QA Brief

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QAP Editorial

Organizing for Quality: Options for Country Programs

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QUALITY ASSURANCE (QA)[1] can be viewed in its broadest sense as encompassing all those activities that are carried out to assure that health services meet or exceed expectations of quality. These QA activities are cross cutting in any health care organization. They are concerned with the inputs, processes and outcomes of the health care system, and they must involve, to some extent, every department and every health care worker. The theme of this issue of the *Q.A. Brief* is to examine the organizational choices made by several established national QA programs. In this article we will review the most important QA functions and then discuss the various ways in which these functions can be organized and managed.

Quality care can only be achieved if one builds quality into the design of the service in the first place, then assures that quality is maintained through monitoring and other quality control activities and, finally, assures that

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[1] *We use the name quality assurance (QA) as the comprehensive term for these activities. Some prefer the term quality improvement (QI) and some prefer not to use any such term at all, feeling that such terms imply a separate program rather than activities that must be completely integrated into the routine work of any health care organization or service.*

the services are continuously improved through quality improvement activities. There are many types of QA activities. Not all organizations will carry out all of them. For example, some may not utilize accreditation. How QA activities are organized and how QA responsibilities are designated vary greatly from one country to another, and from one organization to another. Some of this variation is based on differences in culture, in management philosophy and in the range of QA activities adopted. Some of the variation is also related to controversy or uncertainty as to the most effective organizational structure for QA. There has been little evaluative research carried out to guide health managers in making decisions about the organizational structure for QA. The Quality Assurance Project is at present conducting evaluations of QA programs in several countries of differing socio-economic status. In the next year, we expect to produce a guide for health managers that will assist them to make appropriate decisions about the type of QA activities they should have in place and the most appropriate organizational structure for assuring effective and sustainable implementation.

QA Functions

The most important QA activities can be grouped into functions as follows (see also Table 1):

1. ***Capacity Building and Training:*** Managers, clinicians and support staff at all levels need skills in order to carry out the QA tasks and activities essential in their work. These skills can include directing QA activities or functioning as team members in guidelines development or quality improvement projects.

2. ***Standards:*** This includes those activities carried out to develop standards and guidelines, whether for preventive care, clinical care or for administrative procedures. Important here is the growing world-wide consensus that preventive and

Table 1. QA Functions and Illustrative Activities					
Capacity Building & Training	**Standards**	**Quality Design**	**Quality Monitoring**	**Quality Improvement**	**Documentation**
QA Methods	Standards Development	Service Design	Self-assessment	Problem Solving	Story Boards
Training of Trainers	Communication of Standards	Service Re-design	Supervision	Process Improvement	Newsletters
Facilitation	Accreditation		Surveys	Process Re-design	Journal Publications
Coaching	Certification		Information Systems		Evaluations
	Licensing				Conferences

clinical guidelines, and even the organizational arrangement of care, should be based on the best available scientific evidence.

Implementation of standards and guidelines often fails because health workers are not adequately informed, trained or motivated to implement them. There is a wide range of activities that can be used to meet these communication needs including the development of manuals, reinforcements of standards through supervision and self-assessment, and, of course, training.

3. *Quality Design (and Re-design):* This is the systematic design of new services or the re-design of existing services to incorporate features that maximize the satisfaction of the needs of the community, of patients and of health care providers while taking into account the resources available.

4. *Quality Monitoring:* Achievement of quality requires that performance be monitored at all levels to ensure that standards are complied with, that problems are identified and that outcomes of care are measured as benchmarks to be continuously improved.

5. *Quality Improvement:* The science of management has advanced in recent decades, and much has been learned both in industry and in the health care field about employing Quality Management (QM)[2] principles. Client needs assessment, process and root cause analysis, team based problem solving, and performance measurement methods are being used to raise quality to new levels. There is actually a continuum from rapid, simple problem solving by workers or managers through team-based problem solving to process re-design. Similar quality improvement tools may be used across the spectrum.

6. *Documentation:* Those involved in assessing and improving quality have a responsibility to document the results of their activities as a way to motivate the organization to continue to improve quality and as a way to teach others.

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[2] *Quality Management (QM) is a management approach which focuses on four themes: (1) understanding client needs and expectations, (2) understanding the process of service delivery, (3) a team approach to continuous process improvement, and (4) measurement of performance.*

Organization of QA Activities and Functions

Here, one needs to consider structure and responsibilities. The structure for organizing QA functions and activities can depend on the management structure and management philosophy of the health care organization, whether it is centralized or decentralized or whether it employs (or wishes to employ) a quality management approach.

If the organization has a quality management approach then almost all QA activities can be easily integrated into the routine management structure. In certain situations where there is no clear, or a very weak, management approach, QM may be introduced as a fairly rapid way to improve both management and the quality of services. Some ministries and some facilities have set up separate QA units to carry out certain QA functions in close collaboration with managers, clinicians and other front line health workers. These units may assist in quality design, organize the development of standards and guidelines, assist in designing monitoring systems, analyze performance measurement results, report on results of quality and outcome assessments, train or coach teams in quality improvement projects and activities, and document and disseminate results of QI initiatives. Sometimes, only specialized QA activities require a separate organizational identity, such as infection control or accreditation.

Thus, at one extreme, all QA functions may be built into the ongoing organizational structures with direction provided by the line managers. At the other

Quality care can only be achieved if one builds quality into the design of the service in the first place...

extreme, certain QA functions may be directed and ensured by a QA Unit or QA Director. Then, there may be many variations between each extreme. In any case, most of the actual work of carrying out QA activities must be carried out by line managers, clinicians and other health care staff as part of their normal work.

Allocation of responsibility for QA functions and activities may also vary. The responsibility for oversight of QA may rest with line managers or some responsibility may be given to a director of a QA Unit. The development of clinical guidelines may be done at the national level by an expert panel that reviews the scientific evidence, or guidelines may be developed by a group of clinicians at the local level. Teams or jurisdictions may monitor their own performance through self-assessment, or supervisors may assess health worker compliance with standards. The activities must be carried out but it is for each organization to decide the best structure for doing so and the most appropriate way to assign responsibility.

Regardless of the choice of activities, structure or assignment of responsibility, QA and QI cannot take place, or the organization succeed in achieving quality, unless strong **leadership** is provided at all levels by managers who continuously demonstrate this commitment and support for a culture of quality[3], and the work of those engaged in QA activities. Allocation of staff time and other resources

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[3]*A Culture of Quality is a culture in which **staff** view quality as a primary objective of their work and value it as a reward in itself, and where **clients** expect quality as their right as human beings, as citizens or as payers of care.*

needed for QA activities is essential. Numerous evaluations, both in industry and in health care, have shown that leadership is indispensable and that it is the most important factor that determines the success of QA and the achievement of high quality products and services.

Sustainability

Sustainability refers to the ability of an organization to maintain and support QA functions and activities and to continuously improve quality over the long term after external assistance is no longer available and after initial enthusiasm has waned. Several factors are important. It is essential to create and advocate for a culture of quality among professional organizations, politicians, citizen groups, training institutions, employers and insurance funds. Issues of professional ethics, equity and commitment to service are critical elements in training and in the example demonstrated by people of influence in the

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organization. Our experience thus far suggests that the more that QA functions and structure can be built into the routine management structure, and the more that line managers direct the QA activities, the greater will be the chance of success and sustainability. Finally, assessment and review of performance at all levels is essential because knowledge of performance stimulates improvement.

The following article describes the organizational arrangements for QA structure and functions chosen by four countries that have been engaged in QA activities over the past seven years with varying degrees of QAP support. Their stories will illustrate ways in which they have addressed the issues described in this article.

Country Experience i Organizing for Quality

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Chile

Background

The National Program for the Evaluation and Improvement of Quality (known by its Spanish acronym, EMC) was created within the Ministry of Health (MOH) in 1991 with the following goals:

1) raise awareness about the importance of quality throughout the health system;
2) develop a structure for the support of quality assurance activities;
3) achieve measurable improvements in quality of care and service delivery; and
4) improve patient satisfaction.

QAP provided technical assistance to a core quality assurance team in the Chilean Ministry of Health from March 1991 until December 1994, to develop local QA expertise and training capacity and help in designing the strategy for extending QA activities throughout the health system. Because public sector health services in Chile are managed through 29 decentralized Health Services, the EMC's main thrust was to develop QA capacity and motivate health workers to undertake QA activities at the Health Service and facility levels, rather than direct QA activities from the national level.

Organization for QA

While Chile began its national QA effort with a central level coordinating team, the Ministry of Health now has only one full-time staff member, placed in the Unit for Quality and Norms of the Department of Integrated Health Care. This person is dedicated to promoting quality assurance activi-

ties by providing training and technical support to the country's 29 Health Services. In keeping with Chile's policy of decentralization of health service delivery, most quality assurance activities take place at the Health Service level, where Quality Committees have been formed at the Health Service and/or facility level in the majority (79%) of the country's 29 Health Services.

The Health Services have been encouraged to develop their own QA policies and action plans and organize QA activities through local Quality Committees. Some Health Services have several Quality Committees (primarily in hospitals), while most have only one, at the Health Service level. The quality committees provide a structure for priority setting, assignment of tasks, coordination of training and technical support, and information sharing and dissemination.

In addition, quality monitors have been trained by the MOH's central level QA staff in the majority of the Health Services. These monitors have played a vital role in quality assurance training and coaching at the local level, thus facilitating the decentralization of the EMC program and creating the basis for its continuity.

Capacity Building and Training

The main thrust of the national level QA team in the first four years of the EMC program was to train and motivate health workers throughout the country in quality improvement techniques. To date, over 6500 health professionals have been trained in quality assurance methods by the central team and 4012 by the quality monitors, all 615 of whom were trained in advanced QA techniques and coaching

Chile 1997	
Population, mid-year *(millions)*	14.6
GNP per capita *(Atlas method, US$)*	5020
Average annual growth, 1991-1997 Population *(%)*	1.5
Most recent estimate *(latest year available, 1991-1997)*	
Poverty *(% of population below national poverty line)*	21
Urban population *(% of total population)*	84
Life expectancy at birth *(years)*	75
Infant mortality *(per 1000 live births)*	11
Child malnutrition *(% of children under 5)*	1
Access to safe water *(% of population)*	85
Illiteracy *(% of population age 15+)*	5

Courtesy of the World Bank Website

methods. The result was 10,600 health professionals with QA capacity.

Standards

Recently, the central quality unit has been given an additional role in developing the regulatory role of the Ministry of Health with a quality focus. The unit is currently reviewing existing laws, decrees, regulations, norms and protocols with respect to their effect on quality of care and is studying how the MOH can appoint groups of experts to develop norms in specialized areas.

Quality Improvement

The central MOH team which developed the Ministry's quality assurance program made a conscious decision to make quality improvement activities the dominant emphasis of the QA program in Chile. Quality improvement was felt to best respond to the perceived needs for immediate results in the

quality of health care services, especially at the PHC level. The national QA program's first two years of implementation emphasized activities to recruit and train health workers at every level of the health system in quality assurance principles and methods, and motivate them to undertake local quality improvement projects. The result of this emphasis was that a large number of health professionals throughout Chile committed their energy and abilities to making small and large contributions to improved quality of care in the hospitals and clinics where they worked. In the first 5 years, over 400 quality improvement projects were carried out nationwide, and many more ad hoc improvements implemented outside the structure of a formal project.

Documentation

The MOH sponsors an annual national Quality Assurance Conference to provide a forum for presentation of results of process improvement efforts and for sharing experiences with the implementation of QA activities. The Unit for Quality and Norms in the MOH maintains a QA resource center, including the reports of individual process improvement projects.

Sustainability

External technical assistance to the Chilean QA program ended in 1994. Since July 1993, all Health Services have paid for QA training and technical assistance from the central level QA Unit out of their local budgets. QAP staff and their Chilean counterparts believe that the following factors have contributed strongly to the institutionalization of QA in the Chilean health system: 1) the creation of a central level team with a strong command of QA methods, training approaches, and interpersonal skills; 2) a decentralized implementation strategy, which motivated personnel in the Health Services to develop QA activities in response to local needs, priorities and resources; 3) development of QA training and reference materials tailored to the Chilean context; 4) the training of quality monitors throughout the country, which facilitated sharing of experience and skills transfer; and 5) collaboration with Chilean professional schools and Universities which both enhanced the technical expertise available to the MOH and led to the inclusion of quality assurance in professional curricula, further promoting institutionalization. In 1993, the MOH identified October as "Quality Month." For the last five years, activities relating to quality improvement have taken place throughout the country during the month of October.

Ecuador

Background

The Ministry of Health of Ecuador created its National Quality Assurance Program in March 1996. While the program has undertaken national level training activities to stimulate interest in quality assurance throughout the Ministry, most of its efforts to date have been concentrated in 7 of Ecuador's 21 provinces, including the country's three largest cities. In the pilot districts, QAP's resident advisor has coached teams in the implementation of quality improvement microprojects and worked with district level officials to develop strategic and action plans for quality assurance and to define basic quality standards. The Ministry of Health is now focused on scaling up QA activities from the pilot level to more fully incorporate QA into the operations of the Ministry throughout the country, as part of a larger health sector reform process that is underway in Ecuador. National policies have been drafted which include improving quality of care as one of the central objectives of the reform process.

Ecuador 1997	
Population, mid-year *(millions)*	11.9
GNP per capita *(Atlas method, US$)*	1590
Average annual growth, 1991-1997 Population (%)	2.1
Most recent estimate *(latest year available, 1991-1997)*	
Poverty *(% of population below national poverty line)*	35
Urban population *(% of total population)*	60
Life expectancy at birth *(years)*	70
Infant mortality *(per 1000 live births)*	33
Child malnutrition *(% of children under 5)*	17
Access to safe water *(% of population)*	70
Illiteracy *(% of population age 15+)*	10
Courtesy of the World Bank Website	

Organization for QA

At the national level, there is a Coordinator for the Quality Assurance Program who provides oversight and support to the pilot activities. Recently, the Coordinator was relocated to sit in the Technical Unit for Health Sector Reform in the MOH in order to strengthen the integration of QA activities within the health sector reform project.

Pilot efforts in the provinces of Azuay and Bolivar have resulted in the formation of quality assurance teams at the provincial, hospital and health district levels to develop strategic plans for quality, including identification of critical areas for quality improvement. Pilot quality improvement teams, made up of health providers and program managers, have been formed in several provinces and health districts to identify and develop solutions for specific quality problems.

Capacity Building and Training

In its first year, the National Quality Assurance Program focused on developing capacity in quality improvement by training national quality assurance facilitators who, in turn, could support the creation and training of local quality improvement teams in provincial hospitals and facilities in the pilot health districts. Provincial level QA training seminars on problem solving, process improvement, strategic planning for quality, and standards development have been held in Azuay and Bolivar provinces. QA capacity building activities are now focusing on training of QA trainers and

facilitators to support the development of QA capacity in three additional provinces.

Standards

Technical assistance was provided by JHPIEGO to revise the country's national norms and clinical standards for reproductive health, including management of essential obstetric care. The MOH is now issuing the revised standards throughout the country and piloting an intensive training and orientation to the new reproductive health standards in Cotopaxi province. In preparation for activities to communicate and reinforce the written standards, an assessment was carried out of the knowledge of health professionals of selected standards in four hospitals in the province. Rapid assessments of the capacity to provide essential obstetric care (EOC) have been carried out in 10 health centers, one district hospital and in the regional hospital in Cotopaxi.

Quality Design/Redesign

Quality design activities are being undertaken in Ecuador as part of the Latin America and Caribbean Initiative to Reduce Maternal Mortality. A workshop was held in Ecuador in May to train teams made up of health care providers, community representatives and NGO representatives in the quality design approach to enable them to work together to design components of a system to deliver high quality EOC. Five teams have been formed: two teams are designing procedures for the reception/triage of patients, one team is designing IEC interventions, one team is designing referral/counter-referral procedures, and the fifth team is designing antenatal care procedures. A second series of design efforts will start soon addressing EOC care in facilities, training in EOC and transportation for women with complications.

Quality Monitoring

The development of local quality indicators is of increasing importance in Ecuador, as the Ministry of Health is now initiating a major World Bank-funded Health Sector Modernization Project (MODERSA) which will create local health networks utilizing performance-based contracts. QAP's resident advisor is participating on a high level technical commission to design quality indicators for use in the management of the first two pilot local health networks.
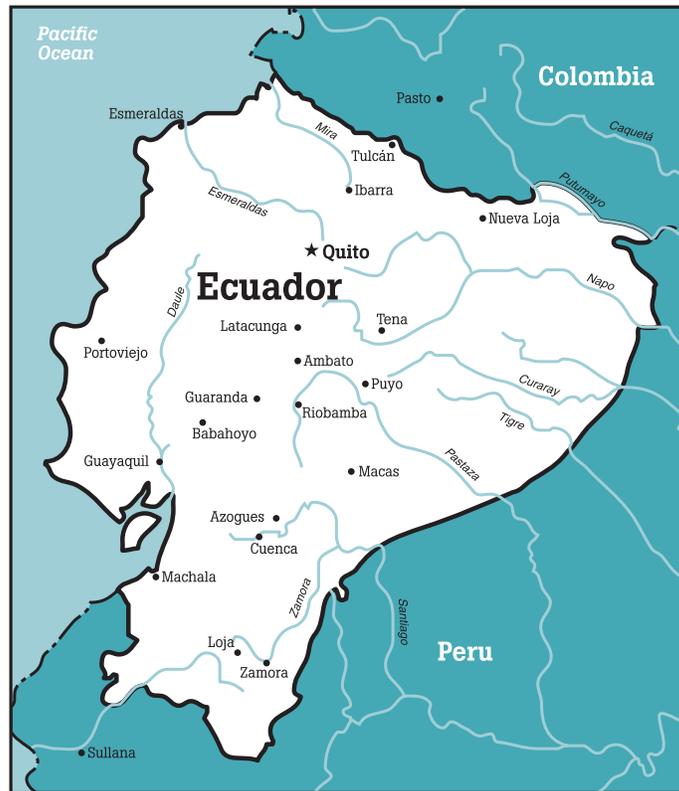
Quality Improvement

Approximately 16 quality improvement teams have been formed in pilot districts in the provinces of Azuay and Bolivar. Most of the teams have completed their work or are in the process of implementing a solution intervention. One feature of the pilot teams in Ecuador is that importance has been placed on using patient satisfaction data in problem selection and analysis.

Documentation

The Coordinator of the National QA Program maintains information on central and provincial level QA activities. A newsletter reporting on QA activities throughout the country was initiated in 1997. A national conference was organized in 1997 to provide a forum for quality improvement teams to present their experiences and achievements to a national audience.

National policies have been drafted which include improving quality of care as one of the central objectives of the reform process.

Sustainability

QAP continues to field a resident advisor in Ecuador to provide technical support to the MOH in the design and implementation of QA activities. At the central level, the MOH has recently created a "Quality and Productivity Management Unit" which will advise the Director of Health Services on escalating QA activities from the pilot/demonstration stage to implementation of quality assurance throughout MOH facilities and geographically based local health systems. It is expected that the recently launched Health Sector Reform Project, funded by a World Bank loan, will provide a framework for initiating QA activities throughout the country, as part of the health sector reform process.

Niger

Background

The Tahoua Quality Assurance Project began in 1994 as a five-year collaborative effort between the Ministry of Public Health of Niger and QAP to improve the delivery of critical primary health care services by integrating and institutionalizing the quality assurance approach in the primary health care system in one demonstration region. The region of Tahoua, with an estimated population of 1.6 million and severely limited resources to meet the population's primary health care needs, was selected as the intervention site. After assessing health needs of the mothers and children in Tahoua, the QAP/Tahoua staff selected clinical interventions to be included in the "package of minimum services" to be targeted for Tahoua project support. These services included: family planning, prenatal care, nutrition, immunization, case management of diarrhea, malaria, tuberculosis, and acute respiratory infection. The project sought to introduce a quality management approach to health care delivery through training, clarifying and communicating clinical and management standards, monitoring, and initiating a process for preventing and correcting problems.

During the past two year collaboration with BASICS, QAP assisted all seven of Tahoua's District Health Management Teams (DHMTs) to develop indicators and data collection tools to conduct rapid performance assessments of the implementation of the Integrated Management of Childhood Illnesses (IMCI). The Tahoua project has demonstrated that measurable gains in service quality are possible, even when health system resources are severely limited, by motivating and empowering local health workers. Planning is underway to introduce quality management in other regions of Niger.

Organization for QA

In Tahoua, the MOH formed the Quality Council to promote the regional vision and mission for a quality health care system, support and oversee the quality improvement activities in the districts and ensure the integration of QA in the overall primary health care system. DHMTs have taken oversight of QA activities as part of their regular responsibility. A QA Unit at the central level of the MOH was recently organized to support QA activities throughout the country but it is not yet fully staffed.

Capacity Building

Training was a central strategy in Tahoua to enable health personnel to apply quality assurance concepts and methods. The first major training activity prepared quality improvement teams for process improvement and problem solving at the Regional Health Directorate level and at the seven district medical centers. Training gave participants a frame-

work and skills to systematically solve quality-related problems as a team, using methods and tools adapted to local conditions. During the training workshops, participants chose a problem, drafted a definition statement and began preliminary analysis before leaving training.

The project trained 76 health workers in quality assurance skills during the first two and half years. An additional 168 health personnel from all over the region were trained in May and June 1996, using a cascade training strategy.

QAP trained other regional staff to serve as coaches or facilitators to the quality improvement teams. The role of the facilitators was to ensure correct application of problem solving tools, oversee teaming arrangements and activities, and provide other technical support. In recent training workshops, DHMTs learned how to integrate coaching into the regular supervision system.

Standards

The quality improvements initiated in the districts helped focus attention on services for which norms or standards were not clear. Supervisors identified a gap in the availability of norms and standards for management and clinical functions. To address the lack of clear guidelines, the project assisted the Regional Health Directorate to organize a

multidisciplinary, multilevel team to develop a manual of norms and standards for vaccinations. The team also developed a Standard Operating Procedures Manual for the managerial and administrative procedures in health centers and districts, including personnel management, equipment inventory and vehicle maintenance. The manual was disseminated through the district level quarterly meetings.

Quality Monitoring

The Quality Council identified supervision as the main vehicle for introducing quality assurance and for preventing and correcting errors in quality of care. Analysis of the supervision system revealed significant gaps, however, due in part to the lack of time and resources available in the districts. To address these underlying constraints on supervision, the Quality Council decided to redesign the entire system. As a result, a new policy was developed which created regional and integrated district level supervision teams, and detailed their organization, roles, responsibilities, methods, frequency, and reporting requirements. The district supervision teams predated official constitution of the DHMTs nationwide in July 1996 and gave their members a head start in grappling with the management needs of running a district.

Niger 1997	
Population, mid-year *(millions)*	9.7
GNP per capita *(Atlas method, US$)*	200
Average annual growth, 1991-1997 Population (%)	3.3
Most recent estimate *(latest year available, 1991-1997)*	
Poverty *(% of population below national poverty line)*	63
Urban population (*% of total population*)	19
Life expectancy at birth (*years*)	47
Infant mortality *(per 1000 live births)*	116
Child malnutrition (*% of children under 5*)	43
Access to safe water *(% of population)*	53
Illiteracy *(% of population age 15+)*	86

Courtesy of the World Bank Website

Quality Improvement

Quality improvement teams were established in each of Tahoua's seven districts, based in the district medical centers. The teams are responsible for initiating quality improvement activities within the district and assisting with facility-level process improvement efforts.

Quality improvement teams were initially given technical support and coaching by QAP's resident advisor in Niger who visited quality improvement teams approximately every six weeks to motivate and help them apply the quality assurance methodology. The Regional Health Director also made site visits. Intense follow-up was found to be essential because quality assurance techniques and tools required very different attitudes and skills than those health workers were accustomed to. There is currently a core group of QA professionals in Tahoua who share their expertise not only with health professionals in other parts of Niger, but also with professional colleagues in other Francophone African countries.

The quality improvements initiated in the districts helped focus attention on services for which norms or standards were not clear.

Many of the quality improvements accomplished by teams resulted from the identification of problems during supervision. Quarterly regional and district meetings initiated by the project have provided a forum to monitor the performance of the health system based on service statistics and the progress of quality improvement teams. The teams analyze feedback from the supervision system, discuss issues and problems identified during the quarter, and establish priorities for further improvement.

Regional and district meetings often led to the creation of cross-functional teams to deal with multiple level problems. They also contributed to participatory decision-making on management of the health care system at each of the levels.

Documentation

Dissemination activities were emphasized throughout the project as a means both to document progress and to evaluate results. The project's primary means for internal dissemination is the quarterly bulletin entitled "ADER SANTE INFO" which is written and distributed by the Regional Health Directorate staff. Responses to the publication from the field have been positive, and interest in continuing the "ADER" remains high.

After two and a half years of experience and results in the field, the project organized a three-day national conference in December 1995 to disseminate the Tahoua experience with quality improvement, quality-oriented supervision, and the use of norms and data to monitor improvements in service quality. Based on the results in Tahoua, the conference participants endorsed the quality assurance methodology as an effective tool for improving the quality of clinical and support services at all levels of the Nigerien health system and called for inclusion of quality assurance training in basic and in-service training for all health providers.

Staff from the Tahoua Regional Health Directorate and districts have made numerous presentations in

country and internationally, including to the International Society for Quality Assurance in Health (ISQua), the East Africa Quality of Care Conference, and an Africa regional meeting of the World Health Organization.

Details of the project's most recent dissemination effort, "the International Conference on Quality Assurance and IMCI for the Quality Improvement of Health Care and Services," can be found in the Field Activities Update section (see page 22) of this newsletter.

Sustainability

Due to the closing of the USAID mission in Niger, QAP stopped providing technical support to the MOH in December, 1998. At the central level there is a clear commitment to QA, including the assignment of QA experts to key decision making positions in the MOH. The Ministry of Health believes that the following results from the Tahoua experience will facilitate institutionalization of QA at the national level: 1) successful application of quality management to health services; 2) community participation; 3) development of Tahoua as a national and international QA demonstration site; and 4) increased health worker competence.

As a result of the MOH commitment to sustain results in Tahoua, WHO has pledged to support QA activities for at least one year after QAP ceases activities in Niger. Last year, the World Bank and UNICEF also agreed to support quality assurance projects in Niger and will begin to do so in 1999.

Zambia

Background

In 1993, Zambia started an important reform of its health sector. As part of the reform, a Quality Assurance program was established to improve the quality of care. The program's strategy was to build QA capacity at district and health center levels by training staff in:

i) setting standards for health services,
ii) monitoring indicators of achievement, and
iii) team-based problem solving methodology. A network of coaches (facilitators for the health center based quality improvement teams) and link facilitators (quality assurance trainers providing support to coaches and in charge of several districts) now covers almost the entire country. Process improvement teams have been formed in a majority of districts throughout the country. Teams select quality of care problems identified both from user and provider perspectives, document the root causes, design solutions that they implement, and monitor the progress through indicators.

Zambia 1997	
Population, mid-year *(millions)*	9.4
GNP per capita *(Atlas method, US$)*	380
Average annual growth, 1991-1997 Population (%)	2.7
Most recent estimate *(latest year available, 1991-1997)*	
Poverty *(% of population below national poverty line)*	86
Urban population *(% of total population)*	44
Life expectancy at birth *(years)*	43
Infant mortality *(per 1000 live births)*	113
Child malnutrition *(% of children under 5)*	29
Access to safe water *(% of population)*	43
Illiteracy *(% of population age 15+)*	22
Courtesy of the World Bank Website	

Organization for QA

Before the establishment of the Central Board of Health (CBoH), the Zambian Quality Assurance Program was the responsibility of the Quality Assurance (QA) unit of the Health Reform Implementation Team of the Ministry of Health.

Since the creation of the CboH in late 1996, The Service Quality and Performance Audit Unit of the Directorate of Monitoring and Evaluation has been responsible for ensuring that all levels of health care are introduced to the concept of Quality Assurance. This central level unit provides training and technical oversight in QA to District Health Management Teams (DHMTs) and health centers. In addition, DHMT members were trained as QA coaches or link facilitators, or had participated in another type of QA training activity.

Capacity Building

Training in the target districts initially focused on the setting and monitoring of standards, and was later expanded to include techniques for problem solving. At the central level, staff of the Directorate of Monitoring and Evaluation facilitate the training of health providers to self-assess, to measure their performance and compliance to agreed standards, and to respond to client/user needs. This unit provides training and technical oversight in QA to the DHMTs and their health centers. The training in quality assurance (subject to variation by district) has generally consisted of:

1. a 'sensitization' workshop (a one-day orientation seminar to introduce the concepts of quality assurance);

2. a week-long training of staff in the dynamic standard setting system (DySSSy);

3. a similar five-day training in the development of monitoring indicators for groups at district and facility level; and,

4. a two-week basic skills training in the use of QA tools and techniques.

In addition to receiving training in basic QA skills, members of the DHMTs were trained as QA coaches and link facilitators.

Quality Monitoring

The CBoH uses three main mechanisms to monitor performance of health services: performance audits, supervisions visits, and the health management information system.

Performance audits are supposed to be carried out quarterly by each of the four regional directorates and consist of an inspection of DHMTs, hospitals and health centers. Performance audits collect information mainly on financial management, accounting procedures, health facilities, structural standards, and managerial and planning processes. There are few indicators related to compliance with process standards, such as the proportion of patients examined and diagnosed correctly. There is a review of a sample of ten records for outpatients and inpatients. Since medical records usually indicate only the symptoms and the treatment, their review allows only checking the appropriateness of the treatment without knowing the accuracy

of the diagnosis. There is no direct observation of the delivery of care, and therefore the complete clinical performance of health workers remains unknown.

Supervision visits of health centers are frequently carried out by the DHMT. The average duration of the visit is between one and two hours. Supervisors typically use a checklist, though there is not a standardized checklist in use which assesses quality of clinical care. The CBoH developed an integrated checklist involving direct observation of care which is used primarily for IMCI. Members of DHMTs prefer using checklists that focus on inspection of facilities and record reviews rather than using direct observation as a supervision tool.

The current **health management information system** (HMIS) was recently redesigned to replace an old system that required health facilities to report services statistics to the central level. The new system was pilot tested in fifteen districts and is being rolled out nation-wide. One of the key features of the HMIS is the use of self-assessment forms on a quarterly basis by health centers and then by districts to monitor their own performance and compare it to pre-determined national and local targets. The forms are designed to allow the teams to easily identify areas of low performance and take action.

Standards

The development of clinical standards takes place at the central level. To eliminate confusion from having several guidelines for different vertical programs, the CBoH decided to develop a manual of standards for six priority preventive, promotional and curative activities. The manual, entitled "Integrated Technical Guidelines for Front Line Health Workers," (ITG) covers standards in the following health areas: i) malaria; ii) reproductive health and family planning; iii) HIV/AIDS and sexually transmitted diseases; iv) child health and nutrition; v) tuberculosis; and vi) water and sanitation. The primary strategy for communicating these standards is through classroom training sessions. The CBoH is combining training in ITG with training in the new HMIS, for a total duration of two weeks per training session. The training should be completed by 1999.

Through QAP, the Joint Commission International is working with the Zambian Central Board of Health, nursing and medical councils, and professional associations to initiate the development of hospital accreditation standards and the creation of a national hospital accreditation program. QAP is currently working with the Zambian Health Accreditation Council and the Central Board of Health to develop a governing and administrative structure for the hospital accreditation program and has developed standards for accreditation which are currently being tested at 20 hospitals. The standards

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will eventually be applied in all hospitals in the country.

Quality Improvement

Approximately 85 quality improvement teams are operating in 90% of the districts in Zambia. Quality improvement teams usually consist of the staff of a health facility. Examples taken from quality assurance training workshops have a great deal of influence over the identification of problems for quality improvement cycles. Teams also identify some problems by incorporating client and neighborhood committee input. The average quality improvement cycle lasts seven months although this can vary depending on the type of problem selected.

In Zambia the application of the problem solving methodology yielded many benefits in addition to finding solutions to problems impeding the delivery of quality services. The use of problem solving methodology:

■ promoted team building among professionals from different disciplines;

■ increased competence and confidence of staff to tackle problems on their own; and

■ built capacity and prepared staff for management positions.

Documentation

At the health center level, the recommended storybook format is intended to facilitate more efficient and complete documentation of team-based problem solving activities. Teams can thus describe how their problems were identified, record the problem statements, demonstrate the use of tools and data gathering instruments, and present solutions and results. In addition, posters or storyboards are sometimes prominently displayed in the health center. Together, such visuals work to communicate the facility's commitment to quality, calling attention to the need for similar improvements in other departments, and strengthening advocacy for QA throughout the health center.

At the district level, a summary report of health center activities is completed by the link facilitator and forwarded to the Quality Assurance staff at the Central Board of Health. The reports list the active teams and describe the status and results of their quality improvement activities. Quarterly meetings of all link facilitators are then held to disseminate results and share experiences regarding the work of their teams. The Central Board of Health uses the results of these meetings to identify opportunities for improvement as well as to track numbers and locations of active QA teams.

Sustainability

Earlier this year the Central Board of Health of Zambia requested that an evaluation take place in order to help them design the next steps to further improve quality of care in Zambia. The evaluation was carried out in September 1998 by an international evaluation team led by QAP. In order to validate results, the evaluation team presented preliminary findings to the CBoH and its partners during an end-of-mission meeting and incorporated comments into the final report. The CBoH is currently reviewing the report which contains evaluation findings and recommendations proposed by the team.

Field Activities Update

The Latin American and Caribbean Initiative to Reduce Maternal Mortality

During the last year, three collaborating NGOs—Sacoa, PLAN International and Prodim—carried out community baseline assessments in each of the countries in which the initiative is being implemented: Bolivia, Ecuador and Honduras, respectively. At the same time, QAP carried out facility baseline assessments of the quality of essential obstetric care (EOC) in these same countries.

Between May and August, QAP also conducted workshops to initiate the process of Quality Design of EOC in the three countries. The workshops resulted in the formulation of quality design teams (four teams in Bolivia, five teams in Ecuador and eight teams in Honduras) that are currently addressing various components of their respective EOC systems.

The teams, comprised of representatives of health facilities and communities, are using quality design methodology to address weak components of the essential obstetric care system. These components include community mobilization, training, information, and communication (IEC), and referrals/counter-referrals. A second series of design activities for facility EOC, training in EOC and transportation for women with obstetric complications will begin in early 1999.

Russia

As part of activities initiating quality assurance work in Russia, QAP participated in two meetings for the planning of activities under the US-Russian Joint Commission on Economic and Technological Cooperation. The Health Committee of this Commission has identified "Access to Quality Health Care" as one of its priority areas. The Agency for Health Care Policy and Research (AHCPR) has been selected to take the U.S. lead in coordinating access to quality issues with Russian counterparts, and QAP is supporting several of the activities.

As a result of the planning meetings, QAP has been working with the Ministry of Health of Russia since July to develop operations research demonstration projects in Tula and Tver Oblasts (provinces). The Tula demonstration project seeks to improve the system of hypertension care at the district level. The pilot demonstration project in Tver is developing strategies to improve maternal and child health care. QAP and the Ministry of Health of Russia identified the following maternal and child health issues as improvement areas for Tver: management of toxemia of pregnancy at the primary care and hospital levels, and management of newborn respiratory distress syndrome.

The objectives of the operations research demonstration projects are:

■ To determine the results that can be achieved by a team-based approach to continuous quality improvement (CQI) carried out across a province and aimed at achieving statistically significant improvements in health outcomes. QAP would also expect to see improvements in compliance with evidence-based clinical standards and efficiency (cost savings).

■ To determine if the use of evidence-based clinical standards achieves better results and participation of physicians than not using such standards.

■ To determine if linking nationally recommended Health Quality Indicators with activities to improve the processes of care results in improved outcomes as measured by these indicators.

QAP has made the first steps toward meeting these objectives by organizing and convening a series of QA seminars to build local capacity. In October, QAP conducted a one-week training of trainers (TOT) course on principles and methodological approaches of improvement and (re) design of health care systems. During December, QAP conducted additional TOT courses for the research project teams in Tula and Tver. In the next few months, QAP will work with the teams to collect baseline data on indicators of quality in hypertension care, toxemia management and management of newborn respiratory distress syndrome. QAP will then work with the MOH to identify training needs for those clinical areas and will coach the teams as they design and implement changes to the systems of care.

Rwanda

In February 1998, the Ministry of Health of Rwanda requested through USAID, QAP's assistance in developing a national Quality Assurance program. Six weeks later Senior QA Advisor Barbara Kerstiëns assisted the MOH in identifying priorities and developing a QA work plan. In August, in an effort to share their experience from the Nigerien QA program, two QA experts from Niger—a Senior QA Advisor and the Director of Health Services of the Ministry of Health in Niamey—conducted two seminars in Kigali for health care providers and health service managers in Rwanda. The first course was on Quality Awareness, and the second was on Problem Solving. The objective of the quality awareness seminar was to increase awareness among providers and services managers about the Quality Assurance/Improvement approach, its principles, methodology and potential application to the Rwandan health system. Participating in the seminar were 17 representatives of Directorates within the Ministry of Health, Regional Medical Officers, District Medical Officers, the Rwandan Medical Association and the School of Nursing.

Upon completion of the workshop, the staff of the Centre Hospitalier Kigali (CHK), who was the main target audience, began problem solving activities in the emergency ward of the hospital. Following the workshop, Dr. Rwakunda, head of the Division of Promotion of Quality of Care of the MOH, suggested that a national quality assurance team be formed to support the QA unit. The team consists of members of the Division of Promotion of Quality of Care, the medical officers of the two pilot districts, a representative of the emergency ward problem solving team, two regional medical officers, and the technical advisor to the Directorate of Health Services. The team held its first meeting in October to define rules and objectives, and to develop a work plan. The team will meet monthly in Kigali to work on quality improvement projects.

Zambia

In 1993, Zambia established a Quality Assurance program as part of a more comprehensive strategy to reform the health sector. The program set out to build QA capacity at district and health center levels by training staff in standards development, monitoring, and team-based problem solving.

In October, QAP led a team to evaluate the Quality Assurance program in Zambia. The purpose of the evaluation was to document achievements and identify lessons and challenges in order to make recommendations that would shape the vision and strategy of the next phase of the program. The team, comprised of three international and three local public health and quality assurance specialists, evaluated the following programmatic areas: i) the development and communication of standards and quality performance monitoring, ii) the work of the quality improvement teams, and iii) the support systems for the Zambian QA program.

The evaluation team found that a small team of central staff has been able to build a QA structure and capacity throughout the country, generate enthusiasm for quality assurance and initiate work on quality of care issues in a large number of districts throughout the country.

Recommendations focused on ways to more fully integrate QA activities into other directorates of the Central Board of Health, regional and district management teams, regulatory bodies and the private sector, especially in the areas of developing and communicating standards, introducing job aids, and introducing quality performance assessment in routine supervision.

QAP Co-Sponsors Global Seminar on Quality Assurance in Developing Countries

QAP collaborated with the World Health Organization, Liverpool University, and the CBO (the Netherlands) to convene an international seminar on quality assurance in developing countries. The meeting was held October 4-7, 1998 in Budapest, Hungary, in conjunction with the 15th Annual Conference of the International Society of Quality Assurance in Health Care. Along with representatives of 15 countries, QAP representatives and colleagues shared the experiences of

implementing quality assurance activities in Bolivia, Chile, Ecuador, Guatemala, Honduras, Morocco, Mozambique, Nepal, Niger, Peru, Uganda and Zambia. Discussions at the pre-conference meeting focused on evaluating quality management and improvement actions at all levels of a health care system. Participants reported on different aspects of leadership, policy, strategy, staff management, resources, processes, customer satisfaction, staff satisfaction, impact on society and business results. Senior Quality Assurance Advisor and co-organizer of the seminar, Dr. Rashad Massoud, moderated the session on leadership.

International Conference on Quality Assurance and IMCI for the Quality Improvement of Health Care and Services in Niamey, Niger

In October, the Quality Assurance Project (QAP) and the Basic Support for Child Survival Project (BASICS) organized a three-day conference to draw lessons from five years of implementing quality assurance in Niger and two years of collaborative efforts to combine quality assurance and the Integrated Management of Childhood Illnesses (IMCI) in health facilities in Niger.

Approximately 200 participants, most of them Nigerien, attended the conference held in Niamey. Both the structure and the content of the conference reflected the ownership of the Nigerien health staff who work in two regions and nine districts supported by QAP/BASICS. Both Niger's Minister of Health and Secretary General of Health were present. Attendees also came from Benin, Burkina Faso, Burundi, Guinea, Ivory Coast, Mali, Senegal and Togo. Presentations highlighted the experience of introducing both a quality assurance based model and the IMCI approach for district health workers to use in improving the quality of care. The experiences, as presented by the Nigerien health managers and workers, demonstrated that when quality management methods are integrated at the district level, quality of care is improved. The presenters attested to the fact that, though quality assurance work takes time, it is a worthwhile endeavor in which they will continue to invest their efforts. The dynamism of the presenters, as well as the high level of exchange, were indicative of the culture of quality that has been established in Tahoua.

New QAP Publications

QAP Operations Research Analysis Report.
The client perspective: Helping district teams
measure and act on client satisfaction data in
Niger. An analysis of tools and methods
by Maina Boucar and Edward Kelley. 1998.

Reducing Treatment Default among Tuberculosis
Patients in the Philippines
by Stewart N. Blumenfeld, Maricor De los Santos,
Ma. Corazon V. Teoxon, Nora Cruz & Frank Dizon.
1998.

Making a Commitment to Quality:
Development of a National Quality Assurance
Program in Chile. 1991-1995
by Lori DiPrete Brown & Gilda Gnecco. 1998.

Atingir a Qualidade Através da Resolução de
Problemas e da Melhoria do Processo
por Lynne Miller Franco, Jeanne Newman,
Gaël Murphy & Elizabeth Mariani. 1997.

Garantia da Qualidade dos Cuidos de Saude nos
Paises em Desenvolvimento
por Lori DiPrete Brown, Lynne Miller Franco,
Nadwa Rafeh & Theresa Hatzell. 1997.
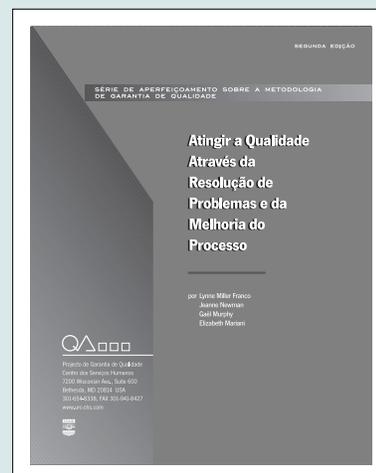
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