USAID FROM THE AMERICAN PEOPLE | PERU | QUALITY HEALTHCARE

# RAPID ASSESSMENT OF THE QUALITY HEALTHCARE PROGRAM LEGACY

**2008 – 2013**

**February 2013**

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**Contract No. GHS-I-02-07-00004-00**

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## ACRONYMS

| | |
|---|---|
| CLABSI | central line associated blood stream infection |
| DIRESA | *Dirección Regional de Salud* (Regional Health Directorate) |
| HAART | highly active antiretroviral therapy |
| INSN | *Instituto Nacional de Salud del Niño* (National Institute of Child Health) |
| M&E | monitoring and evaluation |
| MDR-TB | multi-drug resistant tuberculosis |
| MOH | Ministry of Health |
| mPIP | minor public investment project |
| PIM | Performance Improvement Methodology |
| PIP | public investment project |
| QHC | Quality Healthcare Program |
| SERUMS | *Servicio Rural Urbano Marginal* (Rural and Peri-Urban Civil Service in Health) |
| SERVIR | *Autoridad Nacional del Servicio Civil* (National Civil Service Authority) |
| SIP 2000 v3 | *Sistema de Información Perinatal* 2000 (Perinatal Information System 2000) |
| SISMED | *Sistema Integrado de Suministro de Medicamentos e Insumos Médico-Quirúrgicos* (Integrated Supply System of Medicines and Medical Supplies) |
| STI | sexually transmitted infections |
| TB | tuberculosis |

# EXECUTIVE SUMMARY

Over the past five years, the USAID | Peru | Quality Healthcare (QHC) program has introduced permanent quality improvements for government-run health care facilities. By adhering to new health care delivery standards and the Performance Improvement Methodology (PIM), the quality of health service delivery in facilities and regions is now more equitable. Both facilities and staff are incorporating the methodology and improved care norms when providing health services to clients.

This assessment answers the following questions: How have the Ministry of Health (MOH) and regional health directorates (DIRESAs) strengthened their capacity to deliver quality health care services? How have QHC tools and approaches become institutionalized? How have academic and civil society organizations engaged in health care outcomes? How has the quality of health care delivered by target organizations improved?

Below is a summary of key assessment findings responding to the questions above:

### Key Findings

- MOH and DIRESAs strengthened their capacity to deliver quality health care services
  - National HIV Policy includes comprehensive care norms
  - National Tuberculosis Policy updated
  - Operational epidemiological information analyzed for decision making
- QHC program tools and approaches institutionalized
  - Ministerial Decree 556-2012 standardized use of PIM nationwide
  - Regional recognition plans reinforce quality as a performance indicator
  - Public investment projects approved to address gaps identified by PIM
- Academic and civil society organizations engaged in health care outcomes
  - DIRESA accredited training centers provide workforce training
  - Civil society organizations actively engaged in the design and implementation of regional health plans
- Quality of health care delivered by target organizations improved
  - 126 micro-networks of health care facilities across five regions have performance improvement plans in place
  - Decentralization of specialized services for HIV and Periodic Medical Examinations for HIV and sexually transmitted infections (STIs) implemented in target regions
  - Molecular diagnosis of tuberculosis (TB) established in target regions

**Results by the Numbers**

*Human Resources*

- **3,978** people from 16 regions trained in the Performance Improvement Methodology.
- **2,661** people from 21 regions trained in tuberculosis diagnosis and treatment.
- **465** people from Ayacucho and San Martin trained in neonatal and obstetric emergencies.

*Health Care Facilities*

- **1,090** health care facilities from 10 regions completed at least two maternal and child health/family planning/ reproductive health performance assessments between 2009 and 2013.
- **113** health care facilities from seven regions completed at least two tuberculosis performance assessments between 2009 and 2013.
- **55** health care facilities from six regions completed at least two HIV/AIDS performance assessments between 2009 and 2013.

*Micro-networks*

- **126** micro-networks of health care facilities across five regions (Ayacucho, Cusco, Huánuco, San Martin, and Ucayali) implementing performance improvement plans.

## ASSESSMENT OBJECTIVE AND METHODS

As USAID concludes its health assistance to Peru, this assessment was designed to identify, verify, and understand the achievements of QHC, which will be part of USAID's legacy in the country. It was completed using various rapid appraisal methods to systematically collect and review data during a seven-day period. The QHC assessment team included:

- Armando Cotrina, USAID/Peru, Project Management Specialist
- Ellen Eiseman, Chemonics, Quality Healthcare Program Director
- Cecilia Paredes, Chemonics, Project Communications Director
- Joshua Templeton, USAID/Peru, Senior Economist

The team used three common appraisal methods, including one-on-one interviews with USAID health program office staff and QHC personnel; focus groups composed of national, regional, and local health care staff (Annexes A and B); and secondary data collected from QHC program deliverables. This assessment focuses on overarching systemic changes as opposed to programmatic end of project results described in greater detail as part of QHC's final report.

The review of background documents included progress reports and QHC technical deliverables. The QHC core technical staff prepared and delivered the following presentations for the assessment team:

- Technical Assistance – Control and Prevention of HIV/AIDS
- Technical Assistance – Control and Prevention of Tuberculosis
- Technical Assistance – Control and Prevention of Intra-Hospital Infections
- Technical Assistance – Maternal and Child Health
- Technical Assistance – Family Planning and Reproductive Health

In addition, two days were dedicated to focus group discussions with QHC stakeholders, including MOH officials, regional directorate staff, local health authorities, and civil society groups engaged with QHC programming.

## INTRODUCTION: FRAMING THE LEGACY

**Partnering for Change**

"These interventions are viable. They are sustainable because they have been developed from within the system."

*— Dr. Ana Cristina Magan*
*Ministry of Health*

QHC is a USAID/Peru project that supports the improved performance of health care service delivery. At its inception, the program implemented activities in 16 regions of Peru (Lima, Callao, Ica, Ancash, La Libertad, Lambayeque, Madre de Dios, Tacna, Ayacucho, San Martin, Huancavelica, Huánuco, Cusco, Loreto, Apurímac, and Ucayali). In April 2011, the program's geographic focus shifted to fewer regions. Now in its final year, the program works primarily in San Martin, Ucayali, Ayacucho, and Madre de Dios. The overall goals of the program support the MOH, DIRESAs, and their networks of health facilities to improve infectious disease prevention and control, maternal and child health, and family planning and reproductive health. This assistance aligns under USAID/Peru Development Objective 2, "Management and quality of public services improved in the Amazon Basin." The program commenced activities in July 2008 and will close in July 2013.

In August of 2012, QHC's scope shifted based on USAID's periodic program reviews. Priority was given to institutionalizing permanent quality improvement and adhering to the health care delivery standards and the PIM for all government-run health care facilities. PIM guarantees that the quality of health services in different health care facilities and regions is more equitable, as facilities all follow the same methodology for providing care to clients. With PIM, regional and local health teams have a tool to improve the quality of health care service delivery and are skilled in how to use it.

**Challenges**

A number of factors have affected program implementation, the rate of change, and the adoption of tools and processes introduced by QHC.

- *Decentralization*. Over the past decade, primary responsibility for health service delivery has shifted from the central MOH to local level offices. This change places primary authority for service provision and financial responsibilities on DIRESAs and local governments. The resulting system lacks key personnel with basic managerial skills to guarantee effective execution of the service delivery processes.

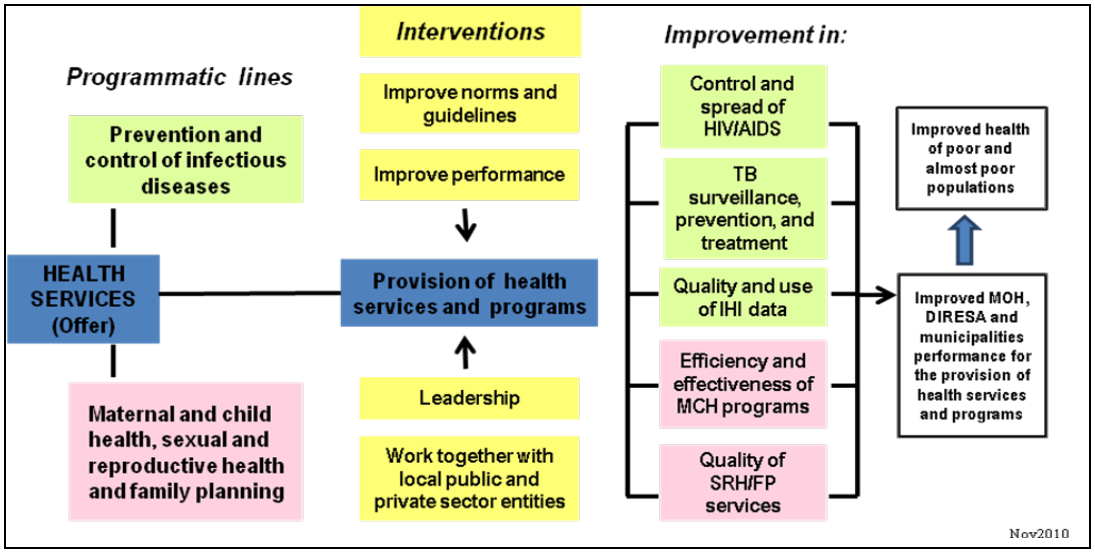
- *Local financing*. In Peru's decentralized health systems, regional and local health authorities are given power to allocate investment funds at the local level. This flexibility allows for some local priority-setting according to needs but also signifies that implementation plans to address performance gaps are dependent on local commitment and financing of these initiatives.

- *Turnover in the workforce*. Lack of adequate training, uneven geographic distribution of workers, and concerns over low compensation contribute to high turnover rates among qualified health care personnel in Peru.

**Quality Healthcare Program at a Glance**

QHC illustration (Figure 1) provides an overview of the programmatic areas tied to specific interventions, improvements, and expected results.

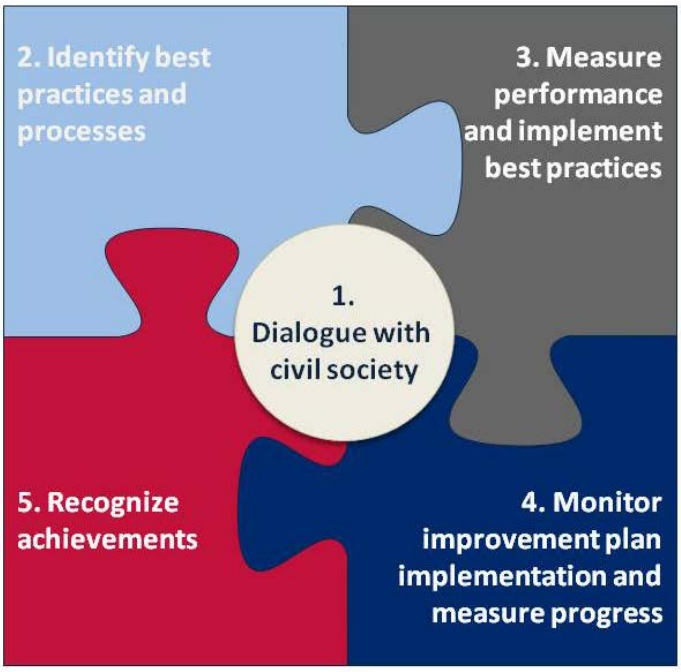
**Figure 1. QHC Conceptual Framework**




**The Performance Improvement Methodology**

QHC emphasizes the application of the PIM (Figure 2) based on best practices in health. By applying the methodology, health teams identify and analyze gaps in their performance and create improvement plans to implement necessary and appropriate solutions.

**Figure 2. Performance Improvement Methodology**



**Guiding Principles**

QHC is further guided by two main principles to maximize the sustainability of interventions.

1. *Peruvian leadership and ownership.* The program focuses on ensuring that the process — including planning, designing, implementing, and monitoring activities — is driven by Peruvian health institutions and supports the decentralization of Peru's health sector. Throughout the five years of QHC implementation, the MOH, DIRESAs, local health facilities, and their health workforce are actively involved in the definition of program activities, target setting, and continual monitoring of desired results.

2. *Institutionalization.* Every activity that is carried out, from training to complex regional strategy design, is by and for local partners. This ensures that the permanent quality improvement approach, methods, materials, and activities are passed on and reinforces the application of the PIM and standards. This approach is graphically depicted in the Road to Institutionalization Framework (Annex C) designed by QHC.

**Key Health System Functions**

QHC strengthens the Peruvian health care system by supporting key health system functions. This report is organized according to these functions:

- Governance
- Health financing
- Human resources
- Pharmaceutical management
- Health information systems
- Health service delivery

# THE LEGACY

## Governance: Engaging Public, Private, and Civil Society Actors

The theme of leadership and the role of effective governance emerged as a strong driver of success throughout the review of the five-year QHC program. The extent to which governments, communities, organizations, and individuals committed to improving health outcomes while ensuring access to quality services and patients' rights are necessary to achieve desired results.

**National**

*Performance improvement methodology adopted*

- Due to QHC support, the MOH is now using the PIM to improve the quality of health care service provision. Ministerial Decree 556-2012 approved the Administrative Directive No 193-MINSA/General Directorate of People's Health v0.1, which institutionalizes the use of the methodology by health care facilities nationwide at the primary care level. The decree affirms the government's commitment to improving service quality throughout Peru and requires that all health care facilities adopt the methodology over time. The adoption of the methodology came at an opportune time for the MOH, as it was looking for a way to monitor the quality of service delivery at the regional and local levels (in the context of decentralization).

**Targeted Solutions**

"This directive helps identify gaps that produce problems and provides an opportunity to create improvement plans backed by financial investments."

*— Dr. Doris Lituma*
*Ministry of Health*

*National HIV Policy revised*

- The policy was revised and includes eight comprehensive care norms for HIV infected adults, children, and adolescents. It lays out a results-based budget for HIV/AIDS/STI prevention and control activities. This policy updates methods of care for HIV-infected individuals regardless of where they receive care (at the national, regional, or local level) throughout Peru. The policy targeting adults was officially approved last July; the one targeting children and adolescents is awaiting final approval by the MOH and is expected to be completed in 2013. This policy universalizes the standards of care for HIV infected individuals.

*National Tuberculosis Policy updated*

- The national norm for TB prevention and control was updated and an administrative directive declaring mandatory reporting of TB cases was elaborated. (An administrative directive in Peru is a normative mechanism that can be used to regulate different aspects of health care service provision.) Application of this directive will favor country surveillance of TB cases and proper management of TB in the private sector.

- QHC supported the development of new guidelines on clinical management of HIV-TB co-infection, which the HIV and the TB National Strategies (in Peru, in this context, programs are referred to as "strategies") approved in March.

**Regional**

Regional partnerships and initiatives between local governments and NGOs created closer ties between civil society groups and the local health care system. For example, SOLARIS, a local NGO with a presence in Puno, Apurimac, and Cusco, participated in the regional government health planning process in Cusco and Apurimac.

*Training sites accredited*

- Regional governments established training sites with assistance from QHC to provide in-service learning opportunities for health care workers to develop skills and deliver highly specialized services such as highly active antiretroviral therapy (HAART) for patients with HIV. The five regional HIV training sites in Loreto and Ucayali and one for Integrated Management of Prevalent Childhood Illness in Ucayali support continuing education to address personnel turn over and also to support decentralization of specialized health care services.

- These same training sites received accreditation from the regional health directorate. Universidad Nacional de Ucayali and Universidad de la Amazonia Peruana worked with the regional health directorate and QHC program to develop accreditation guidelines for facilities, and to certify facilitators. Having certified facilitators is a requirement to be accredited.

*Local Leadership Program developed*

- The QHC program, USAID | Peru | Healthy Communities and Municipalities II program, the *Universidad Nacional San Cristobal de Huamanga of Ayacucho*, and the *Universidad Nacional de Ucayali* collaborated to pilot a new leadership program. The program emphasized system strengthening, leadership, community involvement, and organizational development (see text box).

**Developing Leadership**

Post-graduate diplomas were awarded to 47 participants of a leadership program created with local universities in Ayacucho and Ucayali. The program is designed to contribute to the development of regional and local leaders with the power to formulate, implement, and evaluate strategic health interventions to overcome the major health challenges that limit the welfare of the population at the regional and local levels.

*Performance Improvement Methodology adopted by local actors*

- The *Universidad Nacional San Cristobal de Huamanga* adopted the PIM for a competency-based curriculum for use in all 26 of its disciplines, seven of which are health-related (human medicine, nursing, obstetrics, veterinary medicine, pharmacology, social work, and biology). The university is currently applying the methodology in its nursing, medicine, and midwifery programs. The methodology is also used as part of the university's continual improvement program for university operations and management.

*Civil society group solved local challenge*

- One example of proactive participation from an NGO comes from ASPAT, a local association representing people affected by TB. The group worked with local officials in Lima to ensure timely delivery of sputum samples from local health facilities to laboratories for prompt testing. ASPAT, through a two-month pilot financed by QHC, facilitated the transport of samples to laboratories and

successfully transitioned the pilot in Month 4 to regional health authorities. Timely transportation of samples led to quicker TB diagnosis for patients and identification of the most appropriate treatment.

- Civil society organizations contributed to multisectoral strategic health plans with active participation from representatives of native communities (recognized as excluded populations) and included most at-risk populations (lesbian, gay, bisexual, and transgender people and sex workers) to ensure responsiveness to local needs. Community member inclusion in the process increases government's accountability for achieving community-set performance targets (see text box).

**Local NGO Adopts PIM**

SOLARIS, a Peruvian NGO focused on recognition of cultural differences, lifestyles, gender equality, and citizenship as part of sustainable human development, adopted the Performance Improvement Methodology and is utilizing it beyond QHC target areas to promote transparent, effective regional development.

## Health Financing: Generating Community-Level Commitments to Quality

Another focal point of QHC programming emphasizes adequate public health financing in local, regional, and national budgets — a necessary component to improve the functionality of a health system.

**Regional**

At the regional level, quality improvement activities based on PIM implementation are included in the target regional health directorates' PpR (Results-based budgeting) and annual operational plans, guaranteeing funding. QHC and the USAID | Peru | Healthy Communities and Municipalities II program joined forces to provide local governments and health workers in Ucayali, San Martín, and Ayacucho with a practical methodology for developing minor public investment projects (mPIPs) and accessing funds to implement them. These mPIPs are an important mechanism to help micro-networks of health facilities to close gaps identified in their regular PIM reviews, using funds from local governments. The objective of mPIPs or public investment projects (PIPs) is to ensure adequate spending in priority areas based on local plans and to secure funding for the plans in regional budgets.

*Multisectoral plans developed and funded*

- DIRESA regional strategic and operational plans for TB and HIV developed in Ucayali and Madre de Dios detail specific community-led health improvement goals for HIV/AIDS and TB care and related activities to achieve specific targets. A plan for HIV was developed in Loreto in close coordination with local governments, public and private organizations, and other representatives of civil society. Funding is allocated from multiple sources, including DIRESA, local municipalities, and NGOs.

**Financing Secures Results**

Local governments in Ucayali, San Martin, and Ayacucho with health teams developed 47 mPIPs collectively worth 11 million *soles* ($4 million) in a three-month period during 2011. These mPIPs, designed for investments of up to 300,000 *soles* ($111,500) each, allow municipalities to expedite the process of tapping into public resources for targeted health interventions aimed to improve quality and increase public demand for health services.

- After plans are developed, local government funds — the distribution of which usually requires a lengthy process — were fast-tracked in the form of mPIPs as part of annual budget planning. These funds supported specific projects and activities in HIV/STI, TB, and maternal and child health tied to annual improvement targets.

*Comprehensive program to improve child nutrition introduced*

- Regional health directorates in San Martin and Ayacucho developed mPIPs to address identified performance gaps. The San Martin regional government incorporated PIM in its Comprehensive Program to Improve Child Nutrition as the tool to improve the quality of delivery of effective interventions proven to lower infant malnutrition. SUMA, a USAID-funded project, used results from a performance assessment conducted in the Cuñumbuqui and Pajarillo districts to design the 2013 Joint Plan for its Local Education Governance Model. These initiatives reinforce adherence to best practices, which improves quality of service.

## Human Resources: Strengthening the Capacity of the Health Workforce

QHC experience reinforces the critical role that human resources play in achieving high-quality services and patient care. Health workers must be responsive to the needs of the community they serve, efficient, and strive for the best possible outcomes given available resources and constraints.

**Regional**

Through individual and team/group capacity building, QHC focused on changing individuals' behaviors and helping teams acquire the knowledge and skills to perform in their jobs. Groups then used what they learned to revise their work assignments so that they could better apply their newly acquired skills.

*Performance Improvement Methodology applied*

- Based on results of the PIM, select regions created five-year capacity development plans to increase accountability for better service delivery and address specific staff performance gaps. These staff development plans also cover training related to the Rural and Peri-Urban Civil Service in Health (SERUMS), which is a requirement for all new health workers entering the system in the regions of San Martin, Ucayali, and Ayacucho.

- Over the past five years, 3,978 DIRESA and regional facility staff received training in 16 regions and are now competent in implementing the PIM.

- Overall competencies at the primary-care level to manage obstetric and neonatal emergencies, prenatal care, and family planning counseling are emphasized.

- In five regions (San Martin, Madre de Dios, Ayacucho, Ucayali, and Apurimac), there is a cadre of 95 regional facilitators to support continuous capacity building and adoption of the methodology.

- There are now 126 micro-networks of health care facilities across five regions (Ayacucho, Cusco, Huanuco, San Martin, and Ucayali) implementing their performance improvement plans.

*Human resources plans developed*

- Five-year employee development plans are prepared at the regional level per the National Civil Service Authority (SERVIR). QHC worked diligently with Ucayali, San Martin, and Ayacucho regional health directorates, helping them develop their own five-year plans along with their respective capacity development plans. These plans provide a vision for the region. They ensure time is not wasted preparing plans that cannot be supported. Plans are aligned with sanitary priorities, human resources, and budgets, and they make the management of the region more strategic. The plans contribute to modernization, providing a clear direction and a compass to guide DIRESAs, and serve as a product to share with constituents. This alignment of needs and resources has not been done since USAID funded Project 2000, which ended in 2002.

- Ucayali's five-year employee development plan was approved in August 2012, and Ucayali has already budgeted almost $500,000 from all existing regional financial mechanisms to be used for training staff in prioritized areas. There is a significantly increased chance of sustainability because of the alignment of the regional plan and budget for the upcoming years.

- As of March 2013, San Martin and Ayacucho were in the process of approving employee development plans.

*Recognition mechanism created*

- Over time, leaders at the regional and local levels realized that creating recognition mechanisms is fundamental to motivating workers to achieve quality improvement goals. Regional resolutions in Ucayali, Huanuco, Lima, Madre de Dios, and Cusco have formalized recognition processes. By setting their own performance targets, workers celebrate achievements against targets at regular meetings of the micro-network of health care facilities.

### Pharmaceutical Management: Medical Products, Vaccines, and Technologies

Access to essential tools and resources such as medical products, vaccines, and medical technologies also played a critical role in QHC approach to health system strengthening. QHC achieved an important result with DIRESAs that followed the program's proposal to incorporate training in integrated supply system of medicines and medical supplies (SISMED) management into their five-year regional staff development plan. The plan included the following training topics: ensuring the availability of drugs and supplies, monitoring and evaluation (M&E) for strengthening SISMED, performance assessment indicators for health logistics systems, best practices of storage and distribution of drugs and supplies, best dispensing practices, pharmaceutical care, best drug prescription practices, and implementation and management of the cold chain.

**Regional**

Decentralization of health service delivery, in some cases, caused a disparity between rural and urban clients' access to specialized care. The USAID | Peru | Quality Healthcare program worked with regional micro-networks of health care facilities to increase access to specialized services to underserved populations living in rural areas.

*Specialized services for HIV and periodic medical examinations decentralized*

- Effective decentralization of HAART delivery was supported through the elaboration of an administrative directive, which is based on the decentralization experience carried out in Loreto and Ucayali, and on the regulation developed with the Lima City health directorate to decentralize HAART delivery from large hospitals to certified primary health care centers.

USAID/Peru QHC Silvana Bolaños

**A child is treated at a Peruvian health facility.**

- Service provision and outreach to vulnerable populations and native communities is now prioritized as traveling to larger sites for care was costly for patients in rural areas.

- Training sites for HAART are now established in Loreto and Ucayali. The sites were accredited by the DIRESA. This accreditation process culminates with an approval provided by the DIRESA or regional government to the health care facility or services provider for having met the minimum standards/indicators for quality in care and training. For this, a resolution or similar document is emitted acknowledging the site as a training center or regional center for competency development.

- Locations for periodic medical examinations for men who have sex with men and sex workers created in Ucayali and Loreto now reach most-at-risk populations with prevention and care services.

*Integrated supply system of medicines and medical supplies management*

- SISMED ensures availability of drugs and their supplies. There are performance assessment indicators and best practices for storage and distribution of drugs and supply procedures now in place.

- Use of SISMED was strengthened by training SISMED officers and reproductive health/family planning local coordinators in use of the SISMED informatics software and in analysis of SISMED reports to improve availability of family planning commodities.

- QHC also provided technical assistance in the following areas:
  — Ensuring availability of drugs and commodities
  — M&E to strengthen logistics of drugs and commodities

— Use of performance indicators for the logistics system
— Application of best practices in drugs and commodities storage, distribution, and dispensing, including client service at the pharmacy
— Training in SISMED use and analysis in capacity development regional plans and evaluations of the availability of family planning commodities in the last five years at all levels

*Molecular diagnosis of TB applied in target regions*

- Working with technical staff in Lima, Ucayali, and Madre de Dios, QHC collaborated with DIRESA staff to develop regional protocols for the implementation of improved TB diagnosis service by health care workers. This included training for health workers and laboratory technicians on correct collection, examination, and handling of sputum samples. This addressed a gap in patient care for those patients seeking correct diagnosis and treatment of TB.

- Emphasis was placed on early diagnosis of multi-drug resistant tuberculosis (MDR-TB) by increasing access to the rapid molecular test (Genotype ® MTBDRplus). QHC, with the INSN and the National Sanitary Strategy for the Prevention and Control of Tuberculosis, providing technical assistance to the Ucayali DIRESA to launch the universal access to drug susceptibility testing strategy, which was also transferred to Madre de Dios. Laboratory personnel received targeted training in management of sputum samples, new equipment, and technologies for rapid assessment of TB. This test drastically reduces turnaround time as results are reported within one week. This is a critical innovation, as early diagnosis of MDR-TB using the rapid molecular test will not only guarantee 90 percent coverage of drug susceptibility testing among people with approval to initiate MDR-TB treatment, but will also eliminate superfluous delays in diagnosing MDR-TB. Reducing the turnaround time from six months to one week substantially impacts individual prognosis and effectively stops transmission in the community.

## Health Information Systems: Enabling Evidence-Based Decision Making

Enhancing the ability of health workers to diagnose problems and subsequently plan and administer care to patients based on the use of better information emerged as a key area of focus for the program. QHC embarked on an effort to improve existing information technology, introduce new processes for using the information, and reinforce the use of data to improve outcomes for patients.

**Regional**

*Performance improvement assessments conducted*

- Assessments were conducted by locally trained facilitators measuring best practices for maternal and child health, family planning/reproductive health, HIV/AIDS and other STIs, and TB for health care facilities and personnel. These assessments have allowed local facilities to identify gaps, develop action plans, and measure their progress against pre-defined targets on a regular basis.

- 1,090 health care facilities from 10 regions completed at least two maternal and child health/family planning/reproductive health performance assessments between 2009 and 2013.

- 113 health care facilities from seven regions completed at least two TB performance assessments between 2009 and 2013.

- 55 health care facilities from six regions completed at least two HIV/AIDS performance assessments between 2009 and 2013.

*Information Management Perinatal Information System (SIP 2000 v3) improved*

- SIP 2000 v3, an electronic basic obstetric and neonatal functions information system, was introduced by a USAID program over a decade ago. It was updated by QHC and was adopted as the national standard for collection of information about maternal and child health.

- 217 facilitators were trained at both the national and regional level to ensure ongoing SIP 2000 v3 training and support.

- The SIP 2000 v3 system has the functionality to alert staff to critical events, including maternal delivery dates, missed patient appointment, and other vital patient information.

*Operational information used for decision making*

- Personnel from Lima, Ucayali, Callao, and Madre de Dios are trained in the production, analysis, and use of operational and epidemiological information for data-driven decision making. Local universities, including *Universidad Nacional Mayor de San Marcos*, *Universidad Nacional de Ucayali*, and *Universidad Nacional de Madre de Dios* provided training in conjunction with QHC. This training ensures local staff continues to learn how to use the results of locally generated information for decision making.

- Semiannual electronic bulletins are now developed by the HIV and TB regional technical teams in Ucayali and Madre de Dios. They are published online to inform the public about the status of epidemics and regional accomplishments in prevention and control efforts.

## Service Delivery: Improving the Quality of Health Care

Over the five years of the QHC program, all initiatives have contributed to overall improvements in the quality of health care services.

### National

*National Institute of Child Health (INSN) improved performance*

- QHC introduced the use of the PIM to identify critical processes and standardize procedures in critical units, as well as the Infection Zero Initiative in the Pediatric Intensive Care Unit to reduce Intra-Hospital Infection transmission rate. The INSN succeeded in lowering the Intra-Hospital Infection rate of catheter associated blood stream infections to zero over the course of several months in

2012. This hospital experience was recognized internationally at the 2012 International Society for Quality in Healthcare conference held in Geneva and at other health industry events.

*Lima Infection Zero Initiative lowered infection rate*

- Five hospitals, one specialized institute, and one private clinic in Lima and Callao participated in an effort to lower the incidence of central line associated blood stream infection (CLABSI) in intensive care units. QHC worked with the facilities to elaborate a protocol and technical guidelines for patient care when using a central intravenous line. Participating facilities reduced CLABSI from 10.01 per 1,000 in 2007 to 1.66 per 1,000 in 2011 among 1,314 patients who received central line therapy. This was possible through the implementation of simple, low-cost measures based on evidence, teamwork, and communication safeguarding patients' lives, preventing hospital-acquired infections, and improving the quality of health care.

- Combining a process of standardizing practices and using checklists allowed teams to increase the quality of clinical procedures performed at the INSN. Clinical care providers agreed to change their behavior after they observed the example set by executives, directors, and employees. This experience has permitted Pediatric Intensive Care Unit staff to identify other sources of blood stream infections, mainly those associated with mechanical ventilation and the insertion of urinary catheters.

*TB infection detected and control improved*

- The MOH reinforced efforts in TB control and prevention by an administrative directive mandating the PIM to improve quality of TB services. Revision of the National Tuberculosis Policy, which includes updated norms and management guidelines for treatment of TB, universalizes care standards. Results include increases in the rate of identification of individuals with respiratory symptoms, a reduction in the rate of individuals who fail to complete treatment, a reduction in the time it takes for patients to receive results, and introduction of universal drug susceptibility testing using the rapid molecular test in targeted regions.

*Balanced counseling and orientation strategy adopted*

- The MOH has institutionalized family planning and reproductive health balanced counseling and orientation quality standards, including them in new draft guidelines and norms that are pending approval.

**Regional**

*Maternal and child health care services expanded*

- Trained 465 personnel in emergency obstetric and neonatal care.

- Developed technical and clinical competencies for enrolled students in partnership with *Universidad de San Cristobal de Huamanga* and *Universidad Nacional de Ucayali*.

*Balanced counseling and orientation strategy implemented*

- QHC strengthened the DIRESAs' capacity to manage, lead, and comply with the implementation of family planning and reproductive health balanced counseling and orientation quality standards. This increased options for patients when making reproductive health choices.

- The client/provider relationship has benefited from the increased sensitivity of health care workers to client privacy promoted by the Balanced Counseling and Orientation Strategy (client-centered approach).

## LESSONS LEARNED
### Reflecting on Five Years of Implementation

The subsequent pages summarize in broad terms the legacy of USAID's QHC program. Over the life of the program, the team has faced a number of challenges, including health worker strikes, dengue fever outbreaks, floods leading to emergency decrees to cease all operational activities, and staff retention and turnover at partner facilities. Nevertheless, QHC managed to surmount these obstacles and leave behind many "seeds" that will lead to further improvement of the Peruvian health care system. The program would like to acknowledge the lessons learned along the way for future programs working in the sector. The hope is that by sharing this information, programs can use QHC experience to improve health programming.

1. *Leadership*. Leaders make the difference. Effective leaders at the local, regional, and national levels have a tremendous impact on whether initiatives are successful. Gaining buy-in from leaders starting on day one is imperative if an initiative is going to be successful. In one example from Lluyllucucha, the presence of a strong local leader gave rise to a culture of quality, *Yo Soy Calidad en Salud*, which is prevalent at every level of the regions' micro-network workforce. Intensive work in the beginning stage of program implementation will help these leaders to understand program initiatives and "sell them" to teams.

2. *Supervision.* Supportive supervisory systems to encourage performance and continual improvement are vital since new procedures and processes have been introduced, and reinforcing these new behaviors is critical to sustainability. The regional resolutions in Ucayali, Huanuco, Lima, Madre de Dios, and Cusco that formalize recognition mechanisms based on measured performance improvement offer incentives for employees to continue learning and improving. These types of recognition measures should be put in place as soon as possible to reinforce positive behaviors from program inception.

3. *Context.* Collaboration works best when goals and plans are focused on the combination of national, regional, and local needs. Ideas and approaches need to have both bottom up (local level) and top down (MOH) participation. For example, implementation of Infection Zero in the pediatric Intensive Care Unit of the INSN to standardize central line placement and maintenance procedures led to a central line-associated blood stream infections rate of zero during several months of 2012. This experience is now being promoted by the MOH for adoption by other facilities. Using successful collaborative experiences is a powerful way to increase stakeholder participation.

4. *Partnering.* Encourage collaboration of willing participants as part of the process from the beginning. Identify and engage potential independent (non-related to the organization implementing the project or its funding agency) collaborators and implementers of project approaches or tools from the beginning. Well into project implementation, QHC found an NGO (SOLARIS) working in regions other than those in QHC's scope that was willing to invest its own resources to expand coverage with QHC approach and tools. Sometimes, the most unexpected partnerships yield great results.

5. *Results-based decision making.* An M&E system, results-based reporting, and decisions based on evidence are critical to assess performance, make adjustments, and continually improve. Partners such as INSN have found the data showing improvements in intra-hospital infection rate have inspired other facilities to inquire about use and adoption of the PIM. Establish a way to collect data from the beginning so activities can quickly demonstrate results.

6. *Pre-service integration.* To ensure continual diffusion of the PIM, it must become incorporated into university pre-service curricula to help ensure sustainability. New graduates will enter the health care system with these skills and they will be reinforced on the job. Any new technologies, procedures, or tools need to be included in pre-service training for sustainability.

7. *Knowledge management.* Health workers at the local, regional, and national levels mentioned that encouraging professional knowledge exchanges to discuss experiences increases potential for sustainable improvements. Any program, regardless of technical area, should encourage continual learning as part of the program design and intended results.

8. *Patience.* Change takes time. The adoption of new behaviors will not happen overnight. It is vital that implementers and donors recognize that the accomplishments detailed in this report occurred over a five-year period and that some initiatives are still in progress. In general, the approval of administrative directives, norms, and other legal resolutions take time to be implemented.

9. *Training.* Educational programs to teach health workers skills must be ongoing, as high turnover was noted as an issue. The inclusion of pre-service training can help ensure new personnel have the requisite skills to provide the highest standards of care from day one.

10. *Civil society.* Accountability for improvement plans is up to local health facilities with follow-up by civil society so that they can advocate for plan executions as originally elaborated. Any and all programs should encourage collaboration with civil society actors, as they encourage third-party accountability and can also be part of the solution.

## RECOMMENDATIONS AND CONCLUSIONS

1. Participation and political buy in at the highest level is critical from the onset of the program. The QHC program was able to achieve results in a number of initiatives due to the fact that all levels of the health system actively participated in the process. The timing for introduction of the PIM coincided perfectly with a need identified by the MOH, ensuring that decentralized health care services provided and accessed throughout the country were equitable and met the quality standard. Regional and local health authorities were engaged from the program onset.

2. Demonstration of evidence helps decision makers to justify participation in activities and initiatives because they can show concrete results. The INSN experience has served as an enviable example of the benefit to a facility from applying PIM. Implementation of the PIM in all regions throughout Peru will require time and sharing of key results in targeted QHC intervention areas to maintain interest and support.

3. Participation by civil society groups is a key to sustainability and community involvement in the process. In the cases where patient associations or community groups were included in the development of community-level plans, their participation added significant value and led to community-driven solutions to local problems. The ASPAT community-level assistance in TB sample collection detailed in the governance section is one example.

4. The first phase of program implementation needs to be intensive. In the case of QHC, the PIM was reinforced from multiple angles at all levels including training, health worker orientation, facilities, and micro-networks, and included as part of the national norms.

5. Incentives, including recognition mechanisms, can be powerful drivers for change. Formal recognition mechanisms in Ucayali, Huanuco, Lima, Madre de Dios, and Cusco provide motivation for workers to continue to improve. Future programs should include an official recognition component at all levels.

6. Community participation and engagement leads to greater accountability. Both the ASPAT and SOLARIS examples demonstrated that community members can be part of the solution. The community should understand that they have the right to quality services. They should participate throughout the PIM implementation process to ensure accountability of local, regional, and national governments to their needs.

7. Every intervention needs to adapt to the local context. The end users (whether facility or community) should be aware of the services provided but also have a say in determining future health needs, and the response should take gender and intercultural considerations into account.

8. Although the PIM was adopted by the MOH, there were some that felt that the PIM tool was cumbersome, or saw it as “extra work.” It is imperative that health workers recognize the benefit of using PIM in their day-to-day work and do not

see it as an “extra.” Processes and tools must be part of the formal orientation and training process to ensure early adoption and on-the-job application of tools and methods. It is important to reinforce the usefulness of PIM to counteract this perception. Organizing opportunities through regional exchanges, where those who have already applied PIM can demonstrate that it is a useful managerial tool that helps organize their work, identify critical points, and improves the monitoring process, will be key to adoption.

9. QHC found that the client-centered approach that promotes working with counterparts in their language and being aware of intercultural sensitivities can improve the client/patient relationship.

10. Securing funds to finance local and regional initiatives and ensuring that budgets are used as originally intended is one of the greatest challenges in sustaining the PIM throughout Peru. Governments at all levels must make a commitment to funding public investment projects (PIPs) that arise from use of the PIM if they want to continually improve health care system performance. Regular budgets should also include funding for PIM.

11. Job aides, posters, and other instructional materials created in support of QHC should be transitioned to the appropriate level health network to help ensure continued use.

12. There are opportunities for current and future USAID programs to continue some of the activities of QHC. As new projects are designed or begin implementation, it is important to look at relevant associated activities from closed programs for continuation.

# ANNEX A
## QHC Rapid Assessment Program Activities and Participants

January 31 to February 7, 2013
Venue - Peru QHC Conference Room

**Thursday, January 31. Review of Communications Information**

| Time | Topics | Participants |
|---|---|---|
| 9 a.m. to 6 p.m. | Communications overview | • Ms. Cecilia Paredes, Ms. Ivanna Narduzi |

**Friday, February 1. Presentation of Results**

| Time | Topic | Participants |
|---|---|---|
| 9 a.m. to 10 a.m. | Meeting to coordinate activities | • Review committee |
| 10 a.m. to 11:30 a.m. | Infectious diseases; HIV, intra-hospital infections, TB | • Dr. Pablo Campos, Technical Director, QHC<br>• Dr. Ana Morales, Infectious Disease Specialist, QHC Program |
| 11:30 a.m. to 1:30 p.m. | Maternal/child health, sexual and reproductive health-family planning | • Dr. Alfonso Villacorta, Team Leader, Maternal Child Health/Sexual and Reproductive Health, QHC<br>• Lic. Eva Miranda, Capacity Building Specialist, QHC |
| 2 p.m. to 6 p.m. | Preparation of conclusions | • Review committee |

**Monday, February 4. Meetings with Invited Guests**

| Time | Topic | Participants |
|---|---|---|
| 8:30 a.m. to 9 a.m. | Review of questions | • Review committee |
| 9 a.m. to 9:50 a.m. | Technical assistance in HIV/AIDS prevention and control | • Nurse Maria Herrera, Coordinator, Regional Sanitary Strategy HIV/AIDS,Loreto<br>• Dr. José Luis Sebastián, Coordinator, National Sanitary Strategy HIV/AIDS, MOH, Lima<br>• Dr. Rubén Vásquez, Technical Team, National Sanitary Strategy HIV/AIDS, MOH, Lima<br>• Dr. Cristina Magán, Technical Team, National Sanitary Strategy HIV/AIDS, MOH, Lima |
| 10 a.m. to 11:15 a.m. | Technical assistance in TB prevention and control | • Dr. Antonieta Alarcón, National Coordinator, National Sanitary Strategy for the Prevention and Control of Tuberculosis – Directorate of Integrated Health Care, MOH, Lima<br>• Dr. Gilbert Ramos, former personnel, TB Strategy, Lima<br>• Dr. Helga Flores, Technical Team, Health Center Nuevo Milenio, Madre de Dios |
| 11:30 a.m. to 1 p.m. | Technical assistance in intra-hospital infections prevention and control | • Dr. Danitza Fernández, Responsible for Quality at the INSN. Lima<br>• Dr. Augusto Irey, Head of the Health Intelligence Office, Hospital Guillermo Almenara – ESSALUD, Lima<br>• Nurse Harrison Sandoval, Ricardo Palma Clinic, Lima |
| 2 p.m. to 4 p.m. | Perceptions of local actors<br><br>*Note: Dr. Luna was interviewed separately by | • *Dr. Raúl Luna, Principal Advisor for Development for Health, SOLARIS, Lima<br>• Melesio Mayta, President of the Association of Patients Affected by TB, Callao<br>• Dr. Martha Martina, Teacher at the Faculty of Medicine |

| | | |
|---|---|---|
| | Eiseman and Templeton | Universidad Nacional Mayor de San Marcos. Lima<br>• Dr. Ruth Alarcón Mundaca, Vice Rector for Academics, UNSCH, Ayacucho<br>• Dr. Johnny Salas, Graduate of the Local Leadership Development Program, Ayacucho |
| 4 p.m.<br>to 6 p.m. | Preparation of conclusions | • Review committee |

**Tuesday, February 5. Meet with Invited Guests**

| Time | Topic | Participants |
|---|---|---|
| 9 a.m.<br>to 10:45 a.m. | Technical assistance in maternal child health | • Lic. Sofía Velásquez, Responsible for Comprehensive Program to Improve Infant Nutrition, San Martin<br>• Dr. Marcia Ríos, Head of the Micro Network Lluyllucucha, San Martin<br>• Dr. Luis Legua, Executive Director of the Health Care Quality Directorate, MOH, Lima |
| 11 a.m.<br>to 1 p.m. | Technical assistance in sexual and reproductive health/family planning | • Dr. Lucy del Carpio. Coordinator ENSSR/PF, MOH. Lima.<br>• Lic. Isabel Cabrera, Micro Network Santa Elena, Ayacucho<br>• Lic. Miluska Sánchez, Family Planning Technical Team, Huamanga Network, Ayacucho<br>• Dr. Ferreol Infanzón Bellido – Health Promotion Health Network Huamanga, Ayacucho<br>• Dr. Julio Vargas Arana, Technical Team DIRESA Ucayali |
| 2 p.m.<br>to 5 p.m. | Institutionalization of the PIM | • Dr. Luis Miguel León, Director of Integrated Child Health. MOH, Lima<br>• Dr. Karina Gil, Technical Team of the General Directorate of Human Resources, MOH, Lima<br>• Dr. Alexander Tarev – Director of Health Management, MOH, Lima<br>• Dr. Sarah Carmen Guerra Flores – Acting Head of the Directorate of Health Services of the General Directorate of People's Health, MOH, Lima |
| 4 p.m.<br>to 6 p.m. | Preparation of conclusions | • Review committee |

**Wednesday, February 6. Preparation of the Preliminary Report**

| Time | Topics | Participants |
|---|---|---|
| 9 a.m.<br>to 6 p.m. | Preparation of draft report | • Review committee |

**Thursday, February 7. Presentation of the Preliminary Report**

| Time | Topics | Participants |
|---|---|---|
| 10 a.m.<br>to 11:30 a.m. | Presentation of draft report to USAID (at USAID) | • USAID representatives, Oscar Cordon (COP), Review committee (Ellen Eiseman and Cecilia Paredes-Chemonics home office; Armando Cotrina y Josh Templeton-USAID) |

# ANNEX B
## Focus Group Questions (February 4 – 5, 2013)

**Introduction**

- Thank you for your participation.
- Introduction of participants.
- Provide a brief overview of the program. *As you recall, the program provided technical assistance to the government of Peru (MOH, DIRESA, etc.) to improve the delivery of health care services.*
- Explain the objectives of the meeting referring to their invitation.

**I. Topic. Capacities Reinforced**

- To what extent has QHC helped improve the competencies of the staff in the services where it has intervened? *(What competencies, how, how much have they improved?)*
- In which aspects and how much has the capacity/competency of the MOH (or DIRESAs or other health institutions) increased with the support of the program? *(what is different, how/what difference is the result of the program)*

**II. Topic. Institutionalization of Tools and Approaches**

- What tools, approaches, initiatives introduced with the support of the program have been institutionalized? *(Why do you think they have been institutionalized?)*
- What were the favorable factors for the institutionalization of the tools, approaches, and initiatives promoted by the program? How extensive is the institutionalization?
- And what are the fundamental challenges?
- How to strengthen the effective use of the tools and approaches?

**III. Topic. Involving Academic Institutions and Civil Society**

- How have the universities and other civil society institutions participated in the implementation of QHC to ensure better quality in the health services? What was their scope of work during the implementation of QHC and to what extent did they contribute?
- To what extent did the local leadership development program, with the support of the program, contribute to changing the quality of health care services? (Only for Ucayali and Ayacucho.)
- What opportunities existed for the participation of the universities and civil society institutions to achieve better quality health services? What is still left to do?

**IV. Topic. Improving the Quality of Services**

- If the quality of the services has changed, how has it changed? How much has it changed? What is different now? *(It could have improved or gotten worse.)*

- What aspects of the health services have improved in the places where the program intervened, how much, why (favorable factors). *Any relation to QHC? On what other factors has this improvement depended?*
- What factors may have caused that some areas do not improve the quality of the provision of services, in spite of the support received? *(Fundamental barriers)*
- What difficulties do the health services have in improving quality?

## V. If There is Time

- What different things should the program have done to ensure the institutionalization of the PIM? And what other tools? (Be specific.)
- In what other ways have they implemented the tools, approaches, and initiatives introduced with the support of the program?
- What will be the challenge(s) to assure that what has been done continues?

# ANNEX C
## QHC Road to Institutionalization Framework