens accepted hormonal contraception, compared to 35 a year earlier. Both figures represent 175% increases. In 2009, which included seven months of project activities, the number of abortions among teens aged 15-17 in Kostroma oblast was halved compared to 2008, and the number of repeat abortions and teen births fell back to 2007 levels, after a jump in 2008.

Primary neonatal resuscitation collaborative

Russia’s Chief Neonatologist, Elena N. Baibarina, asked the project to focus on this improvement goal in order to prepare for an important revision in the Russian protocol for primary neonatal resuscitation. Unlike the American Academy of Pediatrics Neonatal Resuscitation Program (NRP) guidelines, which are revised every five years and are generally adopted worldwide, the Russian guidelines were based on federal regulations and had last been updated in 1995. The new protocol, incorporating the latest scientific information, was finally published in April 2010, and the old regulations formally abolished in August 2010.

The project’s contribution in this area was two-fold. First, project neonatology experts worked with participating facilities during quarterly site visits to improve their documentation of newborn vital status and provision and documentation of primary neonatal resuscitation. Second, we supported the regions in their training program development, which would allow for training all medical staff in maternity departments and ambulance services to assist in providing primary neonatal resuscitation, as required by the new regulation. The project supported a training of trainers program based on the NRP, using NRP materials in Russian. Sixteen trainers from three regions (four from Tambov, six from Yaroslavl, and six from Kostroma) were trained in December 2009 and were provided copies of the materials for use in trainings they were to perform. In January 2010, we provided Tambov and Kostroma regions each with an advanced training manikin (Laerdal Newborn Anne) to use in their training programs. The training programs developed by the regions varied greatly in comprehensiveness and coverage. Yaroslavl trainers
contributed to a 72-hour certificate training course at Yaroslavl State Medical Academy in Primary Neonatal Resuscitation and Stabilization, while the training team from Kostroma oblast provided brief, two-hour, on-site trainings. Tambov Region established a training center at the regional children’s hospital, thus providing eight hours of theoretical training and eight hours of on-site, hands-on training. Leading neonatologists from the Kulakov Center have assessed the Tambov program as one of the best regional training programs in the country, and we plan to replicate it in the next phase of the project.

New federal regulations issued in December 2009 and June 2010, require creation of three-level regionalized systems of perinatal care, a widespread practice in the U.S. and Western Europe. During FY10, HCI began working with five regions to develop these regionalized systems. The project organized an “International Scientific Practical Conference: Regionalization of Perinatal Care,” held May 20-21, which was co-hosted by Tver State Medical Academy and Tver Region, and co-sponsored by the Kulakov Center. There were 148 participants from our five target regions and the representatives of five others attended as well. The project supported the participation of four international experts: Dr. David Gagnon, a quality of care expert from the National Perinatal Information Center; Dr. John V. Hartline, a neonatologist from the American Academy of Pediatrics (AAP); Dr. Hyagriv Simhan, a maternal-fetal medicine specialist from the University of Pittsburgh; and Dr. Peter Krcho, a neonatologist from Slovakia. It also translated and distributed U.S. guidelines on regionalization of care, as well as articles on creation of databases for QI of regionalized care. A follow-up conference is planned for March 2011.

The project, together with the Ivanovo Institute, supported Kostroma Region in developing a plan for routing high-risk pregnant women to the proper level of care. Since Kostroma lacks a Level III perinatal center, it has developed a collaborative relationship with the nearby Ivanovo Institute to provide consultation, specialty support, and Level III perinatal care. A software program developed by the Ivanovo Institute was designed to develop care plans for pregnant women based on their level of risk; the Ivanovo Institute has adapted this software to match the new Russian regulations, and in September 2010 the project procured computers to enable Kostroma to pilot this software as a means of directing women to the appropriate level of care.

In January 2010 the project published a change package on Prevention and Management of Pre-Term Birth, which is a key element of a regionalized care system. A subsequent audit showed that the key elements of this change package appear to have been implemented in 80% of pre-term births in participating facilities, but documentation of care is not yet sufficient to assess care provided to women in pre-term labor who are transferred to a higher level of care—a key element of a regionalized care system and of the change package. This package will be refined during the next phase of the project.

Directions for FY11

Continued activities under the “Improving Care for Mothers and Babies” project in FY11 will be conducted under TO3. HCI will work to establish a formal collaborative relationship between Russian neonatologists and AAP and support the US-Russian collaboration on healthy lifestyles and hypertension control. Pending Ministry of Health and Social Development approval, HCI will also expand MCH activities to four more regions: Ivanovo, Tver, Ryazan, and Tula.
LATIN AMERICA AND THE CARIBBEAN

2.12 Bolivia

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| TB spread collaborative: To spread QI methods and lessons learned in the demonstration collaborative conducted in other communities, to five health care networks in the City of El Alto | ▪ Improve the quality and coverage of TB control activities  
▪ Increase detection of new TB patients (400 detected in 2008 out of 900 expected)  
▪ Increase TB cure rates (65% in 2008) and reduce abandonment rates (up to 12% in 2008)  
▪ Improve the quality of sputum samples (>45% unusable samples at project start) and laboratory activities | ▪ Approximately 900,000 inhabitants in the Municipality of El Alto, which encompasses five Health Care Networks. These networks include 4 hospitals, 43 health centers and 18 laboratories  
▪ Approximately 900 TB patients are expected to live in El Alto. Currently, the MOH detects and treats only 400 (45%). |

Main Activities and Results

During the first quarter of FY10, HCI assistance in Bolivia was carried out under TO1. In that period, HCI worked to address the problem of frequent stock-outs of TB drugs, chaotic drug management, and high levels of expired drugs through the development of DOTS boxes. This approach uses individual plastic containers that hold a complete course of treatment for each patient—labeled with each patient’s name, treatment type, and other key information—and provides rules for proper storage and handling. After conducting baseline assessments and revising the logistics system with the MOH, 156 personnel were trained in the logistics system tools in December. As of January 2010, all HCI assistance in Bolivia was provided under TO3.

Directions for FY11

In FY11, HCI will work to support the National TB Program to develop, test, and scale up a database for TB monitoring and planning and implement a strategy for training MOH personnel. At the regional/district level, we will spreading the improvements in TB control that were learned at El Alto to the cities of Santa Cruz and Cochabamba. The work at El Alto will be continued with a focus on case detection, HIV/AIDS and TB co-infection, and MDR TB. We will also work to strengthen the capacity of the El Alto regional MOH team to manage the TB program. At the service delivery level, we will test and disseminate the use of the updated CD-ROM coupled with incentives to promote self-training. We will strengthen QI teams’ use of QI monitoring and improvement tools and the use of learning QI tools, which includes the SES tools.

2.13 Guatemala

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| Basic Promotion of Essential Obstetric and Newborn Care (ProCONE) collaborative | ▪ Reduce maternal and neonatal mortality by scaling up EONC best practices at the primary and secondary levels | ▪ 8 of 29 health areas  
▪ 165 of 581 facilities in the 8 health areas, including: 16 hospitals, 67 24-hour care centers, and 78 health centers and posts  
▪ 1,850 of 6,215 service providers in the 8 areas  
▪ Of 5.85 million population in the covered region, 1.7 million benefitted (14 million in the whole country) |
| Community ProCONE collaborative | Reduce maternal and neonatal mortality by scaling up EONC best practices at the community level | Prioritized communities per health area:  
- Quetzaltenango = 3  
- Solola = 18  
- Chimaltenango = 7  
- Totonicapan = 8  
- Huehuetenango = 20  
- Quiche = 5  
- Ixil = 8  
- Total = 69  
- San Marcos = 439  
(Alta Verapaz is not participating in the Community ProCONE collaborative) |
| Complications ProCONE collaborative | Reduce maternal and neonatal mortality by scaling up EONC best practices at the secondary and tertiary levels | Hospitals per health area:  
- Quetzaltenango = 2  
- Solola = 1  
- Chimaltenango = 1  
- Totonicapan = 1  
- Huehuetenango = 2  
- Quiche = 4  
- Ixil = 1  
- San Marcos = 2  
- Alta Verapaz = 3  
- Total = 16 |
| Family Planning Collaborative | Improve access to and quality of FP services | 1 hospital and 11 health centers in the Zacapa health area |
| Conditional Cash Transfer Program (CCTP) | Improve quality of health service delivery, bring about behavior change in municipalities participating in the CCTP, and document impact | 9 health areas out of 29:  
- Total municipalities in priority health areas = 157  
- Total CCTP municipalities (priority 1 and 2) = 130  
- Total CCTP municipalities = 100 in 9 priority health areas with HCI support (77%)  
- Total municipalities in the country = 333 |
| Quality Management Systems (QMS) | Implement the QMS in the MOH based on ISO 9001:2008 certification requirements | MOH headquarters, San Marcos Health Area Directorate, and three pilot facilities in San Marcos Health Area |

**Main Activities and Results**

During the first six months of FY10, all HCI assistance in Guatemala was funded through TO1; beginning in April 2010, all HCI assistance was funded under TO3.

**Basic ProCONE collaborative**

The health areas participating in the Basic ProCONE Collaborative have continued to improve their compliance with maternal and neonatal care standards as evidenced by measurements collected on all indicators during the year. Both the demonstration phase that started in 2007 in San Marcos and the expansion phase to seven additional health areas initiated in 2009 have maintained levels above 85% compliance with all nine quality indicators monitored for more than six months. Consequently, a detailed revision to the change package is being implemented in order to decide whether or not some indicators could be measured less frequently, and whether new indicators, such as those related to family planning, could be added. Several interventions have contributed to quality improvement, including training of all health personnel in national norms for prenatal, postnatal, and newborn care, and improved supervision and coaching by MOH health area staff. Advocacy has helped ensure better stock levels of much needed micronutrients for prenatal and postpartum care.
Community ProCONE collaborative

In January 2010, the first learning session of the expansion phase of the Community ProCONE Collaborative was held with teams from the seven new health areas. Baseline data were collected in January and February 2010 in 16 districts using Lot Quality Assurance Sampling (LQAS) to interview samples of 19 women in each district (N=304). Women were asked about their recognition of danger signs in pregnancy/delivery/postpartum, recognition of danger signs in the neonate, and presence of a family and community emergency plans. The second learning session was held in March 2010. HCI also conducted advocacy with local authorities and leaders to support community mobilization around birth emergencies and assisted the MOH to implement a behavior change communication strategy that included counseling in health facilities, home visits, mass media campaigns, radio spots, group talks, pregnant women clubs, and parades and distribution of educational brochures in such public locations as buses, pharmacies, stores, and bars.

Complications ProCONE collaborative

The Complications ProCONE collaborative, initiated in 16 hospitals at the end of FY09, has started to show subtle yet important improvements. After the third learning session in November 2009, teams began to improve their compliance with case management standards for pre-eclampsia and eclampsia, reaching compliance in almost half the cases examined (see Figure 20). Other indicators being monitored include management of sepsis and obstetric hemorrhage as well as the management of neonatal infection, asphyxia and prematurity.

Contributing to these results has been the advocacy work that has helped increase the level of motivation among staff, although room for improvement remains. In order for project advisors to better support hospital Qi teams and due to lack of motivation among some hospital staff, in June 2010, the number of hospitals participating in the collaborative was reduced from 16 to eight hospitals.

Conditional Cash Transfer Program

HCI worked closely with the MOH in support of the Mi Familia Progres or “My Family is Making Progress” Conditional Cash Transfer Program (CCTP) run by the first lady of the country. In order to follow up this program, a new indicator was included in the Basic ProCONE Collaborative related to preventive child health. HCI collected data for an evaluation of the value of adding a Qi component to the CCTP intervention.

Quality Management System

HCI supported the design and implementation of the MOH’s Quality Management System (QMS), which was officially launched by the MOH in November 2009. The system seeks to put in place quality assurance procedures that meet the International Organization for Standardization (ISO) 9001:2008.
standards for quality management. HCI began introducing ISO-compliant financial and administrative procedures in the administrative units of the MOH and implemented two workshops in December 2009 on decentralization of budgetary management. HCI also began assisting the San Pedro Health Center in San Marcos to prepare for certification of quality management in maternal and newborn care processes. In March 2010, HCI helped conduct an assessment of client satisfaction with San Pedro’s services using exit interviews.

**Directions for FY11**

All activities in Guatemala in FY11 will be conducted under TO3. HCI will scale up work in family planning and integrate it into the Basic and Community ProCONE collaboratives. In addition, efforts will focus on helping the MOH achieve higher levels of institutionalization of its improvement work and achieve ISO 9001:2008 certification for 10 additional health facilities. In keeping with Feed the Future and the Global Health Initiative guidelines, the project will focus on reducing chronic malnutrition.

### 2.14 Honduras

**Overview of HCI’s Program in FY10**

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| To guarantee the quality of EONC services through the institutionalization of the CQI approaches and tools | Consolidate EONC improvements in the 11 health regions participating in CQI activities | 166 out of 904 health facilities in 11 of 20 health regions  
15 hospitals (out of 28 at national level)  
26 maternal clinics (out of 40 at national level?)  
125 health centers (out of 836 at national level)  
These 166 facilities provide services to 56% of the total population (3.7 million out of 6.6 million) |
| Pneumonia and diarrhea demonstration collaborative in the Health Region of La Paz | Improve the quality of pneumonia and diarrhea care for children under five | 1 health region (La Paz)  
Nine health service networks  
One hospital  
One maternal clinic (Marcala)  
23 health centers  
Population benefited: 156,560 persons |
| Referral system collaborative in the Health Region of Comayagua | Improve the referral of obstetric and neonatal emergencies towards the Santa Teresa Regional Hospital | One hospital  
Four infant maternal clinics  
One emergency clinic  
Population benefited: 352,881 persons |
| Quality assurance and Health Sector Reform | Strengthen external quality assurance within the health sector reform process of the Secretariat of Health | Five health regions  
27 public facilities: 5 hospitals, 9 maternity clinics, and 13 decentralized facilities  
1.4 million population |

**Main Activities and Results**

During the first six months of FY10, all HCI assistance in Honduras was funded through TO1; beginning in April 2010, all HCI assistance was funded under TO3.

**Support continuous quality improvement in EONC in 11 regions**

In FY10, HCI continued to provide technical support to 11 of the country’s 20 health regions, helping 166 health facilities to implement CQI for maternal, newborn, and child health services, working in close collaboration with the Quality Assurance Department of the Secretariat of Health (SSH). Together with PAHO and Management Sciences for Health (MSH), HCI assisted the SSH to review and update the
indicators and instruments used to measure the quality of MCH services to align them with the changes made in the national standards in 2009. We prepared six documents this year to support the CQI work: 1) an updated version of the CQI team workbook; 2) CQI documentation and evaluation guidelines; 3) a report on successful experiences in improving prenatal and post partum care; 4) a report on successful experiences in improving labor, partum, immediate post partum and basic newborn care; 5) a report on successful experiences in handling obstetric complications in the Hospital of Lempira; and 6) a report on successful experiences in the management of pneumonia and diarrhea in the La Paz region. HCI also assisted the SSH to convene the national health care quality congress in November 2009.

HCI organized a learning session with the six hospitals with the lowest performance on indicators for management of obstetric complications (including hemorrhage and pre-eclampsia), to share practices used in hospitals with better performance on the management of complications. During the workshop, 80% of the participants reported having had no experience with CQI, signaling the negative impact that continuous turnover in personnel has on sustaining facility-level quality improvement efforts.

USAID requested that HCI begin providing technical assistance to the Metropolitan Health Region to incorporate it into the ongoing maternal, newborn and child health improvement work HCI is supporting in 11 health regions. HCI organized three learning sessions with seven health facilities of the Metropolitan Region to share successful practices of experienced sites.

La Paz Region pneumonia/diarrhea collaborative

HCI worked with the La Paz regional health directorate to complete a demonstration improvement collaborative on childhood pneumonia and diarrhea. Facilities participating in the collaborative included the regional hospital, two maternal clinics, and 29 health centers. The fourth and final learning session for the collaborative was held in February 2010. The meeting focused on the successful changes made in the Marcala health network to increase community-level treatment of children with diarrhea and pneumonia, ensuring that children received a loading dose of treatment when referred to a health center. This achievement had special significance, because in 2008 the Marcala network accounted for half the region’s child deaths due to pneumonia and diarrhea. The child death rate from these illnesses fell sharply in Marcala in 2009, contributing to an overall decline in child deaths from pneumonia and diarrhea in La Paz Region. Figure 21 shows the expansion of CHW referrals and initial treatment at the community level and the corresponding decline in deaths from diarrhea and pneumonia among children under five.

The collaborative has also demonstrated improvements in adherence to pneumonia and diarrhea case management standards at the facility level in La Paz. Compliance with diarrhea case management standards in children under five seen in the region’s 29 health centers improved from 64% of cases in January 2009 to 86% by October 2010; compliance with pneumonia case management standards in the same facilities and period.
improved from 66% to 98% (Figure 22).

Plans to expand the use of CHWs to all health facilities in the La Paz region have been impeded by lack of sufficient drugs to provide to all community volunteers and a freeze on training funds. The SSH has requested funding from the Spanish Government to scale up the better care practices developed in La Paz to other health regions.

Comayagua referral collaborative

This collaborative began in FY09 with the obstetric services of the Santa Teresa Hospital, the regional referral center for Comayagua, and the region’s five maternal clinics. In the first quarter of FY10, the region’s 30 health centers were incorporated into the collaborative, which seeks to improve the referral process and strengthen the continuum of care in the region by standardizing the two-way flow of information about referred patients. The focus of efforts to improve the referral and counter-referral processes were also expanded from labor and delivery services to other services, such as emergency and ambulatory services. All staff in the facilities were trained in referral procedures and in the use of forms designed to record key information about each referral. “Referral boxes” were introduced in each facility to register incoming referrals and prompt staff to follow up on them. The most important achievement this year in referrals was that the National Referral Hospital in Tegucigalpa, to which Santa Teresa Hospital refers patients, has begun to send back information on the referred cases to Santa Teresa.

Quality assurance and health sector reform

In the framework of health sector reform, HCI provided support to the SSH to prepare two policy documents: the National Quality Policy on Health and the Conceptual Framework for the National Quality Health System. The former focuses on facility-level certification and quality monitoring using a CQI approach. The latter has been approved by an SSH technical team including representatives of the Quality Assurance Department, the Human Resources Department, the Legal Department, and the Planning, Management and Evaluation Unit.

Research

HCI also worked with the Quality Assurance Department of the SSH to collect and analyze data on the institutionalization of QI and EONC best practices in the demonstration and expansion regions of the EONC collaborative. The study is comparing levels of quality in facilities that have been implementing CQI for several years with those in facilities that only began monitoring quality indicators in the past two years. Data were collected from 31 facilities, using structured surveys and individual and group interviews, sampled from the five health regions of the collaborative’s demonstration phase and the six health regions to which CQI activities expanded in 2007. This analysis will be the basis for a synthesis document that will guide the introduction of the EONC QI process in the country’s remaining nine health regions.
Directions for FY11

All activities in Honduras during FY11 will be conducted under TO3. HCI will provide follow-up to the EONC Collaborative, especially focusing in hospitals with low performance in the management of obstetric emergencies. We will provide support to the SSH to design and implement new collaboratives focused on neonatal health and reducing nosocomial infections, and we will provide follow-up to the Comayagua referral collaborative to synthesize lessons and assist the region to apply them in all facilities in the region. HCI will provide follow-up to the pneumonia and diarrhea collaborative to systematize what has been learned and assist the SSH to apply the lessons in other health regions. HCI will provide support to the SSH for the implementation of the national quality system in health.
## 3 USAID Global Health Element and Core-funded Activities

### 3.1 Maternal, Newborn, and Child Health

#### Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| Provide technical leadership, partnership and knowledge management   | - Contribute to HBB global initiative with USAID and its partners  
- Support the introduction of HBB in Uganda, Afghanistan, and Guatemala  
- Lead the coordination of USAID QI partners’ effort in MNCH in USAID priority countries  
- Participate in developing and testing WHO Checklist for Safe Childbirth | Global                      |
| Technical support to HCI maternal, newborn, and child health (MNCH) country programs | - Provide technical support to ongoing HCI programs in MNCH  
- Share state-of-the-art information and guidelines in MNCH with country programs | Afghanistan                 |
| Develop innovative programs for applying QI models to improve quality and scale up high impact interventions to reduce maternal, newborn and child mortality in priority countries and strengthen the links between facility and community levels | - Mali MNH Facility Collaborative: Increase maternal and newborn survival by improving the quality of EONC at health facility level  
- Mali MNH Community Collaborative: Improve maternal newborn practices/care-seeking and access to quality skilled maternal newborn care through behavior change communication and birth-preparedness interventions at community and facility levels and through improved referral/counter-referral practices  
- Cambodia: Link national newborn resuscitation efforts with the Global HBB Initiative  
- Senegal: Improve community case management of childhood illness  
- Uganda: Improve effectiveness of essential newborn care and prevention of post-partum hemorrhage at facility and community level and linkage between the two | Mali MNH Facility Collaborative: Kayes Region (1/9), covering 40 facilities (40/57) in two districts (2/7) for 577,000 inhabitants (out of 1,687,116)  
- Mali MNH Community Collaborative: Kayes Region (1/9), Diema Rural Circle, working with half of the 3 community health zones in the district  
- Cambodia: National  
- Senegal: 2 districts (30 health huts and 26 health posts)  
- Uganda: 2 districts (2/58) | Niger (CEA of EONC QI)  
Nicaragua (CEA of QI on pediatric care and prevention of hospital-acquired infections  
Guatemala CEA of QI intervention added to conditional cash transfer program |
| Conduct selective MCH operations research                              | - Conduct cost-effectiveness analysis (CEA) of QI approaches applied to maternal and child health and operations research on the effectiveness of QI approaches at the community level |                             |

### Main Activities and Results

HCI’s work supported by the USAID Maternal and Child Health Division was funded under TO1 through May 2010 and thereafter under TO3. Described below are the project’s MNCH activities in FY10 that were funded through TO1.
Global technical leadership

During FY10, HCI continued its collaboration with the WHO Patient Safety Working group on the development and field testing of the Safe Childbirth checklist and facilitated the selection of test sites in several countries, as well as supported the user feasibility testing the checklist in Mali.

In January 2010, HCI joined the “Helping Babies Breathe” (HBB) Global Development Alliance to reduce newborn mortality caused by asphyxia through scale-up of the AAP’s HBB newborn breathing training curriculum. HCI is supporting the integration of HBB into essential obstetric and newborn care programs in Uganda, Guatemala, Cambodia, and Afghanistan. In February, HCI conducted an assessment of newborn activities in Cambodia to identify opportunities for linking those efforts with the HBB initiative.

HCI conducted research for and completed several papers during FY10, including “Finding Common Ground: Harmonizing the application of different quality improvement models in the maternal, newborn and child health programs.” This paper is the product of a collaboration with all major USAID implementing partners who have carried out quality improvement activities in maternal, newborn and child health, including MCHIP, Jhpiego, EngenderHealth, JSI, MSH, and Save the Children. HCI facilitated a meeting of these partners in October 2009 to discuss commonalities and differences among QI methods as they have been applied in MCH programs. Background research was also carried out on the value-added of QI approaches in achieving MDGs 4 and 5. Work was also initiated on a manual about how to design improvement collaboratives on MNCH topics.

Technical support to HCI MNCH country programs

HCI’s MNCH team provided technical support to HCI Afghanistan for planning the Provincial Community Maternal Health Collaborative in Kunduz and Balkh provinces and in defining objectives for the Kabul Maternity Hospital Collaborative. HCI’s MNCH Director also supported capacity building for the MOH QI team in Afghanistan.

Apply QI models to improve quality and scale up high-impact interventions to reduce maternal, newborn, and child mortality

Mali

A major component of HCI’s MNCH work during FY10 was to launch two improvement collaboratives in Mali, a USAID MCH priority country, to apply best practices and approaches developed by HCI in neighboring Niger to address high maternal and newborn mortality and morbidity. In October 2009, HCI’s Niger team traveled to Mali to organize the baseline data collection for the first of the two collaboratives, a facility maternal and newborn health (MNH) collaborative in two target districts of Kayes Region: Diéma and Kayes, including the regional hospital. The baseline assessed current quality of antenatal care, delivery, and postpartum care in 39 facilities.

In January 2010, HCI led an orientation workshop on QI for national and regional stakeholders in Mali. In April, HCI worked with regional and district MOH staff to conduct the first learning session of the facility EONC collaborative in Kayes Province. At the learning session, the baseline results were reviewed with representatives from all 41 sites and successes from the Niger EONC Collaborative discussed. HCI trained a team of supervisors and trainers from the Kayes Regional Health Directorate in QI coaching and developed guidelines for these MOH coaches to follow in making site visits to all 41 facilities participating in the facility collaborative. MOH coaches were able to complete two rounds of coaching visits between May and July 2010 to support QI teams in 41 sites. Preliminary results from the Mali facility collaborative (see in Figure 23) show that sites in Mali have been able to apply the lessons from Niger to achieve rapid improvements in quality of care.

The second improvement collaborative launched by HCI in Mali this year compliments the first one by addressing community-level services to improve maternal and newborn outcomes. The baseline
assessment for the Mali Community MNH Improvement Collaborative was carried out in February 2010 and involved households, community health associations, and community health cadres in 10 villages of Diema District to assess existing levels in coverage, quality, and impact of community-based maternal, newborn, and reproductive health services. Individual structured interviews and focus group discussions were held with women of children aged 0 to 23 months, their husbands, community health association representatives, community health workers, and untrained traditional birth attendants. Knowledge and attitudes around key messages for care during pregnancy, birth, and the early postpartum period, including family planning, were assessed as well as CHW training, supervision, data monitoring capacity, and linkages to the public health system. For each village, the assessment also identified existing community structures focusing on health and health improvement, including mechanisms to assist women and families in emergency care-seeking for obstetric and neonatal complications.

An experts meeting was organized in Diema District of Mali in June 2010 for the community EONC collaborative, bringing together primary health care providers, CHWs, community health committee members, and local elected commune councilors. During this meeting, the baseline community assessment results were presented and community intervention strategies and change ideas were discussed. It was decided that the community collaborative will initially focus on the work of CHWs, and the following improvement objectives were set: increase the number of pregnant women who receive home visits during pregnancy; increase the number of women who seek early qualified care for delivery complications; and increase the number of women who use postpartum care at health facilities.

**Uganda**

Discussions were initiated in March 2010 with the Ministry of Health in Uganda to apply collaborative improvement to newborn health at the health facility and community level in two districts (Masaka and Luwero). A planning visit took place in July 2010.

**Senegal**

HCI’s MNCH Director and HCI Africa Regional Advisor based in Niger visited Senegal in February 2010 to develop a program with ChildFund to apply collaborative improvement to improving results in community case management of child illness in two districts in Senegal. A purchase order was developed with ChildFund to support local implementation costs.

**Directions for FY11**

In FY11, HCI will expand the package of interventions being implemented in Kayes Region of Mali to include care for pre-eclampsia and eclampsia. HCI will launch the newborn health improvement

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**Figure 23. Mali: Preliminary results of the facility MNH improvement collaborative in 37 out of 41 target sites (Kayes Regional Hospital, Kayes and Diéma districts), October 2009 to May 2010**

<table>
<thead>
<tr>
<th>Months</th>
<th>O</th>
<th>N</th>
<th>D</th>
<th>J10</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of compliance criteria to ENC norms respected</td>
<td>422</td>
<td>432</td>
<td>427</td>
<td>453</td>
<td>456</td>
<td>585</td>
<td>608</td>
<td>484</td>
</tr>
<tr>
<td>Number of compliance criteria to ENC norms to be respected</td>
<td>987</td>
<td>1008</td>
<td>1022</td>
<td>1057</td>
<td>1001</td>
<td>945</td>
<td>646</td>
<td>525</td>
</tr>
<tr>
<td>% of compliance to ENC norms at birth</td>
<td>43</td>
<td>43</td>
<td>42</td>
<td>43</td>
<td>46</td>
<td>62</td>
<td>94</td>
<td>92</td>
</tr>
</tbody>
</table>

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collaborative in two districts of Uganda and expand its technical focus to include maternal health. In collaboration with ChildFund, HCI will launch the community case management of childhood illness collaborative in Senegal. HCI will support further testing of the Safe Childbirth Checklist at a large scale and will develop and test a QI model to improve newborn infection detection management. HCI will support learning within the Global HBB Initiative through leadership for scale-up of HBB in Afghanistan, Guatemala, and Uganda and management of the HBB Community of Practice private website. We will also publish papers on the role of QI in accelerating the achievement of MNCH MDGs and synthesize the HCI experience in applying QI models in MNCH across several countries. All activities will be conducted under TO3.

3.2 HIV/AIDS

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>QI interventions and other activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| **Develop a quality improvement framework to guide HIV care and treatment programs in:** facilitating universal access, maximizing retention, and achieving optimal clinical outcomes for people living with HIV/AIDS | **ART Quality Improvement Framework**  
- Refine ART quality framework and monitoring dashboard  
- Create Instructional Guide for framework  
- Support ongoing activities to improve coverage, retention and optimal clinical outcomes for patients on ART  
- Compile best practices from various programs that result in improved care  
- Prepare to integrate with HIV care and treatment system redesign for chronic care | **Various implementing partners (AIDS Relief, FHI, etc.)**  
- Sites piloting complete framework in Cote d’Ivoire, Nicaragua, and Tanzania  
- Coverage, retention, and clinical outcomes collaboratives in Uganda |
| **Develop an effective care and treatment system design model for chronic conditions care in low resource settings, and integrate into the model best practices for palliative care** | **Chronic Care Model**  
- Determine design features necessary and prepare recommendations for applying chronic conditions care, using HIV/AIDS as a model  
- Palliative Care Collaborative (TO3 activity) | **Committee of experts, including local MOH officials from Uganda**  
- One district in Uganda for prototype  
- Two districts in Uganda |
| **Develop a set of globally agreed upon indicators and performance criteria to monitor and improve HIV/AIDS services; and develop HIV service program assessment tools that effectively inform decisions on quality improvement programming** | **OGAC-Global Fund Indicators**  
- Develop a set of globally agreed upon indicators and criteria to monitor and improve HIV/AIDS services. Field test the proposed criteria and measurement mechanisms to assess their feasibility and relevance and their relationship to existing in-country indicators in five countries with variable HIV epidemics  
- HIV Quality Assessment tools (TO3 activity) | **Three countries in Africa (Uganda, Namibia and Cote d’Ivoire), one in Asia (Vietnam), and one in Eastern Europe (Georgia)**  
- Malawi |
| **Contribute to the growing body of evidence on the validity and effectiveness of quality improvement science in HIV/AIDS** | **Sequential Validity Study**  
- Evaluate the validity of QI team self-assessment data and how it changes over time | **Three hospitals and six health centers in the Mtwara Region of Tanzania** |
| **Health Workforce Collaborative** | See Health Workforce section 3.3 | Tahoua Region, Niger |
| **Provide Global Technical Leadership in HIV/AIDS program development** | **Provide technical assistance to HCI country programs in HIV/AIDS**  
- Disseminate learning | **All HCI HIV/AIDS programs** |
Main Activities and Results

HCI’s work supported by the USAID Office of HIV/AIDS (OHA) was split between TO1 and TO3 funding throughout FY10. All work related to the OGAC-Global Fund quality of service indicators was carried out under TO1 funding throughout the year. Activities related to the ART Framework, Global Technical Leadership, and other HIV/AIDS research were carried out under TO1 funding through June 2010 and thereafter under TO3. Activities related to the HIV quality assessment in Mali and lab improvement work were carried out under TO3 funding throughout FY10. Described below are the project’s HIV/AIDS activities in FY10 that were funded through TO1.

ART Framework

The ART Framework is a pilot project designed to identify and close key gaps in the quality of care for HIV patients on ART. After quantifying these quality gaps, health care providers apply QI methodology to close gaps in coverage, retention, and clinical outcomes. This framework continued to be piloted in FY10 in Nicaragua, Uganda, and Tanzania. In addition, 10 sites already experienced in QI were selected to begin piloting the ART Framework in Cote d’Ivoire.

The first site to pilot the Framework—the Sabasaba Clinic in Morogoro Region of Tanzania—has greatly increased coverage and improved documentation to demonstrate good clinical outcomes. However, it still struggles with the retention gap. Because this facility is in an urban area which has seven other HIV care and treatment centers amongst which patients are known to circulate, it is possible that much of this retention gap is actually a result of self-transfers.

HCI has been drafting an instructional manual that describes the process of collecting baseline data and setting up data systems for ongoing monitoring of the gaps in coverage, retention, and clinical outcomes. This instructional manual will be published and made available on the HCI Portal in FY11.

An internal review of our experience to date applying the Framework was also conducted by gathering feedback and recommendations from coaches who have been implementing the approach in their respective countries. Since the implementation strategy and contexts vary in the three countries, many lessons can be gathered from these experiences. In Tanzania, the Framework was introduced in new sites in Morogoro. These sites began collecting data on retention and clinical outcomes and focused their efforts on the gaps which the QI teams believed needed the most attention. In Uganda, sites were divided up into three collaboratives that each addressed a single quality gap in ART care. In Nicaragua, a country with a concentrated HIV epidemic and relatively small numbers of HIV-infected people, sites with some experience in QI collected data on all the gaps, and chose which gaps to address. A report on the Framework’s applications to date, with recommendations for next steps, will be finalized early in FY11.

OGAC-Global Fund indicators

After a hiatus requested by the Global Fund to Fight AIDS, Tuberculosis and Malaria (GF) while it underwent an internal reorganization process, this year HCI resumed a collaboration with the GF and OGAC to establish best practices in monitoring and evaluating quality of services from in-country experiences and to assess the ability of in-country systems to generate data on HIV/AIDS program performance criteria. These performance criteria are intended to help providers and facility managers to evaluate and improve HIV care and to build upon existing in-country capacity to create and maintain data systems to support routine monitoring of service quality.

During Phase I of this activity, conducted from February–December 2010, the focus was on establishing and reaching consensus among GF, OGAC, and other partners on a set of performance criteria for quality of services for HIV testing and counseling, HIV care and treatment, PMTCT, HIV/TB, and harm reduction. We also worked with these actors to reach consensus on potential measurement mechanisms that would use existing records. HCI then conducted field tests of the proposed criteria
and measurement mechanisms to assess their feasibility and relevance and their relationship to existing in-country indicators. During the second half of FY10, HCI completed field tests in four countries with varying types of HIV epidemics: Cote d’Ivoire, Namibia, Uganda, and Vietnam. The proposed GF performance criteria that were field tested in the four countries are shown in Table 5.

### Table 5. HIV/AIDS service performance criteria field tested by HCI for the Global Fund in FY10

<table>
<thead>
<tr>
<th>HIV Service Area</th>
<th>Global Fund Performance Criteria (GF PC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV counseling testing</td>
<td><strong>GF PC 1:</strong> Clients must know their HIV status after testing</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 2:</strong> Clients testing positive should be enrolled in HIV care</td>
</tr>
<tr>
<td>HIV care and treatment</td>
<td><strong>GF PC 3:</strong> HIV-infected adults and children should be assessed for ART eligibility through either clinical staging or CD4 testing</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 4:</strong> HIV-infected adults and children must be enrolled in HIV care</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 5:</strong> Adults and children currently enrolled in ART who adhere to their treatment regimens</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 6:</strong> Retention rate among adults and children currently enrolled in ART</td>
</tr>
<tr>
<td>PMTCT</td>
<td><strong>GF PC 7:</strong> Pregnant women must be tested for HIV and know their results</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 8:</strong> Eligible HIV infected pregnant women should receive ARV to reduce the risk of mother-to-child transmission</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 9:</strong> HIV+ women must receive an efficacious regime of antiretrovirals for their own health</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 10:</strong> Infants born to HIV-infected women should receive follow-up care, including HIV testing, cotrimoxazole, prophylaxis and, if necessary antiretroviral therapy</td>
</tr>
<tr>
<td>TB-HIV</td>
<td><strong>GF PC 11:</strong> HIV-infected adults and children must be screened for TB</td>
</tr>
<tr>
<td></td>
<td><strong>GF PC 12:</strong> HIV-infected adults and children must receive treatment for TB and HIV</td>
</tr>
</tbody>
</table>

The Global Fund will use the findings of the field tests to guide the final selection of performance criteria for monitoring and evaluating programs providing HIV services based both on what is important and on what is feasible to track. Based on the completed field tests, there are opportunities for improvement both in measurement and in care processes. Preliminary analysis shows that the performance criteria for HIV counseling and testing and HIV care and treatment are feasible with the exception of tracking patient enrollment into care and treatment services and that all of the TB/HIV performance criteria and their indicators are feasible. However, in all four countries, the field tests revealed significant gaps in tracking and coordination of PMTCT services for both mothers and exposed infants. It is very difficult and often impossible to track whether or not pregnant women receive the cascade of PMTCT services and if their exposed infants receive follow-up care. In addition, the data collected based on the performance criteria revealed that a very high proportion of both pre-ART and ART patients are lost to follow-up and that the mechanisms for linking patients between service areas are generally weak (for example, from testing to treatment, from PMTCT to HIV treatment, and from delivery to follow-up of exposed infants). Figure 24 depicts the gaps in what information the sites visited for the field test had available to enable tracking of HIV-positive mothers and exposed infants.

**Sequential validity of self-assessment study**

This study evaluated the validity of QI teams’ self-assessments of their own performance as part of the ART/PMTCT improvement collaborative in Mtwara, Tanzania. Baseline data for this study were collected in August 2009, and during FY0, four rounds of data collection evaluated how well QI teams were able to perform eight key activities in the self-assessment process that can influence the validity of self-assessments. The eight self-assessment activities include: writing the records; storage and retrieval of records; selection of records from which data are abstracted; abstraction of data from the selected...
records; summarization of the abstracted data; agreement of computer and written records; quality and use of computer records; and communication of summary data to other members of the QI team and to the clinical staff. The study found significant upward trends in measurement scores occurred in record writing, sample selection, communication of results, and correctness, completeness, understanding, and use of computer results. Overall, the validity of teams’ self-assessments improved over the course of their participation in the improvement collaborative. Validity either improved or stayed the same for most of the self-assessment activities. Low end-of-study validity was observed for storage and retrieval of records and communication of results, suggesting the need to reinforce these elements of the self-assessment process early in a collaborative improvement intervention.

**Directions for FY11**

HCI is currently synthesizing feedback from all sites using the ART Framework in order to complete a review of its application. This will inform the finalization of a manual for its implementation and guide refinement of the Framework to incorporate it with the Chronic Care Model. At the ART Framework pilot sites in Tanzania, key elements of the Chronic Care Model will be incorporated into quality improvement activities. In Uganda, HCI will assist the MOH to incorporate principles of chronic care into national policy and implement a prototype of selected chronic care design features at the district and facility level. Prototyping activities will be ongoing and will include quality monitoring using ART Framework monitoring tools. Changes leading to good chronic care practices will be harvested over time in preparation for spread. HCI will also support a palliative care demonstration collaborative in Uganda and will work with the Ugandan MOH to assure the integrity and efficacy of palliative care policies by strengthening supply chain, especially for morphine. The 2010 WHO guidelines will be prototyped at a minimum of 2–3 sites in one district of Tanzania. HCI will also launch a new activity to apply QI principles to quantify and improve retention of HIV-positive women and their infants across the PMTCT continuum. This activity will likely take place in Kenya or Tanzania. With the similar aim of improving retention of women and children along the PMTCT continuum, HCI will pilot the establishment of a standard referral system between PMTCT and OVC programs. In Kenya, HCI will partner with AIDSTAR to apply QI methods to enhance coverage and quality of nutrition services for HIV patients. Lastly, HCI will work to apply QI methods to make injection practices safer in an Asian country. All of these activities will be conducted under TO3.
3.3 Health Workforce Development

Overview of HCI’s Health Workforce Development Program in FY10

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIV-funded activities</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| HR Improvement Collaborative - Niger | - Apply QI methods to the improvement of human resources for health  
- Improve quality of maternal health services delivered by health workers  
- Improve productivity (efficiency/effectiveness) of health workers  
- Improve engagement and retention (intent to stay) for health workers  
- Improve HR management capacity of the Ministry of Health from the local to the central levels by applying best practices through working teams and involving stakeholders at all levels. | The demonstration phase of the collaborative includes 11 regional and district management teams and 15 facilities (2 regional, 7 district, 6 peripheral facilities—out of 128 total facilities in the region) in 8 districts of Tahoua Region which covers 2,339,950 inhabitants |
| Baseline Assessment of Employee Engagement and Productivity in Uganda | - Apply quality improvement methods to improve engagement of health workers in Uganda  
- Improve productivity of health workers  
- Improve HR management practices | The employee engagement tool, productivity tool and client flow tool will be introduced and implemented in the ongoing coverage collaborative in Uganda |
| Evaluation of HIV Training | - Determine if training programs in different aspects of HIV/AIDS services yields improved health outcomes  
- Determine the effectiveness of pre-service training programs in HIV/AIDS | Tanzania: PMTCT counseling training program  
Uganda: HIV/AIDS patient monitoring tool training program and nurse ART care training program |

Main Activities and Results

HCI’s work in the area of health workforce developed, supported by both OHA and the USAID MCH Division, received funding through both TO1 and TO3 throughout FY10. All work related to the Niger human resources collaborative, the Uganda human resources baseline assessment, the Benin field test of the CHW program assessment tool, and the HIV training evaluations was carried out under TO1 funding. Activities related to the refinement and further testing of the CHW tool in other countries and the development of a human resources collaborative in Tanzania were funded under TO3. Described below are the project’s health workforce activities in FY10 that were funded through TO1.

Human resources improvement collaborative in Niger

HCI launched its first human resources improvement collaborative in Niger in FY09 to improve worker productivity and performance and quality of services by applying employee engagement and team-based performance management approaches. The collaborative, being implemented in Tahoua Region, includes 15 facilities (two regional, seven district level, and six peripheral facilities out of 128 total facilities in the region) in all eight districts of Tahoua, which has a population of 2.3 million. The package of changes being implemented through the collaborative, shown in Figure 25, has seven improvement objectives related to a team-based performance management process that, ordered stepwise, run from clarification of objectives to evaluation of reward for good performance. Together these objectives reinforce the link between HR inputs and quality of care and patient outcomes.
Facility-level changes that have been implemented in Niger include rationalizing work processes, testing interventions for feedback, capacity development and evaluation; management-level changes include improvement of coordination meetings (management staff and managers from districts and region) and supervision practices and increased coaching of facility staff. Clinical indicators being used to assess the impact of management interventions include institutional delivery, postpartum hemorrhage, family planning, and care for children under five years of age.

As a result of the collaborative’s focus on aligning goals and tasks and improving performance feedback, more supervision visits are being conducted for the integrated health centers (an increase from 25% to 50%), and coordination meetings and coaching visits now are taking place. Timeliness of quarterly reporting on the use of contraceptives rose from 60% on-time reports to 90% by July 2010 as a result of nominating a member of the district team to be the point person on family planning. As of August 2010, 99% of health workers across 25 sites now have a written job description, compared to no health workers with job descriptions before the collaborative started.

In order to identify skill gaps that would impede facility staff from achieving their objectives, QI teams conducted the following activities: assessed recent trainings received by health workers; conducted peer observations/demonstrations to assess individual skill level regarding certain procedures such as correctly completing a partograph; and conducted chart reviews to get an idea of what procedures were being followed and their level of accuracy. To help close skill gaps identified, QI teams posted standards of care for the management of eclampsia and essential newborn care at birth on the walls of their facilities, developed job aids, and conducted onsite trainings.

To create an environment for feedback, QI teams have begun to conduct monthly chart reviews to ensure that information is being filled out completely and accurately, discussing feedback during staff meetings, posting graphs related to performance on health outcomes in the facilities, and holding monthly meetings with key staff and the health committee on performance results. In addition, in order to ensure continuous feedback, teams have posted graphs on performance indicators QI teams are measuring so they have an idea of how they are performing and have elicited feedback from team members on practical observations and demonstrations.

Through improving HR systems and processes, the quality of clinical care has improved. Notable increases in clinical performance have been documented with respect to the proportion of births that were assisted by qualified personnel (which increased from 12.4% in March 2009 to 30% in July 2010), and the contraceptive prevalence rate, which increased in the same period from 9.6% to 15%. Figure 26 shows the improvement achieved in task alignment (i.e., health workers having clear job descriptions aligned with clinical goals) and the concomitant increase achieved in compliance with essential newborn care standards.
The Global Health Workforce Alliance (GHWA) has recognized the innovativeness of the Niger HR improvement collaborative by selecting it as a finalist for an Award for Excellence in health human resource programming as part of the Second Global Forum on Human Resources, to be held in Bangkok, Thailand in January 2011. Dr. Saidou Ekoye of the Niger MOH was nominated for a Special Recognition Award for his role in developing and implementing the HR collaborative while he served as the Tahoua Regional MOH Director.

Baseline assessment of employee engagement and productivity in Uganda

A baseline assessment to measure health care provider productivity and engagement while delivering ART services was completed in six sites in Uganda in November 2009. The assessment took place in six sites that are part of the ongoing HIV coverage collaborative in Uganda and examined HIV/AIDS provider productivity, efficiency, and engagement. Five data collection tools were used for the assessment including: a site manager interview, a time utilization tool, a productivity interview, a client flow assessment, and an engagement survey.

The assessment found that on average, providers spent 48% of their time caring for patients, but 12% of provider time was spent waiting for patients, and 12% of time included unexplained absences, usually due to late arrivals of staff. Services at vertical sites (i.e., those offering only HIV services) were often structured so that client loads were heavy on some days and lighter on others, greatly influencing health worker productivity. Stock-outs and supply shortages were common occurrences, with 38% of providers reporting that they had lacked the necessary supplies to carry out their work properly in the past seven days. The inputs most frequently lacking were medications, reported by 47% of those providers who experienced some shortage, followed by lab supplies and testing kits (reported by 40%), and office supplies (reported by 13%). A number of significant bottlenecks were identified in client flow. Patients waited a total average of 3.25 hours for a total average of 27 minutes of provider contact time for all services combined. The greatest wait times occurred at triage (111 minutes on average), registration (41 minutes on average), and waiting for the clinician (27 minutes on average).

The sites participating in the coverage collaborative used the information from the baseline assessment to make informed decisions about health worker allocation, time utilization, roles, and steps to increase efficiency in order to improve delivery of HIV/AIDS services. Teams were supported in this work through monthly coaching visits. Figure 27 shows the results achieved in one health center in the collaborative. At baseline, patients coming to Kabuyanda Health Center for HIV care were spending on average 198 minutes (3.3 hours) at the facility, including only 48 minutes of consultation time with health care providers. To reduce client waiting time, the QI team identified bottlenecks in client flow and rationalized tasks by provider which resulted in decreasing the overall average length of visit to 61 minutes of which 26 minutes were spent waiting or in registration and 31 minutes receiving care.
The successful interventions developed in the coverage collaborative will be shared with other sites so that all sites participating in improvement activities can learn from each other and replicate successful interventions to increase health worker productivity and efficiency.

**Evaluations of HIV training**

HCI completed three evaluations of HIV-related training programs in FY10: two in Uganda and one in Tanzania. A fourth evaluation that was to have used retrospective data from Tanzania proved to be infeasible. Reports on each of the three HIV training evaluations were published by HCI in FY10 and are available on the HCI Portal. A technical note summarizing the key findings across the evaluations and recommending steps to strengthen future HIV training activities was submitted to OHA at the end of September.

**Uganda ART training**

HCI, through URC’s partner Family Health International, carried out an evaluation of a two-week ART training course for nursing staff implemented by the MOH based on the WHO curriculum. The study developed and tested ART case study scenarios to measure the problem-solving knowledge of nurse attendees at the workshop being evaluated. Separate but similar scenarios were completed by nurse attendees before the workshop and six weeks after at their home facilities, along with in-depth semi-structured interviews. The study found that nurses from ART-certified facilities who attended the workshop doubled their average performance on the case study scenarios from pre- to post-workshop. However, over three-quarters of workshop enrollees had either taken the same workshop before, were from facilities not yet certified, or facilities that had never received any ARV medicine, suggesting that better coordination between the several MOH functions is needed.

**Uganda HIV patient monitoring tool training**

The Uganda MOH has developed several HIV patient cards and registries aimed at improving and standardizing ART patient monitoring in health facilities. To orient health workers to these tools, the MOH has developed a four-day workshop for clinicians and health record staff that teaches how to fill in these patient monitoring tools correctly and completely. This study assessed the quality of completed

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*Figure 27. Uganda: Average client visit duration in Kabuyanda Health Center at baseline and follow-up*

![](image_url)

*The average waiting time for 'Consultation' at follow-up is a weighted average of 'Consultation with nurse' and 'Consultation with clinician'
patient cards and registries written before and after the workshop in facilities whose staff attended the workshop, and carried out in-depth interviews with attendees during visits to their home facilities. The study found that the quality of registry monitoring information improved from pre-workshop to six-weeks post-workshop in health facilities with certain characteristics, but not in facilities without those characteristics. Quality of the patient card monitoring information did not improve. These results suggest the training program should broaden its focus from individual trainees to facility-level performance for both registries and cards.

**Tanzania infant feeding counseling training**

Since 2008, the MOHSW of Tanzania has been rolling out its PMTCT program and infant feeding counseling training to the over 5,000 sites in country that should provide PMTCT services. This evaluation examined whether the various components of the program (e.g., training counselors, training other facility staff, orienting facility supervisors, supplying job aids and mother take-home materials, monitoring) had been fully implemented in one region (Iringa) where roll-out had occurred, and whether the components continue to function in facilities where it has been implemented. The evaluation found that training of infant feeding counselors is not keeping pace with the scale-up of the PMTCT program. Only a small proportion of sites in the region (11%) had staff who had received training in infant feeding counseling. Of the 18 facilities studied, a total of 69 staff in 13 (72%) facilities had received the five-day counselor training. The majority of those trained as counselors were nurses (56%). Out of the 18 facilities that had staff trained in infant feeding counseling, 33% had a complete set of job aids, 61% had a partial set, and 6% had no job aids in their facility. Take-home brochures to be disseminated among pregnant women were currently completely out of stock in 75% of facilities. Almost all facilities reported that they did not have a procedure to order more materials.

**Directions for FY11**

In FY11, all HCI health workforce activities will be carried out under TO3. In Niger, teams will complete work on Objectives 4-7 (evaluation, reward and recognition, development opportunities, safe and supportive work environment) in the HR collaborative. In Tanzania, we will work with the regional health authorities and implementing partners in Tanzania to implement a human resources quality improvement collaborative to improve the productivity and engagement of HIV/AIDS care providers in Mtwara region. We will implement a new HIV human resources improvement collaborative aimed at CHWs in Ethiopia. HCI will launch a new community of practice website called CHW Central to provide technical resources and support for Ministries of Health, CHW programs, and NGOs wishing to strengthen, develop, or expand CHW programs. All of these activities will be carried out under TO3.

### 3.4 Tuberculosis

**Overview of HCI’s Program in FY10**

<table>
<thead>
<tr>
<th>Main QI interventions/activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
</table>
| India: Strengthen TB DOTS by involving private sector in TB service provision | Increase TB case detection and treatment success rates | • 4 of 37 sub-districts (Ibrahimpatnam, Shamirpet, Ghatkesar and Moinabad) in Rangareddy District of Andhra Pradesh, which is 5th largest state in India.  
• HCI supports ‘Social Communicators’ who are covering 89 village communities with over 400,000 population, each month, four sub-districts of Rangareddy District (total population of 3,575,064 in District) |

HCI’s TB work in India in the first quarter of FY10 was supported under TO1. Other TB core-funded activities were funded under TO3.
Main Activities and Results

India

During the first quarter of FY10, HCI continued to support efforts to intensify TB case-finding in the targeted sub-districts. HCI tested the use of a trained mobile lab technician to collect spot and morning sputum specimens from homes of TB suspects and transport them to the Designated Medical Centers for diagnosis. HCI worked to link newly diagnosed patients with TB treatment facilities and assisted in monitoring progress. In December 2009, 115 sputum samples were collected from 13 village communities, showing 5 patients as smear positive and now they are treatment. This innovative intervention resulted in an increase of 19.64% of screening of new suspects and a 30.84% increase in detection of new smear positive cases that are now under treatment. HCI also trained private pharmacists, rural medical practitioners, school teachers, community leaders, self-help groups, and religious leaders with basic information about tuberculosis and encouraged them to refer suspects to TB diagnosis and treatment facilities. HCI activities in Rangareddy District were phased out during the second quarter of FY10.
4 Common Agenda Activities

4.1 Project Management

During year three of the HCI project Task Order 1, project management activities focused on the transition to Task Order 3, including closeout of the few TO1 activities that were not continuing to TO3, transition to TO3 of those activities that continue with new funds, and start-up of new TO3 activities. While the administrative burden of contract transitions can be a distraction from technical work, especially with the majority of activities ongoing and requiring continuous operation throughout the transition, URC also took this opportunity to further streamline management and administration. By closing out financial operations, staffing contracts, MOUs, and other affairs under TO1, many activities were able to not only review their mid-term status on the IQC, but to actually tie up loose ends and start with new trackers, budgets, and contracts along with their new TO3 funding.

While HCI was executing a transition of most activities over to a new Task Order contract, the overall size of activities under the IQC continued to grow from previous years:

- Activities took place in almost 30 countries, up from 20 in year one
- Annual expenditures for TO1 and 3 combined were $28.7 million, up from $14 million in year one and $22 million in year two
- Global full-time staff members currently exceed 300, up from approximately 200 in year one and 250 in year two

Throughout these increases, URC maintained its efficient management structures in human resources, finance, accounting, contracts, and general administration. Both financial reporting and technical reporting have not only been maintained, but streamlined and improved. Internal processes have been updated. Specific improvement actions during year three included:

- Further standardization of the budgeting and expense review process to allow monitoring of budgets against expenditures monthly with little extra work load;
- A concise new-staff orientation provides even technical managers with a working understanding of project management and administrative systems;
- Convening field office administrators as a group in LAC and Africa for management and finance training as well as to encourage south-to-south exchange between project countries. This training was conducted in each major HCI region and provided by HQ project managers, accountants, and contracts staff to maximize cost-effectiveness;
- Conducted monthly priority-setting meetings, quarterly technical reviews, and other regular meetings;
- Completed work planning and budgeting for FY11 using new templates and an inclusionary process to decentralize ownership of activity-level financial responsibilities.

Main Activities and Results

Project staffing

At the Headquarters level, new senior technical leadership that had been hired during year two to guide HCI’s work in HIV/AIDS, MNCH, and Cost Effectiveness received additional training and support during year three in order to advance the work in each of their respective areas. Junior and mid-level technical advisors and support staff were also recruited in year three to complete the scopes of work that the new technical leadership subsequently developed. Also, a new technical advisor for community health, Dr. Ram Shrestha, was recruited and is actively supporting multiple sectors of HCI’s work.
Similar increases in technical advisors, management, and support staff occurred at the field level throughout year three. While these are too numerous to detail in this report, the scale up of staffing has occurred in a similar planned manner to that of the HQ office in response to the increased scope of work specific to each Mission-funded field activity.

In addition, HCI has continued its focus on prioritizing the hire of local national staff in countries where we work. In that manner, the new offices in Mozambique and Mali as well as the expansion into new technical areas of work in Cote d'Ivoire and Kenya, are exclusively staffed by well-qualified local recruits.

**Coordination of technical activities**

Ongoing project progress has been monitored and managed through a set of recurring meetings. Integral project meetings are held during the third week of each month, which allows for not only regular convenient scheduling with USAID and partners, but also growing technical staff to coordinate their travel schedules, improving communication between HQ staff and the different technical teams. The Quarterly Review Meeting (QRM), held on the third week of every third month continues as the forum in which the project COTR not only receives updates from technical groups and all field offices, but also discusses their activities with them directly by phone and WebEx. Each month without a QRM, an HQ-level staff meeting allows for announcements, updates, and priority setting to be done across all teams at HQ. Also in those months, a global staff meeting with a new technical focus leads a forum global discussion on pertinent technical themes and salient programmatic trends, encouraging discussion and south-to-south exchange beyond the borders of countries, regions, and continents. Fixing these meetings for the third week each month has facilitated scheduling and fostered time management.

**Budget management**

HCI financial management was fully established during Year One, and the existing systems were continued in Year Two. Due to the transition from TO 1 to TO 3 for contractual and financial purposes, URC used the time and attention to management issues to improve our procedures and tracking tools.

The process for streamlined yet detailed variance analyses for activity line items established in previous years was further streamlined to make use of better formats and cleared accounting once each activity closed out under TO1 and started under TO3. This allows the quarterly realignment of all budgets to be done more clearly. Forecasts can be updated more quickly and funding streams used most efficiently throughout the year for each individual country and global initiative. The redesigned annual budgeting process was conducted again during the preparation of FY11 work plans and budgets with a dual focus on decentralization (delivering complete knowledge of and responsibility for activity budgets to country and global initiative directors) and cooperation (allowing countries and global initiative groups to harmonize their budgets in order to best use both individual and pooled resources across the entire project). As the global IQC budget and number of different activities grows, this efficient and participatory annual budgeting process is increasingly important in establishing good management of budget lines each year and in leveraging all of the activities with each other to make the best use of combined funding (such as combining international technical assistance trips across multiple activities).

**Reporting and deliverables**

The preparation of contractually required deliverables and other reporting to USAID are overseen centrally at HQ and conform to the deliverables schedule outlined in Section F.6 of the TO1 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. Contributions from technical groups and countries are delivered to the communications team using templates that allow for efficient compilation of all contributions. In addition, many informal reports are delivered to Missions and Element Groups at USAID/Washington. They are also overseen centrally, yet prepared and delivered locally, to ensure their quality, production
efficiency, and usefulness for sharing information throughout HCI. During year three, HCI increased the
distribution of quarterly reports, originally prepared solely for the COTR, to include Missions and other
activity managers. This has increased connections among activity managers without adding any reporting
burden.

Directions for FY11
As TOI proceeds into its extension year, few activities are continuing with TOI funding. TOI
management during FY11 will consist of a small amount of monitoring of the completion of those
activities, the final transition of their staff and related contracts, final reporting for TOI, and then a final
internal audit to ensure that TOI has been fully and properly closed out. It is anticipated that these
activities will occur in much the same manner as they did during FY10, except that the final closeout
checklist will be performed by the Associate Director for Administration and the Contracts Officer.

Further process improvements are planned to continue improving the efficiency of HCI project
management; they will be discussed in the TO3 annual report and work plan.

4.2 Knowledge Management

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Activities</th>
<th>What are we trying to accomplish?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promote the use of the Health Care Improvement Portal, <a href="http://www.hciproject.org">www.hciproject.org</a></td>
<td>▪ Establish the HCI KM web site as a well-known source of useful information to support health care improvement in USAID-assisted countries</td>
</tr>
<tr>
<td>Manage and develop new content for the HCI Portal</td>
<td>▪ Continue to bring in new content, especially drawing on work outside HCI</td>
</tr>
<tr>
<td>Conduct studies to inform ongoing enhancements to the HCI KM system, validate selected submissions, and evaluate field applications of system content</td>
<td>▪ Get user feedback to improve the usefulness and acceptability of the HCI KM site; validate submissions to assure that accurate information is posted by users outside HCI; and understand how users are using site content to improve the site and make it more useful and user-friendly</td>
</tr>
<tr>
<td>Manage and develop new content for the Spanish maternal newborn care knowledge management web site, <a href="http://www.maternoinfantil.org">www.maternoinfantil.org</a>, and strengthen linkages with other elements of the HCI KM system</td>
<td>▪ Establish the <a href="http://www.maternoinfantil.org">www.maternoinfantil.org</a> site as the premier web source of information in Spanish on improving maternal and newborn care ▪ Expand the availability of information on QI methods as applied to specific health topic areas and regional audiences through other HCI-supported web sites</td>
</tr>
<tr>
<td>Finalize and launch the Newborn Alliance web site, <a href="http://www.alianzaneonatal.org">www.alianzaneonatal.org</a></td>
<td>▪ Create a web site to support and disseminate the activities of the Newborn Health Alliance</td>
</tr>
</tbody>
</table>

Main Activities and Results

Continue to develop the content of the HCI Portal and promote usage

After the launch of the HCI Portal in September 2009, URC partner Center for Communication Programs (CCP) developed a formal marketing strategy for the site. The marketing strategy includes outreach to HCI partners to engage them in contributing to the HCI Portal and the HCI Intranet, promoting the site at international conferences, sending out announcements about the site through several listservs CCP supports, and targeted invitations to cooperating agencies and individuals known to be carrying out health care improvement activities to encourage them and their colleagues to submit improvement reports to the HCI Portal.

The project’s Health Care Improvement portal was presented to communicators from other USAID cooperating agencies at the October 2009 HIPNet meeting. In November, Dr. Ibrahim Kirunda of HCI’s
Uganda team demonstrated the HCI Portal at the International Family Planning Conference in Kampala. The planned exhibition of the HCI Portal at the International Forum for Quality and Safety in Health Care in Nice, France in April 2010 was not accomplished due to the travel restrictions imposed by the Icelandic volcano. Meetings were held with HCI partners from EnCompass (May) and IHI (June) to discuss how their staff and country teams can contribute content to the HCI Portal.

To facilitate submissions to the site’s Improvement Database, downloadable user guidelines for improvement reports and collaborative profiles were added to the Portal in June. The HCI Portal was showcased at the International Forum Satellite Conference and Quality Improvement Workshop convened in Kampala, Uganda in June. Of the nearly 250 participants in attendance that week, 70 registered on the HCI Portal and were able to electronically access the project’s technical reports and other publications. The site was also demonstrated at URC’s booth at the Global Health Council conference in Washington, DC in June.

During its first year of operation, visitors to the site grew each quarter, with 25,321 total visits to the site in FY10. Of these visits, 27.3% were return visits. Most visitors (68.4%) to the site came through search engines; 18.0% of visitor came directly to the site’s address, and another 13.6% were referred from other sites. Figure 28 shows the region of origin of visitors to the HCI Portal during FY10. Over the course of the year, visits to the HCI Portal from developing regions grew steadily, from 2008 visitors in the first quarter of FY10 (33% of total visits) to 3048 (45% of total visits) in the fourth quarter. The top eight resources most often viewed by visitors to the HCI Portal in FY10 are shown in Figure 29.
Conduct studies to inform ongoing enhancements to the HCI KM system

During FY10, our focus with the HCI Knowledge Management System was to promote the use of the various sites and adding content to the HCI Portal’s Improvement Database, a process that will continue in FY11. With now a full year of operation of the HCI Portal, we have turned our attention to starting a series of studies to gather user feedback on the various web sites we are supporting and to test interventions to increase utilization of the Improvement Database by QI practitioners outside the HCI Project. In the last quarter of FY10, we began to develop surveys for various target groups of users of the HCI Portal and other sites in the HCI KM system and to design interventions to elicit contributions to the HCI Portal from outside the project. The studies will be completed in FY11.

Manage and promote usage of the Spanish maternal newborn KM site

In March 2009, the HCI Ecuador team launched a Spanish language MCH knowledge-sharing web site, www.maternoinfantil.org. The site features information and related resource documents in Spanish on key evidence-based practices for maternal and newborn care and allows users to upload to the site technical materials, implementation experiences related to improvement of maternal and newborn care, and news items. During FY10, visits to the site continued to grow, reaching over 48,000 by the end of the year. The site has been a primary conduit for HCI’s Latin American teams to share improvement experiences and results but has also attracted contributors from outside the project, as well as requests for information on QI and MCH topics.

Due to difficulties with the company in Quito that developed the maternoinfantil.org web site, URC terminated the contract in September. New contracts were negotiated with another web hosting firm based in Quito (Panchonet) and a separate computer services firm (Kipikuna), to provide site design and maintenance support for the site. In addition to changing hosting and maintenance service providers, the site will also be revised to reorganize the content and add new functionality for E-Learning.

Promote the dissemination of information on applications of QI methods to specific topic areas and regional audiences through other HCI-supported web sites

During the year, HCI’s Russia team completed the development of a public portal in Russian on QI methods and their applications in the Russian Federation. The public site went live in September 2010 on the www.healthquality.ru site which had served as the private knowledge management and data sharing site for teams participating in the MCH improvement collaboratives in three Russian oblasts. The password-protected portion of the site will continue to operate through a link from the home page. The public portal in Russian now provides a channel for broader dissemination of results, tools, and learning from improvement activities supported by HCI in Russia. The new portal is managed by the Russian Central Scientific Research Institute for Health Care Organization and Information (formerly known as the Federal Public Health Institute), with support from HCI.

Launch the Newborn Health Alliance web site

The basic content of the Latin American Newborn Alliance web site in Spanish and English was completed in December 2009 and sent to the firm in Ecuador that is hosting the site. The site went live in May and was presented to the Newborn Alliance Steering Committee at its meeting in Washington in June. Due to the delays in getting the site’s content launched and other problems with the hosting firm, URC has contracted with a different firm to provide ongoing maintenance for site. Transfer of the site was completed in November 2010, and the site will be re-launched in 2011.

Directions for FY11

In June 2010, overall management of the HCI KM system moved to TO3 funding as well as all activities related to the Spanish maternal and newborn KM site and the LAC Neonatal Alliance site. Work on the KM studies continued under TO1 funding through the end of FY10 and will be completed with TO1 funding in FY11. All other KM activities will be implemented under TO3.
4.3 Research and Evaluation

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Activities</th>
<th>What are we trying to accomplish?</th>
<th>Scale of intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generate and synthesize learning on priority areas related to QI: community level QI, cost-effectiveness of QI, spread, peer-to-peer (shared) learning, QI team performance and coaching, institutionalization</td>
<td>Advance learning globally on QI implementation, and strengthen strategies to spread and institutionalize improvements and QI implementation</td>
<td>▪ Supported studies in 7 countries under TO1: Cote d’Ivoire, Ecuador, Guatemala, Nicaragua, Niger, Tanzania, and Uganda ▪ Niger Institutionalization study: sample of 20 of 51 teams, in 6 regions ▪ Ecuador spread study: sample of 13 sites of 51 sites targeted for spread (which represent 39% of total sites)</td>
</tr>
<tr>
<td>Improve methods and approaches for synthesizing and consolidating learning from a collaborative</td>
<td>Strengthen the uptake of learning generated by a collaborative to other sites</td>
<td>▪ 4 countries studied this process under TO1: Cote d’Ivoire, Tanzania, Guatemala, and Nicaragua</td>
</tr>
<tr>
<td>Synthesis learning from testing of SES tools (to document, analyze, share, and synthesis learning) and support country programs to implement and use the SES</td>
<td>Strengthening documentation, analysis of tested changes by QI teams, and sharing and synthesizing this learning across teams and to new sites</td>
<td>Current use of SES QI team tools: ▪ Afghanistan: 25 teams ▪ Benin PISAF: total 95 teams – 39EONC, 16 Malaria, 14 FP, 12 HR, 14 mutuelle ▪ Cote d’Ivoire: 39 teams ▪ Honduras: 14 teams ▪ Guatemala: 144 Teams ▪ Niger: total 26 teams: 15 health facilities and 11 managerial teams ▪ Russia: total 92 teams - 18 ART/HIV/TB, 18 social support, 20 MNCH sites but multiple teams ▪ Swaziland: 3 teams ▪ Tanzania: 39 teams ▪ Uganda: total 185 teams – 115 demonstration, wave 1 and wave 2; 70 district strategy teams (32 wave 2 sites used synthesis form). TOTAL: 662 teams</td>
</tr>
<tr>
<td>Support country teams (and element groups) to answer their questions</td>
<td>Improve functioning of QI interventions</td>
<td>▪ Working with 7 countries on 18 studies</td>
</tr>
</tbody>
</table>

Main Activities and Results

During FY10, HCI research and evaluation studies conducted under TO1 focused on shared learning, spread, institutionalization, cost-effectiveness of QI, validity of self-assessment, QI team performance, and the comparison of site performance with and without QI activities. All activities under HCI’s research and evaluation program moved to TO3 funding in June 2010.

Studies on shared learning and spread

Sharing learning—the process of spreading lessons and effective changes among QI teams participating in collaborative improvement—is key to achieving rapid results at scale. Five countries studied this phenomenon under TO1 funding in FY10. The studies examined the mechanism teams used to share their effective changes and to learn the changes tested by others, the source of ideas for changes they tested, and factors that facilitate or hinder the uptake of change ideas and their implementation. Table 6
shows the preliminary findings from these studies. The results across countries indicate variations in how much teams in different collaboratives generate their own ideas or “borrow” them from other teams by hearing about such ideas at learning sessions and coaching visits. A more in-depth synthesis of learning on this topic will be carried out under TO3 funding in FY11.

Data collection was completed in the study of spread of QI approaches and maternal and newborn best practices in 51 “spread” facilities in Ecuador. Data collected showed that compliance with several key indicators in the spread sites had reached high performance levels: 80% for prenatal care; 88% for the use of the partograph; 97% for AMTSL; 96% for postpartum care; 80% for management of preeclampsia; 70% for management of hemorrhage; and 88% for management of obstetric infections. The performance levels achieved by QI teams in measuring and reporting standards, planning and implementing PDSA cycles, as well as implementing best clinical practices based on evidence all suggest that the spread effort has been successful. The final report on this study will be completed in FY11 under TO3 funding.

HCI also published in September 2010 a technical report on “Options for Large-scale Spread of Simple, High-impact Interventions,” which outlined methods and approaches for scale-up of simple, high-impact interventions based on the experiences of the Quality Assurance Project, HCI, IHI, and U.S. based organizations that are leaders in health care improvement. The report responded to a WHO request to explain spread methods that would be appropriate for spreading the use of the safe surgery and other medical checklists.

**Increasing the cost-effectiveness of QI**

With the arrival with a full-time Senior QI Advisor for Economic Analysis in October 2009, HCI was able to design and complete six cost-effectiveness studies in FY10 and develop approaches for measuring the costs and cost-effectiveness of QI interventions that will be applied on a larger scale under TO3. Cost-effectiveness studies were completed on: 1) the addition of QI to the CCTP intervention in Guatemala, 2) the EONC collaborative carried out from 2006-2008 in Niger, 3) the pediatric hospital improvement collaborative in Nicaragua, 4) the ventilator-associated pneumonia prevention initiative in Nicaragua, 5) the HIV services coverage collaborative in Uganda, and 6) the data management collaborative in Uganda. Articles were prepared and submitted to peer-reviewed journals on the two Nicaragua and the Niger studies. A summary of the methodological approach and findings from the analysis of cost-effectiveness data from the Niger EONC collaborative from 2006 to 2008 is presented in Figure 30.

**Validity of self-assessment data**

Another aspect of cost-effectiveness is the use of self-assessment data to measure improvement and progress. This is an important topic for QI because the integrity of the results presented influences both the teams’ ability to identify real improvement and the credibility of the results to others outside the QI team. Self-assessment of QI team performance is generally the most efficient way to evaluate health care improvement interventions and guide their implementation. The central importance of self-assessment makes measuring and improving its validity a key part of HCI’s research agenda.

### Table 6. Preliminary findings from five HCI TO1 studies on shared learning

<table>
<thead>
<tr>
<th>Country</th>
<th>Common source of information (in descending order of magnitude)</th>
<th>% changes borrowed from other teams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cote d’Ivoire</td>
<td>Telephone, learning sessions, site visits</td>
<td>20-37%</td>
</tr>
<tr>
<td>Guatemala</td>
<td>Learning sessions, coaching, document</td>
<td>N/A</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Learning sessions, telephone, site visits</td>
<td>N/A</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Coaches, learning session, other meetings</td>
<td>89%</td>
</tr>
<tr>
<td>Uganda</td>
<td>Learning session; coaching</td>
<td>90%</td>
</tr>
</tbody>
</table>

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Figure 30. Niger: Cost-effectiveness analysis of the EONC collaborative

During the implementation of the Niger EONC collaborative from 2006–2008, more than 89,000 mothers delivering vaginally were covered by the sites involved in the collaborative. The program achieved excellent results in compliance with AMTSL and neonatal care standards and significant reductions in post-partum hemorrhage. This study used outcomes data from routine program monitoring and costs from a number of sources, including HCI accounting records and surveys of clinical managers. We used decision tree modeling to compare the costs of attended vaginal delivery and immediate neonatal care: 1) in the six months before the collaborative, and 2) the average of the last three months of the collaborative. The intervention cost, combining HCI and MOH costs, was $843,000, including development of EONC national standards and the demonstration phase. The estimates for the cost to Niger’s MOH if they were to implement the same strategy in the remaining 11 district delivery facilities would be $404,000, since costs for development and demonstration do not recur.

The four measures of effectiveness used were compliance with AMTSL, rates of PPH, compliance with essential neonatal care, and compliance with breastfeeding within an hour of delivery. Calculating the incremental cost-effectiveness using HCI and MOH costs including development and demonstration gave low, positive incremental cost-effectiveness ratios. Using estimates of costs for the MOH to spread the strategy to the remaining sites is estimated to result in substantial cost savings along with improved outcomes.

**Study findings**

Development and implementation of the EONC QI Collaborative intervention cost a combined total of $9.45 per attended vaginal delivery with HCI bearing 91% of those costs. Including the savings realized with the decrease in clinical costs and the reduction in the incidence of PPH, reduces the to only $2.43 per delivery.

The average cost of vaginal delivery in the intervention areas fell from $35 per delivery before the intervention to $25 after. This savings includes the decrease in the cost of actually delivering the services and the reduction in the proportion of PPH cases among delivering women.

If the MOH were to spread the intervention to the remaining 11 district facilities, an initial investment of $4.50 per delivery would yield an overall savings of $1.70 per delivery due to the reduction in clinical costs and fewer of the more costly poor outcomes from childbirth.

**Cost calculations for implementation of Niger’s EONC improvement collaborative**

<table>
<thead>
<tr>
<th></th>
<th>For QI collaborative by HCI and MOH</th>
<th>QI collaborative by MOH only</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial cost</td>
<td>Initial cost</td>
</tr>
<tr>
<td></td>
<td>Total (US$)</td>
<td>843,000</td>
</tr>
<tr>
<td></td>
<td>Per delivery (US$)</td>
<td>9.45</td>
</tr>
<tr>
<td></td>
<td>Incremental cost</td>
<td>217,000</td>
</tr>
<tr>
<td></td>
<td>Per delivery (US$)</td>
<td>2.43</td>
</tr>
<tr>
<td></td>
<td>Incremental cost</td>
<td>-152,000</td>
</tr>
<tr>
<td></td>
<td>Per delivery (US$)</td>
<td>-1.70</td>
</tr>
</tbody>
</table>

**Incremental cost-effectiveness comparing pre- and post-collaborative effectiveness**

<table>
<thead>
<tr>
<th>Incremental cost-effectiveness</th>
<th>With MOH &amp; HCI &amp; development costs</th>
<th>With costs for MOH to implement program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per PPH averted</td>
<td>Estimate ($) 147</td>
<td>Estimate ($) -101</td>
</tr>
<tr>
<td></td>
<td>Credibility interval -383 - 746</td>
<td>Credibility interval -684 - 437</td>
</tr>
<tr>
<td>Per additional mother receiving AMTSL</td>
<td>Estimate ($) 3.48</td>
<td>Estimate ($) -2.43</td>
</tr>
<tr>
<td></td>
<td>Credibility interval -8.99 - 16.17</td>
<td>Credibility interval -14.93 - 10.02</td>
</tr>
<tr>
<td>Per child receiving essential neonatal care</td>
<td>Estimate ($) 3.13</td>
<td>Estimate ($) -2.07</td>
</tr>
<tr>
<td></td>
<td>Credibility interval -7.97 - 14.27</td>
<td>Credibility interval -13.12 - 8.95</td>
</tr>
<tr>
<td>Per newborn receiving immediate breastmilk</td>
<td>Estimate ($) 3.17</td>
<td>Estimate ($) -2.23</td>
</tr>
<tr>
<td></td>
<td>Credibility interval -8.49 - 14.8</td>
<td>Credibility interval -13.81 - 9.25</td>
</tr>
</tbody>
</table>
Four studies of the validity of self-assessment were completed under TO1 in FY10 (see Table 7). In three of the four validity studies, trained external evaluators examined medical records that were the same as those that had been used in QI team self-assessment. The studies found that self-assessment was generally valid but tended to overestimate performance slightly. While this phenomenon is something for QI teams to be vigilant about, the overestimation did not appear to be large enough to threaten data validity. The studies also found that simple, clearly defined criteria for indicators was associated with higher validity. Results from the Ecuador study of the validity of self-assessment data are summarized in Figure 31 and were submitted for publication in the *International Journal of Quality in Health Care*.

**Figure 31. Ecuador: Compliance with standards and agreement with external evaluators for quality indicators**

<table>
<thead>
<tr>
<th>Country</th>
<th>Design / focus</th>
<th>Key findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecuador</td>
<td>External evaluators versus QI teams on same charts</td>
<td>High level of agreement, especially when criteria for indicators are simple</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Sequential changes in agreement, completeness, computer records.</td>
<td>Validity generally improved over the life of the collaborative</td>
</tr>
<tr>
<td>Niger</td>
<td>External evaluators versus QI teams, direct observation, and simulations</td>
<td>All three measures showed good correspondence although QI team scores were slightly higher than those by external evaluators, which were higher than observations/simulations</td>
</tr>
<tr>
<td>Uganda</td>
<td>External evaluators versus QI teams</td>
<td>Good scores on data collection; poorer scores on data interpretation and utilization</td>
</tr>
</tbody>
</table>

**QI team performance and coaching**

Two new studies on QI team performance were completed in FY10: one in Cote d'Ivoire and the other using data from the 2009 QI institutionalization survey in Niger to examine QI team performance in the post-collaborative period. The Niger study examined the level of QI activities and the quality of care at six months post-collaborative to understand what teams do when their performance remains high over
time. The results indicate that teams that are not actively pursuing a new topic tend to meet less frequently, but many continue to monitor the indicators and ensure that new staff are oriented and trained to carry out the clinical tasks and organizational best practices. The Cote d’Ivoire study looked at factors that facilitate and inhibit the work of QI teams in the ART/PMTCT demonstration collaborative.

**Comparison of QI intervention areas to those with no QI intervention**

Two comparison studies quantifying the added value of QI were completed this year and provide an important contribution to the evidence base about quality improvement. The first study, in Guatemala, study examined the added value of a QI intervention to achieving results under a conditional cash transfer program; it compared the quality of care achieved in CCTP facilities participating in QI activities with the level of quality in other CCTP facilities not participating in QI. The results indicate significantly higher compliance with standards for those sites involved in the QI intervention, that the costs associated with QI were minimal, and that clients brought in to care through the CCTP received good care. The Cote d’Ivoire study compared quality of care indicators between the 41 demonstration phase sites in the ART/PMTCT collaborative and baseline data collected from about 60 new spread sites. The findings indicate significantly better quality of care in the collaborative sites and much better documentation of care provided.

**Health systems research**

In December 2009, HCI published the final report of an in-depth analysis of the results from 27 improvement collaboratives conducted between 1998 and 2008 in 12 countries. The study analyzed 135 time series charts (representing the work of over 1,300 QI teams) with respect to the magnitude, speed, and maintenance of improvement in the quality of care and outcomes. In February 2010, we made a presentation on the study's findings at USAID in 27 improvement collaboratives. An article on the study findings was submitted to the peer-reviewed journal, *Quality and Safety in Health Care*, in June 2010.

**Directions for FY11**

The following studies will be conducted in FY11 under TO3:

- Spread and shared learning: Ecuador (maternal and newborn care), Guatemala (EONC), Nicaragua (MNCH), Russia (sharing learning through a web portal), Uganda (HIV/AIDS, sharing with new teams), and Uganda (HIV/AIDS, sharing among existing teams)
- Institutionalization and sustainability: Honduras (CQI and better care practices), Niger (EONC), and Nicaragua (institutionalization in local NGO)
- QI team performance and coaching: Guatemala (ProCONE CQI teams), Mali (factors that inhibit performance), and Uganda (comparison of two coaching strategies)
- Adapting and implementing QI for community-level EONC programs: Afghanistan, Benin, Guatemala, and Mali
- Cost-effectiveness: Afghanistan (community and facility EONC collaborative), Mali (EONC), and Uganda (comparison of two coaching strategies)
- Support countries and element groups in implementing studies to answer their questions: Guatemala (TBA referrals), Niger (PHI malaria collaborative), and Niger (health workforce practice, QI, and employee engagement)
4.4 Technical Leadership and Communication

Overview of HCI’s Program in FY10

<table>
<thead>
<tr>
<th>Activities</th>
<th>What are we trying to accomplish at global scale?</th>
</tr>
</thead>
</table>
| Advocate for adoption of QI approaches, policies, and programs by international, regional, and national health care organizations | • Expand the use of QI approaches in USAID-assisted health care systems  
• Expand awareness of the evidence for modern QI approaches through presentations at regional and international events |
| Produce technical reports and submit articles to peer-reviewed journals that describe QI interventions and measure their impact | • Develop and disseminate evidence for the cost-effectiveness and benefits of applying modern QI approaches in USAID-assisted health care systems  
• Demonstrate the results of USAID’s investment in health care quality improvement |
| Facilitate articles and broadcasts in mass media that describe QI activities and results | • Expand awareness among civil society and the general population about the value of QI programs and stimulate demand for health system interventions to continuously improve the quality of health care |
| Provide global technical leadership for USAID’s worldwide efforts to improve health care in developing countries | • Expand the use of modern QI approaches in USAID-assisted health care systems and by USAID cooperating agencies  
• Demonstrate the results of USAID’s investment in health care quality improvement |
| Support the development of new graduate training programs in QI as applied to low- and middle-income countries | • Develop QI capacity in the next generation of health care providers and help to standardize the teaching of modern QI approaches |

Main Activities and Results

Under TO1 funding, HCI staff participated in the technical program of 16 international, regional, and national conferences in FY10, making 26 presentations on QI approaches and results to inform larger professional audiences of the effectiveness of QI approaches and advocate for their broader application. The conferences and presentation topics are detailed in Table 8.

Table 8. Participation in national, regional, and international conferences under HCI TO1, FY10

<table>
<thead>
<tr>
<th>Conference, Date, and Location</th>
<th>Presenter(s), Topics, and HCI Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Group Fall Meeting, October 7–8, 2009, Academy for Educational Development Conference Center, Washington, DC, USA</td>
<td>Ms. Lauren Crigler presented the CHW Program Functionality Assessment Tool.</td>
</tr>
<tr>
<td>Global Health Mini-University, October 9, 2009, George Washington University, Washington, DC, USA</td>
<td>Ms. Crigler and Ms. Alison Wittcoff presented the session “Sustainable, Successful Community Health Worker Programs.” Dr. Larissa Jennings presented the session “Improving Care for Patients on Antiretroviral Therapy (ART) – The ART Framework Hypothesis Testing in Nicaragua, Tanzania, and Uganda.”</td>
</tr>
<tr>
<td>International Society for Quality in Health Care (ISQua), October 11–14, 2009, Dublin, Ireland</td>
<td>Dr. Anthony Musisi presented the poster, “Enhancing Learning within an Improvement Collaborative in Uganda” and made the oral presentation, “Uganda Quality of Care for HIV Initiative.” Dr. Donna Jacobs-Jokhan made the oral presentation, “Sustaining Quality Improvements in Maternal and Child Health programs – Experiences from South Africa.”</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia AIDS Conference, October 28–30, 2009, Moscow, Russia</td>
<td>Dr. Victor Boguslavsky made the oral presentation, “Decentralization of HIV Care and Integrating Tuberculosis Screening of HIV Patients into the General Health Care System in St. Petersburg.”</td>
</tr>
<tr>
<td>Conference, Date, and Location</td>
<td>Presenter(s), Topics, and HCI Participation</td>
</tr>
</tbody>
</table>
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------
| American Public Health Association Annual Meeting, November 7–11, 2009, Philadelphia, PA USA   | Dr. Lynne Franco made the oral presentation, “Road Map for Improving Quality of Programs for Orphans and Vulnerable Children.”                                                                                                                                                                           |
| Post-partum Hemorrhage Prevention Initiative Final Conference, November 20, 2009, Washington, DC, USA | Dr. Kathleen Hill was invited to make the presentation, “Monitoring AMTSL for Scale-up and Sustainability” to share HCI’s experiences spreading AMTSL through collaborative improvement.                                                                                                                      |
| International Conference on Family Planning, November 15–18, 2009, Kampala, Uganda            | Dr. Kirunda made the oral presentation, “Strategies Used by Facilities to Integrate Family Planning into HIV Care: What Works and What Doesn’t.” Dr. Kirunda also demonstrated the HCI Portal at the Technology Café sponsored by the WHO Implementing Best Practices Initiative on the evening of Nov. 17. |
| International Union Against Tuberculosis and Lung Diseases, December 3–7, 2009, Cancun, Mexico | Dr. Samson Haumba presented the poster, “Lessons from Conducting a Rapid XDR-TB Survey in Swaziland.”                                                                                                                                                                                                       |
| National Forum on Quality Improvement in Health Care, December 6–9, 2009, Orlando, FL, USA     | Dr. M. Rashad Massoud co-facilitated a session on “Learning from Integrated Care Systems in Developing Countries: Applications to Developed Nations.”                                                                                                                                                  |
| Quality Improvement in Female Genital Fistula Care, January 27, 2010, Kampala, Uganda          | Dr. Nigel Livesley was invited to present at this regional conference, sponsored by the Regional Center for Quality Health Care at Makerere University and aimed at designing training curricula for fistula care, to provide perspectives on incorporating QI approaches.                                                                                         |
| Reconvening Bangkok: 2007 to 2010 - Progress Made and Lessons Learned in Scaling-up FP/MNCH Best Practices in Asia and the Middle East Region, March 6–11, 2010, Bangkok, Thailand | Sponsored by the Extending Service Delivery Project, this international technical meeting brought together 400 renowned experts in the fields of reproductive health; family planning; and maternal, neonatal, and child health, and allowed participants to share and learn about state-of-the-art FP/MNCH best practices and country-specific success stories. Dr. Youssef Tawfik made two presentations on collaborative improvement: 1) a 15-minute presentation on the improvement collaborative approach as part of a panel on methods for scaling up, and 2) a one-hour skill-building session on collaboratives. He also leveraged the trip to provide coaching to the Yemen country team as they developed their national action plan for scaling up evidenced-based best practices in MNCH. |
| 4th Routine Health Information Network (RHINO) International Workshop, March 8–12, 2010, Guanajuato, Mexico | Mr. Luigi Jaramillo and Ms. Miriam Castillo of HCI Guatemala attended this workshop sponsored by RHINO with Instituto Nacional de Salud Pública (INSP), the Mexico MOH, and the MEASURE/Evaluation Project. (Dr. Tisna Veldhuijzen van Zanten and a URC staff member from Benin also attended.) No HCI abstracts were submitted, but all participants were asked to bring a PowerPoint presentation, with details on their health information systems work, for conversion to posters. Mr. Jaramillo’s and Ms. Castillo’s poster on Guatemala Calidad en Salud work won second place for best poster. |
| 2nd Regional Child Health Forum: Implementing Community Child Health Interventions: Which Way Africa?, March 29–31, 2010, Kampala, Uganda | Dr. Livesley presented “Important Considerations for Assuring Quality in Implementation of Community Health Interventions,” and Ms. Crigler presented “Assessment and Improvement of Programs Providing Health Services to Communities” (focusing on the CHW Assessment and Improvement Matrix tool). Both presentations took place in a March 31 session when Dr. Troy Jacobs of USAID/MCH also presented. |
### Conference, Date, and Location

<table>
<thead>
<tr>
<th>Conference, Date, and Location</th>
<th>Presenter(s), Topics, and HCI Participation</th>
</tr>
</thead>
</table>
| International Forum on Quality and Safety in Health Care 2010, April 20–23, 2010, Nice, France | Due to the Icelandic volcano, only Dr. Jean N’Guessan, Dr. Maina Boucar, and Dr. Livesley were able to attend; they made the following presentations:  
  - Drs. Livesley and Boucar: “A Framework for Improving Care for Patients on Antiretroviral Therapy (ART)”  
  - Dr. Livesley: “A Tool to Estimate Antiretroviral Therapy (ART) Need at District and Facility Levels”  
  - Dr. N’Guessan: “Improving HIV Care in Cote d’Ivoire”  
hci’s three accepted posters could not be presented but were posted on the Forum website following the conference:  
  - “Do Collaboratives Generate Significant Improvement in Developing Countries? Results from 30 Collaboratives in 14 Countries”  
  - “Validity of Self-assessments of Continuous Quality Improvement Teams in Ecuador”  
  - “Measuring Engagement of Community Health Workers Working with OVCs in Ethiopia to Improve Productivity, Retention, and Quality of Care” |
| CORE Group Spring Meeting, April 28, 2010, Baltimore, MD, USA | Ms. Alison Wittcoff and Dr. Becky Furth of Initiatives led a concurrent session on “CHW Program Assessment and Improvement Tool.” |

### Produce technical reports

Two articles submitted for publication under TO1 funding in FY10 were accepted by peer-reviewed journals, and two other articles were prepared and submitted for publication in FY10. In addition, the project published three research reports, six technical reports, and four short reports/flyers. These publications are detailed in Table 9.

#### Table 9. HCI TO1 journal articles, reports, and informational materials published in FY10

<table>
<thead>
<tr>
<th>Journal articles published (Date published)</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Journal articles submitted for publication (Date submitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franco LM, Marquez L. Effectiveness of collaborative improvement: evidence from 27 applications in 12 less developed and middle-income countries. Submitted to <em>Quality and Safety in Health Care</em>. (June 2010)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research and Evaluation Reports (Date published)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franco LM, Marquez L, Ethier K, Balsara Z, and Isenhower W. Results of Collaborative Improvement: Effects on</td>
</tr>
</tbody>
</table>
Facilitate articles and broadcasts in mass media

HCI facilitated three mass media articles under TO1 in FY10 addressing the nature of QI activities and their results:

1. “GalichIzvestiya,” a local newspaper in Kostroma Oblast, Russia, published an article June 10, 2010, featuring improvement activities and results in Galich rayon hospital, one of the leader sites participating in the MCH collaboratives. The article, “Deliver a-la Russian” by I. Kozyr, quoted the Galich team leader as having said that the hospital had benefited from participation in the MCH Collaborative and listed improvements achieved and new services for mothers and babies.

2. Le Sahel, a leading newspaper in Niamey published an article on the results of the Niger HR Collaborative on July 26, 2010.

3. A blog post by Dr. Massoud on the role of QI in reaching the MDGs was published on the Global Health Magazine website in September 2010.
Provide global technical leadership for USAID’s efforts to improve health care

HCI staff conducted 18 technical briefings for USAID and cooperating agency staff under TO1 in FY10 to demonstrate the results of USAID investments in health care improvement and encourage greater use of modern QI approaches in USAID-assisted countries. These presentations are detailed in Table 10.

During FY10, HCI staff contributed to a number of international expert technical meetings convened by the WHO, the World Alliance for Patient Safety, the Global Health Workforce Alliance, and other agencies. The collaboration with WHO Patient Safety and Harvard School of Public Health, begun last year, culminated in September 2010 in the joint publication of a position paper on the application of QI methods to the large-scale spread of care checklists.

Table 10. Briefings and presentations for USAID, international donor, and cooperating agency staff under HCI TO1, FY10

<table>
<thead>
<tr>
<th>Date and Venue</th>
<th>Presenter(s) and Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting of the OGAC OVC Task Force, October 8, 2009, Bethesda, MD, USA</td>
<td>Ms. Marie-Eve Hammink, together with Ms. Kendra Blackett-Dibinga and Ms. Nicole Richardson of Save the Children, presented the results from the piloting of OVC QI standards in Ethiopia to launch the two case studies prepared by HCI and Save the Children. Members of the OGAC OVC Task Force were invited to the presentation, held at URC’s main office. Ms. Hammink’s presentation, “Applying the Science of Improvement to Achieving Quality Care for Vulnerable Children in Ethiopia” focused on the QI process, while the Save the Children presentation, “Empowering Communities for Lasting Change Quality Improvement Initiative in Ethiopia,” presented the results of the field test.</td>
</tr>
<tr>
<td>October 15, 2009, Bethesda, MD, USA</td>
<td>Ms. Lani Marquez presented on HCI’s experience with web-based platforms for “Gathering and sharing knowledge about improving health care” at the quarterly meeting of the Health and Population Information Network (HIPNet), a group of communications and knowledge management staff from several USAID cooperating agencies. The meeting was held at URC.</td>
</tr>
<tr>
<td>October 29, 2009, Elizabeth Glaser Pediatric AIDS Foundation, Washington, DC, USA</td>
<td>Dr. Massoud, Ms. Fazila Shakir, and Dr. Jennings visited EGPAF’s Washington office to brief them on the ART Framework. EGPAF staff had seen Dr. Jennings’ presentation at the GH Mini-University and wanted to determine how they might apply the framework in their work.</td>
</tr>
<tr>
<td>January 7, 2010, USAID, Washington, DC, USA</td>
<td>Dr. Livesley presented on the HCI Uganda program.</td>
</tr>
<tr>
<td>January 11, 2010, JSI, Arlington, VA, USA</td>
<td>Ms. Crigler and Ms. Wittcoff led a half-day workshop on the CHW program functionality assessment tool for members of the CORE Group.</td>
</tr>
<tr>
<td>February 25, 2010, USAID, Washington, DC, USA</td>
<td>Dr. Franco and Ms. Marquez presented the findings of the collaborative evidence study.</td>
</tr>
<tr>
<td>March 1, 2010, Family Health International, Washington, DC, USA</td>
<td>Drs. Massoud and Jennings presented the framework for improving care for persons with HIV and the findings of the collaborative evidence study.</td>
</tr>
<tr>
<td>March 9, 2010, AED, Washington, DC, USA</td>
<td>Dr. Franco and Ms. Marquez presented the findings of the collaborative evidence study for staff of the FANTA II Project and other AED staff.</td>
</tr>
<tr>
<td>March 10, 2010, OGAC, Washington, DC, USA</td>
<td>Ms. Hammink presented an update on the Care that Counts Initiative for the OVC Task Force at OGAC.</td>
</tr>
<tr>
<td>March 17, 2010, Jhpiego, Baltimore, MD, USA</td>
<td>Ms. Crigler presented on the CHW assessment and improvement matrix (AIM) to Jhpiego staff.</td>
</tr>
<tr>
<td>March 18, 2010, OHA, USAID, Washington, DC, USA</td>
<td>Ms. Crigler presented an update on the Niger HR collaborative and other HR work being implemented by HCI for the OHA Human Resources for Health working group.</td>
</tr>
<tr>
<td>March 18, 2010, USAID, Washington, DC, USA</td>
<td>Mr. Crigler and Dr. Jacobs presented a brown bag presentation on the CHW assessment and improvement matrix (AIM)</td>
</tr>
<tr>
<td>March 19, 2010, Health</td>
<td>Ms. Crigler presented on the Niger HR collaborative to staff of HRSA and</td>
</tr>
</tbody>
</table>
## Support the development of QI training programs

HCI supported the development of two new post-graduate training programs in QI under TO1 funding in FY10:

1. A mini-course on QI for medical students was delivered in January 2010 through the Afghanistan Public Health Institute; based on this experience, a one-week QI course was developed with the Institute in 2010.

2. HCI developed a distance learning QI course with the Methodological Center for Quality of the Ministry of Health and Social Development in Russia. The course will be made available on the public side of the Russia MCH Web Communicator in FY11. The Center will award a certificate in Health Care Organization to those who successfully complete the course.

## Directions for FY11

Most HCI technical leadership activities moved to TO3 funding in June 2010, and all will be implemented under TO3 in FY11. We will continue to prioritize in FY11 the development of manuscripts for submission to peer-reviewed journals and the development of technical publications and articles in mass media describing QI results and impact.
5 Performance Tracking Plan

Cumulative progress in meeting HCI TO1 performance targets is summarized in Table 11 by task order objective.

Table 11. HCI TO1 performance tracking: Cumulative achievements through FY10

<table>
<thead>
<tr>
<th>HCI TO1 Performance Target</th>
<th>Cumulative Progress Toward Achievement of Performance Targets at the End of FY10</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>All QI interventions supported by HCI TO1 are documented in the following manner: 1) information archived at the country level and in URC’s headquarters, 2) Collaborative Profiles posted on the HCI Portal about HCI-supported QI interventions that are improvement collaboratives, 3) Improvement Reports or other technical or research reports posted on the HCI Portal for QI interventions that are not collaboratives, and 4) written and verbal reports on results and key findings presented each quarter to the COTR. Documentation standards and tools, drawing on the lessons learned from the field testing of the project’s Standard Evaluation System, have been developed and disseminated to all HCI teams in the form of Learning System Standards for improvement interventions and team-level QI activities. As part of the HCI TO3 self-evaluation process, all HCI country teams were asked to self-assess how well they were meeting the learning system standards, which address not only consistent documentation of improvement interventions and results at both the individual team and program levels, but also the analysis and synthesis of this information to identify better care practices that can be spread to other teams. The results of the self-assessment are presented in the HCI TO3 Self-Evaluation Report. HCI conducted research in FY10 to deepen our understanding of how effective changes are identified and spread through collaborative improvement methods so that we can apply this learning in HCI-supported country programs. Studies in this area were completed in FY10 under HCI TO1 in Cote d’Ivoire, Guatemala, Nicaragua, and Tanzania. Quantitative measures of each QI intervention are reported quarterly in the review meetings with the COTR, summarized in the annual project report and self-evaluation report, and summarized in reports posted on the HCI Portal as HCI publications, Collaborative Profiles, and Improvement Reports.</td>
</tr>
<tr>
<td>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.</td>
<td></td>
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</tbody>
</table>

| Objective 2: Institutionalize modern quality improvement approaches as an integral part of health care in USAID-assisted countries | Twenty-two country health systems received TA for more than 12 months under HCI TO1: Africa: Cote d’Ivoire, Ethiopia, Kenya, Lesotho, Mali, Mozambique, Namibia, Niger, South Africa, Swaziland, Tanzania, Uganda. Asia: Afghanistan, India, Indonesia, Vietnam. Europe: Russia. Latin America: Bolivia, Ecuador, Guatemala, Honduras, Nicaragua. HCI country teams all began reporting on evidence of institutionalization as part of FY09 annual reporting; this evidence was catalogued in the FY09 HCI TO1 Self Evaluation Report. The three countries lacking such evidence are: in India, where HCI provided intermittent technical assistance to a small-scale project; Indonesia, which received only short-term technical assistance from HCI to develop a computer-based training product; and Lesotho, where HCI ceased activities in October 2009. We do know that the TB-HIV improvement strategies that HCI helped to develop in Lesotho were integrated into the bilateral project implemented by the International Center for AIDS Care and Treatment Program at Columbia University. |
| 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. | |

USAID HCI TO1 FY10 Annual Project Report
<table>
<thead>
<tr>
<th><strong>HCI TO1 Performance Target</strong></th>
<th><strong>Cumulative Progress Toward Achievement of Performance Targets at the End of FY10</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Objective 3: Expand the evidence base for the application of QI to human resources (HR) planning and management</strong></td>
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<tr>
<td>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%</td>
<td>Under HCI TO1, we developed three collaboratives in Africa addressing HR management processes: 1. The Niger HR Collaborative 2. The Uganda District Health Management Collaborative 3. The Uganda Coverage/Efficiency Collaborative Documentation of these collaboratives is available on the HCI Portal. A report on the baseline assessment of the HR processes in the Uganda Coverage/Efficiency Collaborative was published by HCI in September 2010. An in-depth technical report (covering the overall collaborative strategy, change package, and first year results) on the Niger collaborative will be published in the first quarter of FY11.</td>
</tr>
<tr>
<td>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</td>
<td>Sixteen applications of QI methods to HR policy issues were completed under TO1 by the end of FY10. Four address efficiency and productivity. The 16 applications are: 1) Aligned national health goals and objectives to local level in Tahoua, Niger 2) Written job descriptions in Niger 3) OVC volunteer engagement assessment in Ethiopia 4) HR systems assessment in Niger 5) Health worker engagement survey to improve retention in Niger 6) Assessed time utilization of health workers to improve productivity in Niger (efficiency) 7) Nicaragua Organizational Climate Assessment 9) Developed assessment tool and process to evaluate and count functional CHWs 10) Assessed CHWs in Nepal 11) Assessed CHWs in Benin 12) Uganda baseline assessment for client flow (efficiency) 13) Uganda baseline assessment of time utilization of health workers (productivity) 14) Uganda baseline assessment of health worker engagement 15) Task-shifting in MNC Counseling: Evaluation of the Quality and Impact of counseling by skilled and unskilled health care workers in Benin 16) Assessment of compliance with maternal health standards by skilled birth attendants in Tanzania</td>
</tr>
<tr>
<td><strong>Objective 4: Expand experience with the improvement collaborative approach in USAID-assisted countries</strong></td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>By the end of FY10, HCI had launched or completed 32 phase I improvement collaboratives under TO1, far surpassing the performance target. <strong>Phase I collaboratives supported under TO1:</strong> Benin (1): EONC Aplahoue-Dogbo-Djakotome District Cote d’Ivoire (1): ART/PMTCT in 41 sites Mali (2): Facility EONC collaborative and Mali Community EONC collaborative Niger (2): Phase II EONC pre-eclampsia demonstration collaborative and HR Collaborative in Tahoua Tanzania (4): Tanga Region ART-PMTCT collaborative (AIDS Relief); Morogoro Region ART-PMTCT collaborative (FHI); Mtawa Region ART-PMTCT collaborative (Clinton Foundation); Infant Feeding Collaborative in Iringa Uganda (8): District health management demonstration collaborative; Coverage collaborative; Retention collaborative; Clinical outcomes collaborative; Laboratory collaborative; Data management collaborative; Nutrition collaborative; Private sector collaborative</td>
</tr>
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</table>
## HCI TO1 Performance Target

<table>
<thead>
<tr>
<th>Performance Target 4.1a:</th>
<th>Support the development of at least one phase I improvement collaborative addressing district level health program management in Africa.</th>
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<tbody>
<tr>
<td>Under HCI TO1, we developed two phase I collaboratives addressing district level health program management in Africa:</td>
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<tr>
<td>1. Niger HR collaborative</td>
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<tr>
<td>2. Uganda District Health Management collaborative</td>
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</table>

## Performance Target 4.1b: Support the development of two phase I improvement collaboratives addressing the chronic care of HIV/AIDS 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.

Under HCI TO1, we developed six phase I collaboratives (including five in Africa) addressing gaps in coverage, retention, and improved clinical outcomes by applying the project’s ART Framework:

1. Nicaragua ART collaborative
2. Cote d’Ivoire ART/PMTCT demonstration collaborative
3. Uganda HIV coverage/efficiency collaborative
4. Uganda HIV retention collaborative
5. Uganda HIV clinical outcomes collaborative
6. Uganda nutrition collaborative

## Performance Target 4.2: Conduct at least three descriptive and intervention studies.

Under HCI TO1, we conducted five descriptive and intervention studies:

1. Ecuador: Humanization, cultural adequacy and demand generation for quality maternal care
2. Ethiopia: Applying the science of improvement to achieving quality care for vulnerable children
3. Results of collaborative improvement: Effects on health outcomes and compliance with evidence-based standards in 27 applications in 12 countries
4. Niger: Descriptive study of factors associated with QI team performance
5. Cote d’Ivoire: Descriptive study of QI team performance in the ART/PMTCT demonstration collaborative

## Objective 5: Expand experience with the spread collaborative approach in USAID-assisted countries

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.

Under HCI TO1, we developed 10 phase II spread collaboratives that extended improved care practices to populations greater than 100,000:

1. Uganda first wave spread collaborative (32 new sites) in HIV/AIDS Quality of Care Initiative
2. Uganda second wave spread collaborative (31 sites) in HIV/AIDS Quality of Care Initiative
3. St. Petersburg, Russia spread collaborative on HIV treatment, care and

<table>
<thead>
<tr>
<th>Cumulative Progress Toward Achievement of Performance Targets at the End of FY10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan (1): EONC facility collaborative in Kunduz and Balkh provinces</td>
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<tr>
<td>Vietnam (1): TB-HIV collaborative in Thai Binh</td>
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<tr>
<td>Russia: (6): Demonstration collaborative on social services for families affected by HIV (St. Petersburg); Prevention of newborn hypothermia and respiratory disorders (Tambov, Yaroslavl, and Kostroma oblasts); Breastfeeding promotion (Tambov, Yaroslavl, and Kostroma oblasts); Optimizing labor management using the partograph (Tambov, Yaroslavl, and Kostroma oblasts); Prevention of unwanted pregnancies and STIs among teenagers (Tambov, Yaroslavl, and Kostroma oblasts); Primary neonatal resuscitation (Tambov, Yaroslavl, and Kostroma oblasts)</td>
</tr>
<tr>
<td>Guatemala (2): Community ProCONE demonstration collaborative in San Marcos; Complications ProCONE demonstration collaborative</td>
</tr>
<tr>
<td>Honduras (1): La Paz region pneumonia and diarrheal disease case management collaborative</td>
</tr>
<tr>
<td>Nicaragua (3): VCT-STI demonstration collaborative; ART demonstration collaborative in 5 SILAIS; Post-obstetric event family planning demonstration collaborative</td>
</tr>
<tr>
<td>Quantitative improvement over baseline exceeded 10% for multiple indicators in all of the demonstration collaboratives.</td>
</tr>
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</table>

Quantitative improvement over baseline exceeded 10% for multiple indicators in all of the demonstration collaboratives.
<table>
<thead>
<tr>
<th>HCI TO1 Performance Target</th>
<th>Cumulative Progress Toward Achievement of Performance Targets at the End of FY10</th>
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</table>
| 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. | support and TB-HIV co-infection management (all 18 districts of St. Petersburg)  
4. St. Petersburg, Russia spread collaborative on social services for families affected by HIV (all 18 districts of St. Petersburg)  
5. Guatemala Basic ProCONE spread collaborative (8 health areas)  
6. Guatemala Community ProCONE spread (8 health areas)  
7. Nicaragua maternal and newborn complications spread collaborative, 9 hospitals  
8. Nicaragua post-obstetric event family planning collaborative  
9. Cote d’Ivoire spread collaborative on ART/PMTCT (80 new sites)  
10. Lindi Region ART-PMTCT collaborative (Clinton Foundation/EGPAF) (spread from Mtwaras) |

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. | HCI completed six studies on the process of spread of improvements from one team to another under TO1:  
1. Results of collaborative improvement: results of 27 applications in 12 countries  
2. Options for spread of simple high impact interventions  
3. Cote d’Ivoire: Shared learning  
4. Tanzania: Shared learning and spread related to the Tanga collaborative  
5. Nicaragua: Shared learning and spread  
6. Guatemala: Spread of best practices from demonstration phase |

Objective 6: Expand the experience base for other specific QI approaches

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. | Under TO1 in FY10, HCI completed six applications and evaluations of other QI approaches (other than collaborative improvement):  
1. Uganda private-for-profit HIV quality of care assessment  
2. Cote d’Ivoire HIV quality of care assessment  
3. Evaluation of the impact of job aids on counseling for maternal and newborn care in Benin  
4. Evaluation of ART training in Uganda  
5. Evaluation of HIV patient monitoring tools training in Uganda  
6. Evaluation of infant feeding counseling training in Iringa, Tanzania  
Two additional applications are underway and will be completed under TO1 funding in FY11:  
7. Development of a TB computer-based training CD-ROM in Indonesia  
8. Development of E-Learning modules on quality improvement in OVC programs |

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. | HCI has completed two comparative analyses of the results of QI teams versus teams receiving regular supervisory practices:  
1. Guatemala: Evaluating the contribution of QI on effectiveness of CCTP  
2. Cote d’Ivoire: Study comparing demonstration sites and baseline for expansion sites |

Objective 7: Improve the cost-effectiveness of QI in USAID-assisted countries

Performance Target 7.1: By the second year of the task order, develop a functioning global knowledge management (KM) system for improvement information. | The Health Care Improvement Portal was launched in September 2009, at the end of FY09, completing the global knowledge management system for HCI. In addition to the main HCI Portal, the project:  
4. Launched in FY09 an Intranet for the project team to facilitate technical sharing among country and headquarters teams and partners  
5. Launched in March 2009 a Spanish language knowledge management web |
### HCI TO1 Performance Target | Cumulative Progress Toward Achievement of Performance Targets at the End of FY10

**Site for sharing evidence-based practices and improvement experiences in maternal and newborn care:** [www.maternoinfantil.org](http://www.maternoinfantil.org)

6. Launched in FY09 a private web portal, [www.healthquality.ru](http://www.healthquality.ru), to support knowledge management in the MCH/RH collaboratives in Russia; a public section of this portal was launched in September 2010.

7. Launched in the last quarter of FY10 an information-sharing web site in Spanish and English for the Latin American Regional Newborn Health Alliance, [www.alianzaneonatal.org](http://www.alianzaneonatal.org).

**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.**

<table>
<thead>
<tr>
<th>Study Initiated in FY10</th>
<th>Completed by FY11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HCI staff survey regarding the HCI Portal</td>
<td></td>
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<tr>
<td>2. HCI staff survey regarding the HCI Intranet</td>
<td></td>
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<tr>
<td>3. Survey of users who registered at the Kampala Chronic Conditions conference regarding the HCI Portal</td>
<td></td>
</tr>
<tr>
<td>4. Survey of other registered users from outside the project regarding the HCI Portal</td>
<td></td>
</tr>
<tr>
<td>5. Survey (in Spanish) of users of the <a href="http://www.maternoinfantil.org">maternoinfantil.org</a> site</td>
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<tr>
<td>6. Survey of the internal users of the Russian site</td>
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<tr>
<td>7. Intervention to make personal connection to invite participants of the International Forum in Nice in April 2010 to submit to the HCI Portal</td>
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<tr>
<td>8. Intervention to make personal connection to invite participants of the Global Health Council conference in Washington DC in June 2010 to submit to the HCI Portal</td>
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<tr>
<td>9. Intervention to make personal connection to invite participants of the International AIDS Conference in Vienna in July 2010 to submit to the HCI Portal</td>
<td></td>
</tr>
<tr>
<td>10. Interventions to make personal connection to invite colleagues at IHI, HIVQUAL and FHI to submit improvement stories to HCI Portal</td>
<td></td>
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</table>

**New studies to be carried out in FY11:**

11. Overview analysis of all tested interventions to make personal connection to encourage submissions to the HCI Portal and design of further interventions to encourage submissions to the Improvement Database

12. Intervention to test a contest for best improvement report as a means for increasing postings on the HCI Portal

13. Interventions to improve client experience and use of HCI Intranet

14. Interventions to improve client experience and use of HCI Portal

15. Intervention to improve client experience and use of [maternoinfantil.org](http://www.maternoinfantil.org) site (Spanish)

The results of these studies will be written up as short reports to be shared with the COTR and summarized in the FY11 HCI TO1 Self-Evaluation Report.

**Performance Target 7.3: Carry out 10 studies related to improving the cost-effectiveness of specific QI approaches or methodologies.**

By the end of FY10, HCI had completed 10 studies related to improving the cost-effectiveness of specific QI approaches or applications:

1. Ecuador: Validity of self-assessment in EONC Collaborative

2. Guatemala: Analysis of the effectiveness and cost-effectiveness of adding QI to a conditional cash transfer program

3. Nicaragua: Cost analysis of an intervention to prevent ventilator-associated pneumonia

4. Nicaragua: Cost-effectiveness of pediatric hospital improvement interventions

5. Niger: Cost effectiveness of collaborative improvement for EONC


7. Tanzania: Sequential validity of self-assessment for ART/PMTCT services

8. Uganda: Cost-effectiveness of the data management collaborative
<table>
<thead>
<tr>
<th><strong>HCI TOI Performance Target</strong></th>
<th><strong>Cumulative Progress Toward Achievement of Performance Targets at the End of FY10</strong></th>
</tr>
</thead>
</table>
| 9. Uganda: Evaluation of the costs and benefits of the HIV services coverage collaborative  
10. Uganda: Validity of self-assessment data | By the end of FY10, the HCI Portal had over 18,000 unique visits and the maternoinfantil.org site had over 50,000 unique visits. 
By the end of FY10, the HCI Portal had received one collaborative profile from outside the task order; the maternoinfantil.org site had received 10 submissions from outside HCI. 
By the end of FY10, HCI had received and responded to approximately 125 requests for further information or assistance: 75 received through the HCI Portal, and 50 received through the maternoinfantil.org site. |
| **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.** | HCI met this requirement in FY08 by making all reports and technical materials that had been available on the www.qaproject.org web site available on the temporary project site at www.hciproject.org while the HCI Portal site was being developed. All of the publications and technical content on QI methods from the Quality Assurance Project web site are available on the HCI Portal, both through the HCI Publications page and as highlighted technical resources on improvement tool and improvement topics pages. |
| **Objective 8: Provide global technical leadership for QI in USAID-assisted countries** | HCI had achieved four endorsements of QI methods by the end of FY10: 
1. HCI assisted the International AIDS Alliance to add a section on Quality Improvement to its Toolkit for OVC Programs in FY08. 
2. OGAC endorsed the facilitators’ guide for quality in OVC programs in FY09. 
3. The HCI Director and COTR collaborated with WHO, the New York State AIDS Institute, CDC, and other cooperating agencies to develop the content on quality improvement of HIV/AIDS care in a manual for PEPFAR implementers distributed at the HIV Implementers’ meeting in Kampala in June 2008. 
4. HCI collaborated with WHO, Harvard University, and the World Alliance for Patient Safety to develop a position paper on the application of QI methods to the large-scale spread of care checklists (published in September 2010). |
| **Performance Target 8.2: Contractor staff and its 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.** | By the end of FY10, HCI had published seven technical reports and two journal articles describing QI interventions and measuring their impact, and a third journal article was conditionally accepted for publication, totaling 10 publications that meet this performance target. Five additional articles on TO1 results were prepared for submission to peer-reviewed journals. Relevant technical reports published by HCI by the end of FY10: 
1. Evaluating Health Care Collaboratives: The Experience of the Quality Assurance Project (June 2008) 
4. Applying the Science of Improvement to Achieving Quality Care for Vulnerable Children in Ethiopia (October 2009) 
5. Results of Collaborative Improvement: Effects on Health Outcomes and Compliance with Evidence-based Standards in 27 Applications in 12 Countries (December 2009) 
6. Integrating Nutrition into HIV/AIDS Care, Treatment, and Support Using a Quality Improvement Approach: Results from Uganda (co-published with the NuLife Project) (April 2010) |
### HCI TO1 Performance Target

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<tr>
<th>Cumulative Progress Toward Achievement of Performance Targets at the End of FY10</th>
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| 7. Options for Large-scale Spread of Simple, High-impact Interventions (September 2010) Peer-reviewed journal articles describing QI interventions and their impact:  

The five articles that were prepared or submitted for publication in FY10 are:  
1. “Effectiveness of collaborative improvement: evidence from 27 applications in 12 less developed and middle-income countries” was submitted to *Quality and Safety in Health Care* in June 2010.  
3. “Cost-effectiveness of a pediatric care improvement intervention in Nicaragua” was submitted to the *Pan American Journal of Public Health* in October 2010.  
4. “Economic analysis of a pediatric ventilator-associated pneumonia prevention initiative in Nicaragua” was submitted to *Public Health* in November 2010.  

### 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.

By the end of FY10, HCI had facilitated seven articles and broadcasts in mass media addressing the nature of QI activities and their results:  
1. In July 2008, the AIDSMap web site published an article on HCI’s QI efforts to introduce HIV testing and counseling into TB clinics in Lesotho  
2. Dr. Reflooe Matji, HCI’s Regional Director for Southern Africa, was interviewed in March 2009 on the *News Hour with Jim Lehrer* on the Public Broadcast System in the United States  
3. Articles on improving HIV care were published in FY08 and FY09 in two issues of the magazine *AIDS Sex Health* in Russia  
4. An article was published in October 2009 in the ECSA *Bulletin* describing QI interventions and their role in helping countries meet the MDGs, based on Dr. Stephen Kinoti’s presentation at a regional ECSA meeting in September 2009.  
5. The local newspaper “Galich Izvestiya” in Kostroma Oblast in Russia published an article on June 10, 2010, featuring the improvement activities and results in Galich rayon hospital, one of the leader sites participating in the MCH collaboratives. The team leader of the Galich team was quoted discussing how the hospital had benefited from participation in the MCH collaborative, listing improvements achieved and new services that are now available to mothers and babies. The article is titled “Deliver a-la Russian” by I. Kozyr.
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<tr>
<th>HCI TO1 Performance Target</th>
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|                            | 6. An article on the results of the Niger HR Collaborative was published in Le Sahel, a leading newspaper in Niamey, on July 26, 2010.  
7. A blog post by Dr. Massoud on the role of QI in reaching the MDGs was published on the Global Health Magazine website in September 2010. |
| 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. | This performance target was met in FY09. The Technical Advisory Group convened at USAID in May 2009; the panel consisted of six world-class experts in improvement who had been approved by the COTR. |
| 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 schools of public health, or ministry of health training institutes. | HCI supported the development of two new post-graduate training programs in QI by the end of FY10:  
1. A mini-course on QI for medical students was delivered in January 2010 through the Afghanistan Public Health Institute; based on this experience, a one-week QI course was developed with the Institute in 2010.  
2. HCI developed a distance learning QI course with the Methodological Center for Quality of the Ministry of Health and Social Development in Russia. The course will be made available on the public side of the Web Communicator in FY11. The Center will award a certificate in Health Care Organization to those who successfully complete the course. |