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A Study on Organizational Reinforcement through Total Quality Management in the Health and Medical Care Sector

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Foreword

This is a groundbreaking report that takes an overall look at activities for improving the quality of medical care currently underway in developed countries, Japan and developing countries. Japan's medical sector lags behind its counterparts in other developed countries in terms of the commitment to quality of medical care services. The conventional wisdom is that this commitment is also underdeveloped in developing countries. No comprehensive study on this matter has therefore been done.

Based on an on-site surveys in Thailand and Sri Lanka subsidized by the Japan International Cooperation Agency (JICA) and with the help of experts that have been involved in improving the quality of medical care in developing countries, this report offers a systematic overview of the current status in four countries in Asia, one in Africa, as well as several in Latin America and other parts of the world, in addition to the efforts made in Japan. In addition, it includes explanations on basic approaches such as total quality management (TQM) and clinical governance, to encompass the concept, the history and on-site case studies.

I was inspired to conduct this study by an encounter with Dr. Wimal Karandagoda, director of Castle Street Hospital for Women in Sri Lanka. The encounter was through my role as chair of the work control committee for the development research project carried out as part of the Health Master Plan for the country's entire health and medical care sector. I was astonished to learn his innovative application of the TQM practiced in the Japanese industrial sector to Sri Lankan hospitals to excellent effect after studying it on his own. I felt great respect for the initiative, which was in a sense far more advanced than what was being done in Japanese hospitals. Moreover, when I served as a domestic committee member for JICA's social insurance assistance project in Thailand I felt ashamed, as a specialist in hospital management in Japan, to learn that activities to improve medical quality in Thailand are far superior to those in Japan. Indeed, Japan's medical sector is very weak, even though the nation is known as a world leader in quality management in other industries. This fact is seen as bizarre by the rest of the world.

These circumstances prompted me to investigate the work being done in these developing countries, with a view to incorporating the findings in the training of hospital managers provided as JICA's training program at the national Institute of Public Health, an institution which the author heads as chief researcher, or for using them in the development of a third-country training program for medical quality improvement in Thailand and other countries. Following this study, I am now more aware of the importance of TQM in the medical service sector and more deeply realize the significance of initiatives in the area of international cooperation.

I would like to take this opportunity to express my deepest gratitude to the leaders of initiatives in developing countries, including Dr. Karandagoda in Sri Lanka and Dr. Chanvit and Dr. Anuwat and Prof. Iizuka, Dr. Iida and Prof. Uehara and other pioneering leaders in Japan for their cooperation in this study.

I hope that this report will provide direction for a new area of Japan's international cooperation. I also hope that it will help improve the quality of international aid as well as the quality of medical services worldwide.

June 30, 2006

Toshihiko Hasegawa
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Abbreviations

Term	Explanation
ANC	Ante-Natal Care
ARI	Acute Respiratory Infections
BCC	Behavioral Change Communication
CG	Clinical Governance
CPG	Clinical Pathway Guideline
CQI	Continuous Quality Improvement
CSHW	Castle Street Hospital for Women
DGHS	Directorate General of Health service
DOH	Department of Health
DPC	Diagnosis Procedure Combination
EBM	Evidence-based Medicine
EOC	Emergency Obstetric Care
EPI	Expanded Program for Immunization
EPQI	Evidence Based Participatory Quality Improvement
ESB	Excellent Service Behavior
GDP	Gross Domestic Products
HA	Hospital Accreditation
HACC	Hospital Accreditation Cooperation Center
HA-Thai	Thailand Hospital Accreditation Agency
HIPC	Heavily Indebted Poor Country
HNPSP	Health Nutrition and Population Sector Programme
HNQA	Hospital Network Quality Audit
HPSP	Health and Population Sector Programme
HSRI	Health System Research Institute
ICC	Infection control committee
IMCI	Integrated Management of Childhood Illness
IP	In-patient (Department)
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
ISO	International Organization for Standardization
LFA	Logical Frame Approach
LGUs	Local Government Units
MOHFW	Ministry of Health and Family Welfare
MQI	Medical Quality Improvement
MTEF	Medium Term Expenditure Framework
NDP	National Demonstration Project
NDP	National Development Plan
NGO	Non Governmental Organization

Term	Explanation
NHSO	National Health Security Office
NIPH	National Institute of Public Health
NQAP	National Quality Assurance Program
OFW	Overseas Filipino Workers
OJT	On the Job Training
OP (D)	Out-patient (Department)
OT	Operation Theater
PCAHO	Philippine Council for Accreditation of Health Care Organizations
PCM	Project Cycle Management
PDPC	Process Decision Program Chart
PDCA	Plan-Do-Check-Action
PHC	Primary Health Care
PHIC	Philippine Health Insurance Corporation
PI	Progressive Improvement
PLA	Participatory Learning and Action
PRA	Participatory rural Appraisal
PRSP	Poverty Reduction Strategy Paper
PSQua	Philippine Society for Quality in Health Care
QA	Quality Assurance
QAC	Quality Assurance Cell
QAP	Quality Assurance Program
QARPDG	Quality Assurance and Research Policy Development Group
QC	Quality Control
QI	Quality Improvement
QIHP	Quality Improvement Health Program
QMMC	Quirino Memorial Medical Center
QSS	Quality Standards System
RCWN	Respiratory Care Working Nurse
RM	Risk Management
SIP	Strategic Implementation Plan
SLIDA	Sri Lanka Institute of Development administration
SOP	Standard Operating Procedure
SQC	Statistics Quality Control
SSM	Sentrong Sigla (Centers of Vitality) Movement
SSS	Social Security service
TQM	Total Quality Management
WB	World Bank
WHO	World Health Organization

Abstract

It was traditionally believed that medical services were of higher quality in the United States, Europe, Japan and other developed countries than they were in developing countries and that there was nothing to learn from developing nations. Since the end of the 20th century, however, there have been numerous medical mishaps in the United States, the United Kingdom, Japan and certain other countries, and these have cast a shadow over the reliability of medical care services. Developing nations share a common need to address their absolute lack of medical resources before looking at ways to enhance medical quality. Despite this constraint, some developing countries have undertaken activities to improve medical quality, with successful outcomes. Among these are some experiences that ought to be studied in the context of improving medical quality in Japan and that will also be helpful for those in other developing countries.

Based on the findings of on-site surveys in Thailand and Sri Lanka and reports from experts involved in initiatives to improve the quality of medical services in developing countries, this study systematically reviews the current situation in four Asian countries, one African country, Latin America and other nations, as well as efforts made in Japan to analyze the events that triggered such activities and the factors contributing to successful outcomes. It is designed to consider a more practical approach to be applied to future technical cooperation and training programs offered by the Japan International Cooperation Agency (JICA) in the health sector.

Prior to examining the total quality management (TQM) in hospitals and in the health and medical care sector, this study reviews the general concept of TQM. It dates back to the development of a bottom-up quality control method. Based on statistics quality control (SQC) created in the United States, it was tailored to the peculiarities of Japanese industry and widely introduced throughout the business world. This is a worker-centered quality control method characterized by its small scale and quick response and with a focus placed on eliminating *muri* (excess), *muda* (waste) and *mura* (unevenness). It was subsequently developed into company-wide quality management and Japanese-style total quality control (TQC), accompanying the growing emphasis on the importance of quality control conducted throughout the company, including not only the manufacturing division but also the back office and sales divisions. Still later, the coverage of quality control was expanded from products to services. It meant that quality control was applied to the service industry and that total quality management was established from the perspective of controlling the quality of business administration. In the United States, a top-down quality management approach called Six Sigma was created on the basis of Japanese-style TQC. In terms of the quality improvement of business management, the notion of a balanced scorecard was invented. It is adopted by certain enterprises and institutions in Japan.

International trends towards quality of health and medical care are now in the second phase known as the Third Revolution of Medical Care, where evaluation and accountability are underlined. Triggered by a series of medical mishaps that occurred around the same time in a number of developed countries, there is a call for medical safety and patient safety. The underlying factors include a growing awareness among patients of their rights, technological and institutional innovations and breakthroughs such as statutory changes and expansion of information technology that has paved the way for the measurement of the quality of medical care.

In Japan, the government institutes quality control largely by means of law and the social security system, or specifically remuneration for medical treatment. Other efforts for quality management include medical quality initiatives conducted by third-party evaluating organizations, medical practitioners and patients' associations, such as the formulation of clinical guidelines and analyses of clinical indices.

The application of TQM to the health and medical care sector cannot be scrutinized without determining the definition of health and medical care services. Service goods have some peculiarities: they are intangible, inseparable, volatile and immediate. Unique to Japanese-style quality enhancement, the method centering on removing *muri* (excess), *muda* (waste) and *mura* (unevenness) appears to be effective. Nevertheless, the health and medical care sector has its own characteristics, including not-for-profit operations, groups of experts, individualism and meritocracy. They clash with the advantage of Japanese-style quality improvement, namely the bottom-up approach. It is therefore vital to clarify the core competences of health and medical care services. It is ideal and becoming common worldwide to address quality enhancement through the articulation of the core competencies of quality assurance in terms of the quality of hospital services, the practical application of TQM and tightening of medical control or clinical governance.

Japanese hospitals have independently been conducting TQM since the 1980s. In 1999, the Medical TQM Promotion Committee was set up to create a network of quality enhancement. In Japan, it was medical mishaps that sparked the initiatives for quality improvement. Today, comprehensive quality improvement is promoted after it is understood that medical safety and patient safety demand improvements in both clinical quality and managerial quality, which were conventionally regarded as in an inversely proportionate relationship. The Nerima Hospital played a pioneering role in this sense. Its activities continue to be carried out under the name of medical quality improvement (MQI).

As for TQM initiatives in developing countries, Professor Naruo Uehara of Tohoku University Graduate School challenged the conventional paradigm according to which quality refers to sophisticated medical treatment and advanced technologies to stress the importance of choosing appropriate technologies and seeking the quality of medical systems. Focusing on quality management in the Japanese style, he is pushing for introduction and expansion of this practice. The methodology has been systematically developed under the name of evidence-based participatory quality improvement (EPQI) and is being introduced to Latin America through training and seminars.

This report looks at actual initiatives to improve the quality of health and medical services in Sri Lanka, Thailand, the Philippines, Bangladesh and Zambia. Essentially, the health and medical care sector in developing nations faces serious challenges that differ from those of developed countries, such as a severe shortage of resources, poor accessibility, poor solvency, low motivation among medical personnel and a shift from injuries to lifestyle related illnesses (epidemic change). Under these constraints, TQM is in practice.

This study compares and analyzes three factors that these case studies have in common, namely backgrounds and past development experiences, trigger events and success factors. First, *backgrounds and past development experiences* refer to what happened before the health and medical care sector in each of these countries began to seek quality improvement. They reflect why TQM is now required. Second, *trigger events* means what urged it to start activities to upgrade quality. Normally, the situation does not change without a breakthrough. Trigger events are events that bring the breakthrough into being. Finally, *success factors* are those that make quality enhancement activities successful.

The background and past developments are characteristically diverse. It is the case in all of these countries that the activities were triggered when issues on health and medical care became broadly known to the public, but actual activities for improvement would not have taken place without a pioneer. Leadership, process management, system approach and peer review can thus be counted as factors for success.

Leadership suggests that strong leadership is essential for success. *Process management* means that a

promoter of quality enhancement controls the process instead of the goal and that the goal is controlled by individual hospitals according to their context. *System approach* aims to improve the functions and systems of hospitals instead of the skills of individual personnel. And *peer review* is meant to organize multiple group activities with similar content, instead of efforts for improvement conducted by individuals or a single team, to spur each group to work hard.

Although the level of contribution varied from factor to factor, these four elements helped make each of the cases a success. They can thus be seen as core competences for promoting TQM.

In addition, the success was facilitated by first introducing TQM to those operations that are shared with other business sectors, such as management, rather than to technical areas specific to health and medical care, such as clinical care and research.

As an earlier starter, Japan has the edge in medical safety and safety control in the practice of TQM. With respect to the development of a process for improving comprehensive hospital services, the Thai approach is a good example. In terms of introducing the notion of quality management to hospital services, the example of Sri Lanka is easy to follow. The Philippine approach will be helpful to those countries that are pushing ahead with decentralization. In addition Zambia's experience is instructive in introducing TQM for understanding and implementing the concept of quality. However, all of these issues must be sorted out to ensure the quality of health and medical care services that will be required in the future. They will be among the requirements of TQM carried out in hospitals. To address TQM, it is necessary to make appropriate use of these examples according to the circumstances of the country where it is implemented and to include in the program a final goal of establishing health and medical care services covering medical safety and hospital management and a national quality system for health and medical care services.

Table 1: Summary of the research findings

	Background and past developments	Trigger events	Factors for success
Japan	Quality control approach in the manufacturing sector Centered on regulations (imposed by the government or voluntarily) Reorganization of state-run hospitals into independent administrative institutions Beneficiaries and the public conscious of quality	A serious medical mishap in 1999 Development of clinical indices and evaluation methods	Leadership Fusion between the clinical goals and managerial goals (Third party evaluation system)
Thailand	Rapid economic growth Currency crisis in 1997 The 30-baht policy Competition with privately-run hospitals (transfer of patients to private hospitals)	A trial TQM project in 1992 Emergence of two leaders (HA-Thai[*1] and HNQA[*2]) Increased workload in hospitals	Leadership Process management Peer review Learning from failure (Step-by-step introduction)
Sri Lanka	High in-hospital infection ratio TQM in other industrial sectors Efforts made by a single hospital Expansion to nationwide implementation	Introduction of TQA to SLIDA's[*3] courses Appointment of a doctor as a hospital director Evaluation by other industrial sectors	Leadership System approach Autonomy (efforts made to the utmost possible extent)
The Philippines	Quality management in the entire sector of health and medical care Decentralization Legislation	Awareness of necessity Assistance from USAID[*4] Request from overseas	Leadership Overseas assistance Acceptance of quality control
Bangladesh	In the phase of developing a QA[*5] plan	(No achievement)	(No achievement)
Zambia	Vulnerabilities associated with management	Trial introduction of the 5S process (i.e. tidiness, orderliness, cleanliness, cleaning and discipline)	Commitment of top executives Efforts to address familiar issues (excluding clinical challenges)

Key: [*1] HA-Thai = Thailand Hospital Accreditation Agency
[*2] HNQA = Hospital Network Quality Audit
[*3] SLIDA = Sri Lanka Institute Development Administration
[*4] USAID = United States Agency for International Development
[*5] QA = Quality Assurance
Source: the author

To improve hospital quality, JICA should start by upgrading its training programs. Given that Japan alone cannot supply all of the resources required for hospital TQM, JICA should study its activities with a view to tying up with other countries.

Comprehensive thinking is critical to improving hospital quality. JICA or Japan needs to examine what assistance it can offer for this objective. Aid recipient countries need to act autonomously. To put it in another way, it is desirable at the first step to offer assistance in improving hospital quality in those countries that can independently study their own health and medical care policies. At the next stage, it will be necessary to publish successful examples.

Introductory Chapter: Background and Objective of this Study

Traditionally, the quality of medical services has been regarded as identical to conducting the latest medical treatment and diagnosis at the highest level. It has been said that medical services are of high quality in the United States, Europe, Japan and other developed countries where they are fully equipped with an environment conducive to high-level medical practice. However, the circumstances have changed since the 1980s. With rising medical costs in the United States and Japan and an increase in the number of patients waiting to be treated in the United Kingdom, medical services in developed countries are no longer necessarily operating at high quality levels. This deterioration was followed by a number of serious medical mishaps that occurred at around the same time in different parts of the world in the 1990s. These accidents dealt a severe blow to the reputation for reliable quality that medical care services had enjoyed in developed countries.

Behind this event was the fact that evidence-based medicine (EBM), diagnosis procedure combination (DPC), benchmarking and other methods paved the way for the measurement of quality of medical care. It brought to the surface issues on the quality of medical services that had failed to be clearly defined. Medical accidents triggered a revision to the perception of the quality of medical service and medical safety. They caused a paradigm shift. In the past, it was believed that medical doctors should not make mistakes and that mishaps relate to the individuals who made them. Today, there is an understanding that it is natural for humans to make mistakes and that it is important to create a system that makes mishaps impossible or unlikely. The quality of medical care has been redefined from offering advanced or cutting-edge medical treatments to properly doing what is wanted by patients and naturally essential to patients.

Moreover, the quality of medical services used to be seen as that of clinical medical practice. However, service refers to everything associated with medical treatment from the viewpoint of customers or patients. According to a new understanding, the quality of medical services should cover all aspects of what is offered from hospitals and other providers of health and medical care, including outpatient reception, consultation, waiting time, hospital discharge procedures, meals, post-discharge care and all other medical activities. In other words, the new definition of quality of medical services incorporates management quality.

Like other industries, the health and medical care sector needed to address this change in the concept of quality. This created an opportunity to introduce TQM, which had been regarded as an approach or concept applicable to the general manufacturing sector.

It seems that TQM has been implemented in different hospitals as part of their organizational activities for upgrading the quality of medical care services since the 1980s. The National Demonstration Project (NDP) on Quality Improvement in Medical Care, which was conducted in 1997 in the United States, undertook a large-scale verification of the effectiveness of TQM in the field of health and medical care. Subsequently, there was a rise in activities for improvement in medical care quality and in the safety of staff and patients based on the application of TQM to hospital management, especially in developed countries. However, no successful example has been reported that could be useful to improving the quality of medical services in developing nations. Surprisingly' there are some successful experiences of TQM found in developing countries, although they were believed to follow the example of development processes that developed nations have undergone. They provide some useful knowledge about improving medical quality, not merely to developed countries like Japan but to other developing nations as well.

Normally, developing countries need to address the issue of the absolute shortage of medical resources before considering improvements in medical care services. These limits notwithstanding, some developing

nations carry out medical quality improvement activities with successful outcomes. TQM is introduced as a method for improving the operations and management of facilities and organizations that require no considerable budget increase.

TQM serves to improve health outcomes such as hospital-spread infections, in-hospital mortality and the average length of stays in hospital, by upgrading the entire organization rather than the medical skills of individuals, and thereby achieving efficient management. It is an approach that meets the needs of least developed countries (LDCs) in Sub-Saharan Africa, Indochina and the countries of the former Soviet bloc to bolster health and medical care systems. In the context of JICA's technical cooperation, it is considered worthwhile to study this as an approach for capacity building in the field of health and medical care.

A study conducted by the World Health Organization (WHO) reports that the TQM approach was effective in reducing maternal mortality, which is one of the Millennium Development Goals.[1] It is expected not only to help improve hospital services but also to be applied to the public health sector.

Having said that, this study serves as a systematic review of current circumstances in four Asian countries and one African state, as well as in Latin America and other parts of the world, along with initiatives in Japan, on the basis of on-site surveys in Thailand and Sri Lanka and reports from experts who participated in activities to improve medical quality in developing countries. Different underlying factors are analyzed to identify common elements. The objective of this study is thus to explore a more practical approach for use in JICA's future technical cooperation and training projects.

[1] WHO (2002)

1. TQM

Prior to discussing the TQM in the domain of hospitals, and health and medical care, it is necessary to review the general concept of TQM. Since this study itself does not need to cover all aspects, however, this chapter merely provides an outline.

1-1 Definition of TQM

TQM stands for total quality management. The TQM Committee of the Union of Japanese Scientists and Engineers (JUSE) explains the difference from total quality control (TQC) and the Japanese language version of Wikipedia, the free online encyclopedia, translates it as *sogo-teki hinshitsu kanri*. Generally, the term "TQM" is commonly used in the abbreviated form. While quality control (QC) referred to quality management to bolster the quality of individual products implemented at the place of manufacturing, the idea of total quality control (TQC) was developed from the standpoint that customer requests are decisive to quality.[2] In other words, TQC is based on the concepts that quality is not intrinsic to individual products and that final product quality is dependent on the activities of all divisions in an enterprise. Originally proposed in the United States, TQC means overall quality management. In Japan, it is translated as *zensha-teki hinshitsu kanri*, which literally means company-wide quality control, and there exists the term of CWQC. Therefore, TQC is often used in the sense of CWQC. The difference between the two is that TQC in the United States solely covers scientific quality control while Japanese-style TQC is management control characterized by the control of personnel quality, especially the boosting of motivation and awareness.[3]

Although some literature treats *control* as identical in meaning to management, it is generally thought that *control* refers to the elimination of irregularities, while *management* denotes a commitment to quality enhancement. TQM may be defined as company-wide efforts or management to provide products and services that meet the need of customers rather than the production of homogeneous products and services. The gap between the two concepts is important: the former is concerned with the engineering of quality control and the latter with business administration The Japanese practice of TQC has not made a clear distinction between them, as is seen from the fact that TQM is explained as *keiei kanri* (managerial control) in the Japanese manner of TQC. It is therefore understandable that the interpretation varies depending on the literature.

The TQM Committee (ed.) (1998) suggests several definitions for TQM: a methodology of business administration science and control techniques, management science in an academic sense, a means of organizational reform and improvement, a system for management science and a platform for utilizing the (potential) capabilities of knowledge and skills in a certain field to the fullest extent. The author regards it as an approach, a way of thinking or a system of management science rather than as a method or technique. There is nothing like a TQM method. The term "TQM" is used as a name for a concept of comprehensive quality management. However, it aims to achieve its objective by selectively employing managerial and control methods including quality control and Six Sigma (6σ)[4] to practice strategic policy control. In the health and medical care sector, there is no typical or standard style or no fixed manner of using techniques in the practice of TQM.

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[2] Tokumaru (1999) p. 279
[3] *Ibid.* pp. 272-284
[4] For the Six Sigma, see Box 1-2 below.

1-2 History of TQM[5]

Scientific quality management dates back to 1924, when W. A. Shewhart, an engineer for the Bell Telephone Laboratory, devised a statistical control chart. In the following year, he published the first paper on quality control. In 1931, he compiled a series of his papers published into a book entitled *Economic Control of Quality of Manufactured Product*. Public demand for the validity of this approach first emerged in the United States for quality control of wartime supplies during World War II. After the war, the General Headquarters (GHQ) introduced statistical quality control (SQC) to Japan but it was not widely adopted. In 1950, JUSE held the first Deming Seminar to promote SQC in the Japanese business arena. In the following year, the second Deming Seminar was held and the Deming Prize was set up. Although based on the Shewhart Medal organized by the American Society for Quality Control (ASQC), it is characterized by the existence of a category that honors organizations in addition to the Deming Prize for Individuals. The Shewhart Medal is awarded solely to individuals for their outstanding achievement in quality control.

In 1950, the Korean War broke out and Japanese industry consequently enjoyed special procurement demand. At that time, the U.S. government required tight quality control to be implemented for military supplies and Japanese companies had to actively adopted quality control. This encouraged the spread of SQC.

SQC focuses on quality enhancement based on the findings of statistical and scientific examination of product variability. Its importance lies in that considerable data is collected to calculate the average and standard deviation. The data is used for the purposes of lowering defect rates, producing products of uniform quality and standardizing the process.

However, SQC was implemented as the quality control approach recommended by JUSE up until around 1955, which then was superseded mainly by "seven tools for quality control" as tools for measuring Quality Control activities, or as a quality control approach. There are several possible reasons for this. First, statistics were stereotyped as being difficult. Second, standardization without substance was commonly implemented, and third, only factories and engineers had interest in it.[6] It is said that the notion of "quality as a product of shop floor workers" is broadly accepted among workers in the Japanese manufacturing sector. If quality is ensured by a team specializing in quality control, there would be a delay in giving advice to manufacturing workers and it would be impossible to quickly respond to the needs of customers and the market. This Japanese-style business management is characterized by small group activities and the system for making proposals called *kaizen*. Such activities are believed to originate from the *anzen undo*, or safety campaigns, seen in ironworks and other plants since the Taisho Period (1912-1926). There were some small groups conducting QC activities. In 1962, the QC Circle Headquarters was set up within JUSE to encourage more QC circles to be set up and registered as small groups for implementing quality control.

QC circles conduct bottom-up worker-centered activities for improvement. As these efforts develop, their major challenges shifted to a lowering of defect rates, as mentioned above, that would eventually lead to the reduction in manufacturing costs, improvements in manufacturing process efficiency, improvement in working environments and enhancement in production capacity.

The activities of QC circles acted as a driving force of TQC. The TQC theory was invented by A.V. Feigenbaum, manager of the quality control department of General Electric (GE), for QC implementation within GE. It was published in *Harvard Business Review* in 1956. The first Japanese publication about

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[5] This section provides a chronological review with reference to Kano (ed.) (1990) and Tokumaru (1999).
[6] Tokumaru (1999) p. 220

TQC was the TQC Course series started in 1960 in *Hinshitsu Kanri* (Quality Control) magazine edited by JUSE.

However, for the purpose of ensuring company-wide quality control, it is not enough for groups like QC circles to separately tackle their own issues. It is essential to clearly determine the direction and the goal of the company. In addition, vertical and horizontal ties among different circles are significant. In the implementation of TQC, it is vital to ensure not only to implement bottom-up but also top-down activities in a firm. To do this, a group for promoting TQC plays a key role. This will not merely support QC activities but act as a task force for overall coordination and achievement of the target. TQC practice was backed by several techniques including a cycle of improvement known as the Plan-Do-Check-Action (PDCA) Cycle, and cross-functional management, the flag system method and management by policy devised by a company that won the Deming Prize. Cross-function management is meant to perform management on a function-by-function basis, instead of management of separate departments or sections. The flag system method makes use of a chart of targets and achievements indicated in the form of flags to institute management in individual processes. Management by policy refers to a manner of management characterized by the way that corporate policy is clearly defined and implemented in every corner of the company and that achievements are reported to everyone, from the president downwards

After the oil shock, the transition of the yen to a floating exchange rate system following the Nixon Shock and the Plaza Accord, which gave a green light to the appreciation of the yen, the day arrived when no product would necessarily sell even if it was manufactured with good quality. Several issues were also raised. Some argued that even after the manufacturing sector produced a product of high quality, it might break while it was being transported to the customer. Others argued that business opportunities were missed by failing to run effective advertising and yet others that aging machinery could not be replaced due to a failure to raise funds in a timely manner. Enterprises introduced TQC to improve their management practices and to change the mindset among employees in a bid to survive these tough conditions.

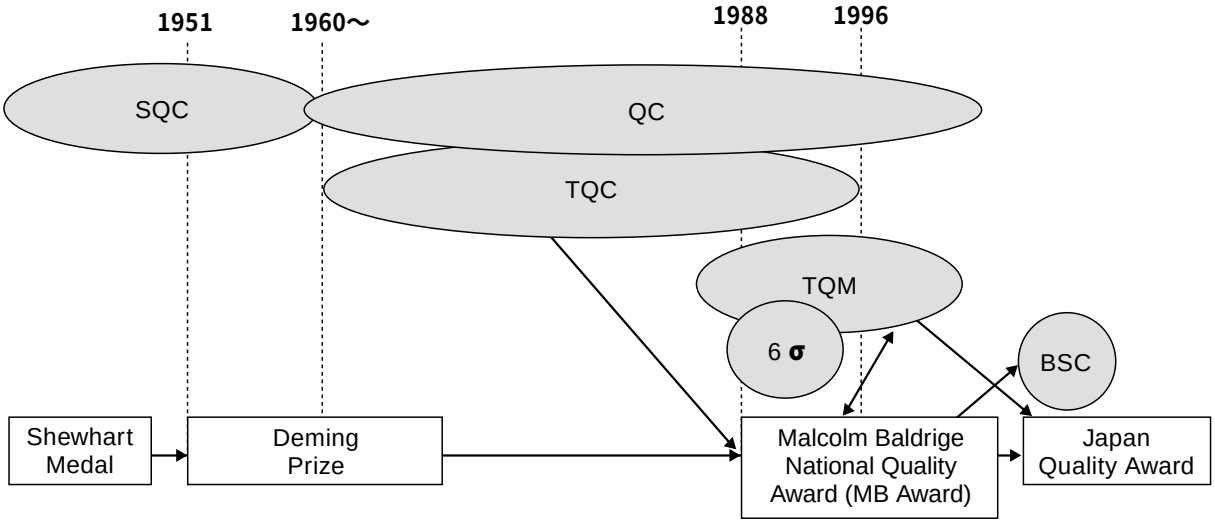
In 1970, the Japan Quality Medal was launched. It targets those companies that had won the Deming Prize in the past. In comparison with that of the Deming Prize, the examination process seemed to apply more emphasis on quality of management than on product quality.

In June 1980, the U.S. television network NBC aired a special documentary featuring Japan's postwar recovery, entitled *If Japan Can, Why Can't We?* It shed the spotlight on Japan's TQC. This show motivated the United States and other countries to study how TQC was being implemented in Japan. Subsequently, the concept of TQM began to be promoted in the United States. This was followed by the introduction of the Malcolm Baldrige National Quality Improvement Act in 1987 and the launch of the Malcolm Baldrige National Quality Award (MB Award) in 1988. This prize developed the notion of TQM, encouraged its implementation and helped businesses regain their vitality. Subsequently, several management approaches emerged in the States. They include the Balanced Scorecard (BSC), which is a technique of management control supposedly inspired by the examination criteria for the Malcolm Baldrige Award, and the Six Sigma methodology, which looked like a revival of the basics of SQC. Some Japanese firms actually considered introducing these new methods.[7]

On the other side of the Pacific, the economic bubble in the late 1980s brought Japan from the era of supply shortage to the age of overabundance of goods. As a result, customer needs diversified. The production of goods that simply boast technical excellence and high precision did not contribute to sales. There was a paradigm shift for good quality from improving the quality of stand-alone products based on precision and technical levels to the timely supply of what customers want at a reasonable cost in a form

[7] For details about the BSC and the Six Sigma, see Boxes 1-1 and 1-2 below.

Figure 1-1: Evolution of Quality Control



Source: the author, based on Matsubara (2000)

that meets the demand. This new perception advocates customer-oriented quality management. In other words, instead of performing control aimed at reducing product defect rates, businesses must conduct comprehensive operations and management, including a definition of target customers, investigation of the level they desire, the study of the range of prices at which the product is offered and determination of the release date.

In 1996, JUSE switched from TQC to TQM. It formed the TQM Committee, consisting of eight members including Professor Yoshinori Iizuka from the School of Engineering in the University of Tokyo. In the following year, it released a booklet that summarized the concept of TQM. The book was called *TQM Sengen* (TQM Declaration).[8] This represented an extension of the concept of quality to encompass not only product quality but the quality of business operations and the management system. It was also a switch from the defensive stance of TQC to an offensive one based on TQM. TQC is said to include the area of managerial control as part of company-wide quality control and to have been implemented to enhance the corporate culture and raise awareness. In fact, however, it was meant to control business administration. There was neither a solid definition of the quality of operations or management nor an established approach to TQC.

Earlier, in 1995, the Japan Productivity Center for Socio-Economic Development (JPC-SED) established the Japan Quality Award as a Japanese equivalent of the Malcolm Baldrige National Quality Award in the United States.

The scope of quality management has thus expanded from stand-alone products to all corporate operations as well as to all stakeholders of enterprises. Its objective was upgraded from enhancing precision to achieving the level of quality that customers desire. Figure 1-1 illustrates the series of past developments in connection with quality enhancement.

1-3 TQM as it is today

Beginning with QC activities, the postwar quality enhancement efforts first aimed at reducing product variability and later at reducing the number of defective products and improving product quality. As a result

[8] TQM Editing Committee (ed.) (1998) Foreword

of these activities, cost cutting, or streamlining, progressed and corporate incomes soared. But today, products no longer sell successfully simply because they are good. Businesses must now provide what satisfies customers and stakeholders and attain a resultant sales increase if they are to sustain their corporate activities. This is where the notion of quality management as a management strategy has sprung up from.

However, this scenario is true only of those companies that adopt Japanese-style corporate management. As discussed above, Japan saw bottom-up QC activities generated from the principle of placing priority on worksite workers and later developed into company-wide initiatives. In the context of quality control as part of the business strategy, the improvement activities of QC circles are of great significance. In other words, bottom-up activities at the level of individual workers were integrated into top-down activities on a company-wide scale. This is what we call Japanese-style TQM. A key reason for the success of business administration peculiar to Japan is that many corporate executives are promoted from among shop floor workers under the Japanese system. In other words, those familiar with what happens on the shop floor develop a top-down strategy. This is the secret to successful fusion. In the West, the corporate management team consists of specialists in business administration who does not necessarily understand the worksite. Most have no experience of working on the shop floor and the role of the management team is to manage the company itself, which is separate from the roles of workers at manufacturing sites. There was no improvement activity that originated from the shop floor like those of QC circles. In Western settings, quality management as a business strategy was unlikely to appear from combination of bottom-up and top-down activities as the Japanese-style TQM came into being. Even so, in the 1980s, an American firm learned from the Japanese TQM to adopt an approach known as Six Sigma. Its concept is identical to the essentials of SQC, which are to eliminate variability (to reach the level of Six Sigma, which refers to the rate of 3.4 defects per million opportunities). Six Sigma activities are driven by two leaders - Black Belt and Green Belt - and are carried out in a top-down manner.[9] Although the two approaches are similar in terms of principle, the difference in corporate culture is considered to have resulted in development of the Six Sigma method in the West and the Japanese-style TQM in Japan. Similarly, the Six Sigma approach is being introduced by some companies that employ a non-Japanese style of management.

1-4 TQM methodology and tools

The essence of TQM is quality control. What is important in quality control is to pay attention to differences or variations in time and space among the data measured to find out where and in what form they occur. This stance of looking into the causes of differences and variations is based on the idea that the causes of the differences and variations also have their own differences or variations. TQM aims to achieve quality improvements in a cycle of processes known as PDCA. It is necessary to explain the specific processes in line with the QC Story. It is defined as a compulsory condition for the Deming Prize. Details of the story vary with individual subjects but it essentially has a common overall structure known as the eight steps. The QC Story defines the fundamental process to be implemented for TQM. Managers and executers at different steps are assigned all through the company. Given that TQM is larger in scale and takes more time than QC activities, each step is studied in more complicated and detailed manners. (See Figure 1-1)

Because of its continuous nature, QC activities are also called continuous quality improvement (CQI)

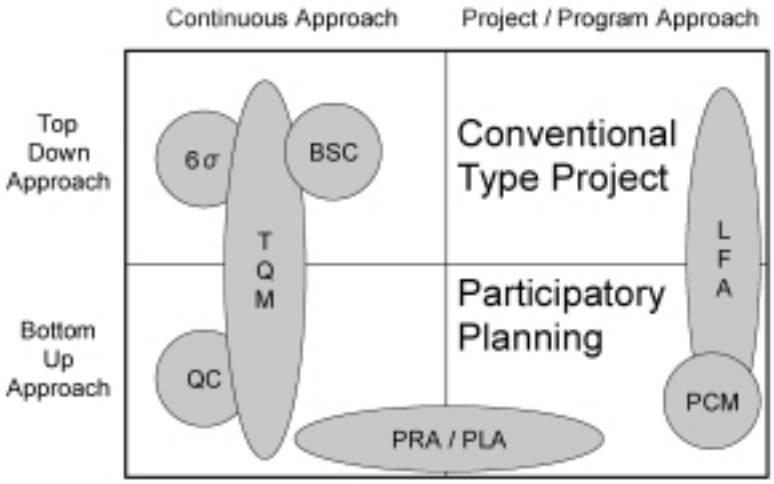
[9] For explanations about Black Belt and Green Belt, see Box 1-2.

Table 1-1: Examples of Steps in Task Achieving QC Story

(i) Select a subject Determine the items that are deemed requisite in the future and look into underlying problems to figure out what to do to improve what. (ii) Define the task and the goal Gather information on the current status Comprehend the requirements Clarify the task and action items Define the goal (iii) Devise a policy (iv) Seek an optimal measure (v) Implement the optimal measure (vi) Verify the effect (vii) Standardize and put management into established practice (viii) Review the implementation to work out future action

Source: Shindo (2001)

Figure 1-2: Approach Classification



Key: LFA (Logical Frame Approach) - a generic term for project management methods using a project outline diagram called a log frame
PCM (Project Cycle Management) - a kind of LFA based on Plan, Do and See cycles for management of projects
PRA - stands for Participatory Rural Appraisal.
PLA - stands for Participatory Learning and Action.
Source: the author

or progressive improvement (PI). Continuous improvement efforts are positioned as a technique for TQM implementation. Many QC activities are of the task achieving type and designed to remedy the current status and to attain their respective targets set in consideration of the present conditions. It is generally said that this approach has a high probability of success (80%), but achieves a low level of improvement (20%).

TQM is a task-based approach. Taking over from the QC Story, it uses a number of different methods, including the seven tools for quality control, the Six Sigma, the operation research (OR) and the root cause analysis (RCA), to accomplish a strategic policy.

Figure 1-2 presents a four quadrant classification of approaches and methods commonly used for development aid as well as the approaches and methods discussed above.

TQM is a continuous technique for improvement that combines bottom-up and top-down approaches.

Most cases of practicing Japanese style of TQM employ the conventional and new seven tools for quality control. The old set of seven tools mainly deals with numerical data whereas the new one uses language data. They were originally designed as a simplified version of statistical tools. As QC activities later spread from manufacturing worksites to back office and sales sectors and to the service industry, it became necessary to handle qualitative information beyond the capacity of numerical figures and the new seven tools were added to meet this need. In fact, most of these tools were already used in statistical control or in other areas, or had already been created by shop floor workers. (See Table 1-2)

Table 1-2: Seven Tools for Quality Control

Seven Tools for Quality Control	New Seven Tools for Quality Control
- Histogram	- Affinity Diagram
- Graphs and Control Charts	- Tree Diagram
- Check List	- Relations Diagram
- Pareto Diagram	- Matrix Diagram
- Stratification	- Matrix Data Analysis
- Cause and Effect Diagram	- Process Decision Program Chart (PDPC)
- Scatter Diagram	- Arrow Diagram

Source: Kono (1990)

The use of new and old seven QC tools is unique to Japanese-style TQM. This simple statistical method encouraged shop floor workers and other personnel unfamiliar with statistics to conduct QC activities and consequently diffused the TQM.

TQM is not an objective but a means by which companies meet their managerial objectives. In order not to treat it as a goal, they should not seek to use all those tools. It is necessary to choose from them after developing a permanent culture of quality enhancement across the company as a management strategy and reviewing what data and analyses are necessary to business operations. In fact, many enterprises conduct the 5S process[10], a program for achieving *seiri* (tidiness), *seiton* (orderliness), *seiso* (cleaning), *seiketsu* (cleanliness) and *shitsuke* (discipline), as a starter of TQM implementation. The 5S initiative is important for understanding the current status and for embarking on the improvement. Likewise, it is said to be challenging for any workplace where the 5S process is poorly carried out to put its QC activities on the right track.

However, as discussed later, some hospitals succeed in the initial introduction of the 5S process while others fail to do so. It is vital to fully understand the background of TQM introduction.

In many cases, TQM is carried out with the instruction of outside consultants, but it is senior management executives who make final decisions and put the decisions into action. To conduct TQM in a manner desirable to the company, top executives themselves should preferably understand what TQM is all about and demonstrate strong leadership to enforce TQM.

[10] It is intended to improve the working environment by ensuring tidiness (*seiri*), orderliness (*seiton*), cleaning (*seiso*) in factories, stores, hospitals and other workplaces to standardize the way of maintaining cleanliness (*seiketsu*) and by increasing the number of properly disciplined (*shitsuke*) personnel. It may alternatively be called “front-line service improvement.”

Box 1-1: Balanced Scorecard

The Balanced Scorecard is a business management methodology published in Harvard Business Review by a professor of Harvard Business School Robert S. Kaplan and consultant David Norton in 1992.

Its characteristic lies in combination of non-financial perspectives with the conventional performance evaluation with a focus on disclosed fiscal data for definitely assessing corporate activities in terms of continuity of strategies in the past, present and future. Specifically, it covers the following perspectives:

(1) Financial Perspective

Organizations aim to attain its objective from a financial perspective to meet the expectations of shareholders, employees and other stakeholders.

(2) Customer Perspective

Organizations aim to attain its objective from the perspective of customers and consumers to realize the financial perspective.

(3) Business Process Perspective

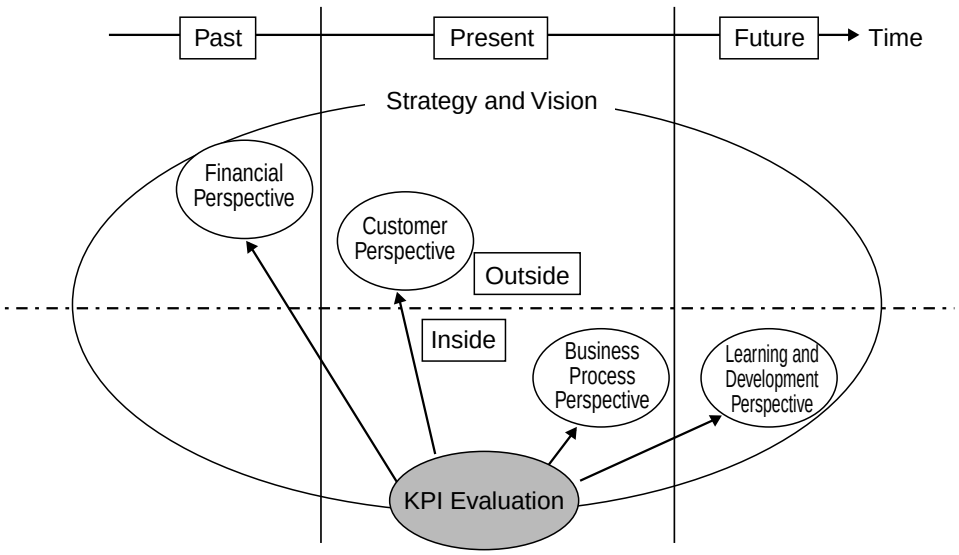
Organizations analyze what process is vital and what improvement is essential to the achievement of financial goals and increased customer satisfaction in order to meet the targets from customer and financial perspectives.

(4) Learning and Development Perspective

For the purpose of equipping themselves with a better business process than the one their competitors have, ensuring customer satisfaction and attaining the financial target, organizations aim to achieve goals in capacity building and improvement in intellectual properties, such as the development of the skills of employees and maintaining the working environment.

The balanced scorecard is thus designed to achieve a well-balanced performance evaluation. Evaluation indices for this purpose are called key performance indicators (KPIs). Those indices that clearly reflect the level of achievement in individual perspectives are used as KPIs. The balanced scorecard does not merely cover achievements control based on indicators. It also incorporates nicely balanced control of the factors producing the achievement, called performance drivers (PDs), in consideration of their relationship with the attainment.

Figure 1-3: A Schematic Diagram of the concept of Balanced Scorecard



Box 1-2: Six Sigma (6σ)

The U.S. company Motorola invented this quality control method in the 1980s when it was planning to enter the Japanese pager market. Although first published in 1987, the methodology came to prominence in 1996 when GE adopted it for its own quality control.

Originally, Sigma (σ) is a statistical term for the degree of variability in the context of standard deviation. Six sigma equates to a ratio of 3.4 per million. The methodology aims to reduce the rate of errors and defects to the six sigma goal in quality control.

The Six Sigma approach is meant to finally reach the six sigma standard through a process called MAIC.

M: Measurement

Measure actual defects in comparison with critical-to-quality (CTQ) elements after identifying the key internal process affecting the CTQ characteristics.

A: Analysis

Analyze and understand what activates the defects. Perform a factor analysis by making statistical examination and investigating causal relations to estimate the strengths of the organization and to define the order of priority for improvement.

I: Improvement

Determine the course of action for improvement, the variables under control (in preference to those plainly reflecting the orientation of the improvement), target values and milestones to implement improvement activities.

C: Control (for entrenching the improvement results)

Check if the variables are within the maximum allowable range by using a statistical control diagram and a checklist. If necessary, study and execute improvement measures.

Actual Six Sigma activities are led by a professional certified as a Black Belt. With the name deriving from the black belt in judo, this certification is awarded to those accredited by a dedicated educational institution to play a central role in facilitating the implementation of Six Sigma activities. There is another certification, called the Green Belt, granted to those who assist the Black Belt.

2. TQM in the Health and Medical Care Sector and Japan's Experience

2-1 Developments Surrounding Medical Quality in Japan and Overseas

Prior to scrutinizing TQM in the health and medical care sector, it is necessary to review the way in which quality has been perceived in this domain. Both inside and outside Japan, awareness of service quality has been elevated following the change in characteristics expected from health and medical services.

2-1-1 Developments surrounding medical quality

(1) International developments

To put it simply, the world is moving into the second phase when it comes to quality in medical care. The first phase is known as the Third Revolution of Medical Care. In the late 1980s, it took place as a campaign for outcome management in the age of assessment and accountability. Clinical indicators were developed and put into wide use as a methodology for the movement. (See Table 2-1)

When the world moved from the 20th to the 21st century, a large number of medical errors occurring in many countries prompted calls for patient safety as a concept for safety in medical care. An approach of seeking both quality and safety spread worldwide.

In the United States, the Agency for Health Research and Quality (AHRQ) under the Department of Health and Human Services has been measuring and publishing data on quality of medical care using 179 indicators at federal and state levels since 2003. The spotlight is again on clinical indicators as a method of evaluating the pay-for-performance system based on quality for compensation for medical treatment. A broad range of actions are in place, including the selection of 100 appropriate clinical indicators made by the American Medical Association.

In the United Kingdom as well, medical accidents became part of the public interest. Clinical governance[11] was proposed as a principle of hospital management to deal with this issue chiefly by Sir Liam Donaldson, who was then in charge of the National Health Service (NHS) Hospital Trusts. Quality measurement using clinical indicators was suggested as the methodology. Today, all hospitals in Britain are subject to benchmarking.

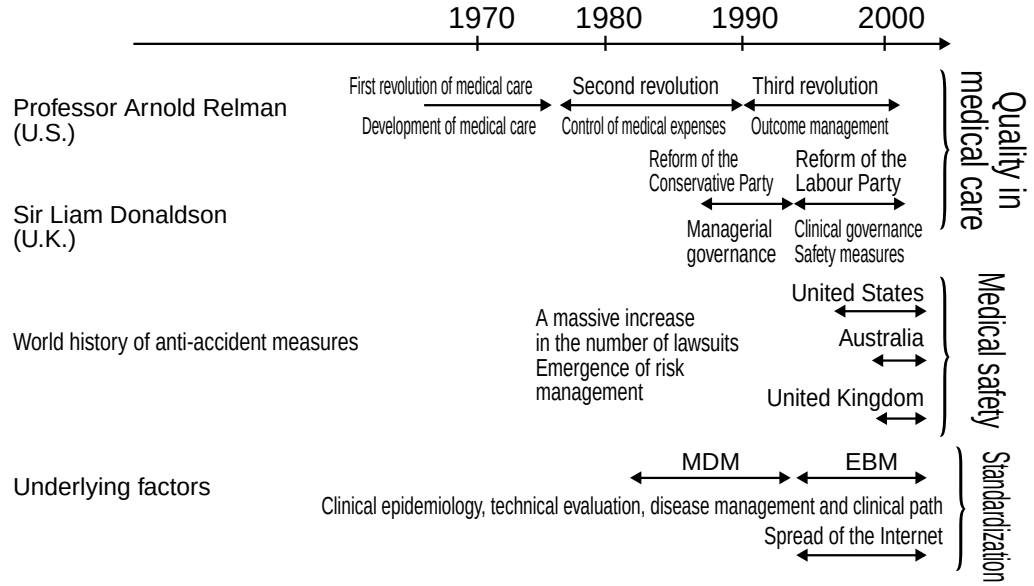
Table 2-1: Three Revolutions in the Medical Care Sector

Decade	Descriptions
1950s	First Revolution of Medical Care - Age of Expansion
	Explosion of hospitals, increase in doctors and innovation of medical care technologies
1960s	Enlarged coverage of medical insurance
1970s	Second Revolution of Medical Care - Age of Curbing Medical Expenses
	Medical spending increased from 4-11% of the gross national product
	Government's and employers' refusal to pay
1980s	Managed care and advance payment
	Total budgeting, regulations on medical care plans and technical evaluation
1990s	Third Revolution of Medical Care - Age of Assessment and Accountability
	Outcome (Management) Movement
	Commitment to impartiality, quality for satisfaction, conformity, fair pricing and safety

Source: author, based on Relman (1988) in New England Journal of Medicine

[11] For details about clinical governance, see Section 2-2-3.

Figure 2-1: International Trends



Source: the author

Over the past couple of years, the Bush Administration in the United States has been pushing for the computerization of medical care. The British government is also investing a considerable amount in building a medical information network that covers hospitals and clinics. These countries on both sides of the Atlantic act together as a driving force for the exciting second phase of the development of infrastructure, clinical indicators and for the practical application of such benchmarks. (See Figure 2-1)

(2) Developments in Japan

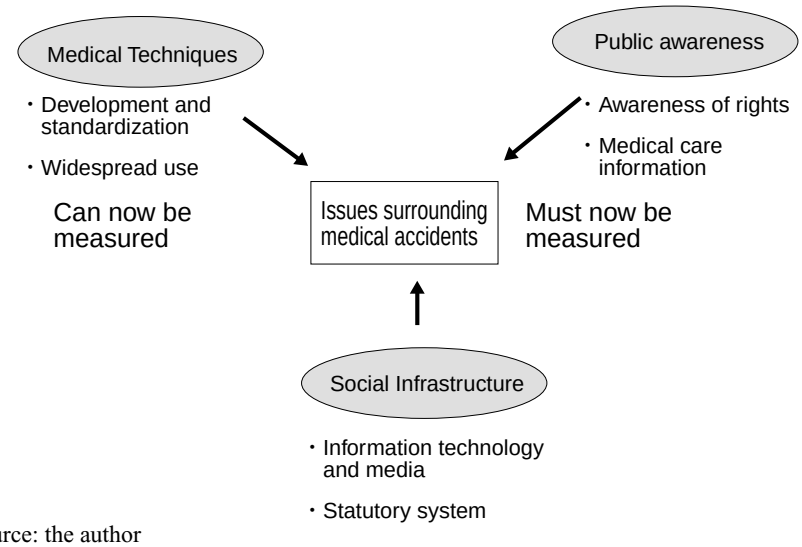
Led by Toyota Motor Corporation, Japanese industry has been a world pioneer in quality control. However, the medical sector has not gone any further than complying with medical facility standards under structural regulations, or medical surveillance, mainly enforced by the government, and maintaining quality of experts and pharmaceutical products by means of the licensing system.

In the past few years, public interest in medical quality has been surging after an error in which two patients were mixed up at the Yokohama City University Hospital in 1999.[12] An outbreak of medical mishaps destroyed public trust in medical care. The prevention of medical accidents is now one of the most serious issues confronting the medical sector. In the meantime, public interest has gradually shifted to quality of medical care. A series of publications on the quality ratings of different facilities have appeared. Academic societies launched a project to measure medical quality in collected cases of surgery with a view to bolstering quality. The Ministry of Health, Labour and Welfare commenced a full-scale study on medical quality around 2004.

In policy terms, the general policy for promoting medical safety set out in 2002 was revised in 2005 to stipulate that the indicators should serve to improve medical quality as well as medical safety. Proposed in

[12] On January 11, 1999, two patients were confused with each other and each underwent unnecessary surgery in the Yokohama City Hospital. This incident raised two questions. One is about the process that failed to identify the two patients, although there were several opportunities to do so. The other is about who takes the responsibility in multidisciplinary medical care. It is a question of the medical system. The incident heightened the importance of thinking about medical safety from the perspective of the system and the organization.

Figure 2-2: Issues Surrounding Medical Accidents



Source: the author

2005, the fifth amendment to the Medical Service Law defined quality enhancement as a major issue comparable with safety enhancement and obliged all medical institutions to disclose medical quality information, including the results of clinical indicators, so that patients could choose medical facilities. This amendment was approved and enacted by the National Diet in June 2006. The climate in Japan's medical care arena is thus expected to change drastically.

(3) Historical background

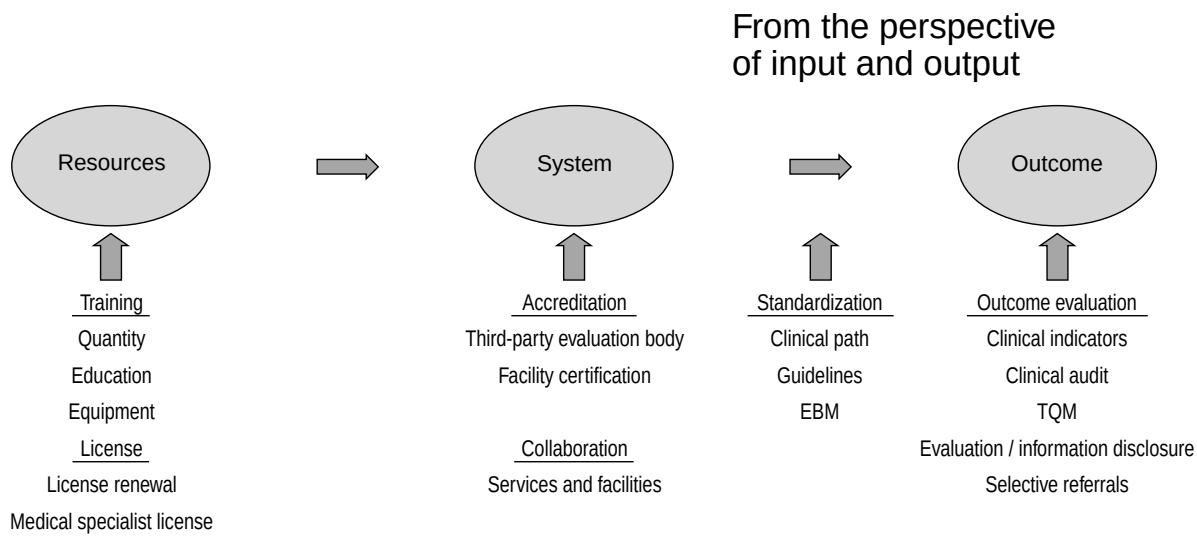
Action to upgrade the safety and quality of medical care services has commenced and is being implemented almost simultaneously not only in Japan but in many places around the world, although the degree of progress varies from place to place. This fact suggests that there are some common underlying factors. For one thing, medical techniques have become so developed and standardized that guideline-based and evidence-based medicine (EBM) and the critical path[13] now seem to serve as measures of quality. For another, attitudes towards the quality of medical care are increasingly stringent, in line with the changing awareness among patients and the public and the rise of consumer movements. Other underlying factors behind these efforts include the development of information technologies and the extended availability of medical information. (See Figure 2-2)

(4) Actions for improving medical quality and clinical indicators

Improvements in medical quality cannot be achieved with just one or actions alone. An inclusive approach is required that combines a number of different aspects. Systematically, there is a need for efforts at each of different levels, namely the resources introduced, the system structure and the results produced. With respect to resources, for example, what is essential includes a licensing system to secure excellent medical technicians, a system of authorizing medicines, equipment and facilities, a guideline and a critical path for standardizing and ensuring the output and measurement of the medical care results at the end to

[13] The critical path refers to a chronological and other sequence that represents the activities and timing of the overall care for individual diseases as well as the status of the patient. This is based on the application to the medical field of the critical path method, which is a methodology for process control in operation research conducted in the industrial sector. It was developed by Karen Zander, a nurse in the New England Medical Center based in Boston, the United States, in 1985.

Figure 2-3: Steps for Safety and Quality Improvement



Source: the author

make use of the findings for improvements in medical care. In Japan, it has been common to secure the quality level in a model in which the government plays a central role in regulating the structure of the system. In the future, the focus will shift to a model of information disclosure and competition, in which quality is enhanced by means of measuring the outcome and practicing selective patient referrals. (See Figure 2-3)

Although the importance of ensuring medical quality was recognized, it has not been put into action, possibly due to difficulties in measuring quality. In recent years, however, the Tokyo Metropolitan Hospitals Association, state-run hospitals and health and welfare science research have been opening the way for benchmarking. It is thought that medical institutions themselves must address the issue of overcoming public distrust in the medical systems that emerged in the meantime.

2-1-2 Approach to medical quality improvement and evaluation in Japan

Japan has no government policy on the promotion of TQM or any other methodology. But it does try to upgrade medical quality from a number of different perspectives. Table 2-2 provides a summary of these efforts.

Among the issues described above, the major issues are summarized below.

(1) Governmental regulations

There are two key medical care policies that have been carried out by the Japanese government: price control under the system of remuneration for medical treatment and the management of the national health insurance system. The approach based on these two policies made health and medical care services broadly available to the public at low cost. However, the circumstances surrounding medical care are changing radically with the rapidly falling birthrate and increase in aging population, advances in medical techniques and changes in public awareness. It is now necessary to provide high-quality health and medical care services in an efficient manner. Several measures are being introduced with the aim of raising the quality of health and medical care. They are based on economic incentives, the development of an organizational structure in the hospital and education of individual doctors.

Table 2-2: "Medical Quality" Mapping Matrix

Player	Inducement	Method	Resources →	Input →	Mechanism →	Output →	Outcome
Ministry of Education, Culture, Sports, Science and Technology	Law	Regulations	Specialist education				
	Budget	Budget allocation	Undergraduate, postgraduate and lifelong education				
Ministry of Health, Labour and Welfare	Law	Regulations	Diffusion of skills and knowledge Postgraduate clinical training program	Renewal and suspension of license	Medical care plan	Standardization	Amendment to the Medical Service Law
	Budget	License	State exam Approval for drugs and equipment		Requirements of facilities	(EBM guidelines and clinical path)	Information gathering
		Payment	Securing of equipment		Collaboration and sufficiency	Strengthening the functions of insurers	Information offering
			Qualification for insurance doctor			Alteration to the payment method	
Educational institutions		Improvement in education	Curriculum				
			Techniques and educational materials				
Academic societies	Information	Certification	Professional Development of medical specialists		Certification of medical specialists	Formulation of guidelines	Quality evaluation
Specialized organizations	Information	Certification and education			Hospital standards	Education	Spread of information
Businesses	Money	Regulations and profits	Drugs, equipment and good quality				
Evaluation bodies	Certification Reputation	Accreditation			Third-party evaluation		
Facilities	Money	Self-improvement	Securing of specialists	Selective referrals	Development of environment	Standardization of operations	
	Reputation		Acquisition of knowledge and skills		Establishment of quality departments	Implementation of clinical path Implementation of clinical path	CS/CI evaluation
Public	Information	Selection	Acquisition of medical knowledge				Final evaluation

Source: the author

The medical remuneration system is substantially revised every other year. The 2000 revision introduced a new system under which medical remuneration was based on the level of a system for ensuring medical quality. For example, the remuneration was cut if the critical path,[14] a plan for hospitalization and treatment, was not implemented. The 2002 revision to the medical fee system launched a scheme to assess the quality of clinical medical care. Medical institutions conducting any of the specific surgical operations, including those with a high level of difficulty, were subject to a 30% reduction in medical remuneration unless they met the predetermined criteria, such as on the number of cases treated and the experience of the surgeons. And in April 2003, a system of inclusive evaluation based on diagnosis procedure combination (DPC)[15] was introduced to hospitals with specific functions.[16] Aimed at paying a fixed rate of remuneration per day and setting the remuneration according to the length of stay in hospital, this system serves to encourage hospitals to eliminate unnecessary tests and drugs and to curtail hospitalization.

After the accident in the Yokohama City University Hospital in 1999, the safety management system became a priority issue and efforts to build a structure were quickly underway. In April 2000, the Ministry of Health, Labour and Welfare imposed an obligation on specific-function hospitals to secure a system for safety control. Specifically, it included (i) the formulation of guidelines, (ii) establishment of a system for in-hospital notification of medical mishaps, (iii) holding of committee meetings and (iv) staff training.

Set up in 2001, the Discussion Group on Medical Safety Measures proposed that a) medical institutions implement the measures listed in (i) to (iv) above, that b) efforts be promoted to replace drugs and medical tools with those that are less likely to cause accidents, that c) education and training on medical safety be enriched and that d) a public system for counseling be created to respond to complaints and consultations from patients. All the measures listed above as (i) to (iv) have been compulsory for all medical institutions since October 2002 and different measures are now being put in place in accordance with the proposal.

In addition, there is a new task of upgrading the educational system in the education of medical doctors as a way to improve the quality of medical personnel. From 2004 onwards, clinical training is no longer optional but is mandatory for doctors for at least two years after they complete their academic course. This is meant to ensure that all doctors have the ethics appropriate to their profession and acquire not only skills in their respective disciplines but also the basic capabilities to conduct diagnosis in primary care. It was also decided that an environment be provided that allows trainees to concentrate on clinical training.

(2) Evaluation and certification by third parties

In Japan, the Japan Council for Quality Health Care (JCQHC) was set up in 1995 as part of the system

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[14] This is a system under which doctors, nurses and other personnel form a consensus on the clinical course and medical acts that most patients are likely to undergo in the treatment of a specific illness in the facilities to devise a medical treatment plan, to give medical care in accordance with the plan and to perform evaluation and improvement. Normally, it has the same meaning as clinical path.

[15] The 1992 amendment to the Medical Service Law stipulated that different categories of medical institutions should play roles that match with their functions and peculiarities. Among these categories, hospitals with specific functions are (i) capable of providing and developing advanced medical treatment and of giving training in it, (ii) compliant with external requirements, such as coverage of ten principal disciplines including internal medicine and surgery, a bed capacity of at least 500 and other conditions concerning the number of doctors and nurses and (iii) approved as such by the Minister of Health, Labour and Welfare. It is considered desirable for such hospitals to treat those patients who need advanced medical technologies and more advanced specialized treatment, and those in the acute phase in which the illness is developing.

[16] DPC is a classification of diagnosis groups unique to Japan, developed based on the American equivalent, Diagnosis Related Groups (DRG). The classification is not made solely by diagnosis but by a combination of diagnosis and medical practice.

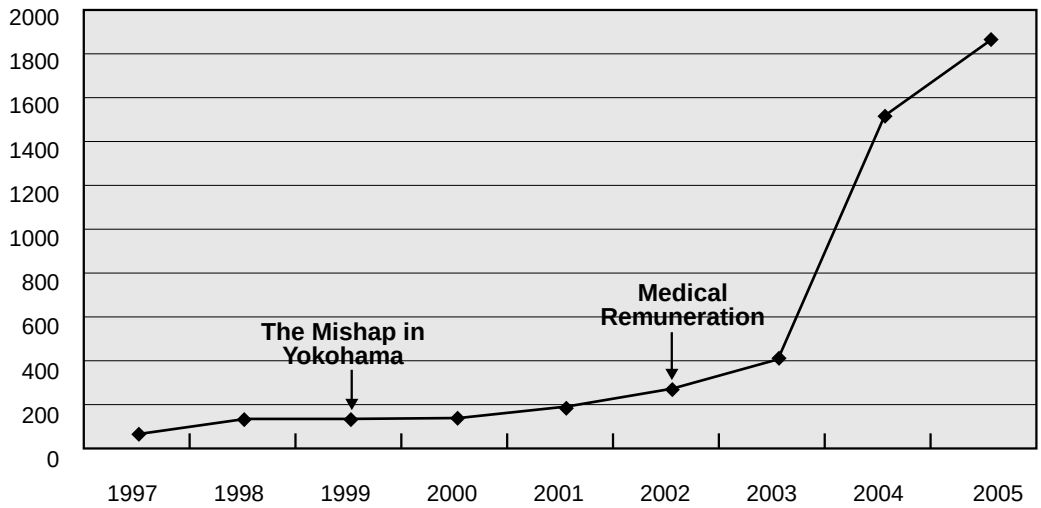
for third-party evaluation of medical functions. It has been operating the evaluation and certification business since 1997. The evaluation involves a document review and a visiting inspection. A certificate is issued to any organization that has been confirmed to reach a certain level after deliberations in the evaluation group. The number of certified hospitals has rapidly increased since 2003, from 883 in March 2003 to more than 2,000 in April 2006. (See Figure 2-4) There are six points to be evaluated: (i) operation of the hospital organization and its role to play in the community, (ii) guarantee of patients' rights and safety, (iii) the environment of treatment and services for patients, (iv) quality of medical care and its assurance, (v) appropriate offering of nursing care and (vi) rationality in operation and management of the hospital. It is up to individual hospitals whether or not to undergo the evaluation process. The results are not disclosed but certified hospitals are announced on the JCQHC website upon consent. Certified hospitals are allowed to announce and advertise their certification status at their respective discretion. The 2002 revision to the medical fee scheme defined evaluation and certification by the JCQHC and other bodies as one of the elements for the calculation of the rate for a stay in the palliative care ward, the surcharge for inpatient palliative care and the surcharge for outpatient chemotherapy.

There are other options for third-party quality evaluation. Some medical institutions have independently acquired the ISO 9000 series certification, a quality system standard for the industrial sector developed by the International Organization for Standardization (ISO). JUSE also launched a prize with a Japanese title that could possibly be translated as the Medical Quality Incentive Award, as a medical edition of its Japan Quality Incentive Award. It is encouraging hospitals to undergo the examination.

(3) Self-imposed regulations of medical professionals

The Japan Medical Association (JMS) is a private organization set up in 1916. It incorporates the Japanese Association of Medical Sciences (JAMS) to provide the latest information on medical care on the Internet. It states its opinions to the government. Individual doctors are free to join the JMS. Policy suggestions and guidelines of the organization have a significant influence on what is done by medical

Figure 2-4: Hospital Function Evaluation - Trend in Number of Certified Hospitals



Note: The 2002 revision to the facility requirements for the rate for a stay in the palliative care ward, the surcharge for inpatient palliative care and the surcharge for outpatient chemotherapy added a new requirement that facilities must have undergone the medical function evaluation performed by the JCQHC.

Source: the author

practitioners.

Doctors join different academic associations formed chiefly on specific organs or illnesses. They do this to conduct research on specialized care or to have the opportunity for exchange with peers, to write and publish treatment guidelines and to improve the quality of actual medical services. These societies are building a system of certified specialized doctors as a means of improving the skills of those doctors who cover their areas of expertise. In 1994, a tripartite approval system was launched, under which approval is granted by the presidents of the JMA and JAMS and the chairperson of the *Conference on the Society Accredited Doctor Programs*. Currently, doctor accreditation programs run by 15 academic societies have been approved on fundamental disciplines including internal medicine. There are also more than 50 different doctor accreditation systems operated by those societies that participate in the Conference and those that do not, including the 15 programs mentioned above.

There is no doctor evaluation system run by the JMA or by any specialized academic society. These bodies have no binding force based on peer review or disciplinary action.

Apart from the associations of medical doctors, there are other organizations for different medical occupations, including the Japanese Nursing Association and bodies formed by hospitals such as the Japan Hospital Association. These associations also have their own medical quality initiatives.

EBM has been drawing attention in recent years as a medical service approach. The national government and medical professionals are making joint efforts to devise guidelines on medical diagnosis and treatment that provide for standard treatment based on evidence of medical care. In June 1998, the Ministry of Health, Labour and Welfare set up the *Study Meeting on the Promotion of Medical Technology Assessment* to allocate a research fund to create guidelines on medical diagnosis and treatment. Guidelines were complete by the end of FY2003 for 20 illnesses among the 47 priority diseases deemed to require guidelines. In fiscal 2004, the JCQHC commenced an information service using an EBM database to offer developed guidelines on medical diagnosis and treatment on the Internet. As of March 2006, guidelines for 33 diseases were available.[17]

Japan's medical professionals are characterized by their strong sense of unity and solidarity as staff members of the medical institutions to which they belong. Quality control activities are conducted in various forms, including those carried out throughout the hospital under the leadership of the hospital director and the activities of small groups formed in separate wards and professional functions. There are approximately 200 medical organizations with in-hospital QC circles as described above. Today, there are some medical institutions that have introduced the TQM to make sustained efforts to improve medical quality. Yet some people claim that progress is slow in the transition from quality control to TQM. There seems to be a problem with TQM promotion in hospitals.

Some medical institutions carry out patient satisfaction surveys and use the feedback to enhance quality, while others actively introduce electronic medical records and other IT applications to build a system to share in-hospital information and boost the efficiency of in-hospital operations. Other hospitals develop a critical path in clinical care to standardize and streamline in-hospital care. They submit a care plan based on the critical path to patients to ease the anxiety that the patients have about the treatment and to deepen patients' understanding of the treatment. This facilitates implementation of the mutual participation model[18] of care.

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[17] See http://minds.jcqhc.or.jp/to/FGuideLine.aspx

[18] Today, medical professionals are required to listen to patients instead of unilaterally providing medical services. Patients are required to ask questions of practitioners to actively participate in medical care. This idea is particularly stressed for combating lifestyle-related diseases and other illnesses, in which it is necessary for patients not only to be treated but also to make proactive efforts to improve their lifestyles.

Aimed at assessing the quality of actual clinical care, clinical indicators are still not fully developed in Japan. Very few medical institutions have introduced peer review and clinical auditing[19] to independently appraise the performance of individual practitioners. Researchers are currently discussing what specific indicators should be used to understand and improve the variability in quality of medical care among hospitals and doctors, and what work should be done on them to make them objective indicators.

(4) Roles played by patients and patients' associations

In Japan, in recent years and especially since the serious medical accident in 1999, a key issue has been to identify the needs of patients and to add their perspectives to medical treatment. A newspaper poll in 2002 revealed that 74% of respondents felt uneasy about medical mishaps and that 26% had little confidence in doctors.[20] This suggests that the public does not feel sufficiently confident or secure in medical care. Patients increasingly voice their own needs for medical services and ask medical institutions and the government to disclose information more actively and to include them in the debate over medical quality.

Nowadays, patients are forming multiple groups for individual illnesses. They act as self-help groups to exchange information with one another and to provide counseling. Some other independent groups interested in medical care actively run campaigns to raise the awareness of rights that patients have as consumers and accept consultations from patients.

In the name of protecting users, Japan basically prohibits the advertising of medical services, except certain items subject to restrictive authorization. However, patients have a strong demand for information on health and medical care services. There are numerous articles featuring well reputed hospitals and doctors found in magazines and other publications. In 2002, regulations on information that may be advertised were relaxed to a very significant degree, to make partly accessible to patients specific details about medical care, such as the accreditation of specialized practitioners, the average length of stay in hospital, the number of surgical operations and the availability of second opinions.

With Internet penetration rising in recent years, a growing number of people now search on the Internet to obtain the information they need. Some medical institutions and individual doctors actively publish their treatment methods and track records on the Internet. It is difficult to rate the reliability of information available online but it is anticipated that the amount of information available to patients on the Internet will grow dramatically.

Patients are also interested in their own medical information. They are increasingly calling for access to medical fee receipts/medical bills, medical treatment records and test results data and for the duplication of such documents if necessary. In 1997, the rules were revised to provide that medical providers should disclose medical fee receipts/medical bills at the request of patients. In 1999, the JMA set out the Guidelines on Provision of Medical Care Information and put them into effect in January 2000. They oblige doctors to, in principle, respond to requests from patients for access to or duplication of their own medical records.

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[19] Clinical auditing refers to the examination of whether or not high quality medical services are provided from a third party's viewpoint or to a system for this examination. Normally, it is conducted by an organization, such as a medical care improvement council. Such organizations may have various kinds of members, for example those selected from among doctors in the same hospital who did not participate in the treatment of the patient subject to the audit and those selected from among outside experts.

[20] Asahi Shimbun Research Center (2002)

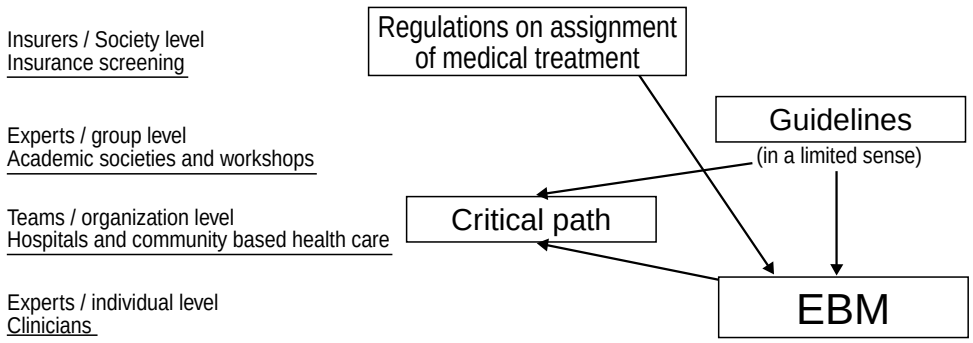
(5) Medical care guidelines

The structural reform of Japan's medical system was commenced in the late 1980s. In view of the prevailing social circumstances, the Ministry of Health and Welfare-forerunner of the current Ministry of Health, Labour and Welfare-produced guidelines for the diagnosis and treatment of high blood pressure, diabetes and other diseases in collaboration with the JMA. Although these efforts were thereafter continued in part, there has so far been no outstanding development.

On March 23, 1999, the Medical Technical Information Promotion Office in the Health Policy Bureau, Ministry of Health, Labour and Welfare published a summary of the reports from the Study Meeting on Promotion of Medical Technology Assessment to suggest that EBM should be bolstered. Chaired by Fumimaro Takaku, president of the Jichi Medical University, the Study Meeting included a total of 12 members including the author. Starting in June 1998, there were six sessions to deliberate on the application of medical technology assessment to medical practices in Japan. As a result, it submitted a proposal on formulating clinical guidelines, promoting medical technology assessment, enriching clinical research and building information networks on the basis of advances in EBM. The Study Meeting was launched in answer to the suggestion from the Committee for Studying the Implementation of Medical Technology Assessment set up in 1995. Specifically, its suggestion pointed out that Japan lagged the West in medical technology assessment and that the importance of this would rise in light of future advances in medical technologies, public expectations and limitations on sources. It emphasized the need to improve the circumstances, including information systems and international cooperation, and called for the realization of EBM. (See Figure 2-5)

The Study Meeting on the Promotion of Medical Technology Assessment claimed in its report that it was necessary for the medical industry to create guidelines as well as that EBM needed to support individual clinicians. Its members used a priority order determination method to define the key illnesses for which the guidelines were to be formulated. Each disease was rated in four aspects: improvement in health (efficacy of the treatment guidelines), the number of patients (scale of improvement), cost effectiveness (efficiency) and standardization (correction of variation) and a quantitative examination was conducted to determine the order of priority among ten diseases, including high blood pressure and diabetes. Treatment guidelines are being developed in collaboration among relevant academic societies and the JMA based on an order of priority. (See Table 2-3)

Figure 2-5: Clinical Guidelines and Their Applications



Source: the author

Table 2-3: Examples of Research Projects on Formulation of Clinical Guidelines in FY 1999

Illness	Research Title	Researchers
High blood pressure	A Study on Formulation of Guidelines for Treatment of High Blood Pressure	Chief Researcher Masatoshi Fujishima from Kyushu University and 11 others
Diabetes	A Study on Formulation of Guidelines for Evidence Based Diagnosis and Treatment of Diabetes	Chief Researcher Yasuo Akanuma from the Institute for Diabetes Care and Research, Asahi Life Foundation, and 13 others
Asthma	Formulation of Guidelines for Treatment of Asthma	Chief Researcher Akimasa Miyamoto from Japan Clinical Allergy Research Institute and four others
Ischemic heart diseases	A Study on Organization of Diagnostic Data Concerning Acute Myocardial Infarction and Other Ischemic Heart Diseases	Chief Researcher Katsuo Kanmatsuse from Nihon University and 12 others
Urinary diseases	A Study on Standardization of Urinary Treatment	Chief Researcher Shinichi Oshima from Nagoya University and five others

Source: the author

(6) Clinical indicators

1) History of development of clinical indicators

As in the West, some advanced hospitals including a hospital group named Voluntary Hospitals of Japan (VHJ)[21] undertook trial evaluation of medical quality using clinical indicators. Multiple hospitals also pooled their data in a neutral body for benchmarking purposes. The first attempt of this kind is thought to have taken place in 2001 by ten medical facilities from the Tokyo Metropolitan Hospitals Association. They voluntarily participated in a trial to measure clinical indicators for overall hospital operations including falls and hospital-spread infections as well as the length of stay in hospital, the mortality rate, unexpected rehospitalization and suchlike calculated using one risk adjustment factor per disease for 24 illnesses. In 2005, the number of participating facilities increased to 19. Each indicator has been showing an improving trend over the past several years.

The group making the second attempt was the National Hospital Organization, with 152 hospitals. Conducted in 2003, it was aimed at comparing quality before and after reorganization into an independent administrative institution. It consisted of benchmarking of all facilities according to 22 indices, including the average length of hospitalization, and that of policy-related facilities alone for separate medical areas with the use of multiple clinical indicators. A gross rate calculated by division was used as an indicator.

The third tryout was a project involving a group of national, other public and private university hospitals in 2004, and was launched by Ryozo Nagai, director of the University of Tokyo Hospital. It included an evaluation of utilization as well as quality and involved an extremely large number of indicators. As in the case of the national hospitals, no risk adjustment was conducted.

And the fourth trial was a welfare science study started in 2004 with Toshihiko Hasegawa as chief researcher, entitled *International Study on Medical Quality Improvement Using Clinical Indicators*. Making a crossover comparison among these different groups of hospitals, it was a meta-analytical research project using international know-how.

[21] Volunteer Hospital Japan (VHJ) is a group of hospitals carrying out voluntary activities for medical quality enhancement and obtained a non-profit organization (NPO) status in 2004. As of March 2006, 30 entities had joined.

2) Study on Meta-analytical evaluation of clinical indicators

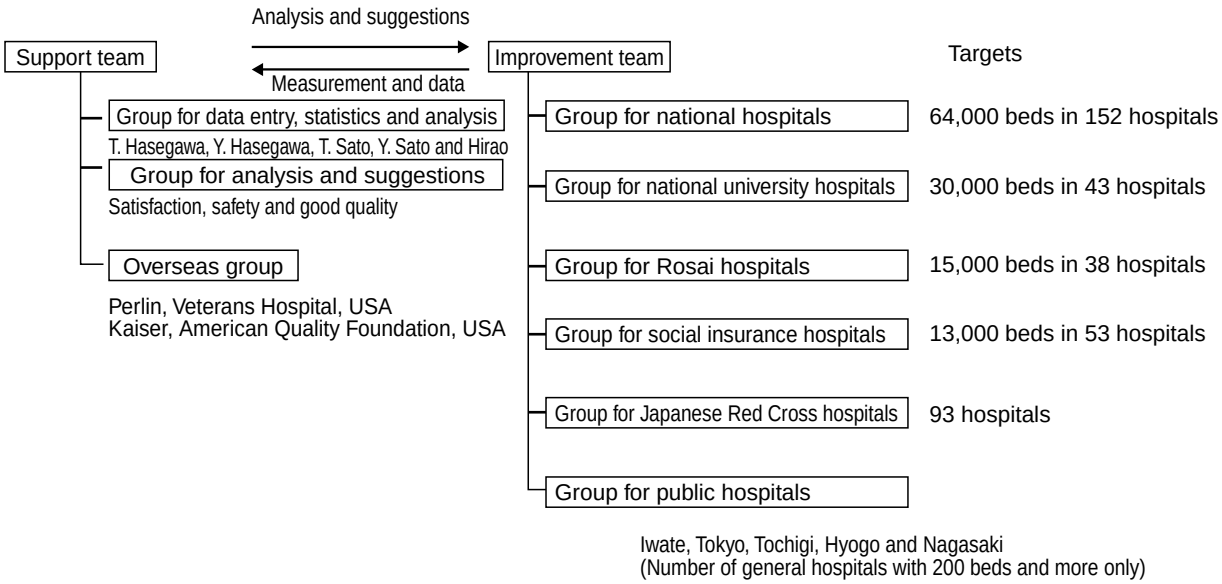
Launched by the author as chief researcher, the project for meta-analysis of clinical indicators examines medical outcomes in three aspects of safety, good quality and satisfaction in an attempt to benchmark it using clinical indicators on the basis of the customer satisfaction survey of patients and reports from hospitals.

In the first year, this study involved Japan's six major groups of hospitals, namely national hospitals, Rosai hospitals, national university hospitals, social insurance hospitals, Japanese Red Cross hospitals and municipal hospitals. In the second year, some private-run hospitals joined, including Saiseikai, VHJ and All Japan Hospital Association.[22] In the initial year, 277 facilities conducted the customer satisfaction survey. In the following year, it was conducted with a total of 344 facilities, including 100 more hospitals that had joined that year. The facilities participated in benchmarking with the use of clinical indicators accounted for 198, and they may be classified into two groups. One group consists of national university hospitals and social insurance hospitals that are capable of risk adjustment using DPC data while the other consists of national hospitals, Japanese Red Cross hospitals and municipal hospitals, the measurement of which is based on data collected at separate facilities. In a group of hospitals in which personal care results are computerized and each given an ICD code,[23] as in Rosai hospitals, conversion to DPC data is possible under certain conditions.

The subject of the evaluation has two facets: hospital characteristics and medical care outcome. The former is concerned with the hospital profile while the latter represents the quality of medical care.

In terms of hospital characteristics, the ideal type is an acute treatment hospital serving as a nucleus of community health care. Consisting of medical service characteristics such as the inpatient/outpatient ratio and the ratio of patients referred by other facilities and characteristics of individual disciplines, hospital

Figure 2-6: Organization Chart for Research on Meta-Analytical Evaluation



Source: the author

[22] Saiseikai, VHJ and All Japan Hospital Association are names of private hospital groups.

[23] ICD stands for International Statistical Classification of Disease and Related Health Problems. The ICD code is an international disease classification code set out by the World Health Organization (WHO).

characteristics do not necessarily represent the medical care achievements. Rather, it is assumed that they reflect the nature of the hospital. The medical care outcome includes those indices that are associated with medical safety, such as in-hospital infection and falls, as well as traditional outcomes, including the average length of hospitalization and the surgical mortality rate for different diseases. (See Figure 2-6)

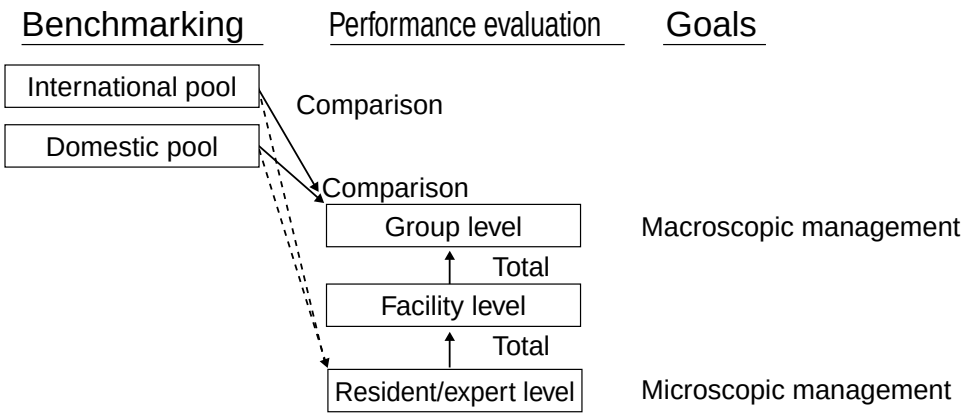
3) Practice of clinical indicator evaluation

Different facilities were benchmarked using five indicators selected from those in four domains-hospital characteristics, hospitals' commitment to medical quality, patient safety and medical care outcome. Specifically, a comparison was made by calculating the standard deviation from the average of two hospital groups in 25 indices and by measuring the distribution of the average period of hospitalization in the two groups. For example, there is no major difference between the groups in the distribution of the average duration of stay in hospital after the operation for cholecystectomy, whereas the period before the operation tends to be longer in Group B[24], to suggest that there is still room for improving the management. An analysis of the standard deviation and outliers has demonstrated that post-surgery hospitalization is very long in a large number of hospitals in Group A, despite short stays on average. An in-depth evaluation like this is helpful to enhancing medical quality.

4) Review

Quality enhancement based on clinical indicators has recently been regaining attention in Japan and in other countries. Apart from the worldwide interest in the quality and safety of medical services, this newfound interest is also possibly because the development and standardization of medical care have opened the way for quality measurement. Hospital management has traditionally been analyzed and evaluated mainly in financial terms. Going forward, it will be necessary to establish a new managerial approach that aims at improving medical care outcomes. (See Figure 2-7)

Figure 2-7: Benchmarking and Performance Evaluation



Source: the author

[24] Groups A and B anonymously refer to two of the groups mentioned in Figure 2-6 to prevent identification.

2-2 TQM in the Health and Medical Care Sector and Quality Improvement Activities

2-2-1 The service sector and TQM

Section 2-1 outlined the developments surrounding quality in the health and medical care sector. To discuss quality improvement, it is vital to understand the essence of quality, which in turn demands that the characteristics of quality in the service industry be clarified. The service sector is known by four peculiarities, as follows:[25]

- Intangible

  It is impossible to try out any service prior to purchase. Taking a beauty salon as an example, the feel of a perm cannot be tried before buying the service. For the purpose of demonstrating the quality of the service, it is necessary to make the intangible tangible. Possible solutions in beauty salons include the preparation of a hair catalog.

- Inseparable

  Production and consumption are inseparable and take place at the same time. In the above example of the beauty salon business, it is impossible to store the hair styling service. Given that no service may be stored, a possible solution is to adjust earnings. For example, coupons may be introduced to receive the charges before the services are provided.

- Variable

  Services vary considerably depending on by whom, when and where they are provided. The hair cutting service varies with individual hairdressers. Even if the hair is cut in the same way, the level of satisfaction varies among clients. Possible solutions would include enhancing the quality of cutting process, or cutting techniques, and displaying computer graphic images of what the hair will look like after the cut.

- Transient

  This characteristic is linked with inseparability. Given that services cannot be stored, it is difficult to control the volume of services to match fluctuations in the number of customers. Beauty salons are unable to treat more customers than they can serve with the limited number of hairdressers and devices they have, even if there is a temporary surge in customer numbers. On the other hand, they must be open even if they have no customers. It is necessary to control peak demand, for example, by introducing a booking system.

In light of these industry characteristics, quality control in the service industry requires giving consideration to the facts that it is difficult to check the service quality in advance, that it is impossible to revise the service (reexamination of quality) and improve its quality in the process of offering it, that the required quality varies with the time, the place and the occasion and that it is difficult to check the volume of services required. In other words, it is desirable to conduct TQM in the service sector in consideration of these peculiarities.

Normally, the customer- or consumer-first principle is stressed as a basic stance in quality control. Based on the notion that downstream operations should be regarded as customers, the importance of passing no defective product to downstream operations and of controlling product quality at each step is emphasized. The service sector has back-office operations as upstream operations but it has none of the assembly line operation for manufacturing products seen in factories. Quality control, therefore, cannot be

[25] Kotler (1996) p. 434

implemented on a step-by-step basis. It is thus a must to always enhance the quality of final products. Services are intangible and difficult to evaluate. This means that it is hard to rate the output. Because of its transient nature, service outputs may result in loss of customers' confidence or in serious negligence if they deviate from customers' expectations at the time of assessing them. In the service sector, it is more important to evaluate the control process in the quality control operation and it is essential to create an organization and rules for ensuring quality control. It is also vital to reduce signs of low marks or serious negligence. Service businesses have to pay even more attention to preventing close call situations than the manufacturing sector does.

A shift from TQC to TQM in Japanese industry followed the move of quality improvement activities from the manufacturing sector to the service industry. It was not until then that it was understood that quality enhancement necessitated managerial improvement However, in answer to a question directly asked by the author, the aforementioned Professor Yoshinori Iizuka, School of Engineering in the University of Tokyo, who also chairs the TQM Committee of JUSE, confirmed that TQM was not successful in the 1980s in the software, construction, electric power, hotel, banking and other service industries because technical factors at the heart of their respective domains had not been defined. In the process of offering their services, they failed to identify who their customers were, what they wanted and what was important from a customer-centered perspective. He also added that the medical sector also had to identify what technologies it possesses and what service it offers. To put it another way, TQM cannot be implemented without defining the essence of health and medical care services.[26]

2-2-2 Health and medical care services and TQM

The health and medical care industry belongs to the service sector. But it is considered to differ from the rest of the sectors. Kawabuchi listed the unique aspects of Japan's hospital organizations:[27]

(i) Hospitals normally are not-for-profit organizations while general enterprises seek profits.

(ii) Hospital staff consist of various professionals backed by state qualifications, while most personnel in general firms are homogeneous. In the hospital organization, the medical care divisions mainly responsible for diagnosis and treatment also cover the roles usually played by the development, manufacturing and sales sections of ordinary companies.

(iii) Within general firms, general personnel transfer among different divisions, while it is rare for hospital staff, as specialists in their respective domains, to move among different departments.

(iv) In hospitals, personnel are strongly individualistic and lack solidarity. In contrast, it is relatively simple to build a cohesive organizational culture in ordinary businesses.

(v) Hospitals have multiple salary tables for different job categories while the same salary table applies to all employees in ordinary companies.

(vi) Lifelong employment is basic to general firms whereas it is common for hospital workers to resign and to be employed in mid-career. Their rates of job separation and job transfer are high.

The characteristics mentioned above demonstrate that Japan's hospital organizations are closer to the organizations of Western companies than to those of Japanese firms. That said, it seems that Western styles of improvement activities like Six Sigma are more suitable for Japan's hospital organizations than bottom-up campaigns like the Japanese-style TQM.

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[26] An excerpt from an interview

[27] Kawabuchi (1993) p. 32

As detailed later in this literature, the National Demonstration Project (NDP) on TQM for hospitals in the United States revealed the following factors unique to medical institutions, which differ from those of other industries:[28]

(i) There is an obscure relationship between input, such as treatment and medication, and output, including complete recovery, aftereffects and death. In many cases, it is impossible to explain the relationship between the cause and the effect.

(ii) It is very difficult for customers, or patients, to tell whether medical services are of high or poor quality. It may take a long time to determine the quality rating.

(iii) The dual power structure (held by the managerial team and medical care divisions).

In light of the elements mentioned above, it is assumed that the introduction of Six Sigma to hospitals with a strong top-down initiative will be impeded by power duality. Unlike in ordinary service businesses, transience of consumption is not linked with transience of the effect.

Another point specific to the medical sector in general is labor intensiveness. It is manpower that lies at the heart of the labor-intensive industry. It is believed to be prone to human errors including strains, waste and irregularities, allowing anticipation of a greater effect from TQM-based improvement efforts than in any other type of industry. This is because the essence of quality control based on TQM lies in the discovery and elimination of strains, waste and irregularities. This underlines why the medical sector has good reason for adopting TQM.

Although there are many things to improve in the medical field, it is difficult to simply import the TQM and knowledge for improvements from the industrial sector. A trial run of TQM for the sake of medical care is essential. However, “There is no outstanding difference in circumstances between the industrial and medical sectors,” says Yoshinori Iizuka, the University of Tokyo, School of Engineering professor mentioned above. “In fact, even in the industrial sector, there could be some disparity in directions between the sales department and the design department. A complete focus on customers is vital.” Iizuka goes on to say that the idea of the balanced scorecard (BSC) is effective for this purpose and that the service sector has failed to introduce TQM because individual industries did not define their core technical elements or core competencies.

In other words, it is necessary, prior to TQM introduction, to clarify what the medical business earns compensation for, what its clients pay for, what they expect satisfaction from and what elements on the part of suppliers, such as techniques, behavior or attitude, are key to customer satisfaction. The BSC can be useful as a means of meeting this objective.

2-2-3 Quality improvement activities in hospitals

This section provides an overview of Quality Assurance (QA), TQM and Clinical Governance. These are among the tangible activities conducted especially in hospitals to enhance the quality of their services. Although this report focuses on TQM, it is the QA that comes first in the context of improving services in the health and medical care sector, especially in hospitals. TQM is used as a comprehensive approach to QA. The notion of Clinical Governance, which refers to the system of hospital governance for raising the level of diagnostic and treatment activities, is spreading as an ultimate form of securing medical quality. An overview of this trend will assist in understanding the case studies in the following chapters.

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[28] Berwick (1990) p. 151

(1) Quality Assurance (QA)

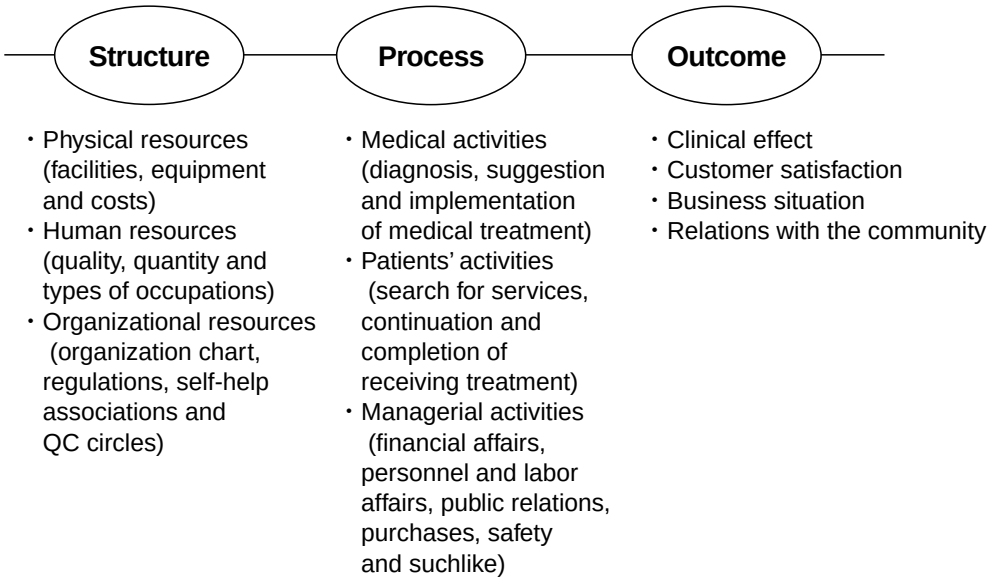
The term “Quality Assurance” (QA) originally referred to the concept and activities of ensuring the quality of industrial products. It is also widely used in the health and medical care sector. The practice of QA at hospitals takes the form of activities for improvement and monitoring for offering medical services with the highest possible effectiveness and safety. Quality assurance may be defined as the application of medical sciences and techniques for producing the maximum effect with the minimum risk. It is connected with the basics of quality control, which are in other words the principle of doing ordinary things in ordinary ways. When QA is implemented for hospital services, the following factors are monitored with the expectation that they will improve:

- Technical performance
- Access to services
- Effectiveness of care
- Efficiency of service delivery
- Interpersonal relations
- Continuity of services
- Safety
- Physical infrastructure and comfort
- Choice

It is commonly observed that these criteria are separately monitored and improved in each hospital. In the future, it will be necessary to promote QA on the entire health and medical care service system, encompassing clinical standards, performance management and client satisfaction, as well as other quality factors.

American medical economist Avedis Donabedian published a report on the method of evaluating health and medical care services in 1988. This paper proposed assessing such services in the three aspects of structure, process and outcome. It is advisable to perform monitoring and evaluation in these areas for quality assurance as well. (See Figure 2-8)

Figure 2-8: Donabedian’s Evaluation Model



Source: the author

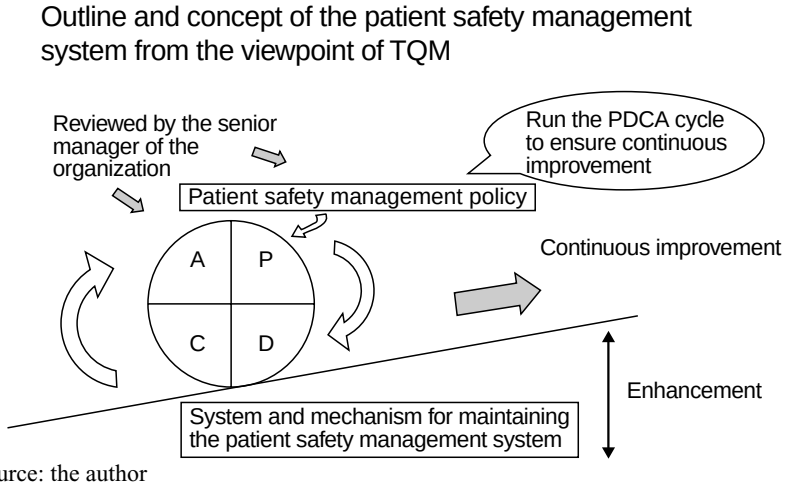
(2) TQM

The first large-scale attempt to introduce TQM to hospitals was the National Demonstration Project (NDP) on TQM for Health, which was put into place in 1997 in the United States. It was an ambitious and revolutionary project aimed at making first use of the concept and methodology of quality control for the purpose of upgrading the quality of health and medical care services. The NDP was run in collaboration with 21 leading medical institutions in the United States, including Massachusetts General Hospital, Brigham and Women's Hospital, Michigan University Medical Center and Kaiser, as well as the cooperation of quality control experts from major enterprises such as AT&T, Xerox and Hewlett Packard.

In the 1980s, the United States faced a problem with low service quality in comparison with the striking scientific advances being made in medical technologies. This included soaring of medical fees, medical mishaps and the growth of an uninsured population who could not enjoy access to medical services. Under these circumstances, the NDP was launched in answer to the argument that modern quality management methodologies for other sectors, such as TQM, could be effective for improving the quality of medical services. The focus of the project was on the question of whether or not the quality improvement approach in other industry sectors would help produce a resolution to the issues then plaguing the medical sector. The results were published in June 1998.[29] Involving 21 teams and conducted over a period of eight months, the project observed very few cases in which quality enhancement in clinical areas was attempted. In the majority of cases, improvements in related areas, which faced similar quality problems to those in other industrial domains, were addressed.

The NDP successfully demonstrated that the TQM methodology is helpful for quality enhancement in hospitals as well as in other businesses. At the same time, its findings had several implications. First, the efforts of a multidisciplinary team proved effective. Second, it was less painful and troublesome to implement the quality improvement approach than expected. Third, savings were available, whereas poor quality is costly. Fourth, it was challenging to involve doctors. Fifth, it is advisable to provide staff training at an early stage. Sixth, it is necessary to perceive quality from a broader perspective. And seventh, as in the case of the industrial sector, leadership is the key to success. It also unveiled some characteristics of TQM practice in medical institutions. First, it is easy to raise awareness of the importance of statistics, given that hospitals have ample personnel familiar with statistics. Second, there is an abundance of data. And third,

Figure 2-9: PDCA Cycle



Source: the author

[29] Berwick (1990) Introductory Chapter

there is an inappropriate tendency to distinguish clinical functions from management functions.

A project that resembles the NDP did take place in Japan. The details will be discussed later in this report. In addition, Japanese hospitals are now considering the introduction of TQM with the objective of securing patient safety and medical safety.[30] This is thought to be useful as an approach to uninterrupted improvement in safety control. The question of how to measure its effect will remain as a future challenge.

(3) Clinical Governance

Clinical governance is a notion of medical reform proposed by British Prime Minister Tony Blair in 1997. It lies at the core of the reform of the National Health Service (NHS). The NHS reform report includes the following passage.[31] "Clinical governance is the systematic process of monitoring and checking the quality of technical services provided by health and medical institutions and of being accountable to stakeholders. It also serves to encourage good medical practice, to prevent inadequate medical practices and to discover intolerable medical practices. A code of clinical conduct defines criteria as part of clinical acts. For this objective, it sets up a system of responsibility for the quality of clinical services in hospitals and clinics, a mechanism for continued quality enhancement and a structure that facilitates the cultivation of an environment for learning and research that helps provide excellent clinical services." Clinical governance is a medical version of corporate governance. While corporate governance focuses on strengthening shareholder governance, clinical governance aspires to guarantee medical services for patients and the public.

Clinical governance was an answer to the questions raised about the deterioration of health and medical care services, as reflected in long waiting lists, a lack of human resources and moral hazards. During the Thatcher regime, the small government policy curbed medical spending. It successfully slashed NHS expenditures but it also gave rise to the problems just listed. Specifically, after it was revealed that 20 of 38 child patients who had undergone complex cardiac surgery at the Bristol Royal Infirmary had died, the management responsibility of this medical institution was questioned. As a final result, the General

Table 2-4: Criteria for Clinical Governance

- Patient Outcome Based The patient outcome is a decisive factor to service provision. Patient participation and patients' rights must be ensured.
- Clinical Leadership & Involvement Skill development and knowledge must be offered to medical staff. Multidisciplinary care must be carried out.
- Information & Database Data must be collected and analyzed on a timely basis. Findings must be properly analyzed and made known to medical practitioners.
- Sustainability Resources must be continuously invested and the superior organization must be committed to its work.
- System-Wide Approach Reviews and quality assurance must remain consistent.
- Learning Culture Learning support must be incessantly offered. Assignment of responsibilities must be made. Lessons should be learned from errors.
- Partnership Partnerships must be built with the academic sector, relevant individuals and bodies to enjoy maximal effect.

Source: the author

[30] The National Institute of Public Health (NIPH) offers medical safety training to hospital managers. During this training, it advises trainees to implement safety control on the basis of the PDCA cycle.

[31] See "Foreword" in Chambers (2004).

Table 2-5: Ten Elements of Clinical Governance

(i) Evidence-based medicine (EBM) (ii) Clinical guidelines (critical path) (iii) Clinical audit (iv) Clinical indicators	Development of safety culture / Medical safety
(v) Medical safety plan (patient safety) (vi) Learning from accidents (vii) Learning from complaints (viii) Capacity building	Organization / Reinforcement of the foundations
(ix) Awareness of clinical governance among all personnel (x) Leadership and multidisciplinary medical care	Medical standardization / Medical quality

Source: the author

Medical Council banned two doctors from practicing medicine and condemned its medical executive. Clinical governance was a response to the trend towards excessive privatization and cost cutting.

Clinical governance requires individual medical institutions to plan, implement and evaluate their governance system, process and measures with the aim of providing patients with the optimal medical treatment and improving medical quality. These activities must be conducted in such a way that comprehensively covers the criteria shown in Table 2-4.

Specific activities of clinical governance include clinical audits, education and training, research and development and risk management.[32] To establish clinical governance, every medical institution must study the ten elements listed in Table 2-5 and draw up guidelines for them.

2-3 Hospital TQM Applications in Japan

2-3-1 TQM in Japanese hospitals

This section puts the spotlight on the history of development of hospital TQM in Japan, which is regarded as a world leader in TQM as it is implemented in the industrial sector. Although Japan did not have any administrative policy to encourage TQM applications as discussed above, the National Network of TQM for Health was set up in 1999 to build a network of medical organizations for quality improvement. Its activities include sharing ideas among medical institutions working on medical quality improvement and putting of supportive efforts such as developing and promoting quality improvement methodologies.

Apart from that, the Japanese version of the NDP has been put in place mainly by this National Network since the year 2000. As of 2005, the project is in Phase 3 with a focus on the development and demonstration of a safety action model, development of educational modules and the creation of a medical TQM model.[33]

Private hospitals in Japan have been adopting quality control since the 1980s, but as explained earlier in the paper, it was not necessarily carried out as TQM. TQM appears to have been started in the country in earnest in the late 1990s.

There are several possible reasons for this. First, hospital directors and other management executives did not take the operating crisis seriously. An overwhelming majority of Japan's public hospitals and university hospitals make losses and such losses are traditionally covered by local and national government budgets. In many hospitals, clinical and managerial divisions enjoy an inviolable status. A large proportion

[32] Starey (2003) p. 1

[33] See the NDP activity report on http://www.ndpjapan.org/news.htm#

of clerical managerial executives were dispatched chiefly from local public entities. Those two facts make their managerial responsibilities unclear. Moreover, the Medical Service Law requires hospital managers to hold a medical doctor's qualification. This means that hospitals are under the control of non-specialists in business administration. These facts have resulted in the current poor interest in hospital management. Actually, it is said that Nerima Hospital became the first to introduce TQM because it faced a management crisis. In this situation, the Japanese government reorganized national hospitals into independent administrative agencies and put an end to the state-run status of hospitals attached to national universities, which were also turned into independent administrative institutions. This move is an attempt to redefine the raison d'être of these hospitals and to encourage each hospital to practice effective management.

Another possible underlying factor is that hospital management teams did not find any managerial benefit from the change from quality control to TQM. At the top of the agenda in the field of medical care is the rise in medical expenses. The recent growth of medical costs is outpacing growth in gross domestic product (GDP). The public is increasingly concerned about the increase in their social insurance burdens caused by the aging population following the decline in the birth rate. The government authorities responsible for medical care are focusing on tackling the issue of reducing medical expenses. Based on a tacit understanding that quality has the priority over cost savings, there was the hope that the implementation of quality control would help achieve high efficiency in medical services. However, in Japan, medical treatment is basically paid for on a piece rate basis. Unit prices are defined in a state-formulated medical fee point table, which acts as a fee schedule. This may break the link between streamlining and cost cuts. Even if the total costs are reduced, earnings would also drop. At Japanese hospitals, personnel costs and other fixed costs account for up a significant percentage of total costs. From their viewpoint, a fall in revenues is synonymous with a rise in the cost rate. Careless streamlining may produce an adverse outcome for hospitals.

In Japan, this medical remuneration system is set up and revised for the purpose of controlling medical spending. The system has thus a great impact on hospitals. For example, to explain one of the reasons for the underdeveloped alliances in the Japanese medical sector, Kawabuchi argues that points for the service of offering medical information is too low to encourage hospitals to make referrals.[34] The authorities thereafter have started to try to incorporate into the medical remuneration system some incentives for hospitals to provide effective medical care services.

Let us move on to review how TQM has been promoted in Japan. Before that, it is necessary to study some events that sparked consideration of medical quality in Japan.

Two events were likely behind the emergence of calls for medical quality enhancement in this country. The first was the wide-expansion of medical services in quantitative terms and the second was public demand for quality in health and medical care services following the change in disease and demographic structures. Concurrently, in 1995, the JCQHC was set up as a mechanism for third-party evaluation of medical functions. In 1997, it started its evaluation and certification business. Its evaluation covers a broad array of fields, ranging from management to clinical aspects. Hospitals may at their discretion choose whether or not to be evaluated and decide whether or not their certification is published. The 2002 amendment to the medical remuneration system defined evaluation and certification by the JCQHC as one of the requirements for the rate for a stay at the palliative care ward, the surcharge for hospitalization, and palliative care inpatients, and the surcharge for outpatient chemotherapy. Under this system, hospitals can reap the managerial advantage of undergoing evaluation and making their certification known to the public.

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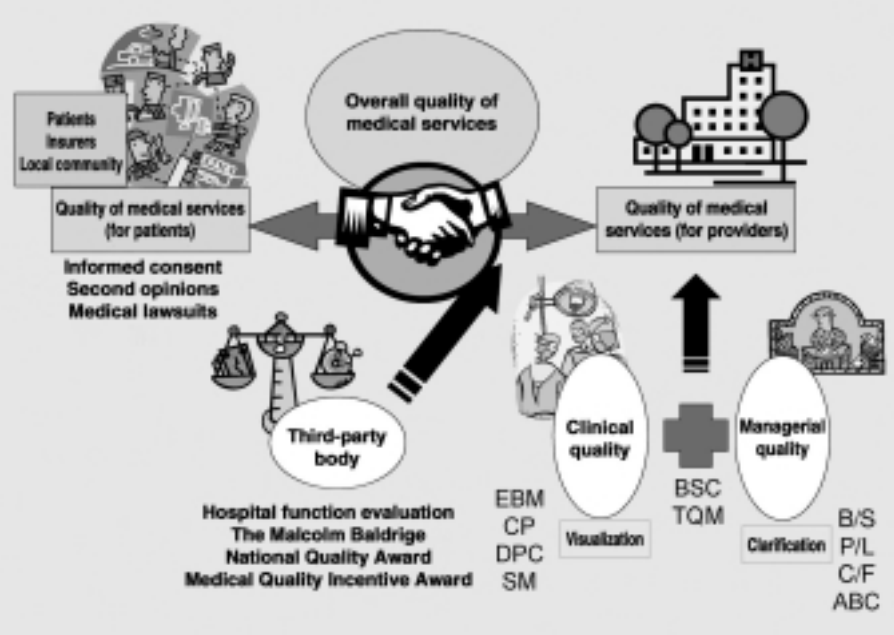
[34] Kawabuchi (1993) p. 70

This has created a footing for hospitals to address improvements in medical quality in pursuit of its benefit. In May 2004, the Medical Quality Incentive Award was launched by JUSE as a medical version of the Japan Quality Incentive Award.

Apart from the idea of boosting earnings as a task of hospitals and a philosophy of hospital managers for the purpose of stable management, it should also be noted that the importance of safety is now better understood. The mix-up of patients at the Yokohama City University Hospital in 1999 generated distrust in medical professionals and raised public awareness of the need to check medical quality. Since the accident, analyses of case studies have been conducted and manuals and guidelines have been written as part of the administrative measures for medical safety. The tide is shifting from risk management to safety management; or from a response to accidents or existing accident-prone circumstances to the creation of a system under which mishaps are unlikely to take place.

To put it briefly, Japanese hospitals were urged to improve not merely their managerial quality but their clinical quality as well. The dual achievements of ensuring medical safety and gaining profits coincide with the concept of the balanced scorecard, in which corporate value is based not only on revenues but also on the social responsibilities of each company. This notion is taking root from the standpoint of the social responsibilities that hospitals have to meet. The transition from risk management to safety management is consistent with system improvement in TQM. The use of TQM is encouraged as a tool of safety management.

Figure 2-10: Ideal Quality of Health and Medical Care Services



Key: EBM = Evidence Based Medicine
CP = Clinical Path (a control diagram for the process of diagnosis and treatment)
DPC = Diagnosis Procedure Combination (standardization of medical practice)
SM = Safety Management
BSC = Balanced Score Card
TQM = Total Quality Management
B/S = Balance Sheet
P/L = Profit Loss statement
C/F = Cash Flow statement
ABC = Active Based Cost analysis

Source: the author

To sum up the above argument, it is now understood in Japan that for hospitals, their raison d'être is to fulfill their social roles and balance their budget. Two principles at different levels in hospitals, one advocated by management and the other by medical staff, have now come into line with each other. The awareness has also been created that the system and the organization must be improved if personal responsibility is to be met. As a result, horizontal sharing of issues, or a sharing of issues within the group, has been attained. These developments were triggered by a mishap at a Japanese hospital. This accident prompted the medical sector to import some systems, including TQM, from other sectors. Consequently the importance of TQM was boosted.

In the past, it was possible for hospitals to advertise their positive stance towards improvement by conducting QC activities to ensure that improvement efforts were made by different groups. Today, they are required to demonstrate an attitude of working to enhance the quality of medical services on a hospital-wide scale. The shift from QC to TQM has become essential.

Figure 2-10 illustrates the mechanism of achieving the ideal quality in health and medical care services on the basis of the above discussions. These services are unique in that there are clinical aspects and managerial aspects. These two aspects support the quality of health and medical care services. They were thought to be in a trade-off relationship but it is now deemed necessary to improve both. The quality provided by suppliers must be matched with the quality desired by consumers. In view of the asymmetry of information, as a result, third-party evaluation is indispensable. The overall quality calculated from the relationship among these three groups of players could be defined as the ideal medical quality.

2-3-2 A case study in Japan - TQM at Nerima Hospital

This report looks at the TQM implemented in hospitals in developing countries, to study the desirable form of TQM in the health and medical care sector. This section focuses on Nerima Hospital as an example of TQM in a Japanese hospital, to enable a comparison with cases in developing nations.

This hospital opened in 1948 and run by the Tokyo Medical Insurance Association. Among Japanese hospitals, it has one of the most successful records with TQM. Its activities are known under the name Management Quality Initiative (MQI) and are highly regarded not only in the medical arena but in general industry as well. These days, its efforts are not confined to learning from ordinary industry but have expanded to information distribution from the medical world.

Improvement initiatives in this hospital started after it encountered financial difficulty due to the regional medical plan based on the first amendment to the Medical Service Law in 1985. Specifically, the number of beds increased just before the hospital bed regulations were enforced in accordance with the regional medical plan. This gave rise to a shortage of nurses. Nerima Hospital failed to cope with this, and its financial situation gradually worsened. In 1991, Shuhei Iida, current hospital president and director, assumed the post of director, and that he launched organizational reform. Many directors of Japanese hospitals are medical practitioners unfamiliar with business management. Among public hospitals, the losses of national hospitals were offset by the state budget, until they were reorganized into independent administrative institutions in 2004. A large majority of municipal hospitals still continue to make losses, with their deficits covered by local governments. At that time, it was very rare in the Japanese medical sector to make improvements from a managerial perspective. Iida explains that it was the fact that the hospital would go out of business without reform that triggered the organizational change.[35]

As he became director of the hospital, he revealed a strong resolve to change the mindset of all

[35] Kawabuchi (1993) p. 70

Table 2-6: Unified Subjects (Nerima Hospital)

Fiscal Year	Unified Subject
1996	Time
1997	Information
1998	Process flow
1999	Structure
2000	Standardization
2001	Safety
2002	Evaluation
2003	5S - *Seiri* (tidiness), *Seiton* (orderliness), *Seiso* (cleaning), *Seiketsu* (cleanliness) and *Shitsuke* (discipline)
2004	5S - *Seiri* (tidiness), *Seiton* (orderliness), *Seiso* (cleaning), *Seiketsu* (cleanliness) and *Shitsuke* (discipline)
2005	Creation: With a View towards Construction of a Brand-New Hospital

Source: The website of Nerima Hospital

personnel and used his inaugural address to ask for their cooperation. This was the reform under the principle of providing medical services at a level to make the personnel proud and happy to work for the hospital and to allow patients to feel that they enjoyed the services and be happy with them. With a view to stimulating internal customers (the staff) and enriching services for external customers (patients) and with the belief that medical services encompass all operations in hospital, he fostered cross-sectional partnerships and multidisciplinary care. This may sound unexceptional but in fact it was very uncommon in Japanese hospitals at that time. Every day, the staff faced an increased workload as they tried to enhance patient services and miscommunications between clinical departments and hospital clerks kept patients waiting for a long time at the cashier. This made it difficult to carry out the principle of doing ordinary things in ordinary manners.

To learn how to reform the management and the hospital organization, Iida, who was a surgeon, visited some hospitals that were in those days reputed to be excellent. However, he did not find the experience helpful. He read some books on the management of general firms and business administration studies, and discovered TQM would be effective but he failed to find any useful example that could be applied to his institution.

In February 1996, a panel of voluntary executives met to make proposals for the start of activities, unique to the hospital, to improve medical quality. This led to the launch of its medical quality initiative (MQI). The MQI defines a unified annual subject every year. According to the subject, several teams are formed to conduct activities. Each year, a presentation meeting is held to commend teams that produce distinguished results. Table 2-6 lists the unified subjects chosen each year.

What is unique to the activities at this hospital is that they do not follow the steps of general Japanese-style TQM. In general Japanese industry, TQM starts with the introduction of the 5S practices. The initiative at Nerima Hospital, in contrast, determines a unified target in order of communication, awareness, flow, standardization, safety, evaluation and finally the 5S. “It may be possible to force the implementation of the 5S practices in the manufacturing industry, but it is difficult to apply the 5S principle at the start to hospital services. Cleaning and other activities to change the superficial look may be done, but basic things, such as why cleaning is needed and what the intention of cleaning is, are not understood. So if the TQM is started with the 5S, it will not significantly change the quality of hospital services,” says Iida.[36] The unified

[36] An excerpt from interview records

subjects are fixed in consideration of the actual state of the hospital. This begins by addressing a problem that is expected to show a tangible improvement. A majority of personnel are resistant to adopt TQM. To win them over, it is important to show them its expected effect at an early stage. Moreover, it is very challenging to sustain TQM for continuous quality improvement (CQI) instead of conducting TQM as a short-term campaign. Iida underlines the importance of constantly raising an alert on every occasion, coining a plain slogan and giving variety to the activities every year for attaining the CQI.[37]

Iida is a founder of the National Network on QM for Health. He acts as a promoter of TQM in the medical sector. He is also the deputy chief for JUSE's Medical Quality Incentive Award launched in 2004. Feeling that there are few manuals on hospital TQM that would be useful in practical applications, he is working to develop a TQM framework and to widely introduce the philosophy of TQM by writing on the subjects of TQM, electronic medical records, operational flows and quality glossaries.

It may look as if TQM implementations in Japanese hospitals has thus been expanded from improvement efforts in a single hospital to every corner of the country, but Iida says that TQM still has not always been accepted. Although some hospitals have been conducting QC circle activities since the 1980s, none have carried out the TQM. Many institutions merely used the name TQM for their initiatives but they were in reality nothing more than QC circle activities. Actually, many of the special features on TQM in medical journals are actually discussing QC circle activities. In other words, many hospitals fail to upgrade their QC circle activities to TQM.

Iida explains the reason by noting that senior executives were not serious about carrying out TQM.[38] "It is easy to set up OC teams in separate sections to conduct improvement activities, but no cross-sectional implementation of TQM is easy. It is critical to involve doctors and to undergo the process for TQM to create an open atmosphere within the organization. This challenge itself is significant because it leads to information sharing and standardization. To this end, a theory should be developed for attracting doctors to the activities. This is why we set a yearly unified subject." Actually, many other hospitals were found to conduct QC circle activities for the activities' sake. In light of this fact, Nerima Hospital regarded it as important to define the objective first and set up a hospital-wide subject. The transition from quality control to TQM was hampered by the lack of key leadership. It is often the case that leaders exercise strong leadership when a crisis occurs. In Japan, medical accidents are possibly the biggest factor triggering medical quality improvement. From a reverse viewpoint, it can be said that the directors of Japanese hospitals ignored the managerial aspect in the context of crisis management.

Iida goes on to emphasize the difficulty of continuing TQM in comparison with its introduction. "It is a big job to keep the staff motivated. It is essential to make efforts for that and it is up to management to do that. It is challenging to maintain constant improvements in quality since making continual change is tough. Even at Nerima Hospital, improvements may come to a halt when the director changes. Basically, no one wants change and no one takes action unless they are aware of a crisis. It is impossible to force anyone who is unwilling to do anything."[39] In fact, in the early phase of MQI activities, the director was deeply involved in the promotional efforts but he recently handed over his authority to the committee for promotion of MQI. As a result of this, however, quality in processes and in outcomes went down as his engagement was reduced.[40]

Even as medical remuneration is being lowered, patients' demands for health and medical care services

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[37] An excerpt from interview records
[38] An excerpt from interview records
[39] Excerpt from interview records
[40] Iida only engaged in the promotion of MQI activities, not in MQI activities themselves.

are growing. It is difficult at present to raise the salaries of staff members and to keep them motivated in money terms. There may be ways other than through pay that could possibly pump up morale, such as writing activities, but "The effect just lasts only for a short period of time and it is difficult to keep them motivated," according to Iida.[41] To change the ethos of those resistant to reform, Iida admits that the introduction of a new approach to doing something new is effective to some extent, but this solution appears to be unhelpful in sustaining the motivation.

Nerima Hospital has been simply doing ordinary things in ordinary manners according to its own state. Many experts thought that the medical sector was so special that no ordinary managerial or quality control approach was applicable. However, this particular hospital has changed this view. "There is no difference in quality improvement between the medical sector and other industry sectors. I do not think that the medical field is unique. On the contrary, complicated organizational activities in this area may create a new breakthrough," says Iida.[42]

2-4 Trends of TQM in the Health and Medical Care Sector in Developing Countries

There have been several attempts at TQM other than those discussed above in the domain of health and medical care and they take place in a broad variety of styles. Many different activities are seen in developing countries as well, as detailed in Chapter 3. The trends with such activities are collected in the Material Section by Professor Naruo Uehara of Tohoku University, a pioneer in Japan's studies on TQM in the medical and health care sector in Japan and developing nations and also a representative director of the National Network on TQM for Health. The next part of this paper briefly looks at his review.

Uehara conducted a *Study on Assistance in Clinical Medicine to Developing Countries* in the period from 1988 to 1990 to underline in its conclusion the importance of challenging conventional perceptions of quality as advanced treatment and technology and of seeking quality in terms of choosing appropriate techniques and medical systems. His point, in other words, was that it is important to improve the quality of services wanted by customers. As a means of achieving this goal, he focused on Japanese-style quality control.

In 1990, there had been no initiative aimed at directly addressing the quality of health and medical care in developing nations. Humberto Novaes, who then served the health and medical services in the WHO's Pan American Health Organization (PAHO), once considered launching an accreditation program in Latin American countries, but this program did not ultimately eventuate.

Uehara was dispatched as a policy advisor under the JICA expert dispatch program to Indonesia, specifically to the Planning Department in the Ministry of Health, in 1993-95. In January 1995, he organized the ASEAN Workshop on Quality Management of District Health Systems, the first public meeting to discuss the quality of health and medical services in developing nations. Participating nations, especially Indonesia, Thailand and Malaysia, showed great interest in the health and medical improvement activities presented at the meeting, and urged Japan to provide assistance. However, continuous aid was not offered since Japan's medical sector and aid organizations were not fully aware of medical improvement activities and their significance.

After that, Uehara systematically compiled the TQM activities in the sector of health and medical care

[41] Excerpt from interview records
[42] Excerpt from interview records

to coin the term “evidence-based participatory quality improvement (EPQI).” Endeavoring to promote EPQI, he conducted a course for training of trainers (TOT) targeting six Asian countries with the help of the World Health Organization (WHO) in 1999. This triggered the launch of campaigns for upgrading health and medical care services in Indonesia and the Philippines. Since 2002, he has been engaged in a five-year project offering a course to train leaders in quality control of the district health services, to those nominated by the health ministries of eight Central American countries in response to the request from JICA. A Central American EPQI network has been formed to provide improvement activity seminars and improvement projects in separate countries.

According to the report on EPQI training conducted in fiscal 2005, the following activities were taking place at different locations in Central and South America:

(i) United Mexican States (Mexico)

An EPQI project for hospitals and health centers, EPQI workshops for academic purposes and the application of quality control methodologies to state strategies are being carried out in a strategic manner.

(ii) Republic of Guatemala

The National Health Plan 2004-2008 defines the establishment of an EPQI process in regional health care services as one of its policies. Twenty-five facilitators are trained and seven projects are underway.

(iii) Republic of El Salvador

After EPQI training, 15 working groups were set up and carry out their own quality improvement projects.

(iv) Republic of Honduras

After EPQI training was offered to eight people, four EPQI teams were formed. They conduct pilot projects in the disciplines of pediatrics, obstetrics, social welfare and oncology (cancer).

(v) Republic of Nicaragua

After EPQI training was given to 17 personnel, five quality teams were formed to implement a small project in the area of maternal and child health.

(vi) Republic of Costa Rica

Eight trainers and 68 facilitators have been trained. In 2005, a project with a focus on patient safety was conducted.

(vii) Republic of Panama

EPQI training and seminars were provided. The country is considering the introduction of the EPQI approach to hospitals and communities.

(viii) Dominican Republic

EPQI application is under consideration through EPQI training.

The following lessons have been learned with respect to EPQI:

- The perception of information and data has changed.
- What is essential is the involvement of the management team.
- Long-term training is required before active use of the tools can be made.
- Quality enhancement requires continuous efforts and monitoring.
- Information exchange and the sharing of experience serve as a motivation for sustainable EPQI.
- Support from public authorities responsible for health affairs is a key to success.
- It is necessary to continuously train facilitators and to implement the project.
- No problem can be solved without identifying the problem.

- Teamwork is vital to the sustained implementation of EPQI.
- It is critical to devise a strategy based on evidence.

Japan's EPQI aid was provided in the form in which a campaign aimed at promoting the improvement approach run by training in Japan and subsequent training and seminars held in individual countries. However, this style of promoting improvement approach was not compatible with the conventional style of project-based technical cooperation aimed at transferring technologies. This is thought to be one possible reason why no continued assistance was offered to the workshop set up in 1995. Given that technical cooperation focusing on capacity development has been started on a trial basis in the past few years with the aim of changing the process in aid recipient countries and spurring their involvement in the process, it is anticipated that EPQI will be broadly introduced and will make a great contribution to improving quality in health and medical care in developing nations.

While there are also other promotional activities for health and medical quality improvement in developing countries operated by consultants from the United States and Australia and by local consultants trained by the Japanese industrial sector, the Uehara initiatives appear to have had a very substantial impact.[43]

Specifically, he systematizes the approach according to the actual state of health and medical care in developing countries and works to disseminate quality improvement techniques through seminars. He does not directly intervene in which quality enhancement is required. His activities are characterized by his approach to leaders and key informers.

[43] Uehara's influence is also mentioned in the Philippine case study discussed below.

3. Examples in Developing Countries

3-1 Characteristics of the Health and Medical Care Sector in Developing Countries

Prior to discussing the applications of TQM to the health and medical care sector, it is requisite to elucidate the characteristics of the sector in each specific country. TQM is not restricted to developing nations. In Chapter 2 and the preceding part of this literature, the main focus was on developed countries. The applications of TQM to developing countries must be discussed in consideration of the following factors.

(i) Severe shortages of resources

Developing nations face a severe shortage, in terms of both the quantity and quality, of medical workers, drugs, facilities and information in comparison to the disease-affected population in need of medical treatment. Due to the serious shortage of resources, a large proportion of the medical institutions are publicly operated. Patients have no option if they are unhappy with the treatment they receive.

(ii) Poor accessibility

Apart from the shortages mentioned above, there are limited medical resources available within the sphere of the patients' lives, and in some regions, no such resources are available at all. The transport infrastructure is so poorly developed that it is more likely that patients may not gain access to medical services even if they are as geographically remote from the services as patients in developed countries.

(iii) Low capacity to pay

A large majority of patients do not have an income sufficient to cover their medical costs and they find it difficult to pay for their treatment. A large proportion of medical costs are covered by the public system while individual patients bear only a very small proportion. Some countries attempt to run a public insurance program to finance the medical costs while in many other countries the costs are funded by tax revenues. In fact, the shortage of medical resources is the result of insufficient public spending. In addition, given that individual patients pay little for the services they enjoy, medical treatment is given as a kind of benefaction from the state government and patients are unable to claim their rights.

(iv) Poorly motivated medical professionals

The severe shortage of medical resources impedes the motivation of medical professionals. Most of them are employed by the public sector, are paid low salaries and are not particularly aware of their own responsibilities in relation to services. In many countries, they are allowed to have second occupations. Because of this system, many of them are less motivated to work for public hospitals than for their own clinics.

(v) Shift of focus from infectious diseases and injuries to lifestyle-related diseases (epidemic change)

In the world of health and medical care, there is a worldwide trend away from infectious diseases to lifestyle-related illnesses. Developing countries are either midway through this transition or in a situation where both kinds of illnesses are simultaneously prevalent. They need medical resources to combat both and are more likely to see stringent conditions applied to the public funds for medical services.

It may seem that these characteristics are adverse to the application of TQM, but it is not necessarily the case. Rather, TQM will produce a dramatically positive effect if these characteristics are appropriately

taken into consideration in the implementation of TQM.

3-2 Sri Lanka

This study takes a look at Sri Lanka as an example in a developing country. In this country, TQM was introduced to public hospitals as part of the national policy after the head of a hospital conducted his own research on TQM and implemented it in his hospital.

An on-site study has revealed that TQM in Sri Lankan hospitals is closely linked with that in Japanese companies. In the country's business arena, quality control activities and TQM are already widespread, having been implemented mainly by locally based Japanese companies. There exists a nationwide system of commendation quite like the system used in Japanese QC activities. The first case of TQM being implemented in a public organization in Sri Lanka occurred when the president of a Japanese ceramics manufacturer based in the country briefed the Sri Lanka Institute of Development Administration (SLIDA) on the TQM implemented in the factory early in the 1990s. After taking part in a training course run by SLIDA, Wimal Karandagoda introduced TQM to the Castle Street Hospital for Women, in which he had assumed the post of director of the medical institution in 2000. This achievement was so highly regarded that the country adopted a state-wide policy of introducing TQM into state-run hospitals.

This section casts the spotlight on the efforts made by the Ministry of Health and Women's Affairs to improve the quality of hospital services, on the organization that led the country to introduce TQM, namely SLIDA, and on two hospitals as case studies in the implementation of TQM.

3-2-1 Overview of TQM in the public administration on health and medical care

The Ministry of Health and Women's Affairs has a section called the Quality Secretariat that is responsible for the development and cultivation of the quality-oriented culture. It is headed by Dr. Karandagoda and its office is located at the premises of the Castle Street Hospital for Women. It was established to enable Dr. Karandagoda to expand his activities across the country and to be the symbol of the major changes to health administration brought about by the activities of one hospital director. In addition to the head of the hospital, this division has two staff members.

At the moment, it is running the National Quality Assurance Program (NQAP) for tertiary hospitals. The NQAP selects some pilot hospitals from the educational hospitals, the provincial hospitals and some district hospitals to set up a quality secretariat at each pilot hospital to enhance quality. It is a pilot project for implementing the activities conducted at the Castle Street Hospital for Women on a nationwide scale.

It is also in charge of a component concerned with hospital quality improvement within the World Bank's health and medical care service project. Specifically, it is "Subcomponent 2.4: Improving Hospital Efficiency & Quality" of the IDA/WB Health Services Project 2005-2010 of the Sri Lanka Health Sector Development Project. It is necessary to attain "Output (product) 4.1 CQI & TQM Initiation in Hospital in Uva & Southern Provinces in Sri Lanka."

This project is driven by the World Bank and has a total budget of 360 million rupees.[44] This amount includes the portion allotted to the Quality Secretariat, which amounts to nearly 73.6 million rupees. In 2005, a portion of 25.2 million rupees out of the total budget of approximately 120 million rupees was for the Quality Secretariat.

By way of more detail, the "CQI & TQM Initiation" includes the launch of quality control units at each

[44] At the beginning of 2005, one Sri Lankan rupee was worth 1.07 Japanese yen.

hospital, functional enhancement of the Quality Secretariat, a feasibility study and a survey on the current state, participation of communities in patient care, domestic and international information exchange and program design for nationwide expansion.

Moreover, the Work Plan of World Health Organization for 2004-05 defined in the Global Expected Result No. 644 the expected achievements of action plan SRL OSD 003 entitled Organization of Health Services. Specifically, it defined the strategy, methodology and guidelines for evaluating the improvement in quality and provision of health services, the scope of services and providers' performance. They are in the charge of the Quality Secretariat. It reads, "In the light of the failure to respond to patients' needs, the lack of drugs and logistical systems, inadequate laboratory services, poor referral systems, overcrowding in limited facilities and an excessive focus on treatment services, rather than preventive services, the health and medical services in rural areas and for the poor are by no means of good quality. A new model must ensure that responsible services matched with the needs are offered. And it is necessary to monitor and evaluate the validity and efficiency of existing health and medical care services and programs." While the World Bank's pilot project is aimed at raising the quality of services in large-scale hospitals, the initiative of WHO is aimed at improving the health and medical care services in provincial and marginal areas. Under this plan USD19,000 is poured into enhancing the services provided by healthcare and USD54,000 in system development. (See Tables 3-1 and 3-2)

Table 3-1: National Quality Assurance Program (NQAP)

Main Objective: Providing the people with a responsive health service
Objectives:
(i) Introduce an institutional monitoring mechanism to teaching hospitals, provincial hospitals and selected district hospitals
(ii) Improve the abilities of the middle level managers to develop the managerial skills for the QA program
(iii) Introduce the collection of quality-related data to the Tertiary Care hospital
e.g. Casualty, Re-admissions, Complications Management
Customer care, Human Resource Development
Activities and Methodology
(i) Conduct workshops on developing a monitoring mechanism in each institution
(ii) Develop a core group at the Quality Secretariat/Quality Management Units to function as facilitator
(iii) Developing education material
(iv) Conduct monthly review meetings at the institutional level
(v) Monthly reviews of Quality Secretariat
Budget
Approx. Rs. 700,000
Product
(i) The Quality Secretariat will be organized to facilitate the quality of care in pilot hospitals
(ii) A standard review mechanism will be developed for the NQAP
(iii) Institutionalize the monitoring mechanism at hospital level
(iv) A Quality culture is developed in tertiary care hospitals

Source: the author, based on the NQAP report

Table 3-2: IDA/WB Health Services Project 2005-2010

Sri Lanka Health Sector Development Project Components (i) Support to district health authorities to improve service delivery and outreach (ii) Support to central programs and hospitals (iii) Support to policymaking, budget formulation, monitoring and evaluation (iv) Project management Subcomponents (i) Family health program and nutrition (ii) Immunization (iii) Non-communicable diseases and mental health (iv) Hospital efficiency and quality

Source: the author, based on a proposal from the Sri Lankan government

3-2-2 The Sri Lanka Institute of Development Administration (SLIDA)

SLIDA was set up with the objective of coping with the problems involved in Sri Lanka's public services, such as poor quality, delays and underdeveloped connections within the public sector. It provides postgraduate education for the staff of public organizations, including many different customizable training courses as well as one- and two-year Master's degree courses. Training courses are available free of charge while degree courses cost 90,000 rupees each. At the moment, it receives only a small subsidy from the Education Ministry and its activities are funded by tuition fees for Master's degree programs and the revenue from consulting services provided by the lecturers to private enterprises. SLIDA has decided to incorporate a lecture on TQM into the courses for improving public services. With the help of the Asian Productivity Organization (APO), it sent lecturers for receiving TQM training in Singapore and Japan. After that, TQM was introduced to the hospital management course in 1996. It helped numerous doctors and hospital managers to learn about TQM. There are still about ten doctors and other students enrolled in the Master's degree courses. In Sri Lanka, medical personnel in public organizations are entitled to handsome pensions and few of them want to transfer to overseas appointments or private hospitals at the risk of losing these benefits. A brain drain is therefore unlikely after students complete their educational programs.

3-2-3 TQM in hospitals

(1) Castle Street Hospital for Women

When Wimal Karandagoda became director of the hospital in 2000, he was astonished by the high in-hospital mortality ratio. Most cases of mortality were due to infections that spread in hospitals or other inappropriate care after treatment. They could have been prevented by efforts on the part of the hospital. With the objective of lowering the in-hospital mortality rate, the director introduced TQM in the hospital on the basis of the manuals on TQM for general manufacturers. It may generally be thought that fund-raising is a challenge in the application of TQM. The maternity hospital started the initiative by instituting the 5S process for *seiri* (tidiness), *seiton* (orderliness), *seiso* (cleanliness), *seiketsu* (standardization) and *shitsuke* (discipline). This helped secure the fund for TQM activities. Specifically, it reduced the consumption of antibiotics after the decline in nosocomial infections, improved the use of spaces freed up through the disposal of unwanted goods and generated some revenue from the sale of plastic products to recycling operators.

The surplus funds raised by these efforts were spent on staff welfare and improvement in the working

environment with the launch of an interest-free loans scheme and the provision of workspaces for different occupational functions. These reforms resulted in an increase in those wishing to work in this hospital even though the pay and conditions were no different to those at other medical institutions. It also stimulated the staff to maintain these improved working conditions and cultivated an interest in improvement activities amongst those employees who were indifferent to them. Through this cycle of positive effects, TQM activities have gradually taken root as efforts conducted throughout the hospitals.

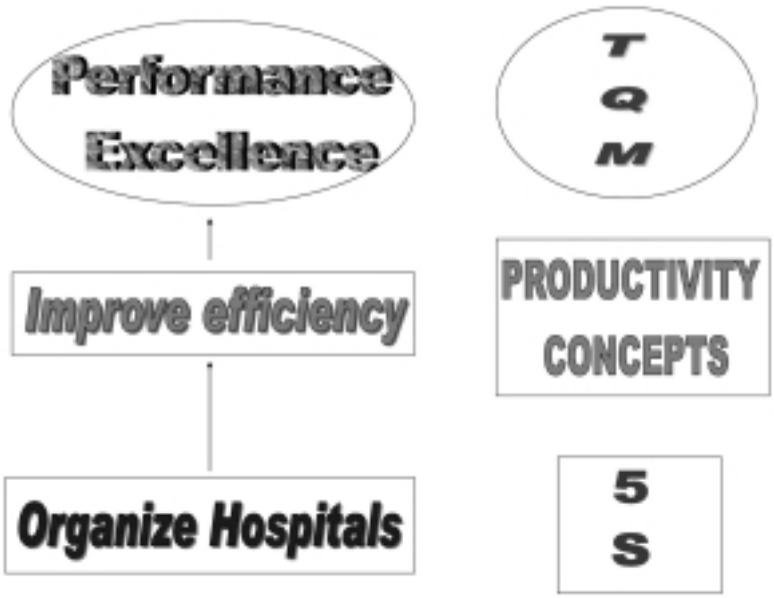
At the moment, Castle Street Hospital for Women is providing a wide variety of training courses aimed at enhancing hospital services, including those provided to personnel from other hospitals. Improvement activities are widespread throughout public hospitals. When the author visited the hospital in August 2005, a three-day course training on quality improvement was underway.

The changes at the Castle Street Hospital for Women had a huge impact on the conventional management of public hospitals. Public hospitals had been perceived by patients as unsanitary places where they were forced to wait for extended periods. The successful reform has dispelled this conventional image. However, the health authorities did not take a positive attitude on the improvements at first. The director submitted an entry for a TQM-related race designed for the general industry in a bid to win the award as a means of demonstrating the breakthrough attained by the hospital. In other words, he attempted to gain recognition not from the medical world but from the business world. The hospital won the Akimoto 5S Award presented by JASLIQ, which is an organization equivalent to JUSE in Japan. It compelled the health authorities to appreciate the achievements of the hospital.

On the back of these achievements, the Ministry of Health established the Quality Secretariat.

Believing that quality failure is a system failure, Dr. Karandagoda devised a three-step process. Under this scheme, system development is addressed first, followed by human development and then management reform. He placed high priority on improving the circumstances and environment in which personnel work rather than on improving the personnel capabilities. He next addressed human resource development and skill cultivation in accordance with the environment thereby created. Finally, he worked on managerial improvements. (See Figure 3-1)

Figure 3-1: TQM



Source: Dr. Wimal Karandagoda

Table 3-3: Areas of Improvement at the Castle Street Hospital for Women

(i) Improvement in frontline services (environment, appearance and first impressions)
- Cleaning
- Repainting of the exterior
- Plain signboards
- Renovation of the waiting room
- Color-coded switches for easier recognition

(ii) Raising of the necessary financial resources
- Display of sponsoring companies on signboards and elsewhere
- Recycling of plastic products
- Reduced consumption of antibiotics (after reduced risk of hospital-acquired infections due to improved cleanliness)

(iii) Improvement in the working environment
- Creation of a staff canteen
- Provision of staff rooms and workspaces
- Launch of an interest-free loan scheme

(iv) Tidiness and orderliness
- Removal of unnecessary medical equipment and instruments from wards: extra space procured and reallocated to appropriate departments
- Consulting rooms equipped with minimum necessary drugs: reduction in unnecessary consumption and inappropriate prescriptions prevented
- Promotion of bed linen replacement and cleaning: risk of in-hospital infection lowered
- Bed improvement (patients' belongings stored in a box under the bed): risk of in-hospital infection reduced
- Introduction of a medical equipment ledger: purchases and the use of equipment and the purchases of supplies centrally controlled

Source: the author

The hospital director insists on the importance of regarding hospital improvement as part of business and of implementing it in a manner based around human activity. To put it differently, it is necessary to avoid anything that would impose an excessive strain on the personnel while acknowledging the critical importance of quality enhancement with higher productivity. Especially in Sri Lanka, there were very many non-medical staff members and it was a key challenge to improve their productivity and to motivate them to engage in improvement activities. (See Table 3-3)

Although the basic aspect of TQM in hospitals is patient satisfaction, the actual improvement efforts are primarily aimed at increasing staff satisfaction. The underlying concept is that patient satisfaction cannot be achieved without staff satisfaction. Instead of QC circles, teams for improving the working environments were first set up at individual sections. No personnel can be persuaded by hospital improvements alone. Without substantial benefit to themselves, they would not be motivated to change the current state. The hospital provided a workspace exclusively dedicated to sewing staff and a lounge for security staff in an attempt to provide personnel engaged in different activities with incentives. The results of the improvement efforts and cost cuts are used to benefit the staff. For example, the revenues earned by selling empty bottles of infusion fluid to recyclers provide funds for the interest-free loans scheme for employees and the prizes presented in recognition of the improvement efforts at the workplaces.

There is another outstanding principle: the denial of overreach. The hospital hopes to achieve its target by the simplest possible method according to its own condition. For example, medical waste such as extracted internal organs and embryos are frozen and decomposed with the use of maggots. In Japan, this kind of waste is either burnt in high-temperature incinerators or treated by specialized disposal operators.

Moreover, an attempt is made to achieve a change in attitude from solving the ongoing problems to preventing such problems from occurring. For example, consulting rooms and wards are equipped with the

minimum quantity of drugs and devices. No more than one dose of medication is stocked even in preparation for emergency treatment. It reflects the new idea that the prevention of emergency situations should be given higher priority over readiness to respond to them. The hospital is engaged in various efforts to achieve this objective, including the preparation of handy operation manuals for equipment and the holding of daily meetings. The new principle suggests that no more than the minimum necessary materials should be prepared so that there are no human errors or resulting accidents.

Apart from the concepts discussed above, another point underlying the different thoroughgoing improvement activities is the fact that the hospital director is very familiar with actual medical practices. Not only in developing countries but elsewhere, the heads of hospitals are so busy with meetings and administrative affairs that they have no time to spare to gain an understanding of what is happening at medical worksites. As far as this hospital is concerned, Dr. Karandagoda is fully aware of the details about the inside of his hospital, while its small scale serves as another positive factor. When the author toured the hospital with him, he suggested various improvements to the staff while providing explanations to the author. He faithfully follows the basics of quality control that are represented in the expression, "The worksite is a goldmine." In addition, the inclusion of mid-level managers in the scope of the initiative at the introductory stage also helped facilitate the improvement activities. As a starter, the head nurses of different wards were persuaded to participate in the efforts to improve the working environment. After the activities began to work well, the doctors became involved. Sustained improvement reduces the objections that doctors may have to the campaign and facilitates company-wide improvement activities.

(2) Lady Ridgeway Hospital for Children (LRH)

Originally, this medical organization was a women's hospital set up by the ruler's wife during the period of British control, under the name of Lady Havelock Hospital for Women and Children. Later, it was reorganized into a hospital for children up to the age of 20. At the moment, it has 780 beds and approximately 1800 staff members, including some 250 doctors and 650 nurses.

At the moment, it is deputy president Dr. Veeneetha Pannila who has full responsibility for LRH. In June 2005, one and a half months before the on-site survey, she assumed the post of covering the duties of the hospital director on his behalf during his long-term leave.

She first learned of the 5S process and the improvements in 1996 as part of hospital management while she was engaged in an SLIDA course for M.S.E. in medical administration. The same course was also taken by Wimal Karandagoda. They were both among the students in the initial year of the hospital administration course to which SLIDA introduced TQM.

Table 3-4: Areas of Improvement at Lady Ridgeway Hospital for Children

(i) Assiduous cleaning
(ii) Improvement in signboards
- Children-friendly signs (larger-sized signboards, larger characters and illustrations)
- Display of sponsor companies
(iii) Improvement in wards
- Equipping with toys and illustrated books
- Provision of a playroom
(iv) Improvement in the nurse station
- Installation of an aquarium
- Introduction of foliage plants

Source: the author

After that, she joined a regional hospital and worked on improvement centering on the 5S activities. For example, she asked SLIDA to give a three-day TQM training session and independently conducted the training. Later, she became a District Medical Officer, and she was recently nominated as the deputy director of the LRH in recognition of her track record of improvement activities.

Before she joined LRH, improvement activities had not been actively implemented at the hospital. She had long held the conviction that hospitals should be neat and tidy. She employed the 5S approach as a means of achieving this objective. Like Dr. Karandagoda, there was a desire to improve patient satisfaction behind her commitment to improvement. The 5S activities at LRH started with a meeting with a group of nurses to achieve a consensus to initiate the activities. One week later, a meeting with the group of doctors was held to persuade them to join the 5S activities. Non-medical personnel were highly motivated from the very start. It was a good opportunity for them to take part in hospital management and the outcomes would be of more benefit to them than any other personnel. As they were working in a dirty and chaotic environment, they had to endure the greatest difficulties, and the 5S process was primarily meant to improve their working conditions. LRH was so large in scale that it was difficult for the director to be aware of everything that happened within the organization. Under the strong leadership of the deputy director, quality staff members make the rounds inside the hospital on a daily basis to monitor the actual improvement activities. (See Table 3-4)

3-3 Thailand

This study focuses on Thailand as an example of the burgeoning industrial countries. Its TQM activities have already been in place for more than 15 years. Nowadays, they are converging on two distinctive systems. This trend is driven by the Department of Health Service Support under the Ministry of Public Health and the Institute of Hospital Quality Improvement & Accreditation (HA Thailand). Although these two bodies share the concepts of TQM and CQI, they have developed their own separate systems for different purposes after learning from experience. One is a system aimed at improving the overall quality of regional medical services instead of the quality of individual hospitals. The other is a system for granting accreditation to those hospitals that have fulfilled their expected functions that they had defined on their own. This section takes a look at the characteristics of these two systems and the attempts made by Thai hospitals to improve the services.

3-3-1 Overview of the Ministry of Public Health and the healthcare sector

In Thailand, public hospitals are under control of the Ministry of Public Health, the Ministry of Education or the military forces. For hospitals governed by the Ministry of Public Health, service quality control falls under the jurisdiction of the Department of Health Service Support. The referral system consists of primary health centers (PHCs), clinics, community hospitals with 10 to 20 beds each, general hospitals with 100 or more beds each and regional hospitals with at least 500 beds each. Primary medical care is provided by 100,000 PHCs all over the country as well as by clinics, whereas community hospitals and general hospitals are responsible for secondary care and regional hospitals for tertiary care. Attached to regional and other hospitals are high-quality centers that include cancer centers, cardiovascular centers and traffic accident and disability centers. Nearly 60 percent of the total beds in the country are found in public hospitals while 80 percent of the health and medical services are provided by the public sector. The ratio of health and medical services provided by the Ministry of Public Health is particularly high in rural areas and at the provincial level. In urban areas, there are a large number of teaching hospitals controlled by the

Ministry of Education and private hospitals. Many of them compete with one another on service.

In this study, Dr. Chanvit Tharathep of the Department of Health Service Support in the Ministry of Public Health explains the problem with public health and medical services in Thailand, saying, "The input is not sufficient for the output." This implies that there are too few doctors for the range of services. At the moment, the number of doctors per 100,000 people is only 30 in Thailand whereas it is 150 in Singapore and 75 in Malaysia. After the currency crisis in 1997, the Ministry experienced financial difficulties and a great number of doctors moved to the private sector and overseas. There are plans to double the number of doctors over the next ten years. However, the Ministry must allocate part of its budget to the thirty-baht scheme[45] launched in 2001. The remainder may not be sufficient.

Hospital budgets are largely funded by an independent body named the National Health Security Office (NHSO) on a per-capita basis. After the cost of staff salaries was slashed, hospitals have been operating under tighter financial conditions. Since the thirty-baht scheme, the population covered by the public health and medical services has been growing while the ratio of health and medical spending to GDP has fallen from 5.2 percent to 3.8 percent. Fewer patients continue to pay their user charges and the total expenditure has dropped. Conversely, it has resulted in a qualitative deterioration in the standard of medical services. The current question is how to achieve equilibrium between cost, quality and demand. In the past four years, the thirty-baht scheme has helped reduce hospital costs while the number of patients visiting hospitals has climbed. The excessive focus on costs has eventually reduced the quality of services. The resulting decline in capital investment in medical services has led to an outflow of doctors to the private sector. It is officially reported that 400 doctors moved from public facilities to private ones in 2004 alone. In a period of four years from 2006, the Ministry of Public Health will be boosting capital investment to ensure service quality and to stop the brain drain of doctors.

3-3-2 Overview of hospital service improvement activities

(1) Overview of improvement activities

Under the abovementioned circumstances, Thailand implements hospital accreditation (HA) and hospital network quality audits (HNQA) on a nationwide scale to ensure quality control of hospital services. As detailed later in the report, quality control efforts themselves were commenced in the early 1990s and have been rapidly expanded to every part of the country in recent years. The rate of expansion has been increased due to the need to reduce the workload of personnel without affecting the quality of services in a situation where the scale of human resources does not grow. The introduction of the social security service and the thirty-baht scheme underlie this trend. These policies have given rise to a decline in the quality of health and medical services.

In Thailand, TQM activities are implemented in a top-down manner, chiefly by the Ministry of Public Health and other public institutions with a view towards reducing the impediment in the sector of health and medical care that has been created in response to major changes in the economic conditions and policies. However, the top-down style is limited to the definition of the improvement process. The improvement initiative is independently determined by separate hospitals according to their inherent conditions and the specific activities are implemented by small groups. For the HNQA, each hospital forms an internal improvement committee to control hospital quality. Moreover, an inter-hospital improvement committee is set up, through which the heads of outpatient and other departments from six hospitals address quality improvements.

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[45] This scheme allows those who are not covered by public medical insurance to receive medical treatment for 30 baht per visit. It reduces the portion of medical costs borne by patients and increases the amount covered by the government.

As mentioned above, TQM has two different approaches. One is the Western-style top-down approach and the other is the Japanese-style bottom-up approach. The Thai version of TQM appears to be based on the top-down style, but it also includes bottom-up initiatives based on the autonomy of individual hospitals and peer reviews centered on hospitals. It can be said that the Thai approach takes on a unique form.

This original style has been fostered by two key figures: the aforementioned Dr. Chanvit and Dr. Anuwat Supachutikul, chief executive officer of HA Thailand.

(2) History of improvement activities

Hospital service quality improvement dates back to 1985 when the Ministry of Public Health put into effect the Health Service Provider Act with an aim of achieving standard hospital quality. In 1989, the Health Service Standard was formulated. It is a collection of requirements that apply under the abovementioned law. It merely covers the minimum requirements for different professional services in hospitals. In 1990, an initiative to improve frontline services was launched in an attempt to demonstrate the improvements to hospitals. It placed particular emphasis on the aspect of exterior appearance, such as cleaning and the introduction of flowerbeds, to create an accessible atmosphere for the patients. Regrettably, it failed to have a major effect on service quality. This consequence is partly explained by the uniformity of the campaign throughout the country, which led to poor motivation on the part of hospitals and to mere superficial improvements. It produced nothing that would encourage patients to change from private hospitals to public facilities. With the lack of difference among public institutions, patients were not motivated to change their hospitals. These adverse factors formed a vicious cycle in which hospitals were increasingly discouraged from improving their quality. The improvement activities implemented in a uniform, top-down approach proved unsuitable to Thailand.

In 1995, the Ministry of Public Health started the introduction of TQM. Under the principle of quality and equality, the Health Service Standard Constitutional Law came into effect in 1998. The following year, HA Thailand was set up as an independent body of the Health System Research Institute (HSRI). Based on the concept of developing standard processes, hospital accreditation adopted a large number of different quality standards including those stipulated by the International Organization for Standardization (ISO).

As part of the efforts made by the country's entire government sector, the Public Sector Standard was formulated in 2000. It stipulated standards in administrative services and management that had to be satisfied by public institutions, including those in the health and medical sector. Subsequently, the Department of Health Service Support in the Ministry of Public Health published the guidelines for compliance with the Health Service Standard Constitutional Law. On that occasion, it reportedly enjoyed the support of a Japan-based body called the Komatsu Training Center, but the author was unable to confirm the details. In the same year, the hospital network quality audit (HNQA) was kicked off. It was expanded to cover four provinces. Activities in one of the four provinces were so highly regarded in the industrial sector that it won a national prize for TQM.

HNQA can be outlined as a model for creating a network of six hospitals for ensuring the same level of service and expanding the principles of best practice. The authorities have a plan to introduce it in 14 provinces in 2005, to implement it in 30 provinces in 2006 and to expand its operation nationwide in the future. However, the scheme still has no financial backing. It depends on the results of the ongoing pilot project. (See Table 3-5)

The guidelines are now being revised. Dr. Chanvit attaches importance to the findings of the HNQA. For example, ISO standards and the hospital accreditation (HA) view risk management as basic to quality improvement and focus on processes while paying little attention to the human resources that are poured

Table 3-5: Chronology of Service Improvement Activities in Thailand

1985	Health Service Provider Act
1989	Standard for Medical Staff (Minimum Requirement)
1990	Improvement Frontline (Environment)
1995	TQM initiated
1998	Health Service Standard Constitutional Law
1999	HA-Thai (Develop Process Standard) established
2000	Publish Public Sector Standard
2002	30-Baht Scheme started
2003	Guidelines for Health Service Standard Constitutional Law published
2004	Trial HNQA conducted in four provinces
2005	HNQA expanded into 14 provinces
2006	Expansion of HNQA planned for 30 provinces

Source: the author

into the processes. The new guidelines will stand on the notion that improvements should begin with efforts to further develop the benefits. In the process of development, the revision team will take both input and output into account and study how the staff should act and how they should achieve better services from the perspective of patients. According to the new guidelines, the capabilities and behaviors of individual personnel in the system are significant as well as improvements in the system.

(3) Roles of the government sector

In the past, service quality improvement was implemented at the initiative of provincial health departments. Hospitals changed their attitude as the Ministry of Public Health started to directly give orders to them and assess them. Today, they follow instructions from the Ministry. Private hospitals are examined by inspectors from health departments or departments of health service supporting separate provinces. In addition, HA awards and other TQM-related commendations offered by HA Thailand have the effect of increasing motivation. It appears that every hospital is actively working on enhancing its services.

The Ministry of Public Health will be training ten trainees selected from provincial quality reliance teams into specialists in the TQM principles, with the recognition that merely around 10 percent of the hospitals are subject to appropriate quality auditing.

In Thailand, quality improvement in hospital services is spearheaded by the Ministry of Public Health. However, it does not directly engage in the improvement of services. It focuses its efforts on the development of systems, standards and processes and on evaluation of the outcomes.

3-3-3 Hospital network quality audit (HNQA)

The hospital network quality audit (HNQA) refers to a framework of collaboration among hospitals for enhancing the quality of health and medical care services. It is aimed at upgrading not only the service provided by individual hospitals but also the health and medical services in different regions. It is characterized by the fact that all community health services are audited rather than standalone hospitals. The facilities to be audited under the HNQA are public hospitals under the control of the Ministry of Public Health. It does not cover private hospitals or other public hospitals. Health centers are indirectly subject to the HNQA, given that they are supervised by the public hospitals to which they refer patients.

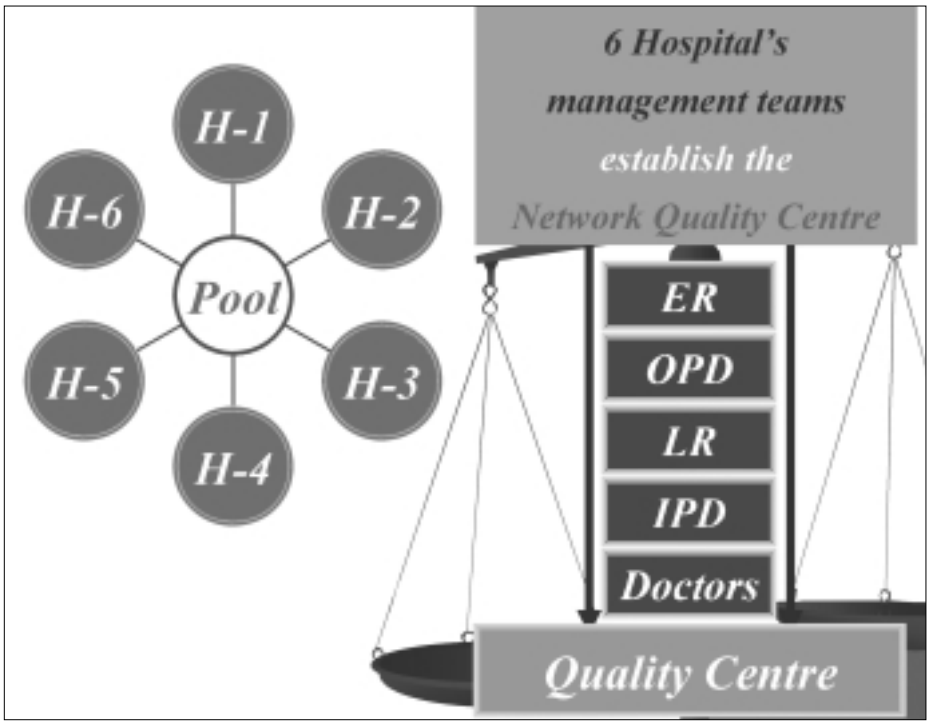
HNQA auditing is conducted and monitored by the health quality team within the Department of Health Service Support. Currently, this team consists of seven members who are doctors, hygienists and other medical professionals.

(1) HNQA implementation process

The HNQA commences with the setup of a quality center at every hospital audited. The quality center has heads of emergency, outpatient, inpatient and maternity departments and doctors. Next, a network quality center is formed by the quality centers of six hospitals to develop the foundation for the quality network. The network quality center is responsible for improvements in health and medical services throughout the entire network as well as those of individual hospitals. (See Figure 3-2)

It is followed by a five-day training session for 36 personnel, consisting of directors, heads of departments and general practitioners from the six hospitals. The training consists of lectures and workshops. The trainees learn the basics of quality control and what desirable services should be like. They stipulate the network quality standards on the basis of the periodic management activity, the internal service specifications and the service provision standard. Such standards are split into two types: those directly assessed by the auditor from the Ministry of Public Health and those measured according to patient satisfaction. The quality network and the auditor check whether or not the stipulated standards are met to formulate the next standards in accordance with the findings. The HNQA scheme has a policy of not adopting any standard that could be met by all or none of the six hospitals. A standard or specification that could be complied with by all six hospitals would be too relaxed, and it would be too strict and unrealistic if all of them failed to comply with it. In other words, the standards must be designed to motivate the hospitals to constantly endeavor for compliance. (See Table 3-6)

Figure 3-2: HNQA



Source: The Thai Ministry of Health

Table 3-6: Details of the Training

(1) What is Quality?
(2) Public Health Standard
(3) Quality Control
(4) Management of Quality
(5) Kinds of Services → Lecture and Workshop
Three days: Lecture & Workshop
Two days: Workshop for Auditor Checklist

Source: the author

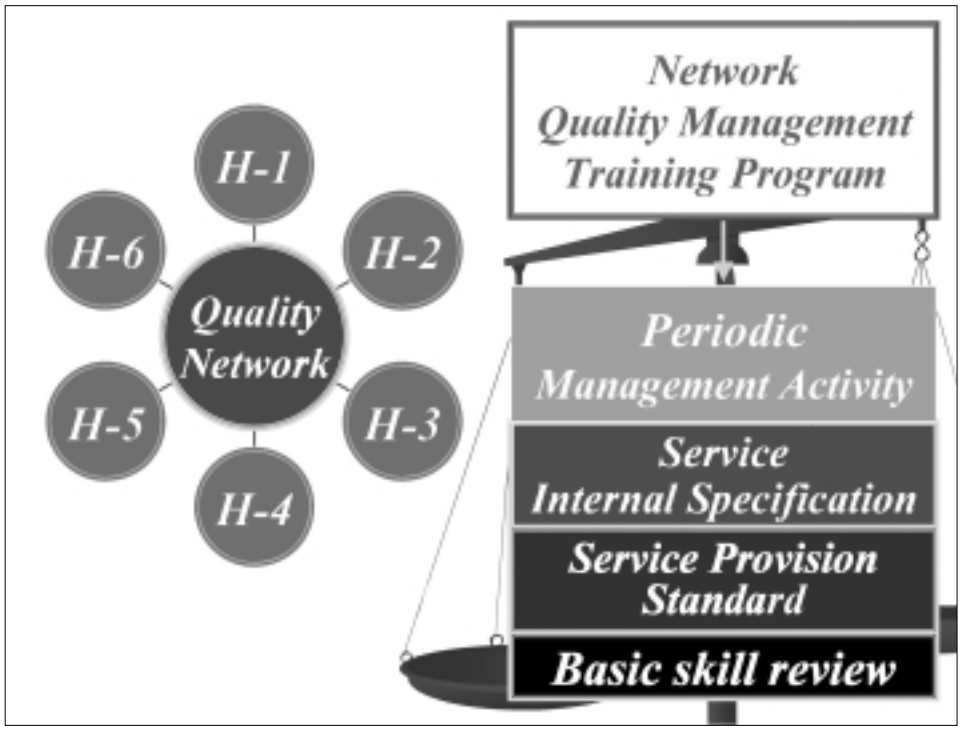
In order to meet its responsibility for hospital quality, the Ministry of Public Health is increasingly committed to such indices as mortality rate, average hospitalization period, proliferation of hospital infections and the incidence of infectious diseases. It urges every hospital to perform its responsibility to improve the indices as listed above and to provide patients with high-quality services. The specific means of achieving the target and service details are determined according to the status of individual networks. (See Figure 3-3)

After the network quality standards are finalized through auditing, they are applied to other departments to ensure sustainable improvement activities. (See Figure 3-4)

(2) Features of the HNQA

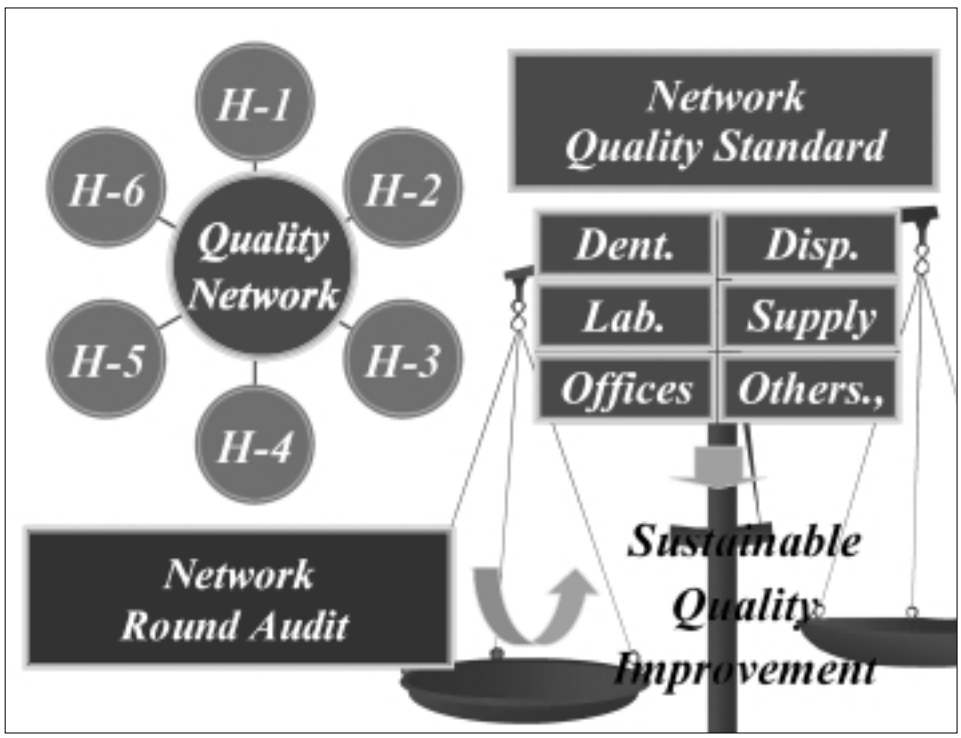
This model was developed by a group of Thai experts including Dr. Chanvit based on Japanese-style TQM. However, in view of the fact that the 5S process, which constitutes the basis of quality control, proved unsuccessful in the country, the final model adopts an original concept of TQM tailored to the circumstances of the health and medical sector in Thailand. The Japanese version of TQM is reflected in the aspect where the section responsible for overall management performs process control while target setting and implementation are the responsibility of small groups like QC circles. On the other hand, the HNQA is unique in that it incorporates the control implemented through network and peer reviews. With the lesson learned from the failure of uniform improvement activities, it was necessary to ensure independence in target setting. Meanwhile, uniformity serves as a mechanism for preventing any facility from failing to pursue improvement. As a compromise, the expert group worked out a solution based on networks each consisting of six facilities. The devised scheme also incorporates Dr. Chanvit's view on hospital accreditation (HA). When he served as a director of a public hospital, the hospital became the first public facility to obtain hospital accreditation. At that time, the HA system was so designed that the efforts of the hospitals depended on the enthusiasm of the hospital director. He was therefore convinced that the HNQA must have a support system that keeps hospital directors motivated. It is considered to have led to the adoption of peer pressure.

Figure 3-3: HNQA



Source: The Ministry of Public Health, Thailand

Figure 3-4: HNQA



Source: The Ministry of Public Health, Thailand

The unit of six facilities has been determined based on past experience. If the network was larger than that, the auditing process would be too time-consuming, while if it is smaller, the HNQA would not be effective enough. However, some regions have no more than three hospitals. The Ministry seems to be considering making some adjustment at the time of the nationwide launch in the future.

The HNQA has in this way been expanded to correspond to the reality of Thailand's health sector. It involves some complexity of having to probe and analyze the actuality in different areas because targets are set according to different regional circumstances. Although the data of individual hospitals and nationwide uniform data are collected as part of the existing statistics and surveys, no data on six hospitals is gathered systematically and there needs to be some time for preparation. Once it is established, the system of data gathering will continuously remain in operation. The initial investment is thought to be fully worth it.

At the current stage, the Department of Health Service Support is working to promote medical treatment based on clinical pathway and services from the patients' point of view in the HNQA framework. In collaboration with the Department of Medicine, it sets up a working group on the clinical pathway. Under the HNQA scheme, the Ministry of Public Health merely suggests the improvement process while each network is responsible for setting targets. This model is fairly analogous to Japan's National Health Campaign in the 21st Century[46], better known under the shortened name of Kenko Nippon 21. Both initiatives are commonly characterized in that they are meant to achieve improvement through process management.

It is unlikely that the central government finds it desirable to allow bodies executing these measures to determine their own targets. The goals might be set at a lower level than they should and it could lead to a reduction in government influence. However, as in the HNQA and the Kenko Nippon 21 initiatives, target control can be ensured by tightly defining the process. Given the targets defined to suit the conditions of different facilities and districts and voluntary efforts made by executing bodies, it is possible that it may produce a greater effect than top-down target control.

3-3-4 Hospital accreditation (HA)

Hospital accreditation is another key tool for quality improvement of hospital services in Thailand. It is performed by the Institute of Hospital Quality Improvement & Accreditation (HA Thailand), which used to be a department within the Health System Research Institute (HSRI), a public research organization in the area of health and medical care in the country. It was spun off into a separate body in 1999. It has a total of 52 personnel, including 20 consultants for promoting hospital accreditation. They spend three to five days a month on inspection visits to different hospitals. HA evaluation and certification are in the charge of 60 inspectors, 10 of whom are staff members of HA Thailand.

Roughly speaking, HA Thailand engages in two tasks of hospital accreditation and health promotion. The second operation is financed by the Foundation of Health Promotion.

(1) History of hospital accreditation

HA Thailand is headed by Dr. Anuwat, who has engaged in the improvement of hospital management under the HSRI. In this country, all hospitals that were not confined to the public sector were once at a loss how to implement quality control. In 1992, Dr. Anuwat considered introducing the idea of TQM to the

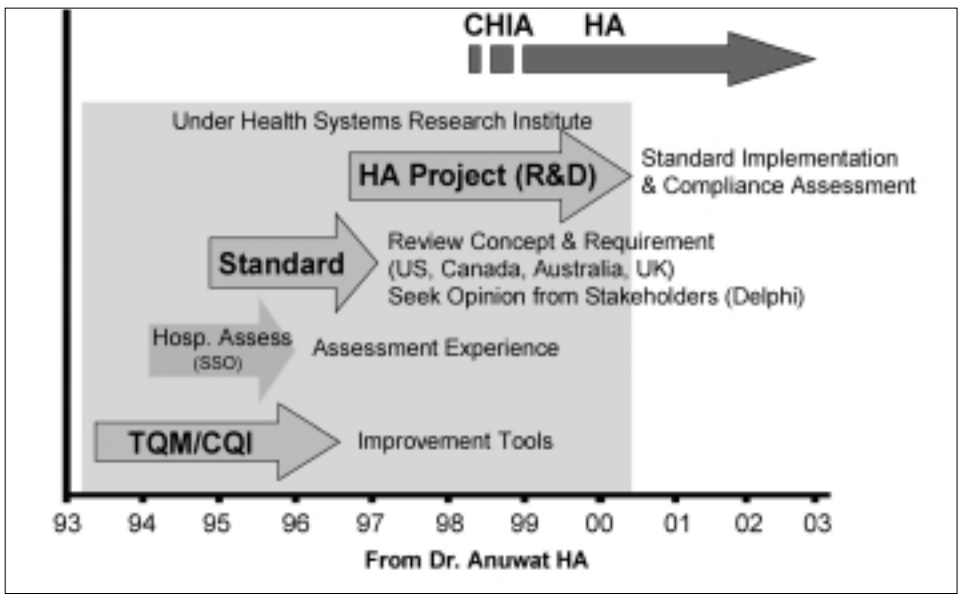
[46] Positioned as the Third National Health Building Action starting in 2000, this campaign is characterized by the fact that local governments and every member of the public devise and carry out their own health policy. It reflects a shift from the framework in which local governments and the public follow the policy established by the state government, as in the two preceding versions of the initiative, to a community participatory health building operation.

country's health and medical sector and received TQM training in Singapore and Japan. In addition, he researched QC activities in other industrial sectors and hotel service systems before running a trial project for the introduction of TQM for a five-year period starting in 1993. The pilot project involved 35 hospitals. A manager was installed and an office was set up at each hospital to initiate improvement efforts through small-group activities. In 1994, the Ministry of Public Health commenced the hospital audit. At that time, Dr. Anuwat insisted that the audit should examine its processes rather than its brief to merely assess the output and input. He then established a working group to provide a standard for process control. After that, he thought of introducing hospital accreditation as a means of hospital quality control. He started his research on it in 1997 and it was inaugurated concurrently with the launch of HA Thailand in 1999. In the study on hospital accreditation, he formed a working group to develop a standard. At that time, he enjoyed support from a Canadian specialist and sought helpful insights from hospital functions assessment methodologies in Japan, Australia and the United States. (See Figure 3-5)

At first, hospital accreditation was negatively viewed as examination of hospitals. This perception gradually changed into a positive one as it was regarded as a motivational factor for hospitals to acquire accreditation. It was due to a change in awareness among patients, the improvement effect produced by the assessment and contract with the National Health Security Office (NHSO).

The wishes of patients to be treated at hospitals providing better services function as an incentive. However, the criteria for judgment were not fully developed. There existed the above-mentioned hospital audits for public hospitals, but the focus was not on services for patients but on administration. Advanced private hospitals stressed their quality by acquiring ISO 9001 certification. ISO standards were not designed for hospitals, however, and the certification does not necessarily reflect the quality of hospital services. On the other hand, the hospital accreditation system is designed to evaluate hospital service quality. It is more appealing to patients and it provides an incentive particularly for private hospitals to become accredited. Efforts to gain the accreditation are not mere temporary activities for meeting the standards. They are activities for building a structure for sustainable commitment to improvement and for implementing it. After being accredited, some hospitals reduced their costs concurrently with the increase in the number of patients following improved service quality, and consequently they have been able to

Figure 3-5: History of HA



Source: Dr. Anuwat

ameliorate their financial position. Dr. Anuwat confirmed that their revenue soared by 30 percent on average after the acquisition of hospital accreditation. The NHSO also encourages hospitals to obtain the accreditation. From 2004 onwards, all hospitals that sign up with the NHSO are required to be in the process of assessment under the hospital accreditation scheme. Acquisition of hospital accreditation is also encouraged by some private insurance firms. Some say that for public hospitals acquisition is advantageous for future financial autonomy.

(2) Process of hospital accreditation

There are three steps until hospital accreditation is obtained. Each hospital is basically required to set a target and achieve it. HA Thailand is responsible for the promotion of quality advancement of health and medical services, consulting, standard-based evaluation and the formulation of standards. In the accreditation process, it engages merely in facilitating the process and providing guidance. The hospitals basically used a self-assessment approach.

The quality review system is constructed at Step 1. It normally takes one or two years. It is necessary to create a system that is effective for sorting out the current problems and to implement the system to clear the issues.

Organization analysis and QA process improvement are performed in Step 2. This process normally takes about a year. Specifically, hospitals are required to create a framework for clearing the 12 issues listed below. (See Table 3-7)

In Step 3, hospitals are accredited if it is confirmed that the hospitals have set their standards and established their quality culture. At the moment, the accreditation process is in progress for more than 900 hospitals and accreditation has been granted to 113. The obtained accreditation is valid for three years. Accredited hospitals are subject to monitoring performed by HA Thailand in the first year after the acquisition and 18 months after that. They are subject to reexamination every three years. (See Figures 3-6 and 3-7 and Table 3-8)

Across the country, there are six Hospital Accreditation Cooperation Centers (HACCs) to assist hospitals obtain accreditation. They offer knowledge and information for obtaining hospital accreditation. They are set up within the faculties of medicine at the Chaing Mai University and Khon Koen University under medical schools. HA Thailand provides support for the quality improvement of HACCs.

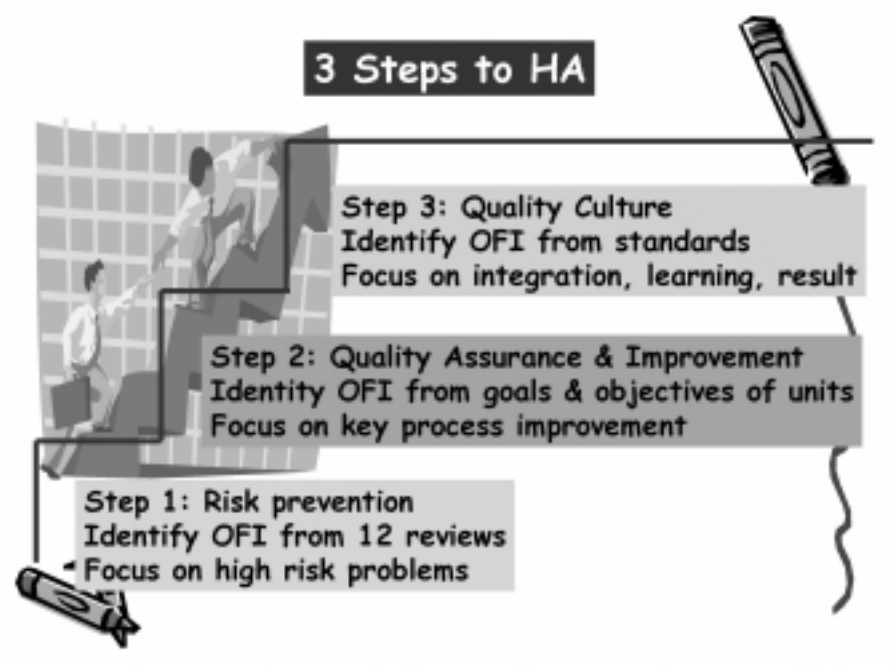
In the past, the medical faculties of universities in Thailand engaged solely in academic education and research while the HSRI was in charge of education and studies on the quality of medical services. However, today, with the expansion of hospital accreditation, universities are also beginning to conduct education and research on service quality in their faculties of medicine.

Table 3-7: Issues to be Cleared Before Achieving Hospital Accreditation

1. Hoe to Review Patient Care
2. Patient Report (Complain)
3. Risk (All Risk) Patient, Personnel, Hospital
4. Incident
5. Medication Error (Drug Control)
6. Infection Control
7. Important Events (Incidents etc.)
8. Medical Records
9. Utilization
10. Indicators Review (Set up by the Hospital)
11. Refer Case
12. New Comer / Expert Less Experience

Source: the author

Figure 3-6: HA-Thai



Source: Dr. Anuwat

Figure 3-7: HA-Thai

	Step 1	Step 2	Step 3
Overview	Reactive	Proactive	Quality Culture
Starting Point	Review Problems & Adverse Events	Systematic Analysis of Goal & Process	Evaluate Compliance with HA Standards
Quality Process	Check-Act-Plan-Do	QA: PDCA CQI: CAPD	Learning & Improvement
Success Criteria	Compliance with Preventive Measures	QA/CQI Relevant with Unit Goals	Better Outcomes
HA Standard	Not Focus	Focus on Key Standards	Focus on All Standards
Self Assessment	To Prevent Risk	To Identify Opportunity for Improvement	To Assess Overall Effort & Impact of Improvement
Coverage	Key Problems	Key Processes	Integration of Key Systems

Source: Dr. Anuwat

Table 3-8: HA-Thai

Situation	2004	%	2005 (May 05)	%
Under development to Level 1	538	55.8	218	22.6
Level 1	213	22.1	601	62.3
Level 2	154	16.0	32	3.3
HA	59	6.1	113	11.7
Total	964	100	964	100

Source: the author, based on Dr. Srismith and the NHSO

(3) Quality control of hospital accreditation

HA Thailand has so far prepared a total of 20 different standards for the improvement of hospital services. Although based on materials from different countries, they have been developed to correspond to the actual state of the health and medical sector in Thailand. These standards are formulated by the Board of Accreditation that consists of representatives from the associations of nurses, doctors, pharmacists and other professionals so that the standards may officially or unofficially reflect the views of these organizations. The standards merely provide for minimum requirements. Those for the benchmarking of hospital services are based on the criteria that apply to the Malcolm Baldrige National Quality Award in the United States. (See Table 3-9)

HA Thailand provides a wide array of training courses aimed at bolstering hospital accreditation activities. Each course has its own subject and grade and its content is meticulously designed to match the

Table 3-9: Standard Criteria for Hospital Accreditation

Commitment to Quality
1. Leadership
2. Policy Direction
Resource Management
3. Resource Management
4. HR (Human Resource)
5. Environment & Safety
6. Equipment & Supply
7. Information Management
Quality Process
8. Quality Process
9. Clinical Quality
10. Infection Control
Professional Ethics
11. Medical Staff Organization
12. Nursing Administration
Patient's Rights and Organizational Ethics
13. Patient's Right
14. Organizational Ethics
Patient Care
15. Patient Care Team
16. Preparation for Patient and Family
17. Patient Assessment and Planning
18. Patient Care Delivery System
19. Patient Information and Record
20. Discharge Planning and Continuing Care

Source: the author, based on a booklet of HA Thailand

Table 3-10: Training Courses Offered by HA Thailand

HA100	HA for Hospital Executive
HA301	HA for Team Leader / Facilitator
HA302	After 1st step bring forward to systematic development and HPH in Linkage
HA303	New Trend of Quality Improvement
HA305	Quality Improvement for Service Support
HA400	HA for Lecturer / Coordinator / Quality Manager (Advanced facilitator)
HA401	Internal Inspector
HA403	Professional Inspector
HA501	Medical Resource Administration (Basic Level)
HA502	Medical Resource Administration (Development Level)
HA601	Risk Management System in Quality Hospital
HA602	Clinical Quality and Safety
HA603	IT and Quality Improvement
HA604	(Individual Patient) Case Management
HA605	Drug Dispensary System in Quality Hospital

Source: the author, based on a booklet of HA Thailand

Table 3-11: Training Categories for Hospital Accreditation

	Basic	Intermediate	Advance
1. General Quality Development	HA301	HA100, HA302	
2. Being a coach		HA400	
3. Inspection		HA401	HA403
4. Resource Administration		HA501	HA502
5. Particular Development	HA303, HA305	HA601, HA603 HA604, HA605	HA602

Source: the author, based on a booklet of HA Thailand

purpose, level and experience of those wishing to take it. (See Tables 3-10 and 3-11)

Hospital accreditation has been obtained not merely by large hospitals and other hospitals in urban areas but also by some community hospitals as well. In other words, the scale of hospitals has nothing to do with the level of difficulty in acquiring accreditation. Even so, small hospitals are faced with a shortage of human resources despite favorable communication while large hospitals are faced with communication problems. Especially in this country, the geographical distribution of doctors is an issue. New doctors are obliged to serve community hospitals for three years for training purposes. City hospitals are unable to recruit fresh doctors while hospitals in provincial areas find it hard to retain doctors who have completed their training period. This makes it difficult for hospitals to conduct human resource management.

(4) Hospital accreditation and TQM

Quality improvement of hospital services is one of the key evaluation items for hospital accreditation. The concept of TQM is utilized for patient-centered care, teamwork, leadership and formulation of strategic plans. In fact, the pilot hospital for the study on hospital accreditation was selected from among the pilot hospitals for the trial program on TQM in 1993. The TQM process is used for target setting for hospital accreditation and for activities to attain the target.

As discussed earlier, TQM has been used as a tool for quality control since before the launch of hospital accreditation. Thailand faced the challenge of ensuring medical quality in connection with the social security service (SSS) launched in 1992. To address this issue, the project for quality improvement of

hospital services was commenced in 1993. Today's hospital accreditation is an advanced form of this project. Pressure from the demand side for patients' satisfaction and enhanced care was behind the subsequent nationwide expansion, which was further stimulated by the thirty-baht scheme. In other words, hospital accreditation is perceived as a step that follows TQM. These two initiatives do not necessarily clash with each other. Target control using a balanced scorecard is implemented in many hospitals and taken as one of the standard approaches that sets the goals for public hospitals. The balanced scorecard is recommended not only to hospitals but to other public institutions. It is partly due to political reasons as well, namely, the recommendation by Prime Minister Thaksin Shinawatra to use it.

With regard to constraints on or impediments to the introduction of the hospital accreditation system, there was an external one: a change in the governmental health and medical policy. Hospitals have no idea of what to do when there is no definite policy on health and medical care. Specifically, there is some impact on what approach to choose, what process is desirable and how necessary resources should be secured. There were also some internal factors as well. They were questions as to how to develop a convenient approach and how to encourage hospitals to join the system. In order to tackle these questions, three evaluation levels were established. And the system was designed to allow a tailor-made process rather than a custom-made one so that hospitals would be motivated to proceed with quality enhancement in their services and to gain hospital accreditation.

Improvement activities stimulated by hospital accreditation are mainly conducted by nurses. They enthusiastically conduct TQM as well. As in Japan, doctors are most interested in clinical treatment and it is often difficult to bring them into group activities. To change this attitude of doctors towards TQM, doctors are drawn into becoming involved with TQM activities from the perspective of improving the follow-ups of clinical outcomes. Given that doctors seek clinical and academic progress, they are first drawn to the improvement campaign by launching an activity on the subject that corresponds to their interest and then they are brought into other activities.

3-3-5 TQM in hospitals

When asked by the author to show the actual implementation of the TQM efforts, HA Thailand named four hospitals. Their respective activities are reviewed below. All these hospitals have already acquired hospital accreditation and have their own varied features in terms of scale and style of operation. It proves that hospital accreditation can be obtained irrespective of scale and style and that TQM activities do not depend on any of these factors.

(1) TQM at Saraburi Regional Hospital

Saraburi Regional Hospital is a tertiary care hospital serving a total population of 2.3 million in Saraburi Province, which is home to 700,000 inhabitants, and its five neighboring provinces. The hospital falls under the category of regional hospitals. It has a traffic accident trauma center, a cancer center, a medical school and a school of nursing attached to this hospital. It is responsible for controlling ten general hospitals in the region.

Saraburi Regional Hospital has been continuing with TQM since it was selected as a pilot hospital under the project to introduce TQM in 1993. Its commitment is so proactive that it independently invites outside lecturers to present at the hospital. Dr. Tiem Ungsachon was a deputy director of the hospital and is responsible for the project at that time. Now, the doctor serves as director of the hospital and has been actively backing up the promotion of TQM efforts after the trial project terminated. The hospital was highly regarded for its sound management and nominated as one of the prospective autonomous hospitals. In the

end, it was not designated for political reasons.

This medical facility makes use of the balanced scorecard to clearly identify its medium- and short-term goals. In order to achieve them, different departments and sections engage in continuous quality improvement (CQI) activities. An office for promoting CQI activities was set up to provide training and to prepare educational materials. Initially, CQI activities were conducted independently by individual groups, but some groups were unsuccessful. Today, the hospital makes various efforts to enhance motivation. For example, it has a period of two straight days each year designated as Quality Days for giving presentations on the results of group activities. There are other efforts to enhance motivation at the hospital.

This hospital introduced CQI when it was chosen as a pilot hospital under the project to introduce TQM. At that time, it was faced with the challenge of curbing the increased workload. Especially after the introduction of health insurance and the thirty-baht scheme, it enjoyed no increase in revenues despite the climbing number of patients. The workload imposed on each staff member went up without any increase in staff size. Under these circumstances, it was vital to prevent any accidents or errors from occurring and to reduce the workload of the personnel.

As an example of the CQI activities in the hospital being reviewed, its current deputy director, Dr. Sommart Tabongkaraksa provided an explanation on improvements in respiratory care. It was conducted by the Respiratory Care Quality Team (RCQT) headed by Dr. Sommart Tabongkaraksa.

Prior to the inauguration of the activities, the hospital director advised that medical equipment had to be centrally controlled. Believing that was necessary not merely to implement central control but to maximize its benefit as well, the team studied the means of achieving it. Consequently, it decided to select the devices that need to be centrally controlled, to conduct an analysis of their state, to identify the present issues and to tackle them. The analysis found out that the most troublesome piece of equipment was the respirator.

The analysis process is detailed as follows. It began with a check on the status of use and control of separate devices to identify the problems with them through analysis based on data. It was followed by a total of nine three-hour training sessions for troubleshooting. As a result, a checklist on the handling of the respirator was developed and a respiratory care working nurse (RCWN) responsible for controlling the respirators was installed in each individual ward. The RCQT's activities were linked with the Infection Control Committee (ICC). Their objective was not merely to manage the equipment but also to prevent in-hospital infections.

Dr. Sommart Tabongkaraksa comments that what is significant in the process is to make an accurate analysis of the current state. No issue can be addressed without clearly identifying it and it is essential to elucidate the fact by means of analysis based on data.

(2) TQM at Sao Hai Hospital

Sao Hai Hospital is a community hospital located in the province of Saraburi. It is a small hospital with 10 beds, three doctors and 32 nurses. Engaging in local public health activities as well as in medical care, it is the first community hospital to obtain hospital accreditation. The director of this hospital, Dr. Suwat Thanakoonnuwat, is a doctor with a Master's degree in public and private administration, and works on managerial improvement on the basis of his expertise in that area.

Improvement efforts in this hospital were started when it launched a patient-oriented service and introduced TQM in 1999. It won the Best 5S Award in Thailand in 2002. Two years later, it was certified under the Healthy Thailand initiative, a health promotion campaign positioned as one of the pillars of HA Thailand. In addition to ordinary diagnostic and treatment functions, hospitals certified under the Healthy

Thailand initiative are equipped with facilities for health development, such as sports gyms, massage rooms and saunas, thereby providing those wishing to enhance their health with opportunities to do exercises.

When the hospital director visited Chaing Mai Hospital soon after taking over the position, he was surprised at the cleanliness of the facility and thought that his hospital should follow suit. This led to the launch of TQM at Sao Hai Hospital. The 5S process was introduced as the initial step for CQI activities. At first, it failed in its independent efforts. Then, Dr. Kanthina was invited from a private consulting firm, Human Resource Management for Productivity Institute, for a two-day training session joined by all personnel. At the moment, there are only two facilities that have acquired hospital accreditation within the category of community hospitals.

The director says, "The 5S process is at the heart of patient satisfaction and serves as the basis for our TQM action plan. Our current exposure is the lack of human resource development. We are working on development through TQM." The hospital sets up its own 5S guidelines and conducts 5S activities in accordance with the guidelines. (See Table 3-12)

The hospital stresses that its efforts are made in the entire organization by referring to the three basic concepts of CQI, which are unit optimization, vertical alignment and horizontal integration. (See Figure 3-8)

Under the Quality Steering Team, there are eight committees joined by 105 staff members, which make up one third of the total personnel. Anyone with leadership quality may be a committee leader irrespective of his or her position within the hospital.

Each committee defines its monthly goal in line with the hospital's five-year action plan. Achievements are examined at the leaders' meetings at the beginning of a month. On the following day, all members participate in a meeting where they review their overall progress, outcome and details. The hospital goals are controlled using the balanced scorecard. It is reported that TQM activities have helped boost both staff satisfaction and patient satisfaction and that they have led to a rise in the number of repeat patients and in revenues from patients as well, although the author failed to obtain any tangible figures that support them.

The hospital director specifies the voluntary activities of different committees as a key to success in TQM activities at the hospital. According to the director, service quality is improved only after providing a motivating work environment and increasing awareness of hospital services.

Table 3-12: The 5S Guidelines Set Out by Sao Hai Hospital

- Background and Performance of 5S
- Components of 5S
- Step of Procedure
- Committee Organization Chart
- Chart of Administration Tasks
- Committee of policy and Academic System
- Committee of Monitoring and Evaluation
- Committee of PR and Motivation
- Committee of Cooperation
- Zoning Charts and Activity Plan

Source: the author

Figure 3-8: Sao Hai Hospital

Source: Director of Sao Hai Hospital

(3) TQM at Siriraj Hospital

Siriraj Hospital is Thailand's first and oldest Western-style hospital. It was established 117 years ago. It is also one of the largest general hospitals in the country, with a total of 2,400 beds, treating two million outpatients and 80,000 inpatients a year and employing 10,000 staff members including 1,200 doctors and 4,000 nurses. Under the control of the Ministry of Education, it engages in undergraduate education in the faculties of medicine and nursing of Mahidol University, in training for resident trainee doctors undergoing a two-year internship and three-year duty work and in postgraduate education in Master and Doctorate degree programs. It also provides a degree course in traditional Thai medicine.

Its quality control and TQM activities began 15 years ago in 1990. They have been vigorously run over the past couple of years. When TQM was started, this hospital had some external and internal problems and was urged to reform its own management. External problems include the change in expectations of patients and competition with private hospitals, while internal problems include the increase in workload, individualism among doctors and the sectionalism of clinical departments. Among others, the failure to measure the outcome of patient care was the major difficulty. Hospital executives[47] realized the necessity to propose an ideal form of hospital services in an objective sense. In 2002, Siriraj Hospital obtained hospital accreditation and it was renewed in 2004. Every year, it is audited by inspectors from HA Thailand. Quality improvement activities have been conducted in the hospital as well as in the university faculties for seven years.

Currently, improvement activities in this hospital are aimed at upgrading clinical practice. They are, patient-oriented and focus on group activities. Prime importance is placed on uplifting group performance. Actual efforts are made by 400 CQI units, a quarter of which are survey units responsible for conducting two audits a year. Every year, nearly 10 percent of the units receive awards for their distinguished activities. In addition, it holds a large-scale meeting comparable to quality control meetings in Japan each year for panel displays and presentations. This hospital has seen enthusiastic efforts particularly made by QC circles formed by nurses and has won a Singaporean QC award in the past.

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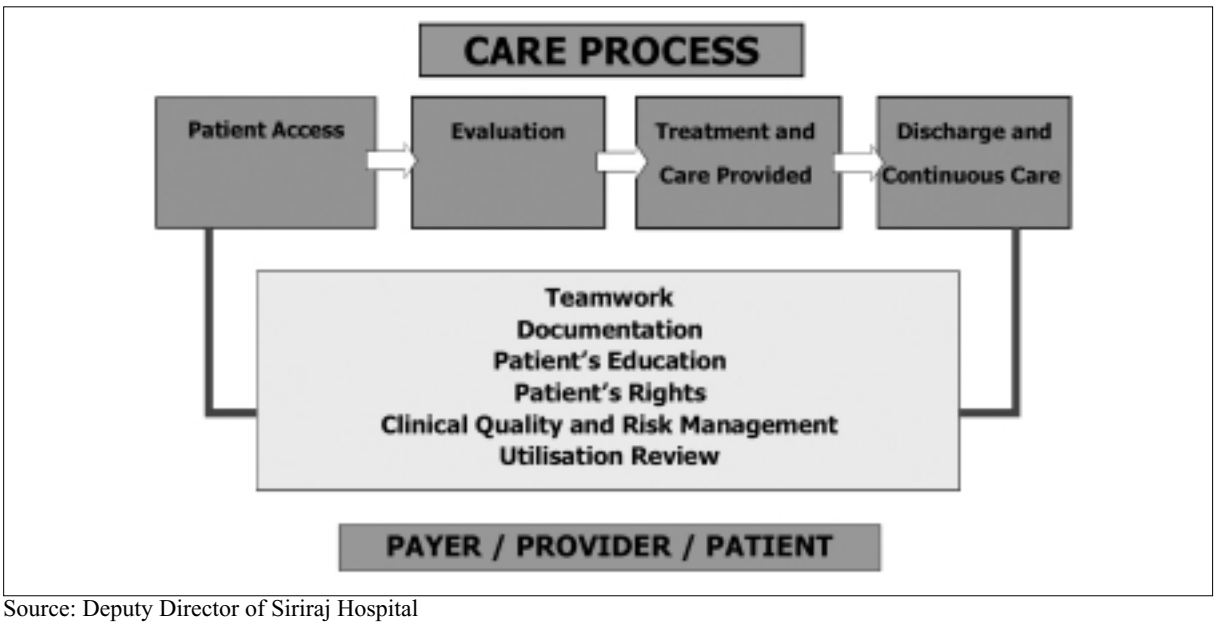
[47] Interview with the deputy dean of the Faculty of Medicine, who also serves as deputy director of the hospital, at the time of the on-site survey.

The uniqueness of the improvement efforts in this long established medical institution lies in the respect it shows for the voluntary position of individual units. Hospital leadership defines the direction of improvement while each unit sets the target and details for its own activities. The same method is adopted in Japan's TQM practice and in some other hospitals in Thailand, but in most cases, the adjustments and redefinition to ensure consistency between the targets of the entire organization and those of individual group activities are conducted by the management, those at elevated positions, the TQM promotion office and other administrative offices dealing with improvement activities. At Siriraj Hospital, it is each unit that has responsibility. The deputy dean of the faculty advocates this approach, saying that it is appropriate given that every lecturer of the medical school is capable of identifying the areas in need of improvement and conducting independent activities. In this way, improvement efforts are made in a manner that makes the best possible use of the skills of the personnel. However, it is also vital that they serve patient-oriented improvements, which should not only be limited to the case of medical schools, such as this hospital. At the initial stage, improvement efforts were performed by improvement units formed chiefly by the nurses. Later, information sharing within separate departments was gradually expanded. After the activities of individual units proved successful, doctors started to show an interest in them and they gradually took part in them. At the moment, doctors comprise 30 percent of the personnel conducting improvement efforts. This percentage is gradually rising. After the activities of different units gained further momentum, patient-centered multi-disciplinary improvement activities began. Until then, each improvement unit covered a specific patient treatment cycle, such as outpatient care, inpatient care, surgery and rehabilitation, and determined its own improvement target. Now the medical teams controlling the treatment cycles have formed a single improvement unit and it is now possible to determine improvement activities in accordance with the patients' treatment cycles. This has made clearly identified the connection between the result of the improvement activities conducted by different units and the effect of treatment on patients and has paved the way for measurement of the improvement outcomes. Siriraj Hospital has no need for coordination conducted by an administrative office or such like since it is easy to monitor the relationship between the direction of the entire hospital and those of individual units even if they are autonomously determined. At the moment, the hospital has 106 clinical teams working on improvement activities. As a matter of course, patient-oriented improvement is addressed not only by clinical teams but by back office sections. Multiple-disciplinary improvement units sometimes engage in joint improvement activities. (See Figure 3-9)

Improvement activities are linked with research activities. The hospital adopts a system that encourages researchers to conduct enhanced research activities. For example, research funds are offered to remarkable improvement plans as part of their clinical research projects. In fiscal 2005, proposals were produced by 40 units and funds were provided for 10 units. In 2004, Routine to Research (R2R) project was launched to make use of the expertise cultivated through improvements in hospital services for enhancement of clinical care.

Professor Apichati Vichayanrat, the deputy dean of the hospital and the Faculty of Medicine in charge of quality assurance, attributes the success of improvement efforts in this hospital largely to its acquisition of hospital accreditation. Activities for gaining the accreditation brought out the latent potential to attain improvement and leadership. The activities were driven by the exhilaration of improvement felt by the staff members, not by outside pressure. In fact, although it was said that hospital accreditation could not be obtained by large medical institutions, Siriraj Hospital took up the challenge with the conviction that it was essential for hospital reform. "We have renewed the hospital accreditation only once. We cannot say that the improvements have taken root in the culture of the hospital. It will take at least five years, or even more, depending on the circumstances," the deputy dean added. It appears that the hospital is well aware of the

Figure 3-9: Care Process at Siriraj Hospital



Source: Deputy Director of Siriraj Hospital

philosophy behind the hospital accreditation - the importance of nurturing the culture of improvement according to the circumstances surrounding the hospital.

Asked about the necessity of leadership, the deputy dean replies, "There is no point in conducting any activity unless there is leadership. It would be a waste of time." Subsequently questioned as to whether improvements could not be addressed if there was actually no one with leadership qualities, he answers that the hospital has yet to appoint the right person although it has numerous personnel with leadership qualities. In fact, the hospital had some people with leadership qualities, including Professor Apichati. More importantly, however, the success of its improvement activities owes greatly to the fact that human resources with leadership were discovered in the hospital accreditation process.

(4) TQM at Bumble Adulate Hospital (Royal Thai Air Force Hospital)

Bhumibol Adulyadej Hospital is a tertiary care hospital with 700 beds. Additionally equipped with a primary care unit, it is a general hospital that accepts referred patients as well as all other levels of patients. The hospital organization is part of the Royal Thai Air Force and its personnel are civilians of the military. Nevertheless, its patients include not only military personnel and their family members but also those living around the hospital. Given that the hospital is located on a trunk road and that there is a large number of victims of traffic accidents, the hospital has a Trauma Center for traffic accident disabilities as well as a Center of Cardiology and a Cancer Center. It plays an additional role of an educational hospital, although it merely accepts resident trainee doctors. It has approximately 800 nurses, around 180 doctors and some 70 resident trainee doctors.

In this hospital, TQM commenced around 1990. It introduced the 5S process, the excellent service behavior (ESB) and risk management according to the conditions of different departments. In the early stages, the TQM efforts started with improvements in the frontline environment. What triggered the activities was a question from the then director to all personnel: "How should the hospital improve its quality?" In the past, different disciplines had their own improvement policies. They converged to collectively address the efforts in a patient-oriented manner as the TQM activities were kicked off. In the

initial phase, the initiative failed to produce sufficient results. At that time, the hospital learned of the HSRI's trial project on TQM. Convinced that this action would facilitate its own improvement, the hospital initiated contact with the CEO of HA Thailand, Dr. Anuwat.

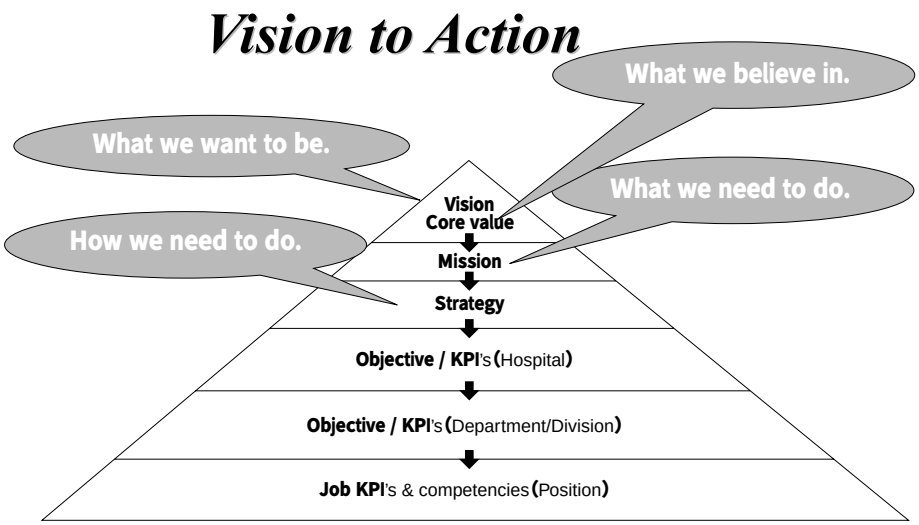
A program for obtaining hospital accreditation was commenced in 1999. The accreditation was successfully acquired in 2002 and renewed in 2006. It was the top management team that made the decision to strive for hospital accreditation. Behind this decision, the executives thought of easing the burdens on the staff members by standardizing the operation in view of the growing workload of the hospital personnel in the wake of the thirty-baht scheme. As a result, standardized operations have ensured safety and produced better outcomes than expected. On the other hand, hospital accreditation left unchanged the financial position of the hospital. The acquisition of hospital accreditation and promotion of TQM do not necessarily produce financial benefits.

Bumble Adulate Hospital commenced the efforts for hospital accreditation by developing a team of facilitators, identifying the needs of customers (patients) and building a structure for the efforts. They followed the promotion of improvement activities, formulation of a strategy plan and a timetable and training for all personnel. Among others, the strategy plan was designed to clearly identify the objectives of different steps including the vision, the mission and the strategy of the hospital with a view to ensuring consistency between the goals set by individual departments and the hospital strategy. The hospital has thus adopted a marketing strategy commonly used in private businesses. (See Figure 3-10)

In terms of establishing structures, the hospital set up a quality improvement organization that was distinct of the operational organization. In partnership with the quality improvement team, quality improvement is conducted vertically by a team of leaders from clinical departments and horizontally by a team of leaders from different functions. The campaign places emphasis on self-assessment performed by each staff member and team in the belief that it is critical for enhancing quality. It is also a key factor for building an awareness of making improvements. (See Figure 3-11)

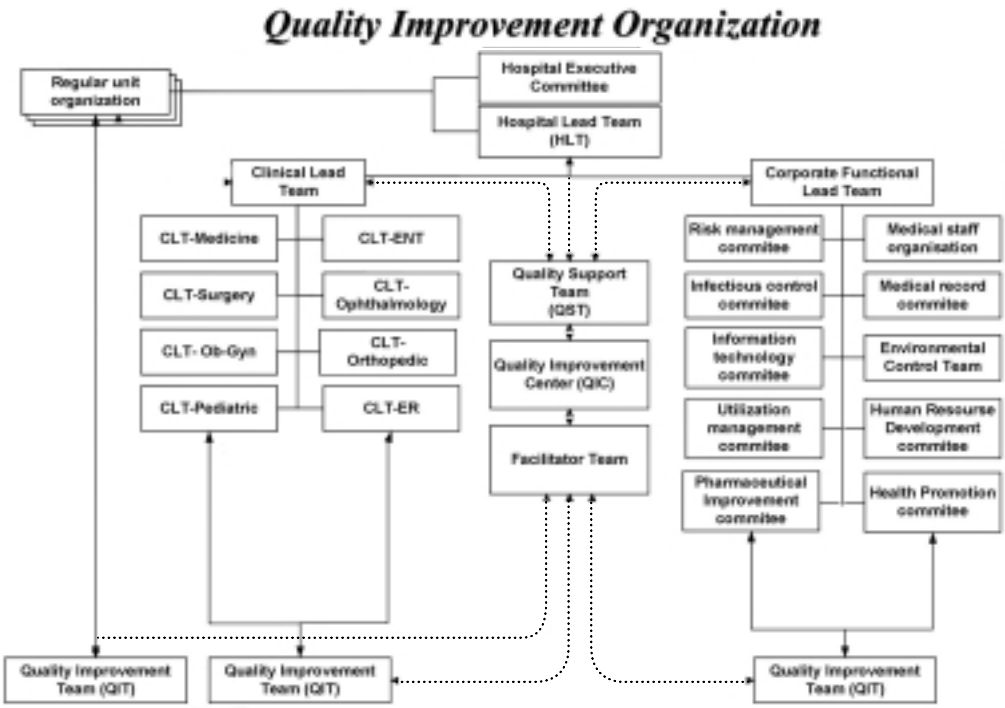
There is another unique aspect. It adopts and uses a wide range of techniques and methods for facilitating patient-centered improvement activities. In other words, the activities are not tool-oriented but patient-oriented or purpose-oriented. (See Figure 3-12)

Figure 3-10: Bumble Adulate Hospital



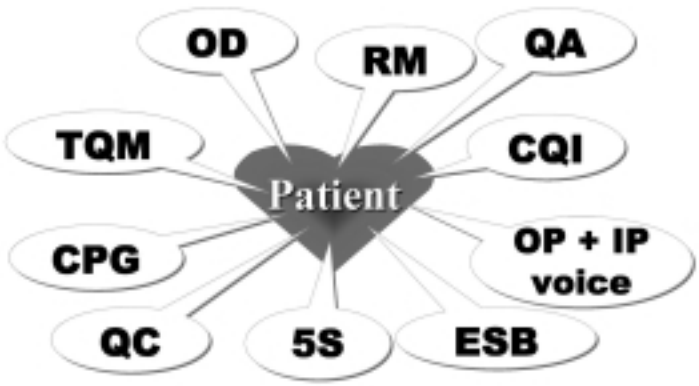
Source: Bumble Adulate Hospital

Figure 3-11: Bumble Adulate Hospital



Source: Bumble Adulate Hospital

Figure 3-12: Bumble Adulate Hospital



Key: ESB = Excellent Service Behavior
OP+IP Voice = collection of opinions
CQI = Continuous Quality Improvement
QA = Quality Assurance
RM = Risk Management
OD = Operation (or process) Design
CPG = Clinical Pathway Guideline

Source: Bumble Adulate Hospital

The quality enhancement initiative in this hospital follows an example of the marketing strategy in private firms. It is mostly due to advice from HA Thailand.

Finally, the deputy director provides a list of three keys to success at the hospital in answer to the question from the author. The three keys are commitment to quality enhancement, team knowledge and HA Thailand. In addition, strong leadership is essential for carrying out the initiative, according to the deputy director. However, lack of leadership does not mean that the initiative is not viable. The deputy director contends that leaders can be trained by developing their will to improve quality, by giving them appropriate expertise in quality improvement and by cultivating their attitudes for leadership. He also contends that it is vital to establish a role model for this objective.

3-4 The Philippines

The review of TQM in the Philippines has been completed with the help of Dr. P. Lagrada Leizel, who is a medical doctor dispatched from the Philippine Department of Health for studies in a graduate school in Japan. This section merely outlines the review. The full text is available in the Materials Section.

Dr. Leizel interviewed seven key personnel on the promotion and implementation of programs for quality assurance and improvement. They include program managers, policy makers and implementers from the Department of Health (DOH) and Philippine Health Insurance Corporation (PHIC). Additional institutions outside the DOH that also contribute to the efforts to promote quality in health services and from which the key personnel were selected include the Philippine Council on Accreditation of Health Care Organizations (PCAHO) and the Philippine Society for Quality in Health Care (PSQua).

Quality improvement in health and medical care in the Philippines has been a major focus in the Philippines' health sector for more than 20 years. The study examines the development of the service quality improvement program for the health sector in the Philippines, including identification of the event that triggered its development (trigger event[48]), the factors leading to successful implementation of the program and reviews on the program run in one hospital and lessons learnt from it.

The study has revealed that there were two factors behind the quality improvement program in the country, namely (i) delegation of authorities on health and medical service to localities and (ii) statutory coercion, and that the program was triggered by the awareness of necessity to upgrade health and medical services among leaders of the health sector. The program has been run in various forms and the following lessons have been learnt from the experience of quality improvement in the Philippines.

(i) Drawing up policies on the quality of care provides a clear direction for its implementation.
(ii) Quality improvement is better implemented if linked with incentives.
(iii) Sharing of quality improvement initiatives among institutions raises the awareness of the importance of quality among service providers.
(iv) Quality improvement can lead to better use of limited resources and increases in revenues.
(v) Increasing the awareness of the community for quality improvement can lead to higher utilization.

3-4-1 Historical development of quality improvement efforts in the Philippines

The delivery of health and medical services in the Philippines has tremendously changed over the last 14 years. Among others, new legislation greatly contributed to the present health and medical care systems

[48] A trigger event is a factor or an incident that induces a specific event. For the significance of trigger events in this report, see Chapter 4.

in the country. The DOH guarantees access to high-quality health and medical services by means of legislation. The Bureau of Health Facilities and Services urges facilities to establish their own quality improvement programs.

In 1995, the National Health Insurance Law was passed concurrently with the enactment of legislation that established the PHIC. Under this law, health and medical service providers are required to formulate and implement their quality assurance programs as a prerequisite for accreditation. The Quality Assurance and Research Policy Development Group (QARPDG) was set up under the PHIC to ensure that this particular provision of the law is fully enforced.

The QARPDG is responsible for development and enhancement of quality assurance programs, policies and guidelines for institutional and professional medical care providers. In addition, it is in charge of developing and continuously reviewing health and medical care standards, monitoring the performance and evaluation systems, surveying the use of facilities and conducting clinical technology and outcome assessment.

The QARPDG is also endeavoring to ensure high-quality services in PHIC-accredited facilities by creating a manual on improving performance of health and medical care services. The manual now serves as a yardstick for assessing and measuring the quality of health and medical services provided by PHIC accredited facilities. It provides an updated list of standards and criteria available to medical facilities for self-assessment prior to filing applications with the PHIC for accreditation and offers the PhilHealth Quality Standards for Health Care, as detailed below.

- Patients' rights and organizational ethics
- Patient care
- Leadership and management
- Human resource management
- Information management
- Safe practice and environment
- Performance improvement

In 1996, representatives of professional societies, academic institutions and governmental bodies were brought together to set up the Philippine Society for Quality in Health Care (PSQua). It aims to:

(i) promote quality assurance, quality improvement and quality management among the public and private providers of health and medical care,

(ii) organize scientific meetings, workshops and seminars on quality in health and medical care,

(iii) promote research on quality in health care in the health and medical care sector, and

(iv) collaborate with government agencies in establishing scientifically sound and practical rules in accreditation process of the medical organizations.

In 2004, it developed the Essential Elements of Quality Assurance/Quality Management (QA/QM) in hospitals in the Philippines and formulated the Training Methodology in Quality Assurance/Quality Improvement (QA/QI) for health services. Within the country, it has held more than 35 training workshops, provided training for trainers with the help of the Asian Productivity Organization (APO) and organized 81 hospital quality improvement contests.

In 1998, the Philippine Council for Accreditation of Health Care Organizations (PCAHO) was founded to strengthen the regulations for and supervision of hospitals. It is a non-governmental non-profit hospital accreditation body that aims at promoting quality enhancement of health and medical care services through certification, education, training and research. Seven years after inauguration, it carried out the certification of quality standard systems (QSS) at 150 major clinics performing health checks on Philippine nationals

working abroad[49] as mandated by the DOH. It was also authorized to certify the QSS of drug testing institutions until the DOH changed the accreditation of functional assessment of such bodies. The PCAHO certified 130 clinics out of 135 that it audited and provided training for quality management representatives (QMRs), clinic administrators, other clinic staff and educational institutions.

In 1998, the DOH formulated a strategic plan on the Quality Assurance Program (QAP) with the help of the United States Agency for International Development (USAID). In 1999, the program was renamed and became well-known to the public as Sentrong Sigla Movement (SSM) (meaning the "Center of Vitality"). The final goal of the SSM was to establish collaboration between the DOH and local government units (LGUs) in the provision of high quality health and medical services.

More specifically, its objectives were to:

(i) institutionalize the QAP through capacity building,

(ii) establish a mechanism to coordinate, support and monitor QA efforts,

(iii) develop and implement effective information, education and communication (IEC) and conduct a publicity campaign, and

(iv) make patients active partners in the program.

This program had two strategies. One is the certification of public health facilities that meet the established criteria, including district hospitals, rural health units, urban health centers and barangay ("village") health stations. The other is the capacity building to internalize continuous quality improvement (CQI) in health and medical services in these facilities. Table 3-13 portrays the SSM achievements between 1999 and 2004.

Table 3-13: Sentrong Sigla certified facilities, 1999-2004

Facility	Total Number	Total Certified	% Accomplishment
Rural Health Units/Health Centers	2,385	1,375	58%
Barangay Health Stations	13,540	390	3%
Devolved Hospitals	631	97	15%

Source: Bureau of Local Health Development, DOH 2005

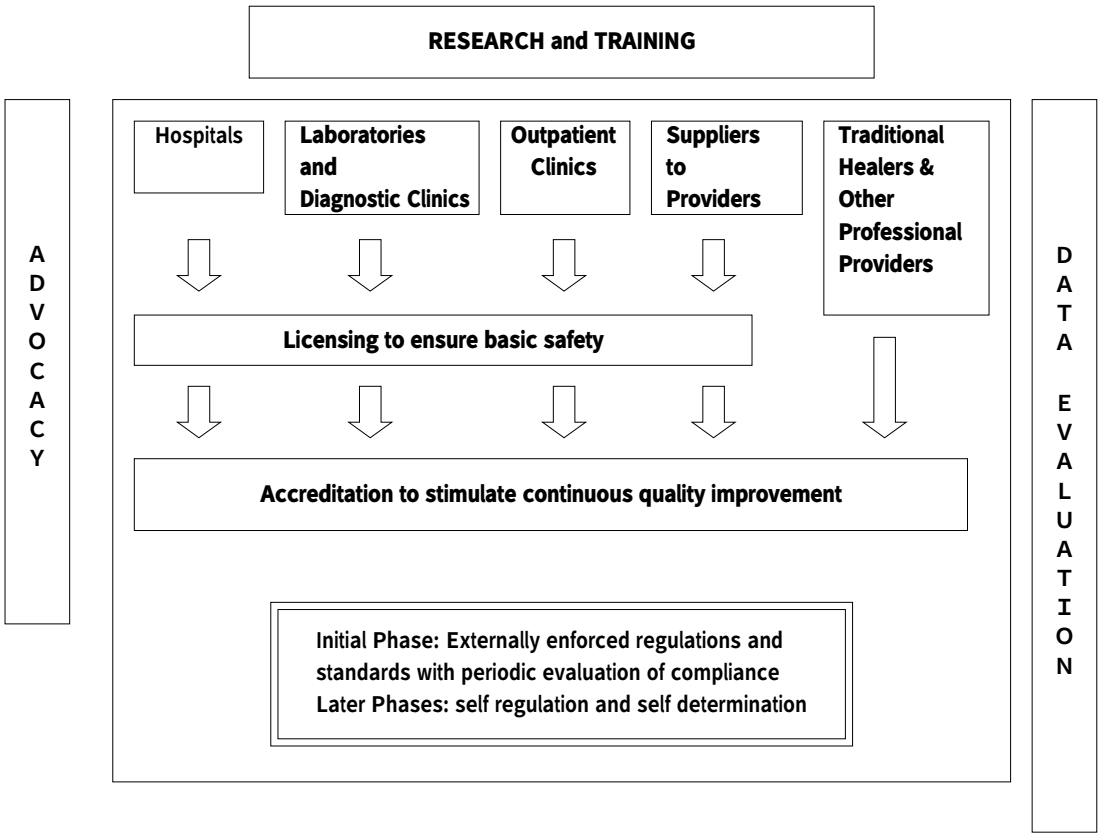
In 2001, the quality of health and medical services was expanded and intensified beyond the interaction between national and local governments by Quality Improvement in Health Programs (QIHPs), PHIC authorization, the payment mechanism and groups of professionals formed under the DOH Administrative Order 17-B series 2003. QIHPs replaced the QAP and the SSM and included (i) mandatory licensing, (ii) voluntary accreditation through the PHIC and other professional associations and (iii) Sentrong Sigla (SS) certification. Figure 3-13 illustrates the quality framework under the QIHP.

Also in 2001, through the National Center for Health Facilities Development, the DOH formulated Department Orders Nos. 310-J s. 2001 and 172-C s. 2003, which provided for the creation of the DOH Steering Committee and Technical Working Group for establishment of a CQI program in DOH hospitals and in the cluster of health and medical services. The objective of this move was to promote sustainable improvements in the quality of health and medical care provided by DOH hospitals.

Figure 3-14 demonstrates the chronological developments of policies, programs to promote and implement the programs for quality assurance and improvement of health and medical services in the

[49] Philippine workers working abroad are required to undergo health checks and to produce a certificate stating that they are in good health. Some such workers produced counterfeit certificates enabling them to work outside their home country and the Philippines faced the problem of unreliable certificates.

Figure 3-13: Quality Framework of Quality in Health Program



Source: Dr. Leizel

Philippines and the establishment of organizations. This diagram shows not merely when different policies were put in place but the degree of implementation and operation. Take the PHIC Benchbook for example. This tool was developed in 2003, published in 2004 and is used as the basis for PHIC accreditation that commenced in 2006.

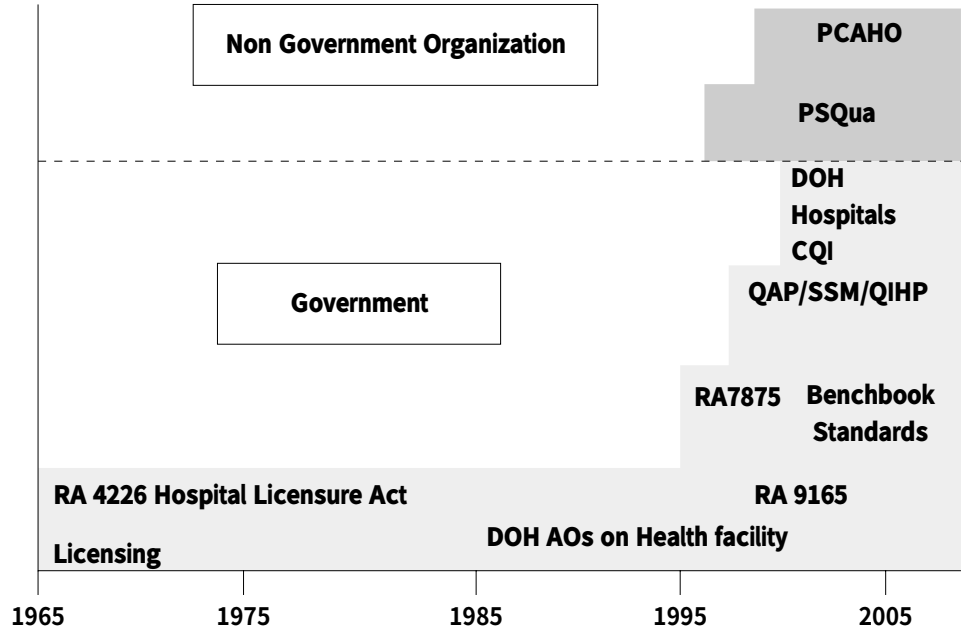
Table 3-14 is a summary of the characteristics of institutions carrying out different policy approaches to quality assurance and improvement. The information shown on this table merely covers the activities currently in operation. It does not include any future intention or plan of these organizations. For instance, SSM certification covered public hospitals in provincial areas and barangay health stations in SSM Phase 1. In SSM Phase 2, however, under the QIHP, it focuses on rural health units.

In the Philippines, hospitals now need to obtain evaluation and accreditation comparable to those in other countries such as Taiwan and Saudi Arabia, as well as ISO certification and accreditation from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The aim is to gain the initiative in the race among different hospitals. In 2005, the DOH announced 137 clinics and hospitals with PCAHO and ISO accreditation and one tertiary private hospital accredited by JCAHO.

3-4-2 Background and circumstances concerning development, trigger events and factors behind promotion and success of quality improvement programs

Dr. Leizel sums up the triggers for quality improvement programs and other initiatives in the Philippines into three areas, namely decentralization of authority to local authorities, perception of the needs and legislation. Dr. Leizel also identifies the three factors that promote these programs: leadership,

Figure 3-14: Chronological Development of Quality Improvement Efforts in the Philippines



Key: PCAHO = Philippine Council on Accreditation of Health Care Organizations
PSQua =Philippine Society for Quality in Health Care, Inc.
Quality Assurance Program (1998) / Sentrong Sigla Movement (1999)/ Quality in Health Program (2003)
Republic Act 7875- National Health Insurance Law, as Amended
Republic Act 9165- Dangerous Drugs Act of 2002
Source: Dr. Leizel

foreign assistance and acceptability of the quality assurance program.

A review of these factors reveals that, behind the quality improvement, lay decentralization of authority to local authorities, legislation and the necessity of quality control in the entire health and medical care sector, and that it was the perception of the needs foreign assistance and requests from overseas that triggered the development of such programs. Leadership and the acceptability of the quality assurance program may be rated as factors for success and promotion. The author outlines the debates as follows on the basis of Dr. Leizel's report.

(1) Background and circumstances

1) Decentralization

In the Philippines, one of the major triggers for the quality improvement initiative for major health and medical facilities was the 1992 decentralization of its health and medical care services to local government units (LGUs). The devolution of health and medical services to LGUs led to the collapse of the referral system as well as the preventive and curative health and medical services. The quality of health services further deteriorated following inadequacy of financial resources for health maintenance programs, especially in preventive care, the downward spiral of morale among medical workers, chronic shortages in facilities and poor quality and unsteady supply of drugs at the local level. It was under these circumstances that the DOH asked USAID for technical assistance in developing a quality assurance program (QAP) later known as SSM. As mentioned above, the QAP served as a main quality improvement program that provided for requirements for ensuring the quality of health and medical services provided by local health and medical facilities.

Table 3-14: Summary of the Different Institutions/Organizations that Contribute to the Quality Improvement Efforts in the Philippines

	DOH BHFS	PHIC	SSM PHASE 2	DOH NCHFD	PSQua	PCAHO
Type of quality assurance/ improvement instrument	Licensing Some accreditation	Accreditation	Certification	—	—	Accreditation/ Certification
Nature of quality assurance/ improvement program	Mandatory	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary
Legal/policy Basis (most recent amendment)	RA 4226 RA 9165 AO 0029 s2005	RA 7875	AO 17-B s2003	AO 172-C s2003	—	Authorization from DOH
Purpose of QA/QI instrument	Ensure safety Permit to operate Quality improvement	Participation to NHIP*1 Quality improvement	Prerequisite for PHIC accreditation Quality Improvement	Quality Improvement	Quality Improvement	Requirement for DOH accreditation Quality improvement
Target facilities	**Licensing**: Hospitals and other health facilities (excluding medical and dental clinics, rural health units and Barangay Health Stations) **Accreditation**: drug testing laboratory, confirmatory drug testing laboratory, hospitals conducting kidney transplantation, OFW*2 and Seafarer Medical Clinic	Hospitals, out-patient clinics including ambulatory surgical clinic, dialysis clinic, maternity clinic, anti-TB/DOTS centers, rural health units	Rural health units	DOH hospitals	Tertiary hospitals	Confirmatory drug testing laboratories, OFW and Seafarer medical clinics
References for QA/QI	AO 147 s2004, AO 0029 s2005	PHIC Benchbook	Sentrong Sigla Quality Standards List	Department Order	Training Manual for QA/QI	Quality Standards Systems
Quality assurance/ improvement activities	Desk review of document On-site evaluation	Desk review of document On-site evaluation	Desk review of document On-site evaluation, training and TA	Training Technical assistance	Training, TA, showcasing of QIactivities	Training, TA*3, accreditation, certification review

Key: *1 NHIP = National Health Insurance Program
*2 OFW = Overseas Filipino Workers
*3 TA = Technical Assistance

Source: Dr. Leizel

2) Legislation

The Republic Act No. 7875, also known in short as National Health Insurance Act of 1995, served as the basis for setting up the Philippine Health Insurance Corporation (PHIC) and other different organizations, including the Quality Assurance and Research Policy Development Group (QARPDG), which is part of the PHIC. This institution focuses on the quality assurance of health and medical care providers. The PHIC quality assurance program functioned to implement the following improvements.

(i) Facilities under the national health insurance program are required to provide appropriate training to medical care professionals and to secure their reliability for offering high quality health and medical services to the insured.

(ii) The development of health and medical care standards is facilitated.

(iii) It is ensured that drug administration and medical treatment comply with medical and ethical standards.

The PHIC has been running a national quality assurance program (NQAP) to upgrade the legal conditions. This program is applicable to all accredited providers of health and medical services. The main focus is thought to be the establishment of a monitoring system for protecting service users against inadequate services, unnecessary diagnostic and therapeutic interventions, the unreasonable utilization of drugs, inappropriate referral systems, breaches of the current guidelines and medical treatment protocols and the use of unauthorized drugs.

3) The necessity of quality control in the entire health and medical care sector

In the Philippines, it was necessary to attain quality improvement not only in public medical services and hospital services but in all medical and healthcare services, specifically including services offered by pharmacies and drugstores, quality control at pharmaceutical factories and quality control of medical devices and materials. Given that many Filipino nationals work overseas as migrant workers, the standard of health of laborers is important for the Philippines. As part of the quality assurance efforts, health checks are also subject to quality control.

(2) Factors that trigger the development of quality improvement programs

1) Perceiving needs

One of the events that acted as a trigger was the need for a quality improvement program in order to respond to the demand from patients. It was crucial particularly to public hospitals. DOH-retained hospitals started with the implementation of the Japan-originated 5S program and then elaborated their own quality improvement plans based on their respective initiatives. However, the head of the Bureau of Health Facilities and Services of the DOH felt the need to provide a model of quality programs for DOH-retailed hospitals. For this purpose, Department Order No. 310-J s. 2001 was issued and the DOH Steering Committee and the Technical Working Group for establishing quality improvement programs were set up. This health and medical policy is logically based on the establishment of procedures and standards for offering benchmarks of quality of services provided by DOH-retained hospitals and other businesses subject to DOH regulations. In recent years, another DOH section started drafting a department order to devise a CQI program for DOH hospitals. The envisioned program is centered on leadership and participatory management, continuous quality improvement activities, risk management, a reporting and documentation system and fund procurement.

There is another vision of strengthening the mechanism of hospital licensing. It came into reality as PCAHO was founded. PCAHO was originally designed to perform hospital accreditation, and it now

additionally engages in the accreditation of medical clinics. PSQua was created to support and institutionalize quality improvement programs launched by health and medical service providers.

2) Foreign Assistance

Despite the shortage of human and financial resources, the Philippines managed to make progress in developing quality improvement programs by enjoying technical and financial support from overseas donors. Among them in particular, the establishment of SSM and the PCAHO was a product of the aid from USAID. In the meantime, the PHIC successfully conducted a trial run of an evidence-based participatory quality improvement (EPQI) system with the help of the World Health Organization (WHO). Introduced to the Philippines in 2003 by Dr. Naruo Uehara, a professor at Tohoku University School of Medicine, the EPQI approach is expected to bolster the continuous quality improvement of medical services in hospitals. Via the Development Academy of the Philippines (DAP), the Asian Productivity Organization (APO) offered its assistance to PSQua in training of quality assurance trainers and implementing benchmarking in the health sector.

3) Requests from overseas

As mentioned earlier, the Philippines is the source of a large number of migrant workers. Requests from those host countries which accept such workers are mandatory. For meeting the requests from host countries, the Philippines improved the reliability of quality control and health checks performed in medical clinics. This leads to the verification that Filipino migrant workers are healthy.

(3) Factors that promote the implementation of quality improvement programs

1) Leadership

It has been confirmed that strong leadership is a key factor in the implementation and institutionalization of various quality assurance and improvement programs. Former Undersecretary for Health, Dr. Susan Mercado, developed and promoted the SSM while Dr. Elvira Dayrit pushed for enhancement in Quality Improvement Health programs (QIHPs), which was broader and more comprehensive than those of the SSM. In the hospital and regulatory cluster, DOH Undersecretary Margarita Galon pushed for a standardized quality improvement program for DOH hospitals. In Quirino Memorial Medical Center (QMMC), Dr. Rosalinda Arandia is seen as a charismatic figure in the improvement of health and medical services offered by the hospital and in making recommendations on and implementing the hospital's quality improvement program. In the private sector, Dr. Tomas Maramba, who serves both PSQua and the PCAHO, is regarded as opinion leader in quality improvement programs.

2) Acceptability of quality assurance program

Receptiveness of health and medical providers is regarded as another factor that spurred implementation and continuation of quality improvement programs. For example, the implementation of PHIC Benchbook was easily accepted, as the Benchbook had been consulted and used for developing quality improvement programs. Similarly, Sentrong Sigla (SSM) Certification is still securely in place six years after its inauguration. At present, 1,371 rural health units and health centers, which make up 58 percent of the facilities in these categories, are SS certified and 660 of such facilities, or 48 percent, are accredited by the PHIC. An SS review has revealed that some changes and improvement were observed in many of the facilities immediately after SS evaluation and after acquisition of SS Certification.

3-4-3 Challenges in the implementation of quality improvement programs

However, it is necessary to strive to carry out initiatives for further quality enhancement and for this objective, a wide spectrum of issues including organizational requirements, integration of the quality policy, quality programs and continuous readiness of health and medical care providers must be discussed.

(1) Organizational requirements

Even though the initial objective is to prompt health and medical service providers to increase their awareness of the quality improvement of their services, the DOH and the PHIC understand that their organizational reinforcement and capacity building are impediments to the full implementation of quality improvement programs. For instance, the PHIC has its experts in implementing the standards remaining in contractual or consultant positions. On the other hand, it is thought that its permanent employees require development of skills in socially analyze quality tools, processes, and assurance programs

(2) Harmonization of quality policies and processes

One of the advantages of the Philippines' quality improvement programs lies in appropriate policy making. Even so, coordination between licensing and accreditation and rationalization of both processes must be achieved. For example, the PHIC's accreditation policy must not clash with the DOH licensing policy and it must complement and not duplicate that given by SS and the PCAHO. At the moment, the DOH and the PHIC have separate standards for rural health units (RHUs) and health centers and issue separate licenses and accreditation. It is a headache for medical facilities.

Likewise, the roles of different organizations and institutions promoting quality of health and medical services must be defined and coordinated to ensure that everybody contributes to quality upgrades of health and medical services. At present, for example, PSQua is authorized to offer training to health and medical service providers for accreditation purposes. Similarly, the PCAHO may provide technical assistance for those providers who fail to obtain accreditation.

Table 3-15: Status of Sentrong Sigla Certification and PhilHealth Accreditation Programs for Rural Health Units and Health Centers, September 2005

Total Number of RHUs/HCs	2,835
Total Number of SS Certified RHUs/HCs	1,375
Total Number of Non-SS Certified RHUs/HCs	1,010
Total Number of PHIC Accredited RHUs/HCs	841
SS Certified Facilities with PHIC Accreditation	660
SS Non-certified Facilities with PHIC Accreditation	181

Source: DOH (2005)

(3) Readiness of health and medical care providers

In order for health and medical service providers to adopt and conduct a quality improvement initiative, they first need to examine their knowledge of the program, their techniques for implementing it and the effectiveness of their resources. Today, many such providers, especially smaller hospitals, are not prepared to implement the standards in the PHIC Benchbook. A study for assessing the SS program has confirmed that 56 percent of the SS-certified facilities are under wealthy local government units (LGUs) and that there exists an uneven distribution among LGUs capable of offering financial support for efforts to improve quality. The shortage of financial resources is one of the obstacles to the implementation of quality programs in DOH-retained hospitals. This has a fatal impact on studies for establishing and updating

quality standards.

3-4-4 Lessons in implementing quality improvement programs in the Philippines

Only a few lessons can be learnt from quality improvement programs in the Philippines given that they have just recently been put in place. However, the points discussed below will be helpful for quality improvement activities in other developing countries.

(1) "Policies on the quality of health and medical care provide a clear direction for their implementation."

The quality improvement initiatives in the Philippines are expressly provided for and supported by several policies, ranging from legislation and guidelines to the PHIC and health policies. These policy tools provide clear guidance to health and medical service providers and suggest an organizational framework for carrying out the programs on quality improvement. However, these policies may have been formulated in haste without full coordination between policymakers and service providers. Hasty policy-making can result in the slow implementation of the policy in view of the insufficient readiness on the part of health and medical service providers.

(2) "The implementation of quality improvement needs to be linked with incentives."

The experience in SS Phase 1 has shown that the connection between incentives and quality improvement programs encourages local government personnel and health and medical service providers to accept such programs. A Sentrong Sigla Assessment has revealed that in the 89.7 percent of the local government units inspected and 88.1 percent of medical workers perceived some change or improvement as a result of the SSM. In contrast to that, it has also observed that service providers do not approve of such programs if quality improvement requirements are included in the requirements for accreditation. In consideration of these two lessons, future quality improvement programs in the Philippines will have to be linked with PHIC accreditation for health insurance, and payment.

However, incentives are not the final goal of quality enhancement initiatives. It is necessary to boost the awareness of improvement in the quality of health and medical care and to motivate health and medical providers implementing the QIHP to enrich the services they provide to growing patients, to boost the morale of their personnel and to improve their health outcomes.

Table 3-16: Hospital Bill Collection, 2002-2004

Year	Number of Patients	Income Collected USD	% Increase
2002	23,049	52,454,171.82	
2003	20,075	71,561,560.00	26.7%
2004	19,515	103,391,892.85	30.8%

Source: QMMC (2004)

(3) "The sharing of quality improvement initiatives among health institutions increases the quality awareness of health providers."

Plenty of lessons have been learnt and plenty of the quality improvement efforts made in each of the facilities have been shared by means of annual meetings held by PSQua. This once-a-year event provides the opportunity to increase the awareness of quality improvement within the health and medical sector and motivates many health and medical service providers to adopt and implement quality improvement programs.

(4) "Quality improvement can lead to the better use of limited resources and increase in revenues."

Under difficult financial conditions, health and medical facilities have developed their quality improvement plans. For example, Quirino Memorial Medical Center (QMMC) introduced evaluation of patients' ability to pay as well as expanded and enhanced services to boost its fee collection. It provides patients who are unable to pay with some advice on applications for financial assistance. Table 3-16 shows the increase in hospital income.

(5) "Increasing the awareness of the community for quality improvement in health and medical care leads to higher utilization."

After the SSM, enhancement in the quality of health and medical service providers is perceived by more patients treated in principal health and medical facilities, more leaders of non-governmental organizations and communities and more LGU officials. A study to assess the impact of the SSM has shown that 46 percent of the respondents seek high-quality health and medical services and choose SS-certified medical institutions.

3-4-5 Conclusion

The agencies that have promoted development of quality improvement programs in the Philippines' health sector will remain in existence. Serving as a main impetus of the SSM development, the devolution of authorities to local government units continues to be an opportunity for pursuing the quality of health and medical services that LGU employees are required to provide. Transferring the delivery of health and medical services to local government units, the Local Government Code paves the way for the development of local health and medical care systems with high efficiency and appropriate quality. There are ongoing LGU initiatives for increasing the quality of health under the technical guidance of the DOH. Meanwhile, the promotion of QIHPs is made mandatory and DOH hospitals have to recognize the need for quality improvement for ensuring sustainable activities. If the leader of an organization alone feels the necessity of a QIHP, the initiative may not last after the leader leaves the organization. Legislation and policies act as steady pressure for developing and sustain QIHPs, but they must be well disseminated in order to be effective. The mandate that these policies give to executing bodies seems to be sufficient to ensure that QIHPs in the health sector are and will be maintained.

At present, the environment for the implementation of the Philippines' quality improvement programs is viewed with some optimism and hope. In the past few years, however, the achievements of such programs were slow and inconsistent. The formulated policies and planned integration processes have yet to produce any outcomes. More leaders and more proponents of health and medical care policies must work hand-in-hand to implement these processes and procedures, to make appropriate investment in upgrading medical facilities and act on the necessity to monitor and evaluate the quality programs and to acquire skills. Evaluation of the quality improvement programs is essential for understanding that improved quality has resulted from improvement in the input and the process, and it will provide some lessons for subsequent cycles.

3-5 Bangladesh

In Bangladesh, the Ministry of Health and Family Welfare (MOHFW) has formulated two policies concerning the improvement of services in the health and medical care sector: Quality Assurance of

Services and Strategic Plan for Clinical Governance (CG). They are currently in effect. Dr. Aminul Hasan, an official of the Directorate General of Health Services, MOHFW, who engaged in these programs, has been commissioned to summarize the main points. Quality assurance was initiated in 1998 in Bangladesh and it cannot really be regarded as successful. It is currently being handled by a dedicated office, however, it has yet to produce outstanding benefits. Clinical governance is currently at the conceptual stage and it is hoped that it will be implemented in the future. The following is an outline of the report from Dr. Hasan. You will find the full report included in the Materials Section.

3-5-1 Quality assurance programs in Bangladesh

(1) Background

The Quality Assurance Program (QAP) is implemented under the leadership of a manager dedicated to the program in the Directorate General of Health Services as an operation for supporting the improvement in quality of health and medical services. It is a key issue in the commitment of the Ministry for maintaining the quality of health and medical services at all levels. The institution implementing the Health and Population Sector Program (HPSP) in 1998-2003 and QAP formed the Quality Assurance Cell (QAC) under the Director General of Health Services and took responsibility for quality assurance of health and medical services at all levels. After that, the currently running Health Nutrition and Population Sector Program (HNPSP) for 2003-2010 proposes that QAP continue its activities under the control of the dedicated manager in the Directorate General, and it is being implemented as proposed. The two programs differ in this respect.

(2) Current circumstances

It is generally believed that the health and medical care provided in Bangladesh is of poor quality. A SDS-CIET survey on nationwide service delivery has shown that the services of health and family planning provided by the Bangladeshi government are rated rather poorly. The lack of drugs, the long waiting time, poor services and inappropriate attitudes of personnel are among the reasons for this rating.

The World Bank project appraisal document (2003) repeatedly refers to the shortage of medicine, long waiting time and poor response of service providers to the poor who are receiving the health and medical services. Poor people have no access to good treatment without a relationship of patronage. Women are in the most disadvantaged position because of their limited access to patrons and resources.

The Project Appraisal Document (PAD) in 2005 comments in a critical manner that it is necessary to devise a realistic and feasible strategy for tightening the quantitative and qualitative regulations on health and medical services and pharmaceutical products.

According to the analysis of current situations, the key quality issues include the lack of drugs, poor quality of health and medical services, the inappropriate attitudes and behavior of staff, waiting time, inadequate number of seats in waiting rooms, very short consultation time, lack of consideration to privacy, the bad behavior of doctors towards their patients, the improper behavior of service providers to the weak, poor cleanliness and unregulated services.

The MOHFW states that it is a priority to remedy the problems listed above. However, its efforts have not necessarily turned out to be successful.

(3) Strategy of the quality assurance program and the future

In accordance with the strategic implementation plan (SIP), quality assurance focuses on the delivery of high-quality health and medical services appropriate to people's needs by means of implementation

standards, monitoring standards, services that comply with the regulations and quality control measures. In order to improve the issues on improper treatment, waiting time and undesirable attitudes of doctors and service providers as a result of service enhancement, quality assurance action has to set out standards and be designed to ensure that it looks after the victims of gender discrimination or violence against women, the disabled, the elderly, the HIV positives, the AIDS sufferers and other socially alienated people.

Therefore, the quality assurance program should be very sensitive to health policies for the poor, the relaxation of the inequality in health and medical services and an emphasis on the importance of participation of communities and stakeholders. It needs to play a supportive role for addressing strategic challenges in all health and medical care policies including those at national and local levels.

In Bangladesh, the quality assurance program does not appear to be in proper operation. Dr. Hasan seems to believe that the program would function if the followings are carried out; (i) a standard operating procedure (SOP), (ii) continued investment of resources and (iii) appropriate monitoring and evaluation. As part of the team running the program, he seeks a solution for future smoother implementation of the program.

3-5-2 Clinical governance

Bangladesh's Ministry of Health and Family Welfare launched the Clinical Governance Committee with a view to introducing clinical governance to hospitals in the country. Its specific targets are (i) clinical effectiveness, (ii) clinical auditing and research, (iii) participation of patients and the public, (iv) education and development and (v) clinical risk control. Especially, its focus is placed on (i) producing reports and suggestions on clinical effectiveness, (ii) establishment of a committee for participation of patients and the public and (iii) launch of subcommittees on risk control.

An action plan is still being deliberated. According to Dr. Hasan, the main points of the plan are (i) securing an effective method to ensure that all staff are fully informed about the hospital, (ii) effective utilization of hospital resources and staff education and (iii) nationwide implementation of clinical governance.

3-6 Zambia

Primary Health Care (PHC) Project Phase 2 in Lusaka, Zambia is a technical assistance project run by JICA. It includes the 5S process as part of the initiative for improving the capacity of personnel in Health Centers. The following is an outline of the report from Chikanobu Maruyama, an expert dispatched as a specialist of the project. His full report is available in the Materials Section.

This project was originally designed to provide assistance in community activities. In Phase 2, additional support was given to the District Health Management Team, which is positioned as a higher-level administrative body. However, its original objective, which is to strengthen the system for backing community activities, remained.

Discussions with the project counterparts from the health management team of Lusaka District identified several problems. For example, Zambia had no strategic program at the district level and the vision and mission of the organization were not clear, and its poor management capabilities hindered any project from being efficiently implemented even if it had any plan.

After further consultation with the Lusaka District Health Management Team, it was decided that these two problems be intensively addressed. In the initial year, the project was set to work on the development of policy-making capabilities. Specifically, it included the joint formulation of strategic plans and subsequent

support for the conventional formulation of action plans. Thereafter, the focus of the project was workplace improvements through the 5S process.

In fact, experts were invited from Japan to offer a total of 26 small group seminars to the Lusaka District Health Management Team and to the personnel of the Health Centers during the two-month period from June to July 2004. This initiative identified the eradication of congestion at the outpatient reception as a challenge common to six health centers. They organized medical records to tackle the problem, and they successfully saved four hours per day.

3-6-1 Background

First, Maruyama performed a SWOT analysis[50] of the primary healthcare in Zambia. According to the results, its strengths were found to lie in the active involvement of the Ministry of Health in promoting community healthcare, in the formulation of health plans in a bottom-up manner and in the establishment of teams responsible for planning at the district level. The identified weaknesses include the lack of substance in activities under the health plan, frequent delays and the suspension of program implementation, the vulnerability of accounting systems, the waste of time due to the bottom-up approach, the absence of a local vision and the lack of the concept of organization. With regard to opportunities, the analysis pointed out, for example, that the country devised a three-year budgetary plan on the initiative of the World Bank in October 2004 and reached the completion point of the Heavily Indebted Poor Countries Initiative in 2004, thereby entitling it to a fund increase in the health and education sectors. As threats, the analysis specified the poor health indices, the dependency on donors and volunteers and the dire shortage of human and physical resources.

As part of its commitment to the quality of health and medical services in the country, Zambia set up the Central Board of Health (CBoH) under the Ministry of Health in 1996. Its Directorate of Monitoring and Evaluation is responsible for the quality assurance program designed to standardize health and medical services to attain quality assurance. However, in reality, it barely operates given a lack of basic drugs, materials or equipment.

Quality check at the level of health centers is performed on a quarterly basis with the use of checklists, but there is no follow-up to the challenges.

3-6-2 The 5S process introduced to the PHC Project Phase 2

In Zambia, there is no organizational vision or mission due to the lack of district-level strategic plans. As a result, in many cases they do the same things every year and the efforts prove ineffective. Furthermore, poor management capabilities impede any project from being well implemented, if there is a plan. The project is determined to address and improve these issues. In the initial year, it was set to focus on the development of the policy-making capabilities, specifically involving the joint formulation of strategic plans and subsequent support for existing action plans. In the following year, it introduced the 5S process to implement the efforts to improve the workplace.

Then, experts were invited from Japan to offer a total of 26 small group seminars to the personnel of the Lusaka District Health Management Team and Health Centers during the two-month period in June and July 2004. There were four participants on average per health center. Teams were formed on a center basis to devise improvement plans for their respective centers. These plans were revised on a quarterly basis.

Initially, they worked on the eradication of congestion at outpatient reception, which was an issue

[50] The SWOT analysis is a kind of methodology for analyzing the actual state. Internal circumstances are analyzed from the perspective of “Strengths” and “Weaknesses” while external circumstances are analyzed from the viewpoints of “Opportunities” and “Threats.”

common to six health centers. Patients' medical records were organized in a way in which, for example, the current year's records of frequent patients were put at the closest position to the reception. Prior to this improvement, it took two to five minutes to pick up the medical chart of a single patient. After the reorganization, it took about 20 seconds on average. Each center has 200 to 300 outpatients per day. The improvement saved at least four hours per day. This achievement triggered several other efforts at health centers. For instance, they organized administrative files and tidied up the cabinets for patients, put clearer labels on drugs, commenced periodic polishing of the floor and planted flowers in the garden in front of the outpatient reception.

The 5S process is a bottom-up activity, but the participation of the top executives is essential for the smooth introduction and implementation of the process. The 5S activities in Lusaka District were triggered by the strong desire of the Manager of Planning and Development (MPD), who was at the second most senior position in the Lusaka District Health Management Team and also a medical doctor, to rebuild the weakened managerial skills of personnel. After the workshop was launched, the director of the Lusaka District Health Management Team who joined the workshop declared in the front of the participants that he would give full cooperation to the 5S initiative. In weekly meetings of the Lusaka District Health Management Team, he repeatedly explained that the 5S activities would be carried out by all the team staff. These events made great contribution to penetration of the 5S activities.

Before conducting the 5S activities to be joined by all members, it is vital to make the 5S concept known to them. It was impossible to explain it to all of the nearly 2,000 personnel working in the Lusaka District Health Management Team. Still, the invited 5S expert held a total of 26 small workshops on the 5S process during the two-months period to carefully explain the significance and the method of implementing the 5S efforts. It was of great help to dissemination of the term of 5S in the locality.

Furthermore, a considerable proportion of workers were so diligent that they understood the meaning of the 5S quite well and put it into practice in many operations once the methodology was explained to them. This is how the 5S process was broadly accepted.

This case study shows that behind establishment of the 5S activities there was synergy between the involvement of the top management and the motivation of the staff members. To look at it from the reverse perspective, attention should be paid to these points for running the 5S campaign.

3-6-3 Challenges

As described above, the project successfully introduced the 5S initiatives and produced great achievements. However, Maruyama notes the following problems in connection with enhancement in quality of health and medical care services in Zambia.

(i) It is more important to improve the quantity than to pursue quality.
(ii) A national health care quality plan is necessary.
(iii) Medical information is underdeveloped.
(iv) Human resource development plans have yet to be formulated.
(v) The community support system is inadequate.

In short, Zambia faces a critical shortage of medical resources and the lack of capabilities for tackling its challenges. Under these circumstances, the 5S initiative turned out to be successful since it was an approach not towards the clinical aspect of the health and medical sector but towards support operations. It achieved visible improvements in the operations unaffected by the lack of medical resources. This provided the incentive to continue with the project.

4. Summary of the Research Findings

This report contains a cross-national comparison and analysis of the experiences in different countries from three perspectives: first, from the perspective of the background and past development experiences; second, from the perspective of trigger events; and third, from the perspective of factors for success. The background and past developments are those under which it becomes necessary for the specific country to work on quality improvement in the health and medical sector. This perspective highlights the reasons for the necessity of TQM. Trigger events refer to the factors that initiated the quality improvement activities. Normally, a breakthrough is essential for change to be brought about to the current state. Trigger events are those that induced the breakthrough. Success factors refer to the factors that result in the success of the quality improvement activities. Table 4-1 organizes the above-mentioned factors in each of the countries reviewed.

To discuss the characters and characteristics of TQM in the field of health and medical care through case studies, it is essential to examine not only the superficial aspects of different cases but also the intrinsic aspects. The structure of TQM varies from country to country depending on the socio-cultural and economic backgrounds, on the level of development of the health and medical sector, on the composition of illnesses and other factors. How TQM is commenced differs according to why it was attempted. Successful cases of TQM application provide various lessons. By analyzing their commonalities and differences, it will be possible to identify the keys to the proper introduction of TQM in the health and medical care sector.

4-1 Background and past developments

Japan saw a bottom-up style quality control developed by modifying the U.S.-originated statistical quality control to the peculiarities of the Japanese industry and it was broadly adopted in the industrial arena. Its essence is to eliminate muri (excess), muda (waste) and mura (unevenness). It is a quality control method that is worksite-centered, small in scale and highly responsive. After that, the importance of quality control in all parts of the company, ranging from the manufacturing section to the back office and sales sections, was stressed. Total quality control (TQC) was thus upgraded into TQM. The concept of TQC was additionally applied to the service industry given that it covered the control of product quality as well as that of service quality. Today, it is in place also in, hotels and electric power companies. The medical industry, which delivers labor-intensive services, once introduced TQC in some hospitals from the viewpoint of the usability of the QC method at the beginning of the 1990s but it failed to take hold. In 1999, however, there was a serious medical mishap. Based on the lessons learnt from the incident, there was a strong call for the introduction of risk management. TQM is being highly regarded as a solution to this problem.

Table 4-1: Summary of the Research Findings

	Backgrounds and past developments	Trigger events	Success factors
Japan	Quality control approach in the manufacturing sector Centered on regulations (imposed by the government or voluntarily) Reorganization of state-run hospitals into independent administrative institutions Quality-awareness of beneficiaries and the public	A serious medical mishap in 1999 Development of clinical indices and evaluation methods	Leadership Fusion between the clinical goals and managerial goals (Third party evaluation system)
Sri Lanka	High in-hospital infection ratio TQM in other industrial sectors Efforts made by a single hospital Expansion to nationwide implementation	Introduction of TQA to SLIDA's courses Appointment of a doctor as a hospital director Evaluation by other industrial sectors	Leadership System approach Autonomy (efforts made to the utmost possible extent)
Thailand	Rapid economic growth Currency crisis in 1997 The thirty baht scheme Competition with private-run hospitals (transfer of patients to private hospitals)	A trial of TQM project in 1992 Emergence of two leaders (HA Thailand and HNQA) Elevated workload at hospitals	Leadership Process management Peer review Learning from failures (Step-by-step introduction)
The Philippines	Quality management in the entire sector of health and medical care Decentralization Legislation	Awareness of necessity Assistance from USAID Request from overseas	Leadership Overseas assistance Acceptability of quality control
Bangladesh	In the phase of developing a QA plan	(No achievements)	(No achievements)
Zambia	Vulnerabilities involved in management	Trial introduction of the 5S process (i.e. tidiness, orderliness, cleanliness, standardization and discipline)	Commitment of top executives Efforts to address familiar issues (excluding clinical challenges)

Source: the author

Japan's health and medical care system is characterized by a balance between government regulations and self-imposed regulations on the part of medical service providers. The state government promotes quality improvement on the basis of the medical remuneration system while the Japan Medical Association and different academic societies attempt to ensure quality by launching a scheme to certify specialized doctors. However, these attempts are intended to improve clinical quality. It is not until state-run hospitals were transformed into independent administrative institutions in April 2004 that comprehensive quality improvement covering the administrative aspect was studied.

In Sri Lanka, the poor motivation of personnel in public medical institutions gave rise to a high ratio of nosocomial infection. The Ministry of Health and Women's Affairs and other governmental authorities did not make any policy efforts for quality improvement in health and medical services. At the outset, the Health Ministry saw the improvement activities in Castle Street Hospital for Women as a mere example in a single hospital and had no intention of turning it into a policy. On the other hand, TQM was already implemented as part of the quality control after the Japanese firms started to enter the country in the early

1990s. As a result, as in Japan, there was an award program for outstanding achievement.

Thailand has seen a drastic increase in private hospitals since the 1990s, after experiencing tremendous economic growth. An increasing number of patients, not only in the affluent class, but also in the middle class transferred from public hospitals providing poor services to private hospitals. This move caused public hospitals to experience financial difficulties. Under these circumstances, the Health System Research Institute (HSRI) initiated studies on the application of TQM to public hospitals in 1992 and ran a trial TQM project during the 1990s. Later, the trends of hospital quality control in Thailand were split into two schemes: hospital accreditation conducted by the Institute of Hospital Quality Improvement & Accreditation (HA Thailand) and the Hospital Network Quality Audit (HNQA) by the Department of Health Service Support in the Ministry of Public Health.

In the Philippines, the first move was the delegation of local administrative authorities in the health and medical sector in line with the decentralization process. However, the Department of Health anticipated that a decline in quality would be unavoidable after the excessively vulnerable system of providing health and medical services was transferred to the local authorities. In order to make it successful, quality had to be ensured not merely at hospitals but for all personnel and organizations associated with pharmaceutical preparations, drugs and healthcare licenses. It was therefore necessary to develop legislation or a mechanism to ensure quality.

In Zambia, a technical cooperation project on the diffusion of primary healthcare (PHC) is currently in progress. The management capabilities of the executing body on Zambia's part were inadequate, however, and it was a huge obstacle to the implementation of this project. Before providing technical assistance, there was an urgent need to improve the management skills.

4-2 Analysis of trigger events

There was no progress in Japan with TQM in the form of an attempt to eliminate *muri* (excess), *muda* (waste) and *mura* (unevenness), which is fundamental to quality control. Possible reasons are that the quality of medical treatment was regarded as proportionate to the level of medical technologies, remuneration for medical treatment was based on the treatments provided, which eventually offered no incentive for cutting waste, and the extent of the peculiarities of the medical care industry has been overstated. However, circumstances changed in the wake of a medical mishap in 1999. There was an upsurge in awareness of the need to conduct risk management and safety control and growing understanding that patient satisfaction cannot be achieved with medical technologies alone. There was also a change from performance-based remuneration to all-inclusive remuneration. These changes have underlined the importance of quality control. Especially in Japan, the significance of quality control is now argued from the perspective of risk management. Therefore, quality control in this country focuses in particular on the purposes of preventing accidents, creating an environment in which no mishap occurs and minimizing the impact of an accident, should one occur. Cost reduction and other outcomes of hospital operation, such as the in-hospital mortality rate, the bed turnover rate, the average length of stay in hospital and the number of outpatients, are considered to be improved as a consequence of such quality control. It is also regarded as being based on the concern that Japanese people have for quality, which is the keenest in the world. This trait of the Japanese nation has supported the worldwide expansion of Japanese businesses, but it has produced no positive impact on the medical industry. This is largely due to asymmetry of information, which hindered customers from obtaining service quality information and prevented service quality from being objectively rated. Customers are nowadays capable of impartially evaluating the quality

of health and medical care services after the introduction of second opinions, evidence-based medicine and clinical paths. Moreover, the medical mishap described above urged customers to mount their pressure for higher quality health and medical treatment services.

In Sri Lanka, a Japanese company that had begun operations there introduced TQM as part of its quality control activities at the beginning of the 1990s. Sri Lanka Institute of Development Administration (SLIDA), a public training institution in the country, adopted TQM as a subject to be covered by its own training courses and started giving TQM lectures in the medical administration course. When one graduate from this course was appointed manager of a public hospital, he introduced TQM to the hospital with striking results, such as a reduced in-hospital mortality rate and improved working conditions. This activity earned high marks and a commendation from Sri Lankan business circles. At that time, TQM was already common practice in the Sri Lankan business community and, as in Japan, there was a system under which distinguished activities are acknowledged. This led to the launch of a major TQM campaign by the national government.

In Thailand, the initial introduction of TQM dates back to early 1990s, when TQM was adopted as part of the action taken by public hospitals for improving their own services so as to survive competition with private hospitals. Front-line activities, which included cleaning of the exterior of the building and waiting rooms to provide an environment that encourages patients to visit the hospitals, were carried out as a 5S activity, defined as part of the quality control activities. However, the front-line activities proved unsuccessful because every hospital was poorly motivated, as the campaign was run in a top-down fashion and activities were so uniform that they failed to produce service enhancement suited to localities and individual institutions. Later, several hospitals were selected to run a pilot project for quality enhancement. It envisioned the introduction of TQM tailored, mainly by managers of individual hospitals, to different circumstances surrounding each hospital. Several lessons were learned from this experience. First, quality control needs to be introduced in a way suited to the conditions of each hospital. Second, activities should be designed to produce gradual improvement instead of trying to instantly achieve a perfect situation to avoid collapse. And third, a peer group should be formed to create an environment in which the activities do not lead to failure. Based on these lessons, the systems for evaluating hospital functions and for auditing the quality of the hospital network were established. Looking at the level of individual hospitals, many seem to have introduced quality control in response to the introduction of the public health insurance system. Under the thirty-baht scheme of Prime Minister Thaksin Shinawatra, the number of patients visiting the hospitals climbed but many medical workers left public hospitals for private medical institutions or else went overseas. Many public hospitals launched quality control activities to increase operational efficiency after workloads expanded. They were not aimed at improving the effectiveness of operations alone. Given the need to ensure a balance among safety, cost and access to medical services, they also attempted to improve the overall quality. Obliging patients to pay even a small amount for public medical services that used to be available free of charge, the thirty-baht policy made patients conscious of their own rights to receive proper medical services. In fact, the number of cases of medical litigation rose from 90 in 1998 to 251 in 2003. It could reflect in part the emphasis placed by the Thai government on medical tourism,[51] given that it is necessary to maintain sufficient quality of health and medical care services to compete in the international

[51] Medical tourism refers to offering of advanced medical services at low cost and acceptance of overseas patients visiting the country for medical treatment and recuperation as well as their family members. If literally translated into Japanese, it would be *iryo kanko* (*Medical Tourism*), but the term *iryo rikkoku* (*Medical Country*) is commonly used to refer to this concept in literature written in the Japanese language.

medical market.

In the Philippines, the National Health Insurance Act enacted in 1995 stipulated that quality assurance (QA) should be strengthened. In 1998, the Philippine Council for Accreditation of Health Care Organizations (PCAHO) was set up, followed by the launch of a quality improvement initiative called the Sentrong Sigla Movement (SSM) in 1999 with the help of USAID. These moves were part of the assistance provided by the central government, specifically the Department of Health, to individual provincial authorities in improving health administrative services after decentralization. Their efforts were commenced as a response to the degradation of health and medical care services that actually took place, as feared by the Department of Health. They were successfully developed into a project with timely aid from Japan, USAID and other donors. In addition, there were requests from employers of Filipino nationals working abroad for certification of their healthy status by reliable medical institutions. They resulted in the introduction of necessary legislation and the launch of the certification scheme.

In Zambia, there were issues with the management capabilities of the Zambian organization in charge of implementing the technical cooperation project that is currently underway, and there were calls for greater competence. After the Five-S activities were adopted as part of an initiative to achieve the necessary improvement, short-term specialists were invited and workshops were held.

4-3 Analysis of success factors

In Japan, the importance of TQM was rediscovered from the perspective of risk management. It was recognized that organizations and especially public institutions have not only revenue objectives but also a broad array of targets including those relating to customers and the environment, as shown in the balanced scorecards. In other words, hospitals understood that improvements in their services would be linked with their visions independently of the earning objectives. Consequently, they realized the significance of TQM.

In Sri Lanka, as Dr. Karandagoda testifies, an approach that has proven effective is one that begins with system improvement and then moves on to human resource development and managerial reform. If the improvement starts with human resource development with the environment unchanged, it is likely that a brain drain takes place as personnel move on in search of higher salaries. When environmental enhancement comes first, service improvement is not connected with the upskilling of individual workers. It leads to a highly sustainable system that is unlikely to encounter the problem of a brain drain. Even if personnel development follows, there remains motivation to work in a good environment and it impedes the brain drain. However, this is true of a limited number of successful hospitals such as Castle Street Hospital for Women.

In Thailand, although the frontline improvement took place a decade ago, it failed to produce any appreciable quality improvement since it took place at all public hospitals. Therefore, the system improvement approach is suited to cases in which improvement is first implemented at a small number of hospitals and later expanded. A process whereby each hospital builds its system matched with its own circumstances or context in accordance with the guidelines is considered favorable to comprehensive system enhancement. The point is that there is no continuous activity without incorporating the uniqueness of separate hospitals. In addition, Thailand already experienced the activities seen in Sri Lanka, such as frontline improvements and the 5S process, although some hospitals including the Sao Hai Hospital started with the 5S approach. The fact that the country was ready to address human quality development and managerial development paved the way for the introduction of the HNQA and hospital accreditation.

The 5S scheme in Castle Street Hospital for Women was unique in that it was conducted to the extent

to which the hospital was able to finance the initiative on its own without depending on any external resources. It works to cut waste for reducing costs so that the saved money could be used to fund the improvement activities and incentives offered to staff members. This is consistent with the philosophy of QC activities in Japan. Based on the principle that patient satisfaction cannot be achieved without staff satisfaction, it placed priority on improving the working environment and improved the outcomes by means of staff satisfaction. It also helped maintain the percentage of personnel staying at the hospital. While aiming at improving a single outcome for the hospital, the 5S scheme was in fact an operation for overall quality enhancement that envisioned achieving staff satisfaction and patient satisfaction during the course of the process.

In the Philippines, the delegation of authorities for health administration as part of the decentralization to local governments increased the significance of the initiative of the central government in building a system for quality assurance thereby ensuring the quality of medical services. It attempts to achieve this objective by means of legislation. Furthermore, the country has set up an institution that promotes law enforcement, formulated guidelines and provided training for the purpose of capacity building. Specifically, the initiative includes the process of ensuring quality in the form of accreditation of medical insurance hospitals and criteria for granting approval to the establishment of hospitals and pharmaceutical companies. The system of certification and approval was so well balanced and so highly acceptable to Philippine-based hospitals and drug makers that 1371 rural health units and health centers, accounting for 58% of the facilities are SS-certified and 660 of such facilities, or 48%, are accredited by the PHIC.

Zambia addresses improvements in non-clinical operations. It is a challenge commonly identified by the personnel of health centers. Improvements in these operations produce tangible benefits to them.

4-4 Comparison among Japan and other countries and analysis

Given the review of different examples of hospital TQM applications in this report, the first point to be noted should be the diversity of backgrounds and past development experiences. While Thailand and the Philippines are both members of the Association of South-East Asian Nations (ASEAN) and have similar circumstances in socio-economic and cultural terms, they do not share a common background or past developments as far as TQM is concerned. Both countries instituted reforms of the medical system as an underlying factor of the initiative, but the medical insurance scheme had a huge impact on the efforts in Thailand, whereas decentralization was a significant factor in the case of the Philippines. In Sri Lanka and Zambia, it was not the impact of circumstances surrounding health and medical care but their consciousness of separate issues that lay behind the activities. The background to the Japanese experience was the spike in the number of medical accidents.

What is noteworthy about the trigger events is that mounting awareness of problems in the health and medical sector prompted the improvement activities in all countries reviewed. However, awareness alone did not suffice. Such efforts were not triggered until it was combined with the existence of pioneers. In the case of the introduction of TQM to the health and medical care sector in Japan, there were two pioneers, Professor Uehara of Tohoku University and Shuhei Iida, director of Nerima Hospital. The Thai case also had two pioneers: Dr. Chanvit of the Ministry of Public Health and Dr. Anuwat of HA Thailand. In Sri Lanka, there is one, namely Dr. Karandagoda of Castle Street Hospital for Women. In Zambia, the activities were triggered by external involvement in the form of a JICA project. It is thought that the project experts play a significant role.

With regard to the success factors, it will be possible to name the leadership, process management,

system approach and peer review.

"Leadership" implies that strong leadership is the key factor to success. This does not imply that no success can be expected in an environment where there is no leadership. It is vital to have an environment that nurtures leadership. For example, it is important not to leave everything to a single person. It is also important to create a mechanism for developing leadership and to continuously sow the seeds of leadership.

"Process management" suggests that the agent promoting quality improvement should control the process instead of its objectives while the goals should be controlled by separate hospitals in accordance with their individual context. A permanent institutional promoter controls the improvement approach, the method of evaluation, education and training, incentives and support. However, the hospitals themselves are responsible for quality improvement and should control their own improvement efforts. The same applies within the hospital organization as well. The hospital director should control the process while each section should be responsible for meeting its own targets.

"System approach" refers to the methodology that focuses not on the development of personal skills but on improvements of the hospital functions and systems. No enhancement in personal skills leads to system enhancement without there being an incentive to remain in the same hospital. Therefore, it is necessary first of all for hospitals to improve their own functions. The point is to develop a system under which personal skills can be exhibited and evaluated in an impartial manner.

"Peer review" involves the creation of multiple similar group activities, instead of improvement activities conducted by a single person or a team, to create a competitive environment. Support and pressure based on togetherness and rivalry provide a footing to stimulate the improvement activities, to prevent such activities from falling into collapse and to help develop new ideas.

These four factors mentioned above each function as drivers for the activities to succeed although their effect varies. Thus, they can be regarded as part of the core competences for promoting TQM implementation.

As shown by the experience in the National Demonstration Project (NDP) on TQM for Health in the United States, the success of TQM is facilitated by starting with improvements in the operations, such as management, that are common to other industries. TQM initiatives in the health and medical sector should not be initiated in respect of the technical areas that are specific to health and medical care, such as clinical care and research.

When one considers practicing TQM, there is the question of the approach that is most suitable. In view of the background to the necessity of TQM application and difference in trigger events, Japan has a slight advantage in medical safety and safety control. The Japanese style of approach will be helpful enough and there is a large body of relevant data and materials available. With respect to the development of a process for comprehensive hospital service improvement, the approach taken in the case in Thailand is helpful given that it was more systematically implemented. From the perspective of introducing the concept of quality control to hospital services, the Sri Lankan approach is superior. For those countries where there is no notion of quality in hospital services, it will be easier to follow the Sri Lankan approach. The Philippine approach is centered on the control of the central government over decentralized medical administration and is therefore meaningful for those nations that are pushing ahead with decentralization. The Zambian approach provides a good model for understanding the concept of quality and implementing quality control. It can be used as a method for introducing the concept of TQM.

It must be noted, however, that all the issues discussed above have to be encompassed in the debate regarding the quality of health and medical services to be provided in the future and that they constitute the requirements of TQM activities in hospitals. It is therefore necessary for the TQM process of a particular

country to eventually include the establishment of health and medical services that cover medical safety and hospital management as well as a state-level system of quality in health and medical services, while making active use of the above-mentioned approaches according to the circumstances that prevail in the country.

5. Potential for Capacity Building in TQM

5-1 Training in medical quality control at NIPH

Taking over the activities of the former National Institute of Public Health and the National Institute of Health Services Management, the National Institute of Public Health (NIPH) is commissioned by JICA to undertake group training. In March 2006, there were four ongoing courses: *Training on Administrative Management of Public Health, Training on Local Health Administration in the Republic of South Africa, Training on Hospital Management Techniques and Health Service Management and Seminar for Improvement in Public Health Policies.*

In this study, the author incorporated the TQM experience gained in hospitals in Japan, Thailand and Sri Lanka into the NIPH course, *Training on Hospital Management Techniques and Health Service Management*, which the author ran, and collected comments from those who attended the course.

5-2 Curriculum and characteristics

The *Training on Hospital Management Techniques and Health Service Management* is designed for hospital directors, other administrators of hospital facilities and those in managerial positions responsible for policymaking in public administration on health and medical care. Since it was launched by the former National Institute of Health Services Management (the present NIPH) in fiscal 1990, the course has been provided continuously. Until March 2006, it trained a total of 120 trainees from 44 countries. The objectives of the training are, first, to provide participants with the knowledge to smoothly operate health care management systems in developing countries so as to improve the health of the people of those countries and, second, to develop their general knowledge of hospital management techniques and of health management through lectures, case studies and group discussions in the course. It also aims to educate its trainees through lectures and discussions based on the concepts of the case method, inter-professional exchange, training of trainers (TOT) and adult education and to equip them with practical knowledge by broadening their intellectual horizons by means of personal studies.

Every year, training components are planned for this course on the basis of medical quality and a lecture entitled “TQM in Hospitals” is included in the course. In fiscal 2004, the course invited Dr. Karandagoda to deliver a lecture on his experience with TQM in a Hospital in Sri Lanka. However, trainees gave poor marks to the lecture since the information offered was already familiar to them. In fiscal 2005, this course was designed to highlight not merely the experience but how to link it with practice. In addition to the example in Sri Lanka covered in the previous year’s course, the efforts in Thailand and Japan’s medical safety were newly included in the components.

5-3 Feedback from trainees

Lectures were held on January 26, 2006 on the subject of “Medical Safety and Quality,” on February 2 on “Medical Quality Improvement in Thailand,” and on February 6 on “Medical Quality Improvement in Sri Lanka.” Moreover, the lecture on “TQM in Hospitals” was delivered on February 6 as in previous years. In contrast to the preceding year, trainees noted that the lectures were really worthwhile. Asked whether or not the knowledge obtained could be applied in their own countries, they responded that they understood the concept and necessary processes and would therefore be able to apply it, although they added that it

could not be implemented as it was and that some modification would be needed. The especially notable point was that the trainees from South Africa and the Philippines found Sri Lanka's experience to be very useful. With regard to medical quality improvement in Thailand, some trainees said that the course merely provided data and few actual examples. A possible reason for the great interest among the trainees is that the course provided comprehensive coverage of medical quality rather than focusing on specific domains or matters.

In personal studies, four of the nine trainees chose medical quality as research subject. This also reflects that this issue received strong attention from trainees. In particular, a personal study on quality in medical care suggested a detailed action plan. The trainee who drafted the plan considered putting it into practice after completion of the training. The course is thought to have provided trainees with practical knowledge. The importance of quality permeated among the trainees, possibly after they comprehensively acquired multiple examples in Sri Lanka, Thailand and Japan and a large number of subjects including operational improvement, managerial improvement and medical safety.

Improving medical quality is an urgent challenge that all countries face, as can be seen in the above sections. Practical knowledge is now required to achieve actual implementation. Quality improvement is also the techniques and knowledge that are applicable to any country, any medical system and any breakdown of illnesses.

6. JICA Projects and TQM

6-1 TQM introduction to the health and medical care sector in developing countries

As mentioned above, TQM is essential and applicable irrespective of the scale, functions and specifics of the hospital, the level of development of the health and medical care sector and the systems relating to health and medical care. What is important is to place the focus of activities on the worksite and to design the scheme in accordance with the condition of those areas that are subject to TQM. To do this, it is necessary to clearly identify the background and past development experiences, trigger events, leadership, resources and information, including risk, and to study the TQM initiative based on these. The background, past developments and trigger events were as discussed above, and leadership, resources and information are key resources and factors to success. Given that factors for success vary depending on the background, past developments and trigger events, it is essential to understand the existing resources and information and to carry out the activities under appropriate leadership.

The same goes for the improvement process. It was mentioned above that hospital services cannot be upgraded without comprehensively examining a broad variety of issues. It is not surprising that the order of priority among the issues varies depending on the context. It is not always identical even among developing countries. This fact is seen from the failure in the uniform frontline activities led by the Ministry of Public Health in the example of Thailand. The uniformity in activities and the definition of output or outcome diverged from the reality of separate hospitals. It also did not help boost the motivation of those who implemented the activities.

Process management is crucial to TQM applications. In the context of TQM, presentation of a process is not equivalent to presentation of the steps and details of the activities. It includes how to determine the details of the activities, how to identify the necessary resources and the information for this objective and how to identify impeding factors. Moreover, to shift from quality control to TQM, the resulting orientation of activities and objectives must coincide with the direction of hospital service enhancement suggested by the management team. An ideal determination of process management does not and must not depend on the context. In contrast to that, the improvement process that comes before process management must be determined according to the context, as explained in the above section.

In addition, system management is significant. Generally speaking, Japanese official development assistance (ODA) is divided into financial assistance and technical cooperation. Conventional technical cooperation was mainly aimed at building personal skills, but in many cases personal skills failed to lead to an improvement in administrative bodies as staff members left for the private sector or for overseas employers. In hospitals in particular, operations are highly specialized and personnel are rather individualistic. It is common to see hospital workers move from public facilities to the private sector.[52] In this situation, it would be difficult to achieve the original purpose of the TQM-an improvement in hospital services. The focus of improvement in the TQM process is not on personal behavior or capabilities but on

[52] There are some reports that a brain drain is rather unlikely at public hospitals. For example, the average age of nurses is generally higher in public hospitals in Japan. This is said to be due to the equality in the treatment of other public employees, as in the pay increase in proportion to the length of service and maternity leave. In Sri Lanka, few workers resign from public hospitals since medical workers at public hospitals are entitled to larger pensions and longer vacations. In Indonesia, public hospital workers choose to stay, given that public information is available only when they are in public bodies. In Sri Lanka and Thailand, by contrast, staff can work for private facilities while belonging to public institutions at the same time. In Thailand, a considerable number of doctors moved to private hospitals during the 1997 economic crisis.

the system. It is necessary to change an error-prone system instead of error-prone humans. In fact, the example in Sri Lanka saw little that could suggest a brain drain. Even after personal skills are developed, people will not be motivated to quit the hospital if it has an environment or system in which they can exert themselves. The construction of TQM projects must be studied as a kind of technical cooperation aimed at capacity development, which has been done on a trial basis in recent years.

Not confined to TQM applications, process management and system management are particularly important to the areas where distribution of illnesses, demographic trends, systems and resources vary from country to country or from region to region like the health and medical care sector.

6-2 TQM in project-type technical cooperation

It is thought that introducing TQM to hospitals is not suited to project-type technical cooperation. Strong leadership plays a significant role in promoting TQM. If the promotion is done by outsiders, TQM may not be successful. In the manner in which experts are dispatched for technology transfer, it is supposedly difficult to promote TQM in hospitals. Outsiders merely act as advisors in projects. To introduce TQM in the form of a project, a representative of the government of the aid recipient must be mandated to act as project manager. In fact, in some past cases of TQC and TQM introduction in Japan, outside specialists exerted an adverse effect on the initiative.[53]

6-3 TQM in training programs

According to JICA Tokyo International Center, there are roughly four different types of training programs currently run by JICA:

(i) Human resource development model - With a focus on development of personal skills

(ii) Human resource development and promotion model - Aimed not only at personal skill building but also at disseminating the knowledge throughout the organizations where trainees work

(iii) Task development model - Aimed not merely at providing trainees with knowledge but also at helping them address the issue with the use of the knowledge

(iv) International forum model - Aimed at exchanging knowledge and information

In light of the above classification, the *Training on Hospital Management Techniques and Health Service Management* currently provided at NIPH falls within the scope of the human development model. If TQM-centered training is considered, it is necessary to fully understand the background, trigger events and other factors of the target country in order to get involved in the issue, after completion of the training, as anticipated in the task development model. The trainee must also be capable of exercising leadership to the fullest possible extent. In this event, achieving the task will be very challenging without an established system in which the circumstances of the target country are understood before inviting applicants to the training, where the positions of prospective trainees are identified in the screening process and where support for TQM is offered after the training.

Also, trainees are required to play a leading role in TQM activities. In the context of the human resource development and promotion model, they are expected to promote TQM. Promoters need to have facilitation capabilities, which are different from the role and knowledge expected of leaders. The promotion model will therefore not be suitable.

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[53] Tokumaru (1999)

Knowledge of quality in hospital services, definition of policies and concepts, tools for analysis and improvement and peer review are among the items included in the cooperation required to make improvements to hospitals through TQM. It is necessary to encourage leaders of the organizations to which assistance is given and to offer appropriate advice to them as required.

At that time of working out a training program on TQM, it is important to ensure that it consists mainly of process management and system management, as argued above. Introducing good examples, learning their underlying theories, improving comprehension through discussions and hands-on experience using past examples will be among the approaches regarded as effective. In the future, coursework will be further enriched by accepting trainees not only from overseas but also from Japan, and by holding discussions on the basis of experiences in Japan.

To improve the quality of hospital services in the future, training projects should follow the task development model. It will then be possible to conceive of "program-type assistance." To integrate with technical cooperation for capacity development, program-type assistance first selects a leader who is capable of instituting TQM through the training and then offers technical support, in the form of on-site seminars and provision of resources to support the leader.

In this event, the support leader should preferably be a Japanese trainee who followed the course at the same time. For example, some Japanese trainees who participated in training programs on AIDS management and tuberculosis management that the Research Institute of Tuberculosis Japan Anti-Tuberculosis Association are commissioned by JICA to provide in Japan, and who studied together with overseas trainees, were later dispatched as specialists in technical cooperation.

6-4 Summary

In thinking about JICA projects for hospital quality improvement, training programs should be upgraded.

In light of the feedback from trainees who took the aforementioned course on *Training on Hospital Management Techniques and Health Service Management* currently offered at NIPH, the importance of quality control is better understood when the course offers comprehensive coverage rather than when it focuses on specific issues. No matter what form of training is conducted, however, Japan alone is unable to provide the resources for TQM at hospitals. It is advisable to take into consideration the option of forming partnerships with other countries.

Finally, quality improvement in hospitals must be studied from an all-inclusive perspective. Even if the initiative aims solely to upgrade the quality of nurses, for example, a wide range of players, including the management team of the hospital, need to be involved. It is necessary to take into consideration the fact that hospital quality does not change and patient satisfaction does not pick up if improvement is achieved in the quality of nurses alone. Eventually, an all-inclusive approach must be devised.

JICA or Japan must scrutinize what cooperation it can offer for this approach when the aid recipient nation is required to take an autonomous stance. To put it from a reverse perspective, assistance in hospital quality enhancement should be offered to those countries that are ready to proactively study their health and medical policies. Their successful experience will need to be broadened at the next step.

REFERENCES

Aoki, Y. et al. (1998) *Six Sigma - Hinshitsu Rikkoku Nippon Fukkatsu no Keiei Shuho (Six Sigma: A Managerial Approach to Reviving Japan as a Quality Based Nation)*, Tokyo: Diamond.

Asahi Shimbun General Research Center (2002) *Asahi Soken Ripoto (Asahi Shimbun General Research Center Report),* Tokyo: Asahi Shimbun General Research Headquarters.

Editing Committee for the Genba no Mondai Kaiketsu Shirizu (ed.) (1973) Noritsu wo Kojo Suruniwa (Improving Efficiency) - *The Genba no Mondai Kaiketsu* Shirizu Vol. 2, Tokyo: JUSE Press.

Fukushima, S. (1985) *Byoin TQC Donyu to Suishin (Introduction and Promotion of TQC in Hospitals)*, Tokyo: SANRO Research Institute.

Hasegawa, T. (2000) "Nippon ni Okeru Shinryo Gaidorain no Sakusei Jokyo (Actuality of Formulation of Diagnostic and Treatment Guidelines in Japan)" *Journal of International Medicine,* Vol. 10, No. 1 Supplement. Tokyo: Igaku-Shoin.

Iida, S. (2003) *Iryo ni Okeru Sogoteki Shitsu Keiei - Nerima Sogo Byoin Soshiki Kakushin eno Chosen (Total Quality Management in Medical Care: An Attempt of Organizational Reform at Nerima Hospital)*. Tokyo: JUSE Press.

Ishikawa, K. (1989) *Hinshitsu Kanri Nyumon (Introduction to Quality Control) Part A, Third Edition,* Tokyo: JUSE Press.

——— (1990) *Sabisu Sangyo no Hinshitsu Kanri (Quality Control in the Service Industry)*, Tokyo: Japanese Standards Association.

Ito, T. (2002) *Baransu Sukoakado ni Yoru Senryaku Manejimento (Strategy Management Using Balanced Scorecard)*, Tokyo: JMA Management Center.

Ito, Y. et al. (2001) *Baransu Sukoakado - Riron to Donyu (Balanced Scorecard: Theory and Introduction)*, Tokyo: Diamond.

Japan Association of Health Service Management Consultants (ed.) (2003) *Shinban Igyo Keiei Yogo Jiten (New Glossary of Health Service Management Terms)*, Nippon Shuppan.

Kano, N. (ed.) (1990) *Sabisu Sangyo no TQC Jissen Jirei to Seiko eno Apurochi (Examples of TQC Practice in Service Industry and Approach to Success)*, Tokyo: JUSE Press.

Kawabuchi, K. (1993) *Korekara no Iryo Manejimento (Medical Management in the Future)*, Igaku-Shoin.

Kondo, K. and Yamamoto, M. (2005) "Igirisu ni Okeru Iryo no Shitsu Hyoka no Doko" (Trends of Medical Quality Evaluation in the United Kingdom), *Journal of International Medicine* Vol. 15, No. 3, Tokyo: Igaku-Shoin.

Maki, J. and Iida, S. (2003) *QC ni Manabu Iryo no Shitsu Kojo Katsudo no Jissen (Practice of Medical Quality Improvement Activities with Learning from Quality Control)*, Tokyo: Igaku-Geijutsusha.

Matsubara, K. (2000) *Baransu Sukoakado Keiei (Management Using Balanced Scorecard)*, Tokyo: The Nikkan Kogyo Shimbun.

Shindo, K. (ed.) (2001) *Sekkei-teki Mondai Kaiketsu Ho (Design-Based Problem Solving Method)*, Tokyo: JUSE Press.

"Special Issue: Iryo Genba wo Kaizen-suru Chikara wo Sodateru (Developing Capacity to Improve Medical Practice)" *Kango Kanri (Nursing Management)*, Vol. 14, No. 1, January 2004, Tokyo: Igaku-Shoin.

"Special Issue: Iryo ni Okeru Narejji Manejimento" (Knowledge Management in Medical Services)" *Byoin (Hospital)*, Vol. 63, March 2004, Tokyo: Igaku-Shoin.

"Special Issue: Totaru Kuority Manejimento wo Mezashite Sasaeru Soshiki Zukuri (Building an Organization that Supports Establishment of Total Quality Management)" *Kango Kanri (Nursing*

Management), Vol. 13, January 2003, Igaku-Shoin, Tokyo

Takei, H. (1997) *Kaishaku-teki Maketyngu Kenkyu (Interpretative Marketing Research)*, Tokyo: Hakuto Shobo Publishing.

Tokumaru, S. (1999) *Nihon-teki Keiei no Kobo - TQC wa Wareware ni Nani wo Motarashitanoka (Rise and Fall of Japanese Style Management: What Did TQC Bring Us?)*, Tokyo: Diamond.

TQM Committee (ed.) (1998) *TQM 21 Seiki no Sogo Shitsu Keiei (TQM: Total Quality Management in the 21th Century)*, Tokyo: JUSE Press.

Uehara, N. et al. (2003) *Iryo no Shitsu Manejimento Shisutemu - Iryo Kikan ni Okeru ISO 9001 no Katsuyo (Medical Quality Management System: An Active Use of the ISO 9001 Standards in Medical Institutions)*, Tokyo: Japanese Standards Association.

Berwick, D.M., Godfrey, A. B. and Roessner, J. (1990) *Curing Health Care: New Strategies for Quality Improvement*, San Francisco: Jossey-Bass.
(Transl. into Japanese by Tachihara, H. and Takeuchi, M. and edited by Uehara, N. (2004) Tokyo: Nakayama-Shoten)

Chambers, R. and Wakley, G. (2000) *Making Clinical Governance Work for You*, Radcliffe Medical Press, Oxford.
(Transl. into Japanese by Yoshinaga, N. et al. (2004) Tokyo: Japan Medical Planning)

Currie, L., Morrell, C. and Scrivener, R. (2003) *Clinical Governance: an RCN Resource Guide*, London: Royal College of Nurse U. K.
(http://www.rcn.org.uk/publications/pdf/ClinicalGovernance2003.pdf)

Department of Health (DOH) (2005) *Sentrong Sigla Program* Updates, Bureau of Local Health Development, August 2005 (unpublished), Philippines.

Harry, M. and Schroeder, R. (2000) *Six Sigma: The Breakthrough Management Strategy Revolutionizing the World's Top Corporations*, New York: Doubleday.
(Transl. into Japanese and edited by Diamond Six Sigma Study Group (2000) Tokyo: Diamond)

Kaplan, R. and Norton, D. (2000) *The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment,* Boston: Harvard Business School Press.
(Transl. into Japanese by Sakurai, M. (2001) Tokyo: Toyo Keizai)

Kotler, P. (1991) *Marketing Management: Analysis, Planning, Implementation and Control (7th Edition)*, New Jersey: Prentice Hall.
(Translated by Kosaka, H. et al. and edited by Murata, S. (1996) Tokyo: President, Inc.)

Link, A. N. and Scott, J. T. (2001) *Economic Evaluation of the Baldrige National Quality Program* (Planning Report 01-3), Gaithersburg: NIST.

Quirino Memorial Medical Center (QMMC) (2004) Annual Accomplishment Report 2004 (unpublished), Philippines.

Relman, A. S. (1988) New England Journal of Medicine, Boston: Massachusetts Medical Society

Starey, N. (2003) "What is clinical governance?" *Evidence-based medicine* Vol.1 No.12. Newmarket: Hayward Medical Communications.

WHO (2002) *A Framework to Assist Countries in the Development and Strengthening of National and District Health Plans and Programs in Reproductive Health: Suggestion for Program Manager*, WHO Geneva.

——— (2003) *Quality and Accreditation in Health Care Services: a Global Review*, WHO Geneva.

——— (2005) *Strengthening Management in Low Income Countries.*

WHO Health Evidence Network (2003) *What Are the Best Strategies for Ensuring Quality in Hospitals?*, WHO Europe.
WHO/ILO (1998) *Guidance on Regulatory Assessment of HACCP*, WHO Geneva.

Websites on Japan and TQM in general (accessed in August and September 2005)

A Study on Examples and Approach of TQM Applications to Medical Services
(http://www.pfizer-zaidan.jp/fo/business/pdf/forum6/fo06_148.pdf)
Business e-Coach by 1000ventures.com and Ten3 Logo
(http://www.1000ventures.com/business_guide/mgmt_kaizen_tqc_main.html)
"Clinical Governance" by Rintaro Mori, No. 13 of the series on medical circumstances in the U.K. published on Feb. 28, 2006 on Nikkei Medical Online (accessed in March 2006)
(http://medwave2.nikkeibp.co.jp/wcs/leaf?CID=onair/medwave/mdps/423367)
CQI activities at Simcoe County Mental Health Centre - TQM/CQI Resource Bibliography (accessed in March 2006)
(http://www.mhcva.on.ca/CQI/cqibibl.htm)
"Iryo no Shitsuteki Kanri: Kokusaiteki na Shiten ga Hitsuyo (Medical Quality Control: International Perspective Required)" by Naruo Uehara, professor, Division of International Health, Department of Public Health and Forensic Medicine, Tohoku University School of Medicine, on Medical Hot Zone No. 1 Vol. 513 (published on April 10, 2003)
(http://www.yozemi.ac.jp/johoshi/03/journal/4/hotzone.html)
Japan Quality Award Council, Japan Productivity Center for Socio-Economic Development
(http://www.jqac.com/)
JUSE's Medical Quality Incentive Award
(http://www.juse.or.jp/prize/iryou_1.html)
National Demonstration Project on TQM for Health (www.ndpjapan.org/)
National Network of TQM for Health (www.tqm-health.gr.jp/)
Nerima Hospital (www.nerima-hosp.or.jp/)
The UK Department of Health website on clinical governance (accessed in March 2006)
(http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/ClinicalGovernance/fs/en)
TQC Development Center (http://www.tqc.com.hk/index.htm)
TQM in the Japanese version of the Wikipedia free online encyclopedia (accessed in March 2006)
(http://ja.wikipedia.org/wiki/TQM)

Websites on medical circumstances in Sri Lanka (accessed in August and September 2005)

Castle Street Hospital then and now
Rodrigo, J. Nalin *
Sri Lankan Family Physician, 1999, 22, 50-54
(http://www.medinet.lk/journals/slcgp/familyphysician/1999/castle-street-hospital.htm)
Creating 'Toyotas' in health service: Hospitals learn from industrial sector
(http://www.sundayobserver.lk/2004/01/11/fea24.html)
Institute of Policy Studies of Sri Lanka
Health Policy Programme
Research Note 1999 (1) August 1999
(http://www.ips.lk/health/research/financinghealth/downloads/hpp_rn_slnha.pdf)

Websites on medical circumstances in Thailand (accessed in August and September 2005)

Development of Health Promoting Hospitals in Thailand
(http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN009705.pdf)

Health sector reform in Thailand: an update
(http://medinfo.psu.ac.th/smj2/164/smj9.html)

Implementing Accreditation in a Developing Country Issues, Challenges and Lessons ISQua 2003
QAP (Diana Silimperi) and JCR (Anne Rooney) Facilitating
(http://www.urc-chs.com/pdf/isquaprez/AccreditationWrkshp.pdf)

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Materials Section

Introduction

The Materials Section offers a collection of reports from experts in different countries specializing in different areas.

Dr. Uehara is a professor in international health at Tohoku University and a pioneer who has long been conducting research on medical quality enhancement as well as practical activities. He worked on the National Demonstration Project involving some advanced hospitals in Japan and in activities in many countries in Asia and Latin America. His literature is at the very heart of this report.

He and the author studied at the same high school while Dr. Maruyama, who contributed the second paper, was a classmate of the author at university. The author was surprised and delighted to learn that Dr. Maruyama worked for the medical quality improvement program in Zambia as a JICA expert. The author asked him to report on the actual situation in Africa on the basis of his experience.

Dr. Leizel is an administrative officer in the Philippine Department of Health. She is currently staying in Japan for her studies on medical quality improvement. The author asked her to review her own country. Quite familiar with the locality, she is believed to have appropriately summed up the circumstances in the Philippines.

Dr. Hasan is also an administrative officer working for the Ministry of Health and Family Welfare in Bangladesh. He completed a training course on hospital management in the National Institute of Public Health in fiscal 2005. He developed a report on the basis of his experience in his country.

The Materials Section consists of the reports from these four researchers with ample hands-on experience. It should provide very useful materials in both practical and theoretical terms to consider medical quality improvement in developing nations.

Toshihiko Hasegawa

1. Initiatives Quality Management of Health and Medical Services in Developing Countries

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In developing countries, especially in Southeast Asia, the raising and allocation of financial resources for medical care are being revised in line with the aging and urbanization of the population and the resulting changes in disease structure. The role of public health and medical services and the mode of providing services in the context of social security are today being questioned. On the other hand, these countries have conventionally put off the long-standing problem of quality assurance and improvement of public health and medical services by placing higher priory on the efforts to improve accessibility in a situation in which a large number of people have no access to basic health and medical services. There was also an underlying deep-rooted misunderstanding that quality would be associated with advanced care and technologies.

After conducting a study on medical assistance at clinics offered to developing nations between 1988-1990, the author stressed, as a conclusion, the importance of: (i) changing the perception of quality in health and medical care; (ii) The development or selection of appropriate technologies and technical strategies; (iii) determining the target population; and (iv) pursuing quality and efficiency of the regional health and medical care system. To meet these challenges, the author worked to develop and examine the method of applying the concept and know-how of Japanese-style quality control to the health and medical care sector and the method suited to the health and medical system in developing nations. Japanese-style quality management has such a good track record of achieving customer-centered and system-oriented quality improvement in the Japanese industrial arena that it is deemed to be able to provide useful knowledge in proceeding with the development and examination of methods. While engaging in actual technical cooperation, the author empirically studied the strategy for introducing and spreading these concepts and know-how to community health and medical care systems in developing countries.

By using Japanese quality management as a model, improvement activities in the medical sector started around 1980 in Japan in the form of hospital QC circle activities, and in 1987 in the United States under the name of KAIZEN (“Improvement” in Japanese), continuous quality improvement (CQI), total quality management (TQM) and the like. They spread to European countries in the early 1990s. As of 1990, there was little or no effort directly addressing the quality of health and medical services in developing countries, although in some Asian countries and Mexico, limited initiatives in QC circle activities were conducted by local companies, which will be discussed later. At the time, whereas Dr. Humberto Novaes, who was at that time responsible for medical services in the Pan American Health Organization (PAHO), a regional office of the World Health Organization (WHO), envisioned launching an accreditation program in Latin America, the author believed that the KAIZEN approach was more appropriate for developing nations and exchanged views with him on this several times. Later, PAHO commenced its efforts to promote a hospital accreditation and evaluation program in the early 1990s and Latin American states attempted to develop evaluation criteria. However, the program failed to reach a practical level, partly because there was no expert familiar with quality of medical and health services.

(1) Medical quality initiatives and improvement activities in Southeast Asia

The author was dispatched as a JICA expert (policy advisor) to the planning department of Indonesia's Ministry of Health between 1993 and 1995. In the meantime, the department organized national workshops and seminars in a bid to introduce the notion of quality management in health and medical care sector, and to encourage such activities. In January 1995, the ASEAN Workshop Seminar on Quality Management of Health Services was held in Indonesia, through JICA's training support scheme, by the Ministry of Health of Indonesia jointly with the ASEAN Secretariat. targeting officials of the ministries of health from ASEAN member states, which numbered six at that time, the seminar served as the first public meeting to discuss the quality of health and medical services in developing countries. Participating countries, especially Indonesia, Thailand and Malaysia, showed great interest in the activities aimed at improving health and medical care presented therein and had a strong wish for assistance from Japan. However, no continuous aid was provided since activities for improving health and medical care and their significance were still hardly known to the medical world in Japan and aid bodies on the Japanese side.

Prior to this conference, QC circle activities had been introduced to Malaysia* and Indonesia when Japanese firms entered these markets in the 1980s. The activities were partly introduced to the medical sector also.

Guidance, however, was given to hospitals by local corporate consultants trained by Japanese companies. For this reason, hospitals failed to effectively address the "quality of medical care" and to obtain proper guidance. Despite great enthusiasm, their activities did not produce substantial achievements and gradually faded away without expansion. Quite many of those who experienced the activities still have a negative image of QC circles.

In the West, the "KAIZEN" successfully spread to the medical sector under the name of "CQI." In the late 1990s, Western countries, especially Australia in the Asian context, started to provide technical assistance to introduce CQI to developing nations. Since the transferred CQI had been used in medical areas in each donor country, it had an advantage over QC circles in that guidance could be offered with the use of actual examples in the medical field. However, it dropped key features of Japanese-style quality management, such as participation and demonstration. In some cases, it also differed from the original form eventually, after aid consultants added extra components to it on their own. In the Philippines, management executives of private hospitals and groups of consultants took the initiative in efforts to expand QC circle activities and TQM, but they did not take root in public services because there was no appropriate leader who had received proper education and the activities were rather business oriented.

(2) Evidence-based participatory quality improvement (EPQI)

Existence of a leader who: (i) accurately understands the principle and methodology of Japanese-style quality management or KAIZEN; (ii) has proper techniques in health and medical care; and (iii) is familiar with health and medical systems in developing countries and the circumstances surrounding them; and (iv) creation of a mechanism for incentive management that is independent from financial incentives, are crucial for public health and medical care services to be successful in introducing and expanding improvement activities. Based on the understanding of those concepts, the author systematized the proper concept and methodologies of KAIZEN in health and medical care under the name "EPQI" and endeavored

* In Malaysia, the prime minister took the initiative in stimulating quality improvement of public services. In 1985, quality commission was set up within the central government to promote QC circle activities and the National Indicator Program. In the 1990s as well, Malaysia actively adopted all kinds of quality activities, including CQI, TQM, ISO 9000, HTA and hospital accreditation. Thailand initiated a three-year pilot project on quality improvement in 1993. This was followed by the adoption of the Quality Hospital Policy for implementing TQM at all public hospitals by 2000.

to disseminate it to Asian and Central American countries. In 1999, with the help of the WHO, a Training of Trainers (TOT) course for six Asian nations was held. In Indonesia, a meeting of hospital QC circles was held mainly by trainees. The province of Jakarta launched improvement activities at health centers. The Philippines continues with the initiatives in the quality management of public service through the quality management program of the Philippine Health Insurance Corporation (PHIC). Since 2002, in answer to a request from JICA, the author has been running a five-year program to conduct a Training of Trainers on the Quality Management of Community Health for those nominated by health ministries of eight countries in Central America. A Central American network of EPQI was thus formed to provide seminars on improvement activities and carry out improvement projects in individual countries. The first forum on improvement activities in the Central American region was held in fiscal 2006, and will continuously be held on an annual basis.

(3) QA map

There were a wide variety of means of addressing quality in medical care. They were introduced to developing countries in the 1990s. Some confusion and misunderstanding can be observed as a result of this.

Table A1-1 portrays the status of application of such approaches as of 1998.

It is not unusual that the name does not necessarily correspond to activities. For example, Thailand asked Japan for technical assistance in the widespread introduction of TQM, but received guidance from Australian consultants instead, as Japan declined to offer aid. As a result, although they are called TQM, the activities in Thailand are in fact those of CQI, and moreover an incomplete form of CQI.

Table A1-1: Status of Quality Assurance Activities in Asian Countries

	USA	Sweden	Malaysia	Indonesia	Thailand	Japan
Accreditation	(Accredit.)	(Med. Audit)	(Accredit.)	(Accredit.)	(Accredit.)	(Accredit.)
CQI	CQI	CQI (Value Compass)	YES/NO (QA/QI)	QA	CQI	YES/NO
QC Circle	NO	YES (TQMäO)	YES	YES	YES (TQM 外)	YES
Clinical Path	YES	YES (TQM)	YES	NO	NO	YES
EBM	YES	YES (TQM)	NO	NO	YWS/NO	YES/NO
HTA	YES	YES	YES	YES/NO	YES	YES/NO
ISO 9000	NO	YES/NO	YES	NO	NO	YES/NO
MB Award	YES	YES	NO	NO	NO	NO
TQM	YES/NO	YES	YES	NO	YES/NO	YES/NO

Source: author

Table A1-2: Status of Quality Assurance Activities in Central American Countries

Public hospitals (2005)		Mexico	Guatemala	Honduras	El Salvador	Nicaragua	Costa Rica	Panama	Dominican Republic
Improvement activities	TQM		2	1		1	4	1	2
	QCC/EPQI/KAIZEN	1	3	2	3	3	3	2	4
	EFQM	1		2	3	1			1
	CQI/QA	2	1	2	3	3	1	2	
Standardization of treatment guidelines	EBM	3	2		2	3	3		
Medical safety	Patient Safety	2				2	3	1	1
Hospital evaluation and accreditation	Accreditation	3	2	1		3	4		3

	None
1	Scarce (less than 1%)
2 & 3	From 1% to 50%
4	More than 50%

Health centers (2005)		Mexico	Guatemala	Honduras	El Salvador	Nicaragua	Costa Rica	Panama	Dominican Republic
Improvement activities	TQM		1	1		2			1
	QCC/EPQI/KAIZEN	1		2	2	4	1	2	2
	EFQM		2	2	3	4			
	CQI/QA	2	3	2	3	4	2	2	
Standardization of treatment guidelines	EBM	2			1	2	1		
Medical safety	Patient Safety					2	1		

	None
1	Scarce (less than 1%)
2 & 3	From 1% to 50%
4	More than 50%

Source: Fujikawa and Uehara (2005)

Table A1-2 demonstrates the extent of expansion in Central America as of 2005. In Central American countries, there are QC circles originating in the business world as well as limited aid from the United States, Germany and the Inter-American Development Bank (IDB) with introduction of improvement activities in different styles. When the efforts were beginning to slow down because of their consultant-driven nature, Japan started to offer systematic and strategic technical guidance on the participatory and empirical EQPI. Since then, improvement activities have become more vigorous.

Given that Japan's internal activities were very limited at the time the ASEAN meeting took place in 1995, the author commenced work on implementing and promoting improvement activities within Japan the following year, setting up the National Network on TQM for Health in 1999 to hold the national meeting on activities for improvement in medical services every year. The meeting invites some visitors from the Philippines, Indonesia and Central American countries. The author is planning to promote exchanges among different activities and examine the possibility of technical assistance offered by the National Network on TQM for Health.

Table A1-3: International Conferences and Training Courses on Quality Management of Health and Medical Services in Developing Countries

Workshops					
NO	Date	Title	Location	Organized by	Other
1	January 1995	ASEAN Workshop	Jakarta	Ministry of Health of Indonesia, the ASEAN Secretariat and JICA	Six ASEAN member countries
2	August 1999	QCC Workshop	Sendai	Division of International Health, Department of Public Health, Tohoku University Graduate School of Medicine	The Philippines, Indonesia, Thailand, Malaysia, Sweden and Japan
3	November 10-19, 1999	International Seminar for Leaders of Medical Quality Management	Sendai	Division of International Health, Department of Public Health, Tohoku University Graduate School of Medicine	Mongolia, China, Cambodia, Malaysia, the Philippines, Indonesia and Japan
4	November 5-24, 2002	Quality Improvement of District Health Services (Course specially designed for Central America on quality improvement of community health and medical services)	Sendai	Tohoku University, JICA	Mexico, Dominican Republic, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica and Panama
	October 13 - November 22, 2003	Quality Improvement of District Health Services	Sendai	Tohoku University, JICA	Same as above
	July 4 - August 15, 2004	Quality Improvement of District Health Services	Sendai	Tohoku University, JICA	Same as above
	July 5 - August 12, 2005	Quality Improvement of District Health Services	Sendai	Tohoku University, JICA	Same as above
5	July 9, 2004	Workshop: “Current Initiatives on EPQI in Participants Countries”	Sendai	Tohoku University	Same as above
	July 18, 2005	Workshop on EPQI for Health	Sendai	Tohoku University	Same as above
6	January 28-30, 2004	Regional Workshop “Evidence-based Participants Quality Improvement (EPQI)” in Local Health Services	San Salvador	JICA, SISCA, MSPAS, University of Tohoku	participants from the Mesoamerican region and 18 special guests including seven Japanese ones

Table A1-4: Presentations in Academic Meetings on Quality Improvement Activities in Developing Countries

October 7, 2001	Challenges and achievements of evidence-based participatory quality improvement (EPQI)	The 16th General Assembly of the Japan Association for International Health	Naruo Uehara
October 11-12, 2003	Report on a questionnaire survey to promoters of participatory quality improvement activities at health centers of the Jakarta Province	The joint meeting of the 44th Annual Meeting of the Japanese Society of Tropical Medicine and the 18th Assembly of the Japan Association for International Health	Shinsuke Murai and Naruo Uehara
November 2, 2003	Review on the current state of medical quality improvement initiatives in Central America	The 2nd Meeting of the Tohoku Association for International Health	Namika Fujikawa and Naruo Uehara
July 23, 2004	Investigation and challenges concerning the terminal cases in the Ancol District of Jakarta: a preliminary study for analysis of systematic factors of avoidable deaths	The 53rd Meeting of the Tohoku Academic Society of Public Health	Daisaku Yasui and Naruo Uehara
October 9-10, 2004	A structural analysis of the modified Field Health Service Information System (FHSIS) in the Republic of the Philippines	The 19th General Assembly of the Japan Association for International Health	Shinsuke Murai and Naruo Uehara
September 15, 2005	Actions taken by Central American nations for medical quality management	The 64th Meeting of the Japanese Society of Public Health	Namika Fujikawa and Naruo Uehara
November 5-6, 2005	A study on quality of data in the health information system: taking the Philippines' Field Health Service Information System (FHSIS) as an example case	The 20th General Assembly of the Japan Association for International Health	Shinsuke Murai and Naruo Uehara
November 26, 2005	An attempt for regional technical assistance (regional approach) based on a regional training course: support for introduction and dissemination of evidence-based participatory quality improvement (EPQI) for Central America	The 16th National Conference of the Japan Society for International Development	Namika Fujikawa and Naruo Uehara

2. The 5S Activities in Zambia

Chikanobu Maruyama

2-1 Introduction

This report explores the question of quality in health care by focusing on the 5S activities introduced in a project.

Zambia is located in the southern part of the African continent. With a land area nearly double that of Japan, it has a population of 10.1 million consisting of 73 tribes, with population growth of 2.1 percent. With 70 percent of its population classified as poor, Zambia is one of the most heavily indebted poor countries. Its income per capita is 320 US dollars.

This report looks at the 5S activities implemented as part of the scheme to improve organizational management within the Primary Health Care Project Phase 2 (PHC Project 2) in Lusaka. Based on these activities, the report examines the issue of quality in the public sector.

The PHC Project targets one of the districts within the jurisdiction of health care in the Zambian capital city of Lusaka with 1.2 million people. It was launched in 1997 for the objective of enlarging immunization coverage and reducing the incidences of measles and diarrhea to improve the health of children aged five years and under. Its activities were highly regarded by the Lusaka District Health Management Team. The project was therefore renewed as a five-year Phase 2 in fiscal year 2002. Targeting a total of six districts covered by their respective health centers, including the areas targeted in Phase 1, the PHC Project Phase 2 was set to develop a system for the Lusaka District Health Management Team, administering 26 health centers, to support community activities, in addition for the centers to maintain the conventional community activities.

The 5S process was introduced to public institutions in Zambia for the first time as part of the creation of a supporting structure, especially for bolstering the management skills of staff members. This report focuses on the experience of 5S activities in the project run during the period from July 2004, when the 5S was introduced, to July 2005, with some reviews. It does not, therefore, discuss the nation-wide situation.

2-2 Description of terminology: 5S and Total Quality Management (TQM)

2-2-1 5S

The term 5S refers to the actions to reduce waste to improve quality. It is designed so that anyone can do it immediately. For this reason, it makes use of many easily recognizable indications.

Given that the priority is placed on the worksite where actual production activities take place, the 5S process is regarded as a bottom-up activity. Sustained efforts are essential to producing significant achievements from small activities. In the United States, the 5S activities or improvement activities including broader objectives of eliminating muri (excess), muda (waste) and mura (unevenness), known as KAIZEN (“improvement” in Japanese), are now called continuous quality improvement (CQI).

In the context of the 5S concept, muda (waste) is defined as any activity that adds no value to products or services. For example, a long waiting time before consulting a doctor, or a long time taken for taking out the clinical chart of a particular patient fall under this category. It may also include something that places extra strain, or waste, on both patients and their families, such as hospital spread infection and medical mishaps.

The 5S process aims to attain its objective of eliminating waste by means of five activities for

achieving seiri (tidiness), seiton (orderliness), seiso (cleanliness), seiketsu (standardization) and shitsuke (discipline).

2-2-2 TQM

Productivity is rated high if good products are offered at low prices. Customer satisfaction with a product influences how well the products sell. Goods left unsold affect the cost price and lift the cost. This is why customer satisfaction serves as a key indicator of productivity.

A product consists of a large number of parts and is backed by different manufacturing processes. The overall quality is thus more important than that of individual parts.

TQM refers to a systematic approach to products for increasing customer satisfaction.

2-2-3 Relationship between 5S and TQM

In the example mentioned above, the relationship between 5S and TQM corresponds to the relationship between individual quality and overall quality. High overall quality means not merely that components with invariant quality are secured but also that they are assembled in an appropriate manner.

As far as the health and medical sector is concerned, patient satisfaction with hospitals depends not only on whether or not a set of hospital operations, such as outpatient reception through consultation with doctors, examination, drug delivery and the payment process, reaches a certain level but also on the degree of perfection of the system including interdisciplinary collaboration. For instance, the system is of higher performance if patients are sent quickly from outpatient reception to their consultations, if they do not need to wait very long before their consultation, and if the displays are easier to understand. An advanced structure must be created in designing TQM implementation.

While TQM is closely linked with the objective of the entire organization to achieve customer satisfaction, 5S is meant to achieve the objectives of separate sections, or in other words, sub-optimization. The 5S activities are organized in the framework of TQM so that they can be systematically combined as a whole.

2-3 Background

2-3-1 Analysis of the actual state

(1) Strengths

(i) In PHC Project 2, the Manager of Planning and Development (MPD) of the Lusaka District Health Management Team, was the C/P, who is the second-most senior official after the director in the organization, and a medical doctor very enthusiastic about promoting district health care. There was another medical doctor with work experience in the Central Board of Health, a state-level institution for implementing health projects, and with strong interest in health policies. They were actively involved in all activities under the Lusaka District health strategy plan and the PHC Project Output 4.

(ii) Since the health reform in Zambia in 1996, health plans, or action plans, have been prepared by the Ministry of Health, district health management teams and health centers for every fiscal year. Action plans adopt activity based planning and budgeting, which is a bottom-up approach. In this method, a budget is not allocated without making a request for it in the action plan. Health centers and communities are therefore fully aware of the importance of devising their plans.

(iii) There is a planning core team in every district health management team and health center. Zambia

has established a system in which plans are formulated under the control of this team.

(2) Weaknesses

(i) Action plans of health centers are in fact budget sheets with no or limited detailed descriptions of activities.

(ii) Action plans are likely to remain unimplemented. It is often the case that the plans are funded only when there is enough cash. Many projects are therefore subject to delays or cancellation.

(iii) No health center understands its own annual revenues and expenses. The amount offered to them is much smaller than that stated in their action plans and it is often unclear when it will be provided. Health centers thus do not feel obliged to accurately monitor cash flows. There is no institutionalized accounting audit. On each occasion of making outlays, health centers submit a written request to the Lusaka District Health Management Team. Invoices and receipts are so poorly controlled by health centers that just one of the six centers concerned with JICA's PHC project managed to produce most receipts in response to a request made for the purpose of inspecting them.

(iv) Time spent for planning is liable to be wasted. The advantage of a budget drawn up in a bottom-up manner is also likely to cause negative effects, especially when the plan is relatively ineffective. Considerable amount of time is spent on formulating an action plan. At the district level alone, two to three months are devoted to notification, workshops and feedback meetings. In fiscal 2005, these activities were conducted for the period from the end of June to the end of August.

(v) There is no medium-term vision. Action plans are formulated on a year-by-year basis and they have very limited descriptions from medium- and long-term perspectives. For this reason, the same plan is repeated year after year without coherence.

(vi) There is no system for monitoring and evaluation in operation.

(vii) Poor maintenance of vehicles results in a lack of transport and in failure to provide services.

(viii) There is no vice/deputy chief in charge of the operations... The Lusaka District Health Management Team is roughly split into two divisions: the planning and development division with eight sections and the general affairs division with six sections. In the planning and development division, each section has one or two staff members. Any section with a single staff member is prone to stop functioning when its sole staff member is unavailable.

(ix) The organization has no concept of keeping itself neat and tidy. The personnel work in an environment surrounded by piles of unnecessary items.

(3) Opportunities

(i) With the advice from the World Bank, the Zambian government developed its first three-year budget plan based on the medium term expenditure framework (MTEF) in October 2004, in return for financial assistance. It is, in other words, a medium-term strategic plan on budget outlays, in which the government announced its fiscal expenditure strategy in accordance with the medium- and long-term outlook.

(ii) After Zambia reached the completion point under the Heavily Indebted Poor Countries (HIPC) Initiative in 2004, a boost in funds for the health and education sectors is likely to be expected.

(iii) Given that the HIPC completion point was attained, it was decided that national development plans would be formulated at the state, provincial and district levels as policy papers taking over from the Poverty Reduction Strategy Paper (PRSP). This is a fully-fledged launch of a medium- and

long-term plan that provides a guideline for single-year action plans.

(4) Threats

(i) Health indices reveal very poor health conditions within the country. In terms of the structure of diseases, acute respiratory infections, diarrhea, dysentery, typhus and anemia are at the top of the list, along with HIV/AIDS, malaria and tuberculosis. This is typical of developing countries. Poverty leads to a vicious circle of poverty to malnutrition, and poverty to infection.

(ii) Nearly 90 percent of the budget for operations of the Lusaka District Health Management Team is covered by foreign aid.

(iii) A large majority of community activities are carried out by volunteers. Zambia's health services are structurally obliged to depend on them. In this African country, health services are provided by district health management teams, health centers and communities. District health management teams and health centers are publicly run whereas communities refer to volunteers. Outreach activities, in which workers go and provide services in specific local areas, are mostly supported by the volunteers.

(iv) Effectiveness and efficiency of operations are impeded due to an absolute shortage of staff members, ageing of buildings and equipment and inadequate maintenance.

2-3-2 history of commitment to quality in Zambia

In Zambia, health reform commenced in 1991. Two years later, Quality Assurance (QA) Unit was set up within the Reform Implementation Team of the Ministry of Health to run the Quality Assurance Program (QAP). Since the Central Board of Health (CBoH) was founded in 1996, the Department of Monitoring and Evaluation within the CBoH has been responsible for this function.

Since its launch, the QA Unit has been selectively engaged in assessing standardization, defining indicators and monitoring criteria. Standardization includes that of treatment guidelines for different diseases, integrated management of childhood illness (IMCI) and the integrated technical guideline for frontline workers.

Generally speaking, the standardization, monitoring and evaluation of medical treatment is not workable without ensuring a certain level of base infrastructure, including availability of basic drugs and fundamental testing equipment and qualified human resources. Unfortunately, these challenges are not met in many cases, given that it is time consuming and costly to attain them. Although quality assurance must be established by these means, it is usually not done so. To make matters worse, Zambia has no national QA plan that provides the national vision and strategy that covers organizing of base infrastructure. It is hence difficult to ensure quality from a long-term point of view.

Health centers perform quality checks on a quarterly basis with the use of a checklist called the District Integrated Logistics Self Assessment Tool (DILSAT). Developed chiefly by aid donors, it has such broad and detailed coverage that it takes two hours or so to accomplish the assessment process. However, it does not involve a close follow-up check of problems. It is likely, therefore, that the quality check merely re-examines the same matters as those examined in the previous quarter.

2-3-3 Behind the introduction of 5S in the PHC Project 2

This project is originally designed to serve the purpose of supporting community activities. In Phase 2, the support for the District Health Management Team, which is the parent administrative organization of the communities, was incorporated. Even so, the objective was fundamentally to strengthen the system for

supporting community activities.

Discussions with the C/Ps from the Lusaka District Health Management Team uncovered the problem of vagueness in the vision and mission of the organization attributable to the absence of strategic plans at district level in Zambia. In single-year action plans, as a result, ad hoc arrangements and repetition of activities are plentiful and the targeted outcome is obscure. The discussion also pointed out that poor management capabilities resulted in a failure to soundly implement the operations.

On consultation with the Lusaka District Health Management Team, it was determined that the efforts would be focused on improving these two issues and that the project would work in the initial year on the enhancement of policymaking capabilities, and in the following year on a campaign to improve the working environment by introducing the 5S process. Enhancement of policymaking capabilities includes the joint formulation of strategic plans and subsequent support for the formulation of conventional action plans.

2-4 Implementation of 5S activities

2-4-1 Content of the 5S activities

The 5S activities are aimed at improving the working environment with a special emphasis on three of the five S's, namely seiri (tidiness), seiton (orderliness) and seiso (cleanliness). They include no activities such as the quality assurance program in clinical areas.

2-4-2 Introduction method

Experts were invited from Japan to provide a total of 26 small group seminars for personnel of the Lusaka District Health Management Team and health centers during a two-month period from June to July 2004. There were an average of four members per health center who participated in the seminars. Although they targeted the Lusaka District Health Management Team and all health centers, actual implementation encompassed the areas served by six health centers subject to the project. Each health center formed a team to formulate an improvement plan for the center. The plan was revised on a quarterly basis.

2-4-3 Outcomes

The need to eliminate congestion at the outpatient reception was an issue common to all six health centers. Activities thus started by addressing this question. Medical records of frequently visiting patients for the current years were put at the closest position to the reception. Thick boards were inserted at intervals of 100 records aligned in an upright position to separate one stack from another. A number was assigned to each stack of 100 records so that specific records would be easier to find. Obsolete medical records that were last used five to ten years ago had been left in cardboard boxes on the floor. They were removed to a designated storage room.

Prior to this improvement, it took two to five minutes to pick out the medical chart of a single patient. After organizing them, it took about 20 seconds on average. Given that each health center has 200 to 300 outpatients per day, it successfully saved at least four hours a day.

This triggered a broad array of efforts for improvement in health centers. For example, administrative files and cabinets for patients were organized,, clearer labels were placed on drugs, periodic polishing of the floor was commenced and flowers were planted in the garden in front of the outpatient reception. They also introduced a practice of putting drugs in hand-made bags before handing them to patients.

One of the health centers completed a set of activities in one month that included such initiatives as improving outpatient reception, renovating the garden, creating a check sheet and encouraging regular

checking on first-aid drugs stocked in wards, and organizing office documents.

2-4-4 Consideration

The Lusaka District Health Management Team was the first Zambian public institution to introduce 5S activities. At present, the six health centers subject to the project continue with their 5S efforts by holding (i) monthly 5S meetings, (ii) big clean-up days and (iii) visiting of Our Lady's Hospice.

Although the 5S process is a bottom-up activity, the participation of senior executives is essential to the smooth introduction and implementation of the activities. Underlying the adoption of the 5S activities in the Lusaka District, there was a strong desire from the Manager Planning and Development (MPD) in the Lusaka District Health Management Team, the second-most senior person within the organization, to build up the once weakened management capabilities of the staff. The MPD considered that the significance of planning was overshadowed by the gap between the action plans, f which he has been responsible every year and the content of activities actually conducted, and recognized that this disparity was partly attributable to the lack of management skills of the staff members. After launching a workshop, the director of the Lusaka District Health Management Team, who participated in the workshop, declared in front of the workshop participants that he would offer full support to the 5S initiative. In addition, he repeatedly explained in weekly meetings to the Lusaka District Health Management Team that the 5S activities should be carried out by everyone. These events made a great contribution to the spreading of 5S activities.

Given that the participation by all members is a principle of 5S activities, it is important for them all to be familiar with the 5S concept. Although it was impossible to cover all of the nearly 2,000 personnel in the Lusaka District Health Management Team, invited experts in the 5S process organized a total of 26 small workshops within a two-month period to provide detailed explanations of the value and implementation methods of the 5S activities. They were so effective that the term 5S penetrated within the district.

Another reason for the smooth adoption of 5S activities was that a considerable percentage of personnel were so diligent that they understood the significance of 5S very well and applied it to many different areas once the methodology was explained to them. For example, rarely used clinical records at the outpatient reception, which, increased in the number every year, used to be left in cardboard boxes on the floor. All six health centers started improvement activities immediately after they learned that tidying them away would produce a large space, as well as make them feel more relaxed psychologically, leading them to feel more comfortable with working in such an improved environment. .

Seen from these facts, it is evident that the participation of senior executives and the motivation of staff members have produced synergy for the 5S process to take its root. It can also be said that attention should be paid to this point when activities are carried out.

2-4-5 Issues to be addressed

(1) Still at the stage at which quantity matters more than quality

The question about quality does not come up until certain quantitative sufficiency is attained. Zambia remains short of human, financial and physical resources and still at the stage of seeking quantitative sufficiency. Overseas support covers a little less than 90 percent of the budget for operations of the Lusaka District Health Management Team, exclusive of personnel cost. Even after medical and other equipment is donated, Zambia is responsible for the maintenance of the devices. As it is unable to purchase any replacement of failed components, such equipment is often left unused, looking as if it is still new. It is also often the case that a patient is very lucky if any ambulance arrives on request. The patient may have to wait more than an hour before the ambulance arrives. For most patients, if the ambulance does not arrive, they

are unable to afford a taxi and are consequently left untreated.

(2) Absence of a national health care quality plan

In addition to quantitative shortages, there is a problem of inefficiencies in existing facilities, equipment and human resources. Zambia must identify challenges that need the most focus for ensuring quality and make continuous improvement efforts. There needs to be a long-term plan for doing this. It is necessary to clarify key issues to be addressed and define specific processes. Fund raising is also a must.

Currently, Zambia has a National Health Strategic Plan. However, it does not clearly define any specific measures for securing quality nor does it specify any key challenges in other areas, although extensive descriptions are provided. Consequently, the plan proves to be a pie in the sky.

(3) Deficiency in information systems

Appropriate information systems to provide medical, financial and other information are crucial to the determination of prioritized issues, the appropriate allocation of resources and the securing of quality. Although the question on data reliability will always exist as another problem to address, basic medical information is available. In contrast, it is difficult to gather timely financial information at the district level. In terms of quality, information on outpatient congestion and patient satisfaction is required but the existing system has no such data.

(4) Lack of systematic human resource development

Even if there is appropriate information, it is difficult to ensure quality without an appropriate judgment by those who use the information. The development of a human resource plan is now underway after ten years of suspension. However, it may also focus on quantitative sufficiency and is unlikely to go so far as to cover quality assurance. Since authority is concentrated on the director of the district health management team, the executives' meeting is prone to unilaterally obey the views of the director rather than to make substantial discussions. It is also difficult to expect human resource development in the style of on-the-job training through such discussions.

(5) Inadequate system to support for communities

In the poorest developing countries like Zambia, the quality of medical services means the quality of primary health care (PHC). It can be in large part supported within the community if appropriate guidance was provided, and that it would be more cost effective. Under the current system, however, community activities are heavily dependent on volunteers and the governmental sector contributes very little in the way of allocating human resources to an outreach program for immunization performed by nurses.

References

Maruyama, C. (2005) Completion Report on the Primary Health Care Project Phase 2 in Lusaka (August 18, 2005)

Center for Human Service (2001) USAID. (www.qaproject.org/pubs/PDFs/zambbook2(1).pdf)

3. Providing Quality Health Care in the Philippines: Basis and Lessons

Leizel, P. Lagrada

3-1 Introduction

Quality in health care became a major focus in the health sector more than two decades ago and experts have struggled to define it in a concise, generalizable and interpretable manner. Different perspectives were considered, from the providers of care, to health care plans and insurance organizations, both private and public, to purchasers of health care like employers and labor unions and to the patients themselves.[1] However, quality of care must be defined in the light of the provider's technical standards and the patients' expectations.[2] Moreover, improving the quality should maximize the effectiveness and efficiency of the current system.

The problems in working conditions in developing countries can be overwhelming, which include insufficient number of personnel, lack of continuing education, poor physical facilities, and inadequate drugs and other medical supplies. In the countryside, poor road network and lack of communication hinder efficient referral system. Cold chain for vaccines is compromised by erratic supply of electricity. As a result, studies on quality of care in such settings are often discouraging.[3]

However, there is a growing body of evidence that quality of care can take root and eventually flourish in developing countries, sometimes despite lack of human and material resources. Methods and processes may vary across developing countries but they echo the same goal of providing quality of care to the patients. Some of the interventions to improve the quality of care were so simple that they can provide lessons to the health care organizations in developed countries.[4]

Developing countries around the world have joined the quality care bandwagon, for different reasons and through different mechanisms. Considering that they have similar constraints in providing quality health care, experiences and innovations when shared, prove to be an invaluable resource for them. Thus, it is important to document the experience of each country in designing and implementing its own quality improvement program.

Traditionally, the quality of heath services in the Philippines is ensured through the licensing procedures, both for the providers and the facilities. However, the requirements are often input-based and they lack the process and outcome dimensions of quality.[5] In the last few years however, ensuring quality health services had gone beyond the regulatory arena. Like other developing countries, the Philippine journey pursuing quality in health services is characterized by challenges and lessons that are worth sharing.

This study describes the development of the quality improvement program for the health sector in the Philippines, including identifying the event that triggered its development; identifies the factors that affect the successful implementation of the Philippine quality improvement program for health; highlights the

[1] Blumenthal (1996)
[2] Brown et al.
[3] Reerink et al. (1996)
[4] Berwick (2004)
[5] PHIC (2004a)

quality improvement program implemented in one public hospital; and, enumerates the lessons from implementing quality improvement in the Philippines.

(1) Methodology

Information and data were gathered from the following sources:

①Review of Documents: Relevant documents were reviewed, including legislation, Philippine DOH policies, and agency performance reports.

②Key Informant Interview: Agencies and offices that implement and promote quality programs were identified and key informants were interviewed using an open-ended interview tool (See Annex A for the list of the respondents).

③Quality improvement activities/processes were observed at the public hospital.

This descriptive study developed a chronological presentation of the development and implementation of the quality improvement program in the Philippines. The events that triggered the development of the quality improvement program were also identified. Performance reports of the appropriate agencies were analyzed in relation to their contribution to the implementation of the quality improvement program. A public hospital was selected to see how the quality improvement policy has been implemented.

(2) Results

Seven key informants who are engaged in promoting and implementing quality assurance and improvement programs were identified and interviewed. The list includes program managers, policy makers and implementers from the Department of Health (DOH) and Philippine Health Insurance Corporation (PHIC). Additional institutions outside the DOH that also contribute to the efforts to promote quality in health services were identified. These include the Philippine Society for Quality in Health Care (PCAHO) and the Philippine Council for Accreditation of Health Care Organizations (PSQua). Annex 1 shows the list of DOH and PHIC officials that have been interviewed for this study.

3-2 Historical Development of Quality Improvement Efforts in the Philippines

Health service delivery in the Philippines has changed tremendously in the last 14 years. New legislations related to health and evolving health management practices contributed to the present health system in the Philippines. The DOH is mandated by law to ensure that accessible and quality health services are provided to the Filipino people. Through the years, the main policy instrument that the DOH used to ensure quality in health services was embedded in the licensing requirements for hospitals and other health facilities in the Philippines.[6] Although the policies for licensing of health facilities only look at the inputs for the provision of health services, the Bureau of Health Facilities and Services also encouraged facilities to establish their quality improvement programs.

In 1995, the National Health Insurance Law, the legislation that created the PHIC was passed. Under this law, health care providers are required to have ongoing quality assurance program as a prerequisite for accreditation. The Quality Assurance and Research Policy Development Group (QARPDG) of the PHIC is

[6] Interview with Dr. Beauty Palong-Palong

the office that is mandated to ensure that this provision of the law is being implemented. QARPDG is responsible for the development and enhancement of quality assurance programs, policies and guidelines for institutional and professional health care providers. In addition, it develops and continuously reviews health care standards, performance monitoring and evaluation systems, feedback and intervention mechanisms. This office also conducts utilization review, health technology and outcome assessments.[7] The mandate of QARPDG to ensure quality services in PHIC-accredited facilities is further operationalized through the development of the Benchbook on Performance Improvement of Health Services. This manual will be used as a yardstick for measuring and assessing the quality of health services provided by PHIC accredited facilities. This reference also strengthens the connection between the accreditation process of PHIC and the quality assurance health care. Thus, the Benchbook provided an updated list of standard and criteria that health providers can use for self-assessment before they apply for PHIC accreditation.[8] It also identified the following areas as the focus of PhilHealth Quality Standards for Health Care:

- Patient's Rights and Organizational Ethics
- Patient Care
- Leadership and Management
- Human Resource Management
- Information Management
- Safe Practice and Environment
- Performance Improvement

In 1996, a group of individuals representing professional societies, academic institutions and government agencies got together to establish the PSQua. This Society aims to 1) promote the quality assurance, quality improvement and quality management among the public and private providers of health care; 2) organize scientific meetings, workshops and seminars on quality in health care; 3) promote research on quality in health care in the health sector; and 4) collaborate with government agencies in establishing scientifically sound and practical rules in accreditation process of the health organizations. As of 2004, PSQua developed the "Essential Elements of Quality Assurance/Quality Management (QA/QM) in Hospitals in the Philippines," a guiding principle to promote quality in Philippine hospitals. The Society also formulated the Training Methodology in QA/QI (Quality Improvement) for health services, conducted more than 35 training workshops across the country, trained trainers on quality with the assistance of Asian Productivity Organization (APO), and conducted 81 QI study contests in which hospitals vie for the best innovation in health services.[9]

In 1998 the PCAHO was organized to strengthen the regulation of hospitals.[10] PCAHO is a non-government non-profit independent accrediting and certifying body whose primary objective is to promote quality improvement in health care services through accreditation, education, training and research. Seven years after its establishment, PCAHO has conducted the Certification of Quality Standards System (QSS) of the majority of 150 medical clinics that examine Overseas Filipino Workers (OFW), as mandated by the DOH. In addition, the DOH also authorized PCAHO to certify the QSS of the Confirmatory Drug Testing

[7] PHIC
[8] PHIC (2004a)
[9] PSQua (2004)
[10] Interview with Dr. Beauty palong-Palong

Table A3-1 Sentrong Sigla Certified Facilities, 1999-2004

Facility	Total Number	Total Certified	% Accomplishment
Rural Health Units/Health Centers	2,385	1,375	58%
Barangay Health Stations	13,540	390	3%
Devolved Hospitals	631	97	15%

Source: DOH（2005）

Laboratories before the renewal of their accreditation. In addition, this organization also audited and evaluated 135 medical clinics but only certified 130 of those audited, conducted training of Quality Management Representatives (QMRs), clinic administrators and other clinic staff and provide educational assistance to medical clinics.[11]

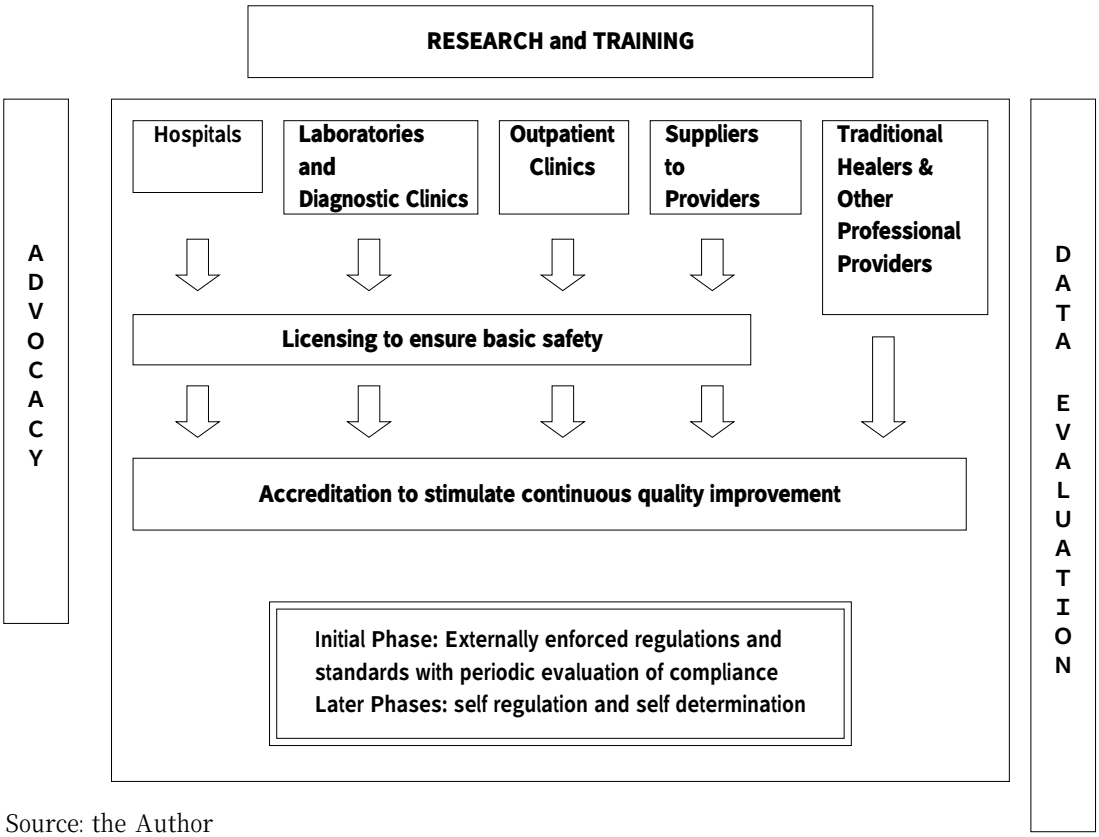
In the same year, the DOH also formulated the 5-year strategic plan on Quality Assurance Program (QAP) with the assistance from the Unite States Agency for International Development (USAID) . In 1999, this program was renamed and became popularly known as Sentrong Sigla (Centers of Vitality) Movement (SSM). Its goal was to establish partnership between the DOH and the Local Government Units (LGUs) in providing quality health services. The objectives of this program were to: i) institutionalize QAP through capacity building; ii) establish mechanisms to coordinate, support and monitor QA efforts; iii) develop and implement effective Information, Education and Communication (IEC) and advocacy campaign; and, iv) make clients active partners in health. There were 2 strategies identified to implement this program. The first strategy was the certification and recognition of public health facilities including district hospitals, rural health units, city health centers and Barangay Health Stations (village health stations) that have met the established criteria, and the second was capacity building to internalize Continuous Quality Improvement (CQI) of health services in these facilities. Table A3-1 shows the SSM accomplishment between 1999 and 2004.

In 2001, the effort to raise the quality of health services was intensified leading to the expansion of quality efforts beyond the DOH-LGU interaction. At this point the quality efforts done outside the DOH-LGU interaction was acknowledged. The new and integrated Quality in Health Program (QIHP) included mandatory licensing by other offices of the DOH, the accreditation and payment mechanism of the PHIC, and other efforts to promote quality in health services done by professional societies, which was formulated through DOH Administrative Order 17-B series 2003. This program replaced the QAP and SSM and adopted 3 components that include; 1) mandatory licensing; 2) voluntary accreditation through PHIC and other professional associations; and, Sentrong Sigla (SS) Certification.[12] Figure A3-1 shows the Quality Framework under the QIHP.

Also in 2001, the DOH through the National Center for Health Facilities Development formulated the Department Order numbers 310-J s 2001 and 172-C s2003 which provided for the creation of the DOH Steering Committee and Technical Working Group for the establishment of CQI Program for health regulation cluster and DOH hospitals. The intent of these department orders was to promote continuous improvement on the quality of health care provided by the DOH hospitals.

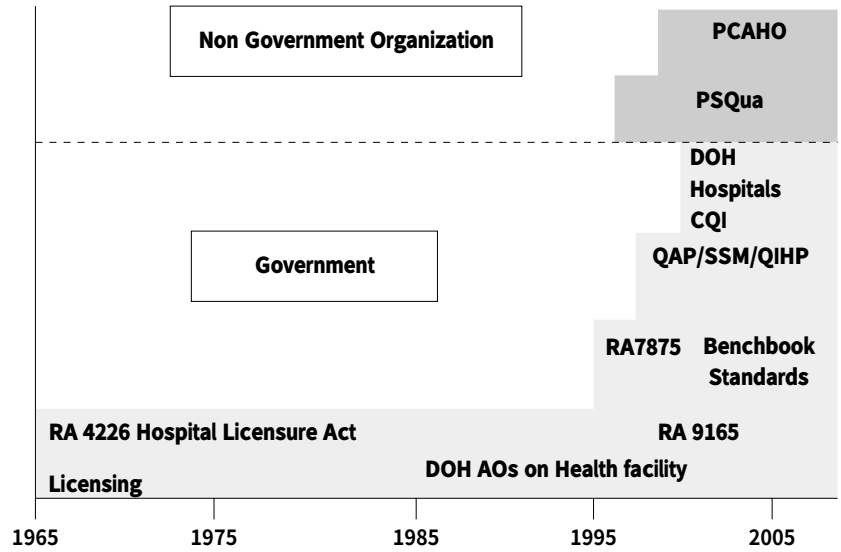
[11] PCAHO (2005)
[12] DOH (2003a)

Figure A3-1 Quality Framework of Quality in Health Program



Source: the Author

Figure A3-2 Chronological Development of Quality Improvement Efforts in the Philippines



PCAHO: Philippine Council on Accreditation of Health Care Organizations
PSQua: Philippine Society for Quality in Health Care, Inc.
CQI: Continuous Quality Improvement
Quality Assurance Program (QAP) (1998) /Sentrong Sigla Movement (SSM) (1999)/
Quality in Health Program (QIHP) (2003)
Republic Act 7875: National Health Insurance Law, as amended
Republic Act 9165: Dangerous Drugs Act of 2002
Different Administrative Orders include AO 147 s2004, amended by AO 0029 s 2005

Source: the Author

Table A3-2 Summary of the Different Institutions/Organizations that Contribute to the Quality Improvement Efforts in the Philippines

	DOH BHFS	PHIC	SSM PHASE 2	DOH NCHFD	PSQua	PCAHO
Type of quality assurance/ improvement instrument	Licensing Some accreditation	Accreditation	Certification	—	—	Accreditation/ Certification
Nature of quality assurance/ improvement program	Mandatory	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary
Legal/ policy Basis (most recent amendment)	RA 4226 RA 9165 AO 0029 s2005	RA 7875	AO 17-B s2003	AO 172-C s2003	—	Authorization from DOH
Purpose of QA/QI instrument	Ensure safety Permit to operate Quality improvement	Participation to NHIP Quality improvement	Prerequisite for PHIC accreditation Quality Improvement	Quality Improvement	Quality Improvement	Requirement for DOH accreditation Quality improvement
Target facilities	**Licensing**: Hospitals and other health facilities (excluding medical and dental clinics, rural health units and Barangay Health Stations) **Accreditation**: drug testing laboratory, confirmatory drug testing laboratory, hospitals conducting kidney transplantation, OFW and Seafarer Medical Clinic	Hospitals, out-patient clinics including ambulatory surgical clinic, dialysis clinic, maternity clinic, anti-TB/DOTS centers, rural health units	Rural health units	DOH hospitals	Tertiary hospitals	Confirmatory drug testing laboratories, OFW and Seafarer medical clinics
References for QA/QI	AO 147 s2004, AO 0029s2005	PHIC Benchbook	Sentrong Sigla Quality Standards List	Department Order	Training Manual for QA/QI	Quality Standards Systems
Quality assurance/ improvement activities	Desk review of document On-site evaluation	Desk review of document On-site evaluation	Desk review of document On-site evaluation, training and TA	Training Technical assistance	Training, TA, showcasing of QIactivities	Training, TA, accreditation, certification review

Source: the Author

Figure A3-2 shows the chronological development of policies and establishment of programs and organizations that implement and promote quality assurance and improvement programs in health services in the Philippines. However, this figure only focuses on the beginning of the implementation of the policies but not on the degree of their implementation/operationalization. For example, although the PHIC Benchbook was developed in 2003 and was published in 2004, this tool will only be used as basis for PHIC accreditation starting 2006.[13]

Table A3-2 summarizes the characteristics of different offices that are mandated to operationalize the different policy instruments for quality assurance and quality improvement. The information included in the table is limited to what is currently being done but it does not include the future intention or plans of these offices. For example, SS certification also covered locally managed public hospitals and Barangay Health Stations in Phase 1 but in Phase 2 of SSM under QIHP, SS certification focuses on the rural health units.

On their own initiative and to increase their competitive advantage, hospitals and other health facilities sought accreditation with International Organization for Standardization (ISO), JCAHO and accreditation of other countries like Taiwan and Saudi Arabia. As of 2005, DOH listed 137 OFW medical clinics and hospitals accredited by PCAHO and ISO and one tertiary private hospital with JCAHO.

3-3 Factors that Trigger the Development of Quality Improvement Programs

The results of the interview of key informants showed that the factors that promote the development of the quality improvement efforts ranged from the effects of devolution to felt need by health care professionals for quality improvement program, and mandate provided by specific legislation. Review of documents revealed that there was one accreditation policy that was formulated as a result of adverse medical event. The following are the identified triggers for the development of quality improvement programs and other initiatives in the Philippines.

Devolution. The devolution of health services to the LGUs in 1992 was one of the identified trigger factors for the development of quality improvement program particularly for primary health facilities. Several studies report that after the health services were transferred to LGUs there was disintegration of preventive and curative health services thereby disrupting the referral chain. Moreover, the quality of health services deteriorated because of under-funding of health programs particularly preventive care, low morale of health workers, chronic lack of equipment, and low quality and unsteady supply of drugs at the local level.[14] This was the situation of the public health sector when the DOH sought technical assistance from the USAID to develop the QAP, which later became known as SSM.[15] Sentrong Sigla became the main quality improvement program that outlined the requirements that will ensure the quality of health services provided by the local health facilities.

Felt need. One of the triggers noted by the respondents was the need for quality improvement program in order to respond to their clients. This was especially true for the public hospital sector.

The DOH-retained hospitals developed their individual quality improvement program based on their own initiative, usually starting with the implementation of 5S program from Japan. Some of these quality

[13] Interview with Dr. Francisco Soria
[14] Lakshminarayanan (2003), Lieberman et al. (2005)
[15] Interview with Mr. Jose Basas

Box A3-1 Quality Improvement Program in a Public Hospital

It was the clients' clamor for better health services that triggered the development of quality improvement program in Quirino Memorial Medical Center (QMMC). QMMC is a 350-bed tertiary hospital located in Quezon City, Metro Manila. The hospital management started implementing quality improvement activities in 2001 when they received many complaints from their clients despite the improvements in their facilities and manpower capability.[16] This kind of feedback coupled with the hospital management's desire to provide the best service possible led to the development of their quality improvement program. Their quality improvement activities include among others, compliance to updated clinical guidelines of specialty societies, hospital-wide discipline, infection control, and client feedback mechanism. They have established several management systems, which include internal control of their resources to prevent wastage and pilferage, proper monitoring of pharmacy including the price and quality of drugs and any occurrence of adverse drug reactions, infection control and hospital-wide discipline, among others.

One of the most visible continuous quality improvement mechanisms in the hospital is the client feedback mechanism, where the management distributes Patient Satisfaction Survey forms to their clients. The management also put up 15 suggestion boxes in strategic locations around the hospital, which they open once a month to see if there are any suggestions or comments that they need to act on. As of 2004, the hospital management received 34 official complaints and the Medical Center Chief verified 32 of them. The hospital-wide committee handled seventeen of these cases and 6 cases resulted to penalty to the employee concerned.

Source: QMMC (2004)

programs are more advances than others (See Box A3-1). With different programs being developed, the head of the hospital cluster felt the need for a template for quality program in DOH hospitals.[17] In order to address this, Department Order 310-J s2001 was developed to create the DOH steering committee and technical working group that will establish the continuous quality improvement program for the health regulation cluster and DOH hospitals. The rationale of this health department policy was to establish a set of standard measures and procedures that will serve as a benchmark for service performance in DOH-retained hospitals and regulatory offices under the DOH. Recently, another department order is being drafted to establish the CQI program in DOH hospitals with the following core components: committed leadership and participative management, continuous quality improvement activities, risk management, system of reporting and documentation and funding.

Another policy that was drafted based on need to improve the quality of health services is exemplified by the Rules and Regulations Governing the Accreditation of Hospitals Engaged in the Conduct of Kidney Transplantation. This DOH policy was developed when the staff of Renal Disease Control Program, upon analyzing their records between 2001 and 2002, found out that 23 cases of post transplant complications were referred by different hospitals to the National Kidney and Transplant Institute. This issue was further highlighted by the alarm raised by a foreign newspaper when they reported post-kidney transplantation mortality and cases of kidneys bought from the Philippines that did not match the recipient.[18]

Another identified need was to strengthen the regulatory mechanism for hospitals, which led to the creation of the PCAHO.[19] Although originally created to provide accreditation to hospitals, PCAHO at present provides certification/ accreditation to medical clinics that provide services to overseas Filipino workers. PCAHO also fills the gap in this area since these clinics must be accredited first before

[16] Interview with Dr. Rosalinda Arandia
[17] Interview with Dr. Robert Enriquez
[18] DOH (2003a)
[19] Interview with Dr. Beauty Palong-Palong

international employers honor their medical certification. PSQua was likewise organized because of the growing need to support and institutionalize the quality improvement programs initiated by the health care providers.

Legislation. Republic Act 7875 (National Health Insurance Law) was the reason for the reason for the creation of Philippine Health Insurance Corporation and its various offices including the Quality Assurance Research and Policy Development Group. This office is mandated to operationalize Rule XVII of the Implementing Rules and Regulations (IRR) of RA 7875, which focuses on the quality assurance of health care providers. According to the IRR, the quality assurance program of PHIC shall; i) ensure that health care professionals of the accredited health institution possess the proper training and credentials to render quality health services to members of the National Health Insurance Program; ii) work towards the promotion of uniform health care standards throughout the country; and, iii) ensure appropriateness of medical procedures and administration of drugs and medicines consistent with generally accepted standards of medical practice and ethics.[20]

PHIC operationalized these legal provisions through the implementation National Quality Assurance Program (NQAP). This program is applicable to all accredited providers of PHIC for the delivery of health services. The main focus of this quality assurance program is to establish a monitoring system that will safeguard against over- and under-utilization of services, unnecessary diagnostic and therapeutic interventions, irrational drug use, inappropriate referral practices, gross unjustified deviation from current practice guidelines and treatment protocols, and use of fake, adulterated or unregistered drugs. In order to ensure these safeguards, the NQAP has the following features: utilization review of the claims filed with PHIC, implementing the Rational Drug Use Program, adopting the Drug Price Reference Index as the basis for reimbursing drugs and medicines, updating of the Relative Value Scale for reimbursements and Philippine National Drug Formulary, and setting the standards for accreditation of health care organizations through the Benchbook on Quality Assurance.[21]

3-4 Factors that Promote the Implementation of Quality Improvement Programs

At present, the quality assurance/ improvement programs and initiatives were at various stages of implementation. Respondents identified several factors that promote the implementation and sustainability of these quality initiatives.

Leadership. Respondents to the interview identified strong leadership as a significant factor in the implementation and institutionalization of various quality assurance and improvement programs. The former Undersecretary for Health, Dr. Susan Mercado, was instrumental in developing and promoting the SSM. Dr. Elvira Dayrit who pushed for a wider and more comprehensive Quality in Health Program further strengthened the momentum. In hospital and regulatory cluster, Undersecretary Margarita Galon pushed for a standardized quality improvement program for the DOH hospitals. In QMMC, Dr. Arandia is considered as the driving force in the improvement of health services provided by the hospital and a charismatic proponent of the quality improvement program in hospitals. In private sector, Dr. Maramba is seen as a strong advocate of quality improvement program in the country, as he is both an officer of PSQua and

[20] PHIC (2004b)
[21] PHIC (2003)

Box A3-2 Some Technical Assistance to Improve Quality of Care from External Sources

Evidence-Based Participatory Quality Improvement (EPQI) System. In 2003, recognizing that the delivery of quality health care lies on a working district health system that is well-managed by local health executives and provided technical guidance by the DOH, PHIC introduced the EPQI system in the province of Benguet to test a quality improvement package. Innovations and new ways of improving quality of health care were introduced by Dr. Uehara to key personnel of Benguet province. They were trained on different EPQI tools in training/workshops conducted between November 2003 and January 2004. In this project, EPQI helped the hospitals to; 1) organize and train QA practitioners and advocates among health providers; 2) establish health system indicators for quality health assurance that is aligned with the standards in the PHIC Benchbook; 3) establish a QA program and encourage QA innovations; and, 4) achieve better health outcomes and satisfied health consumers.

Source: Quality Assurance Research Policy Development Group, PHIC

Training of Trainers on QAP and Benchmarking. In 2003, the APO, through the Productivity Development Center of the Development Academy of the Philippines (PDC-DAP), provided the expertise of Ms. Lucia Berte to PSQua in conducting training for trainers on Quality Assurance Program for hospitals. Moreover, in 2004, APO, in partnership with the Center for Knowledge Management of DAP (CKM-DAP), provided the services of Mr. Bruce Searles to assist PSQua to conduct a benchmarking project on patient safety with particular focus on medication error.

Source: Philippine Society for Quality in Healthcare (2004)

PCAHO.

External support through foreign assistance. Although quality improvement program can be implemented in the face of scarce material, human and financial resources, the development of the quality improvement programs in the Philippines had the advantage of getting technical and financial assistance from foreign donors. Among others, SSM and the creation of PCAHO were outputs of assistance from USAID. PHIC on the other hand, was able to pilot test a QA tool called Evidence Based Participatory Quality Improvement (EPQI) System through the assistance of World Health Organization (WHO). This management system, introduced in the Philippines by a Japanese QA expert, Dr. Nauro Uehara, of Tohoku University's School of Medicine, is expected to promote continuous improvement in health care quality in hospitals. The APO, through the Development Academy of the Philippines, provided assistance to PSQua through technical experts in training trainers on quality assurance and implementing benchmarking in the health sector (See Box A3-2).

Acceptability of Quality Assurance Program. Another factor that facilitates the implementation and sustainability of quality improvement programs is acceptability to the health care providers. The implementation of PHIC Benchbook, for instance, is acceptable to health care providers that they are already using this as reference in establishing their quality improvement program even before PHIC uses this manual for accreditation purposes. Likewise, the implementation of SS Certification is still going strong six years after it was first established. Currently, around 1371 or 58% of the Rural Health Units (RHUs) or Health Centers (HCs) are SS Certified and 660 of these facilities or 48% are accredited by PHIC.[22] Program review of SS also showed that most of the providers perceived that there have been observed changes and improvement in the facilities immediately after the conduct of SS assessment and after receiving the SS Certification.[23]

[22] DOH (2005), Taleon (2005)
[23] Lamberte (2003)

Table A3-3 Status of Sentrong Sigla Certification and PhilHealth Accreditation Programs for Rural Health Units and Health Centers, September 2005

Total Number of RHUs/HCs	2,835
Total Number of SS Certified RHUs/HCs	1,375
Total Number of Non-SS Certified RHUs/HCs	1,010
Total Number of PHIC Accredited RHUs/HCs	841
SS Certified Facilities with PHIC Accreditation	660
SS Non-certified Facilities with PHIC Accreditation	181

Source: DOH (2005)

3-5 Challenges in the Implementation of Quality Improvement Programs

However, there are also challenges to the implementation of quality improvement initiatives. These range from organizational requirements, to harmonization of quality policies and to readiness of health care providers to start and sustain their quality program. All the respondents however agree that these problems are momentary setback and can be addressed in the future.

Organizational Requirements. Despite the initial gains of the quality programs in increasing the awareness of the health care providers to improve the quality of health services that they provide, both the DOH and the PHIC identified organizational strengthening and capacity building as barriers to full implementation of quality improvement program. In PHIC for instance, the experts on implementing the standards remain on contractual or consultant position while those who are permanent employees of PHIC still require capacity building both on quality tools and processes and on social marketing of the quality assurance program. Moreover, PHIC sees a need for a training institution that will provide training on quality to their accredited facilities.

The DOH on the other hand needs to mobilize and orient its representatives to the local government health boards in order to provide assistance to LGUs in implementing the quality improvement program at the primary health care facilities.

Harmonization of quality policies and processes. The respondents noted that one of the strengths of the quality improvement programs in the Philippines is the formulation of appropriate policies. However, harmonization between licensing and accreditation must be done and streamlining of these processes must be achieved. For example, the content of the accreditation policy of PHIC must not conflict with the licensing policies of DOH. Moreover, the certification awarded by SS and PCAHO must complement and not duplicate the one given by PHIC. At present, DOH and PHIC have separate standards for RHU/HCs and bother these institutions issue certification and accreditation separately. At Table A3-3 shows the discrepancy between SS-certified and PHIC accredited health centers. PHIC Circular number 30 series of 2001 however identifies SS certification as a requirement for PHIC accreditation.

Likewise the role of the different agencies and organizations that promote quality of health care must be defined and reconciled so that everybody contributes to the promotion of quality health care. For instance, PSQua can provide the training for health care providers prior to their application for accreditation. Similarly, PCAHO can also provide technical assistance to those providers who failed to pass

the assessment for accreditation.

Readiness of health care providers. The readiness of the health providers to adopt quality improvement programs depends on their knowledge of the program, their technical capacity to implement it and the availability of the resources to implement the program. At present, many health providers, particularly the small hospitals are not ready yet to implement the PHIC Benchbook standards. In a study done to assess Sentrong Sigla program, 56% of the SS certified facilities are under the more affluent local government units, showing a bias for those LGUs who can provide financial support to their quality improvement efforts.[24]

Lack of financial resources is also one of the cited barriers in implementing quality programs in DOH-retained hospitals. For instance, it is difficult to reduce the infection rate in hospitals if requirements for basic sanitary procedure like running water and washing facilities are not being maintained.[25] Financial resources are also critical in conducting research to establish and update the quality standards.

3-6 Lessons in Implementing Quality Improvement Program in the Philippines

Despite the relatively recent development and implementation of the quality improvement programs in the Philippines, few lessons can already be gleaned from its present form.

Policies on quality of care provide clear direction for its implementation. The quality improvement initiatives in the Philippines are articulated and supported by several policies ranging from legislation to PHIC and DOH policies and guidelines. These policy instruments provide clear directions to health care providers. Moreover, the organizational structure that will implement the quality improvement programs was identified.

However, the formulation of these policies may have been done too fast without the sufficient leveling off between the policy makers and the health providers. Quick development of policies may also lead to slow implementation since the health providers are not yet ready to comply with the standards.

Quality improvement is better implemented if linked with incentives. The experience of Sentrong Sigla Phase 1 showed the local officials and health providers could accept quality improvement program more readily if this is linked with some form of incentives. The assessment of SSM showed that 89.7% of the local government units included in the study were aware what the program was all about while 88.1% of the health workers perceived that there were observed changes and improvements in the health facility because of SSM.[26] In contrast, resistance from the providers was observed when quality improvement requirements are included in licensing conditions.[27] Considering these two lessons, the future quality improvement program in the Philippines will be linked with the PHIC accreditation and reimbursement of health insurance.

However, incentive must not be the over-all goal of quality improvement program. Coupled with increasing awareness on improving the quality of health care, orientation of the health providers on other benefits of implementing QIP must be done. These include, among others, increased client satisfaction,

[24] Lamberte (2003)
[25] Interview with Dr. Robert Enriquez
[26] Lamberte (2003)
[27] Interview with Dr. Beauty Palong-Palong

Table A3-4 Hospital Bill Collection, 2002-2004

Year	Number of Patients	Income Collected $US	% Increase
2002	23,049	52,454,171.82	
2003	20,075	71,561,560.00	26.7%
2004	19,515	103,391,892.85	30.8%

Source: QMMC (2004)

improved morale among the health facility staff and improving the health outcomes.

Sharing of quality improvement initiatives among health institutions increase the quality awareness of health providers. Many lessons have been learned and shared from quality improvement efforts implemented by individual facilities through the annual convention conducted by the PSQua. This yearly activity provides the venue to increase awareness for quality improvement in the health sector. It also encourages more health providers to adopt and implement their quality improvement programs.

Quality improvement can lead to better use of limited resources and increase in revenues. Health facilities developed their quality improvement programs because of limited financial resources. In QMMC, for example, along with their expanded and improved services, they have implemented a system to closely monitor and evaluate their patients' capability to pay, which led to increased collection. They also give proper advise to indigent patients so that these patients can apply for financial assistance from foundations and endowment funds.[28] Table A3-4 shows the increase in hospital income.

Increasing the awareness of the community for quality improvement in health care led to higher utilization. Through the implementation of Sentrong Sigla, there has been an increase in the awareness on quality health care among the clients of primary health facilities, the leaders of NGOs and community-based organizations, the LGU officials and the health providers. In a study to assess the impact of SS, 46% of the respondents reported that they sought services from the SSM certified facilities because of the perceived delivery of quality health services.[29] The common sources of information that the facilities were SSM certified include DOH representatives, health providers and LGU posters, banners and radio announcements.

3-7 Conclusion

The trigger factors that facilitated the development of quality improvement programs in the Philippine health sector continue to steer its progress. The devolution, which was the main reason for the development of SSM, continues to be an opportunity for local officials to pursue quality in the health services that they are mandated to provide. The Local Government Code that transferred the delivery of health services to the local government units is the same law that allows them to develop local health care system that is of quality, efficient and appropriate to their locality. There are on-going initiatives among LGUs to promote quality of health under the technical guidance of the DOH. On the other hand, the felt need for quality improvement, although a force that continues to promote QIP, especially among the DOH hospitals, must be

[28] QMMC (2004)
[29] Lamberte (2003)

a collective need in order to be sustainable. If only the leaders in the institution/organization felt the need for the QIP then the initiatives that are going strong now may not continue once the leaders leave their positions. Legislation and policies, although providing a more stable pressure to develop and sustain QIP, must be well disseminated in order to be effective. The mandate that these policies provide to the implementing agencies/offices is enough to ensure that QIP in the health sector will be sustained.

At present the current environment for the implementation of quality improvement program in the Philippines remains bright and hopeful, the gains from implementing these programs in the past few years look slow and uneven. However, the formulated policies and planned harmonized processes have yet to result to improvement in health outcomes. More leaders and proponents of quality health care must be identified and equipped; synchronized processes and procedures must be put into practice; appropriate investments to upgrade facilities and services must be done; and, implementation of the quality improvement program must be tracked and evaluated. Evaluating the quality improvement programs is particularly critical in order to see that the inputs and processes resulted to improved outcomes, and this will iteratively provide lessons for the next cycle of implementation.

References

Berwick, D. M. (2004) “Lessons from Developing Nations on Improving Health Care.” *BMJ*. 2004; 328:1124-9.

Blumenthal, David (1996) “Quality of Health Care: Part 1 Quality of Care- What is it?” *New Engl J Med*. 1996; 335(12): 891-894.

Brown, L. D., Franco, L. M., Rafeh, N. and Hatzell, T. *Quality Assurance of Health Care in Developing Countries*. Quality Assurance Project. Bethesda, MD U. S. A.

Department of Health (DOH) (2003a) *Sentrong Sigla Volume 1: Handbook on Administrative Issuances and Directives*. Bureau of Local Health Development. Manila, Philippines.

———(2003b) *Rules and Regulations Governing the Accreditation of Hospitals Engaged in the Conduct of Kidney Transplantation*. DOH Administrative Order 81s 2003. Manila, Philippines.

———(2005) Sentrong Sigla Program Updates. Bureau of Local Health Development. August, 2005 (unpublished).

Lakshminarayanan, R. (2003) “Decentralization and its Implications for Reproductive Health: The Philippines Experience.” *Reproductive Health Matters*. 2003; 11(21):96-107.

Lamberte, E. E. (2003) Sentrong Sigla: A Formative Assessment and Program Implementation Review. 4th Health Research for Action National Forum. Health Policy Development and Planning Bureau, Department of Health. Manila, Philippines.

Lieberman, S. S., Capuno, J. J. and Van Minh, H. (2005) “Deventralizing Health: Lessons from Indonesia, the Philippines and Vietnam.” In: The World Bank. *East Asia Decentralizes: Making Local Government Work*. pp. 155-178.

Philippine Council on Accreditation of Healthcare Organizations (PCAHO) (2005) *Journey to Quality in Health Care through Certification/Accreditation*. 1st Annual Convention Manual. Manila, Philippines.

Philippine Health Insurance Corporation (PHIC) (2003) *Promoting Quality health Care in the Philippines*. Paper presented to the 12th ASEAN Social Security Association Board Meeting. Brunei.

———(2004a) *Benchbook on Performance Improvement of Health Services*. Pasig City, Philippines.

———(2004b) Implementing Rules and Regulations of Republic Act 7875, as amended. Pasig City, Philippines.

———Duties and Responsibilities- Quality Assurance Research and Policy Development Group. (www.philhealth.gov.ph)

Philippine Society for Quality in Health Care (PSQua) (2004) *A Road Map to Achieving Quality*. 9th Annual Convention Proceedings. Mandaluyong City, Philippines.

Quirino Memorial Medical Center (QMMC) (2004) Annual Accomplishment Report 2004 (unpublished).

Reerink, I. H., Sauerborn, R. (1996) “Quality of Primary Health Care in developing countries: recent experiences and future directions.” *Int J Qual Health Care* 1996; 8:131-139.

Taleon, J. D. (2005) *Sentrong Sigla Report and Recommendations*. Powerpoint material presented to Harmonization of Sentrong Sigla Certification and PhilHealth Accreditation Meeting. Manila, Philippines.

Annex A List of Respondents for the Key Informant Interview

Name	Designation/Organization
Dir. Maylene Beltran	Director VI, Health Policy Development and Planning Bureau, DOH
Dr. Robert Enriquez	Division Chief, National Center for Health Facilities Development, DOH
Dr. Francisco Soria	Medical Officer VI, Quality Assurance Research and Policy Development-PHIC
Dr. Beauty Palong-Palong	Division Chief, Quality Assurance and Monitoring Division, Bureau of Health Facilities and Services
Mr. Jose Basas	Chief Health Program Officer, Quality in Health Program, Bureau of Local Health Development, DOH
Dr. Rosalinda Arandia	Hospital Director, Quirino Memorial Medical Center
Dr. Angeles de Leon	Chief of Clinics, Quirino Memorial Medical Center

4. Quality Assurance and Clinical Governance in Bangladesh

Hasan, Aminul

4-1 Quality Assurance Programme

(1) Background

Quality Assurance Programme had been taken as a support service to improve health care quality under the leadership of separate line director in Directorate General of Health Services. Quality of Health care is of great concern to Ministry of Health and Family Welfare (MOHFW) for its commitment to maintain quality in all level of services. In HPSP (Health and Population Sector Programme, 1998-2003) period, it had been working under the leadership of Director General of Health Services forming a cell named Quality Assurance Cell (QAC) which were looking after the quality aspect of Health care services at all level (Public, Private, NGO). In HNPSP (Health Nutrition and Population Sector Programme, ongoing programme) document, it is proposed that the Quality Assurance Programme will continue the activities under a full time line director for the period 2003-2010.

(2) The intended activities for the quality assurance programme during HPSP were

a. Formation of National QAC.
b. Formation of National Quality Assurance Team.
c. Formation of Regional Supportive team.
d. Establishing in built QA mechanism in each primary, secondary and tertiary care facilities, establishing quality supervision and monitoring system at all level.
e. Review / development of quality management of protocols for National / District and Upazilla level.
f. Conducting surveys on consumers and providers perception of quality of care.

(3) Performance accounts till date

The programme developed standards on the following areas which includes the areas for hospitals services and for the field level preventive service as follows.

(4) Hospital services

OPD services: House keeping
IPD services: Drug management
Emergency services: Nursing services
Diagnostic services: Record keeping: Emergency Obstetric Care (EOC)

(5) Preventive services

Health education (BCC): Diarrhoea
EPI services: ARI
Limited curative care: Malaria
TB: Kala-azar
Leprosy: ANC

There were also some proposed areas:

OT management

Malnutrition

Infection control (Hand washing, waste management, etc.)

(6) Current situation

Quality of Health care provided in the country is generally believed as not good. The Nation wide service delivery survey (SDS-CIET survey) indicate public opinion about quality of health and family planning services provided by the government are not good. The perceived problem that has been identified are as Lack of medicine, long waiting time, poor service, bad attitude of the staff etc.

World Bank's project appraisal document (2003) reiterated the quality issues prevailing such as lack of medicines, long waiting time, bad attitude of the service provider to the poor. Poor people can not get good treatment without patronage relationship. Women again then in most disadvantaged position because of their less access to patrons and resources.

The document (PAD, 2005) also critically felt need of developing feasible and acceptable strategies for regulating and enforcing regulation of quality and volume for health services and pharmaceuticals.

The key quality issues that come up from current situation analysis are lack of medicine or poor quality medicine, bad service, bad staff attitude, difficult to reach, waiting time, inadequate seats for waiting, very brief consultation time, worse privacy arrangement, doctor's behavior towards patient, providers bad behavior towards the poor, cleanliness, unregulated services.

(7) Priority areas

a. Service improvement
b. Creation of positive staff attitude
c. Shortening of waiting time
d. Adequate seat for waiting
e. Adequate consultation time
f. Improving privacy arrangement
g. Improving doctors behavior towards patient
h. Cleanliness
i. Regulated service

(8) Priority activities of the OP

a. Reorganization of QAC including establishment of a resource centre.
b. Updating & dissemination of standards / Standard Operating Procedure.
c. Advocacy and orientation on QA.
d. Strengthening of National QAC and formation of regional Quality Assurance team.
e. Training on QA of manager and service providers at service delivery points.
f. Monitoring, Evaluation and Supervision of the standards which are on implementation.
g. Small scale yearly hospital and community based survey for finding out quality gaps and level of client satisfaction.

h. Workshop on QA policy decisions and strategy development.

i. Consultative meetings with other organizations related to quality issues and organization workings (GO, private and NGO) on health care quality.

j. Capacity building / staff development of QA staff associated with Line Director (LD) at DGHS through foreign training / study tour.

(9) Trigger factor

Implementation of Standard Operating Procedure (SOP)

Continuous resource mobilization

Monitoring and evaluation

(10) Strategy

In accordance with SIP (Strategic Implementation Plan), Quality Assurance will focus to provide quality health care services to the people appropriate to their special needs through setting standards, monitoring standards, regulating services and taking quality control measures.

The strategic implementation plan confirms government commitment to pro-poor health service provision where QA has direct role by improving service quality. It is speculated that outcome of actions such as improving bad service, changing bad attitude by service providers, changing behavior of physician towards poor, increasing consultation time etc.

QA action will be designed incorporation standards that will have responsiveness to gender based discrimination, violence against women and also to people with disabilities, elderly and other socially marginalized groups including HIV positive, AIDS patients.

QA programme also has its very alertness and sensitive to pro-poor health policy, policies for reducing health inequalities and stress on the importance of community and stakeholders participation. In every stage of its action QA programme will have its readiness to play a positive and supportive role with all theses strategic issues.

4-2 Clinical Governance Committee Strategic Statement

4-2-1 Objectives

Monitor and make appropriate recommendations on performance in all areas of Clinical Strategy.

Monitor the implementation of the Clinical Governance Strategy and Development Plan.

(1) Review and approve strategies for

Clinical Effectiveness

Clinical Audit and Research

Patient and Public Involvement

Education and Development

Clinical Risk Management

4-2-2 Key Areas

Receive report from and make recommendations to:

Clinical Effectiveness Group

On audit and research activity

Public and Patient Involvement Committee

Complaints and commendations

Patient and user surveys

Risk Management sub-committee

Identified areas of clinical risk.

Identified areas of prospective clinical risk associated with changes in practice.

Identifying and implementing risk treatment mechanisms (Including training and review of procedures and protocols).

Consider as standing agenda items:

①Communication Effectiveness

Ensure that changes to clinical practice are systematically disseminated to all relevant staff.

Consider the clinical implications of the Communications Strategy.

②Resource Effectiveness

Consider existing operational arrangements to enhance their Clinical Effectiveness (Right person, Right place, Right time).

Ensure a balance exists between the operational needs and the educational needs of the staff.

③Strategic Effectiveness

Consider changes in the overall strategy and how they impact on the Clinical Governance Development Plan.

Ensure that Clinical Governance issues inform the development of the overall strategic development.

(1) Clinical Performance and Evaluation

Intent: Clinical review monitoring evaluation and benchmarking of standards, guidelines, protocols, pathways which are evidence based.

Elements of Performance	Intent	Process
Standards	Based on best practice	Determined by department or unit based on evidence, college, expert opinion. Examples: - defined local, national, international - evidence based - protocol, policy - compliance with best practice protocols - correct use of treatment modalities - clinical pathway compliance

(2) Professional Development and Management

Intent: Professional Human Resource development and management.

Elements of Performance	Intent	Process
Demonstrated competency	Ensure professional competency	Credentialling (professional and technology) Performance development - JDF, policy, job expectations Performance management Competency assessment Clinical supervision Peer review College alignment
Research and Professional development	Ensure professional and ongoing learning	Teaching Education Education and guidelines for new procedures and techniques Research applications - ethics committee
Professional management	Ensure professional satisfaction	Professional practice growth Staff satisfaction Staff retention Professional satisfaction Development and education Safe staff ratio and skill mix Ongoing learning

(3) Clinical Risk Management

Intent: To minimize risk and identify improvement opportunities through measurement and review to ensure safety.

Elements of Performance	Intent	Process
Adverse events	Measure incidents	Incident monitoring Examples: - drug error - patient incidents - falls - IV and pressure ulcer surveys - Hospital acquired infection monitoring - Audit reporting - Self reporting
Risk profile	Monitoring trends for potential risks	Audit Review Clinical decision support tools – automatic flagging of high risk interventions - O, H and S - Medicolegal - FOI - Coronial enquiries - Autopsy results - Staff orientation - Clinical audit - Pressure ulcer surgical - Ongoing education - Identify high risk patients - Patient clinical risk profile - Consumer monitoring own care - Matching clinical responsibility with clinical ability

(4) Consumer Value

Intent: Clinical services will meet and manage consumer expectations and perception of value.

Elements of Performance	Intent	Process
Consumer participation	Ensure understanding needs and expectations	Involvement by Consumer Advisory Council Access, equity Patient charter (input and institute change) - roles and responsibilities Consumer advocates
Consumer value	Perception of value	Patient performance reporting Patient satisfaction surveys Patient complaints Patient compliments Trained customer service staff Customer friendly culture Customer service feed back Staff recognition – awards

4-2-3 Reporting Framework

To ensure a framework of assurance and review is established, accountability lines need to be developed within organizations, and in alignment with, Guiding Principles of Clinical Governance.

Processes for accountability need to be transparent and auditable and will include:

- Roles and responsibilities need to be defined to ensure accountability.
- Documentation at unit or department level, of process, measurement and agreed targets for the elements within each Performance Area.
- Documentation of investigations reviews, feed back and improvements at unit or departmental level.
- Generation of report to organizational Clinical Governance or Quality Committee. The report should contain evidence of measurement against targets for the elements within each Performance Area and be produced at regular intervals to assure transparency and accountability.
- Generation of report detailing outcomes for the CE/GM and subsequently for the Governing Body.
- Independent review and audit of processes defining accountability will provide transparency and assurance.

4-3 Reporting step

Step 1; Direction, Accountability. And practical arrangements

Step 2; Define where the organization is now

Step 3; Design and agree on the development plan

Step 4; Set in place internal and external reporting arrangement

Health service will be required to provide annual reports on their clinical governance structure and activities. In general, each annual report should answer the question.

Where did we start?

What progress have we made and how do we measure it ?

What are we planning to do next ?

Chapter-1
Quality Assurance

Introduction

Quality of care should be defined in light of both technical standards and patients' expectations. While no single definition of health service quality applies in all situations, the following common definitions are helpful guides:

Quality Assurance is that set of activities that are carried out to monitor and improve performance so that the care provided is as effective and as safe as possible (Quality Assurance Project, 1993).

The application of medical science and technology in a way that maximizes its benefits to health without correspondingly increasing its risks. The degree of quality is, therefore, the extent to which the care provided is expected to achieve the most favorable balance of risks and benefits (Avedis Donabedian, 1982).

The most comprehensive and perhaps the simplest definition of quality is that used by advocates of total quality management (W. Edwards Deming, 1982): "Doing the right thing right, right away." Experts generally recognize several distinct dimensions of quality that vary in importance depending on the context in which a QA effort takes place. The following nine dimensions of quality have been developed from the technical literature on quality and synthesize ideas from various QA experts. Together, they provide a useful framework that helps health teams to define, analyze, and measure the extent to which they are meeting program standards for clinical care and for management services that support service delivery. While all of these dimensions are relevant to developing country settings, not all nine deserve equal weight in every program. Each should be defined according to the local context and specific programs.

***Technical performance*:** The degree to which the tasks carried out by health workers and facilities meet expectations of technical quality (i.e., adhere to standards).

***Access to services*:** The degree to which healthcare services are unrestricted by geographic, economic, social, organizational, or linguistic barriers.

Effectiveness of care: The degree to which desired results (outcomes) of care are achieved.

Efficiency of service delivery: The ratio of the outputs of services to the associated costs of producing those services.

Interpersonal relations: Trust, respect, confidentiality, courtesy, responsiveness, empathy, effective listening, and communication between providers and clients.

Continuity of services: Delivery of care by the same healthcare provider throughout the course of care (when appropriate) and appropriate and timely referral and communication between providers.

Safety: The degree to which the risks of injury, infection, or other harmful side effect are minimized.

Physical infrastructure and comfort: The physical appearance of the facility, cleanliness, comfort, privacy, and other aspects that are important to clients.

Choice: As appropriate and feasible, client choice of provider, insurance plan, or treatment.

Why Quality assurance is important

Many countries have made considerable efforts to improve access to health services. However, public

health resources have been so stretched that the quality of services has declined markedly over the last decade. Policy makers have realised that health services of inferior quality do not promote equity or maximise health gain.

As a result of this, the public is becoming attracted more to private providers than to public health clinics and hospitals. For many reasons, such as low staff morale and reduced income, this has led to further declines in the quality and efficiency of public sector health services.

It remains a challenge to find innovative approaches that improve the quality of health service delivery. National QA Programmes are one way to improve standards, but strategies to implement QA at district and sub-district level are sometimes ill conceived or may not exist at all. This is surprising in view of the fact that health sector reform policies usually include quality as an explicit priority. Whilst greater decentralisation of responsibility and resources might allow enthusiastic districts to remedy this situation, staff need models of good practice to bolster morale and, indeed, improve their quality of care.

The questions are:

1. What is Quality Assurance in health care?
2. What kind of QA policy is needed to ensure good quality of care?
3. Can governments introduce an "off the shelf" QA package?
4. How can a QA policy be put into practice?

Why QA in health care

QA comes in many guises, and may be known as Total Quality Management, Continuous Quality Improvement, Clinical Audit, Clinical Governance or Quality Circles.

Quality of care has different meanings to different stakeholders, for example, doctors and patients. All QA systems should encompass three perspectives on quality:

- Clinical standards
- Performance management
- Client satisfaction

Hence there are usually several elements within the QA system, such as clinical audit, quality control of laboratory services, standards setting and client satisfaction surveys. These components do not have to be introduced simultaneously, but can be introduced as distinct packages.

What kind of QA policy ensures good quality of care

It has become fashionable for government health policies around the world to include statements on the quality of their health services. The QA statements usually reflect a concern for ensuring that health services are both cost-effective and responsive to public needs.

How can a QA policy put in to practise?

Implementing QA systems is as much a 'people' issue as a 'technical' one. Providers implementing QA should guard against over-ambition. They may wish to start by focusing on a single issue, then, as a quality culture develops in the health service, add additional elements to the QA programme.

Districts should be encouraged to develop their own QA initiatives that should be part of the annual work plan with their own budgets. Care should be taken to ensure that these initiatives are guided by national policies with nationally agreed standards and indicators of quality of care. Menus of practical options for QA strategies should be collected centrally and actively promoted to support weaker districts where QA development is not taking place. However, ownership by local service providers remains the secret to success in turning policy on quality of care into practice.

Interdisciplinary QA teams represent the best mechanism for driving the QA process and at least some of the team members should have managerial responsibility to take decisions that can directly influence service quality. However, for long-term sustainability QA must be integrated into the existing roles and responsibilities of all staff.

QA must be driven from both the bottom and top of the health system if it is become an integral part of the health delivery system. Resource people are required at national, regional and district level to support the QA process. External technical assistance can act as a catalyst for getting things started, especially if there is limited country expertise.

The role of **National level** is to advocate the importance of quality improvements strategies, and facilitate them locally by:

- providing resources
- co-ordinating training
- co-ordinating standards of care

A national QA committee would be an appropriate body to have this responsibility. The committee could also support district development by requiring quality of care to be included in the training curriculum of all health service workers, so that a culture of quality is fostered in the health service community, both public and private.

At **Regional level** a quality strategy group should monitor quality and provide supportive supervision to districts. A regional training programme should reflect the national strategy with quality indicators and standards based on regional priorities.

At **District level** a quality steering team should support facility-level quality improvements. To support consistent goals for quality across the district, this quality steering team should facilitate effective communications between primary and secondary level facilities.

At **Facility level** an interdisciplinary QA team should be responsible for continuously monitoring, assessing and improving quality. Each facility should have targets for its services in line with regional standards. Teams should be able to re-allocate resources according to priorities and planned interventions.

Chapter-2
Clinical Governance

Introduction

Clinical Governance is a systematic and integrated approach to assurance and review of clinical responsibility and accountability that improves quality and safety resulting in optimal patient outcomes.

Guiding Principles

Clinical Governance has been adopted to assure delivery of optimal patient outcomes. Principles encompassing fundamental values have been developed to guide and direct the adoption of Clinical Governance. A unified response to these principles are demonstrated through improved performance.

- Patient Outcome based
- Clinical Leadership and Involvement
- Information and Data Based
- Sustainable
- System-wide Approach
- Learning Culture
- Partnerships

Patient Outcome Based

- Patient/consumer outcomes need to be the primary focus in health service delivery decision making.
- Ensure patient rights are valued and respected through participation and input.

Clinical Leadership and Involvement

- The continuous improvement of quality and safety needs to be clinician led with clinician involvement at all levels.
- Ensure transparent responsibilities and accountabilities are defined and accepted by clinicians at all levels.
- Clinicians need a commitment to quality and safety of patient management outcomes.
- Shared responsibility and co-operation across health care team.

Information and Data Based

- Ensure integrity and relevancy of data collection with the assurance of timely responsive feed back or access to data and information.
- Emphasis on clinician defined data requirements, interpretation analysis and improvement.
- Focus on the development and understanding of trends, minimizing variation and comparative analysis.

Sustainable

- Resource allocation decisions need to ensure that professional and technical requirements are met.
- Commitment to continue with the resources required, despite lack of external funding (in the future).

Transferable across Sites (System-wide Approach)

- A systematic and system-wide approach will ensure consistency of review and assurance.
- Focus on the development of partnerships across the system.

Learning Culture

- Support the creation of a culture that supports, promotes and encourages continuous learning in pursuit of excellence.
- Clinicians need a commitment to quality and safety of patient management and outcomes.
- Shared responsibility and co-operation across health care team.
- Ensure the development of a safe environment creating a 'no blame' culture which is open, transparent and encourages questioning.

Partnerships

- Partnerships and alignment with Colleges, Universities and appropriate agencies are developed to maximize the effectiveness of healthcare delivery.

According to WHO there are four dimension of Clinical Governance

- Professional performance
- Resource use
- Risk management
- Patient satisfaction

Performance Areas

- Clinical Performance and Evaluation
- Professional Development and Management
- Clinical Risk
- Consumer Value

Foundation Stones of Clinical Governance

These are the attributes of the organization on which successful Clinical Governance is dependent. It is the responsibility of management to see that these attributes characterise the Trust.

Teamwork: Management and everyone who works in the organization whether clinical or non-clinical are committed to the aims of Clinical Governance.

Communication: Effective two-way communication exists within the organisation as well as between the organisation and its partners in the local health community. Communication should also exist between the organization and its patients and the public at large.

Ownership: Good ideas, whatever their origin, should be valued and incorporated in the Clinical Governance Strategy and Development Plan so that these are 'owned' by all members of staff.

Leadership: It is the responsibility of the leadership of the organization to develop a long term strategy to improve the quality of clinical care. This should build on the desire of individual staff members to

provide high quality clinical care and foster an environment in which clinical excellence can flourish.

Systems awareness: The organization must recognize the importance of enveloping structures within which Clinical Governance can operate. It must also recognize the role systems play in hindering as well as facilitating good clinical care. Criticism should generally be leveled at systems and not individuals.

Biography

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Bibiliography: *Byoin Keiei Senryaku (Hospital Management Strategy)* [ed.], Igaku-Shoin; *Byoin Keiei no Tame no Zaiin Nissu Tanshuku Senryaku (Strategy to Shorten Hospitalization Period for Hospital Management)* [ed.], Igaku-Shoin; *Byoin Shisutemu to Iryo Kiki, Iryo Kiki no Kiso Chishiki (Hospital System and Medical Equipment: Basic Knowledge on Medical Equipment)*, Japan Association for the Advancement of Medical Equipment; *Kuritykaru Pasu to Byoin Manejimento (Critical Path and Hospital Management)* [planned and edited], Yakugyo Jihosha; *International Symposium on Health Transition and Health Sector Reform in Asia,* NIHSM; *Iryo Kai ni Oshiyoseru Kakumeiteki Choryu: Iryo Hakusho 2000 Nendo Ban (A Wave of Revolution Sweeping Towards the Medical Industry: Medical White Paper 2000 Edition)*, Japan Medical Planning; Iryo Kyokyu Shisutemu no Kino Oyobi Kozo Henka: [Tsushi] Nippon no Kagaku Gijutsu 1980-1995 *(Functions of the Medical Supply System and its Structural Changes:* [Chronicle] Japan's Science and Technology 1980-1995), Gakuyo Shobo; *Iryo Seido Keizai kara Mita Sogo Shinryo: Saishin Naika-gaku Taikei - Sogo Shinryo (Comprehensive Medical Care from the Perspectives of Medical System and Economy: Latest Compendium on Internal Medicine - Comprehensive Medical Care)*, Nakayama Shoten, and others