Case 2

Inspired by Sri Lankan Practice: Scaling-up 5S-KAIZEN-TQM for Improving African Hospital Service

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1. Introduction

The "Better Hospital Service Program (hereinafter referred to as BHSP)"[1] aims at improving hospital care in Africa, using the knowledge package for management change called herein 5S-KAIZEN-TQM. This knowledge, originally developed in Japan and later spread in Asia, was discovered as being applicable by the African leaders within their context in the field of hospital management and quality of health care.

The project started in 2007 as an Africa-Sri Lanka-Japan triangular cooperation and is still progressing. It is a network-program involving African countries that share similar demands, and the number of participating countries has now reached fifteen as of 2012. Among them, Tanzania has played a leading role, developing itself into a pivotal country. Major direct beneficiaries are the hospitals in those countries. Their number has also increased over time both within and across member countries where tangible results are emerging. The core knowledge used in this project was developed by a hospital director in Sri Lanka by building on what he learned from both Japanese firms operating in his country and a management training he received. Japan has been supporting the movement as part of a follow up to TICAD III or the Third Tokyo International Conference on African Development.

In Section 2, we will first take a look at the process of the program's development. In Section 3 we will then take a close look at how Tanzania has developed its capacity to become a pivotal country in this exercise. Section 4 will examine the whole process to see how the scale up process has been possible. Section 5 contains the conclusion.

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[1] Officially, this initiative on 5S-KAIZEN-TQM for hospital management consists of several separate but closely-coordinated sub-programs, including the Asia-Africa Knowledge Co-creation Program "Total Quality Management (TQM) for Better Hospital Services". In order to illuminate the entirety of the initiative, this paper collectively calls these sub-programs the "Better Hospital Service Program"

2. Catalyzing Knowledge Co-creation for Better Hospital Care: Triangular "Better Hospital Service Program"

2-1 Co-creating African Knowledge for Better Hospital Service

In May 2011, Mbeya Referral Hospital (MRH), in a remote Southern Highland of Tanzania, hosted its very first triangular training on KAIZEN, the second stage of a hybrid management change approach for better hospital care[2].

The event marked a point of achievement for a triangular initiative entitled "Better Hospital Service Program" linking Sri Lanka, fifteen African countries and Japan since its start in 2007. Forty-five people participants including hospital managers as well as health ministry officials from the three neighboring East African countries of Kenya, Uganda and Malawi as well as those of Tanzania witnessed the tangible achievements such as the clean and well-organized working environment in hospitals. They were informed of the progress of institutionalization and replications to over 50 major hospitals in the country. Above all, they were inspired by the dedication of the hospital staff in practicing the principles and approaches of 5S-KAIZEN-TQM in their hospital work. BHSP successfully helped Tanzania to emerge as an African pivotal country of the 5S-KAIZEN-TQM approach for better hospital care, developed out of Sri Lankan successful practice with Japanese knowledge at its origin.

2-2 About the Better Hospital Service Program (BHSP)

The improvement of hospital management toward a better quality of care and medical safety started to draw international attention as a critical area for better health in both industrialized and developing countries. This was partly triggered by recurring incidents of medical errors in developed countries, and it was enhanced by mounting evidence showing that better quality and safer care is likely to lead to higher utilization of facilities even by the poor in low-income countries.

BHSP, a triangular cooperation program assisted by JICA, specifically addresses the challenges of improvement of hospital service quality. It aims to share Sri Lankan and Japanese experiences and knowledge of 5S-KAIZEN-TQM with fifteen African countries and forms one of the follow-up actions of the Third Tokyo International Conference on Africa's Development (TICAD III).

[2] JICA 2011a.

2-3 5S-KAIZEN-TQM: Its Origin and Characteristics

5S-KAIZEN-TQM is a hybrid management change approach for medical facilities (See Box for details). It combines three closely-related but separate tools for productivity and quality improvement, namely 5S, KAIZEN, and TQM (Total Quality Management). The first step, 5S, is a set of entry actions towards a more advanced stage of KAIZEN-TQM, and it represents respectively for 5 actions of "Sort," "Set," "Shine," "Standardize," and "Sustain" for a better working environment. The Second step, KAIZEN, is a participatory performance and productivity improvement approach through incremental and reflective group actions. Finally, total quality management or TQM is the approach for system-wide management in pursuing higher quality in products and services. As shown in the step-wise characteristics of its approach, one of its unique features is that it places particular importance on the empowerment and mind-set changes of hospital staff toward the improvement of the quality of care rather than top-down upfront organizational restructuring. Thus, the very first recommended action is to improve their working environment so that they feel the benefit and the sense of achievement, which then provide the motivation and incentives for the staff to further continue their bottom-up improvement actions.

The Key Feature of 5S-KAIZEN-TQM[3]

Some selected key features of 5S-KAIZEN-TQM are as follows;

1) Team-based practice at hospitals

Upon the decision of officially adopting 5S-KAIZEN-TQM by senior hospital management, each participating operational unit first establishes a work improvement team (WIT) within the section as a sort of taskforce to lead and monitor actions. At the same time, a quality improvement team (QIT) is installed at the senior management level, which is composed of members of senior management as well as representatives from WITs. The expected role of QIT is to oversee, advises and monitors actions taking place in WITs in line with the organization-wide strategy and action plan of 5S-KAIZEN-TQM.

2) Step-wise approach of 5S-KAIZEN-TQM practice at the hospital level

The most notable feature of 5S-KAIZEN-TQM is its step-wise

[3] This box is largely based on Hasegawa et.al 2011a, Ishijima 2011 and JICA 2011b.

approach as below, starting from easier entry step of 5S towards more challenging advanced step of TQM via KAIZEN at the hospital level;

- ✓ *Step 1:* Work environment improvement through 5S activities application of TQM
- ✓ *Step 2:* Participatory problem-solving through the process of KAIZEN activities at the service front
- ✓ *Step 3:* Organization-wide management change and capacity development through the application of TQM

3) Sequenced scaling-up approach

5S-KAIZEN-TQM approach encourages partner countries to move towards practice changes at wider scale. In effectively doing so, it sets out a sequenced approach towards national roll-out. It recommends a country to first create one or more solid pilot hospital(s) with visible achievements. The pilot project is aimed at localizing the approach and demonstrating its relevance and efficacy to policy makers, administrators, hospital managers and practitioners. Upon the success of pilot activities with larger number of those who supports the initiative and the concomitant institutionalization, the country would then proceed to the national roll-out stage. With all these institutional set-up, concrete steps and scaling-up strategy, 5S-KAIZEN-TQM has been proven in Sri Lanka as an effective management change approach towards the quality hospital services in a wider scale.

Applying the 5S-KAIZEN-TQM approach to hospital management in a development country's context was an invention that came out of the practice of medical and health practitioners at Castle Street Hospital for Women (CSHW) under the leadership the then director of the hospital[4]. Learning from the practices of local subsidiaries of Japanese companies operating in Sri Lanka as well as the programs Dr. Karandagoda received at the Sri Lanka Institute of Public Administration (SLIDA), he and his staff creatively combined various management approaches and tools that originated in Japanese manufacturing companies to suit the Sri Lankan local context. His team successfully applied these in the hospital to yield a tangible outcome. Building on the success at CSHW, Dr. Karandagaoda further refined the approach to the package of 5S-KAIZEN-TQM, and this work was supported by Japanese health policy experts including Dr. Hasegawa and Dr. Handa, who acted as key

[4] The description of this section is largely based on Hasegawa, 2006

collaborators on the Japanese side. It was this body of knowledge that was shared through this BHSP.

2-4 Program Design of BHSP

(1)Two phases

To effectively impart the step-wise knowledge of 5S-KAIZEN-TQM, BHSP is sequenced into two phases. The focus of the first phase is 5S, which lays the foundation for the subsequent advanced steps with the presentation of the overall vision and strategy of the entire approach. After completing the first phase, participating countries then proceed to the more advanced levels of KAIZEN and TQM coupled with the necessary actions for national level scaling-up. Details of the two phases are presented in the Table 1.

Table 1: Two Phases of Better Hospital Service Program

	First phase	Second phase
Knowledge focus	**5S**	**KAIZEN and TQM**
General objectives	•Promote exchange and co-creation of locally adapted knowledge of 5S – KAIZEN - TQM with pilot 5S experimentations in preparation for national mainstreaming	•By building on the first phase focused on 5S, Phase 2 is aimed at enhancing and deepening locally-adapted 5S-KAIZEN-TQM through advanced practices, institutionalization and national rollout through the combination of experience sharing and country actions
Main program instruments	•Training sessions in Sri Lanka and Japan •Monitoring and field support visit by Japanese and Sri Lankan experts •Complementary support to country practices through bilateral cooperation by JICA	•Training in Sri Lanka, Japan and one of African countries (e.g. Tanzania) •Monitoring and field support visits by Japanese, Sri Lankan and African experts •Complementary support to country practices such as through bilateral cooperation by JICA •Provision of other opportunities of learning such as international workshop and seminars
Duration	1.5 years between the initial and final wrap-up training (Country pilot continues beyond 1.5 years.)	3 years including country execution

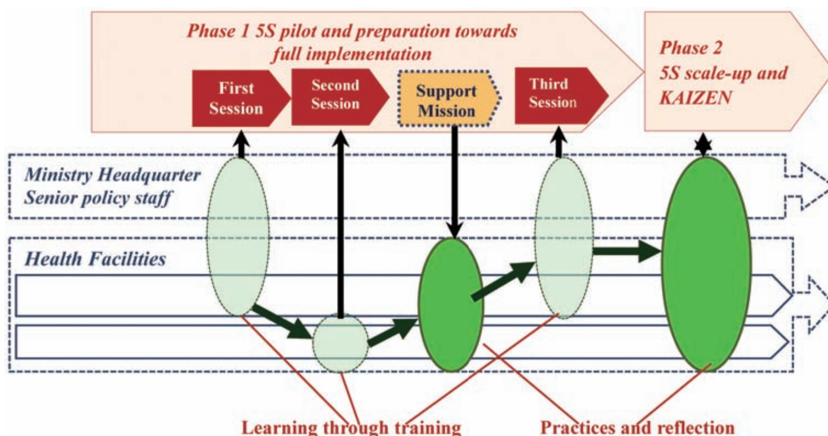
(2) Process-oriented learning

For both phase 1 and 2, the program adopts a reflective learning process among Asian and African countries. Through the process, participants are expected to adapt ideas and models they learned through training sessions, test them in their own countries upon their return, and feedback and share lessons for further actions. It systematically engages senior and middle management as well as the practitioners on the frontline to ensure a shared understanding of the concept and approach

among the key players. Training sessions, comprising class-room learning as well as field observation tours to both Sri Lanka and Japan, were also complemented by periodic monitoring and field support visits by Sri Lankan and Japanese experts. When requested by beneficiary countries, JICA also extended bilateral technical cooperation to health ministries as well as health facilities at each individual country level to support piloting and institutionalization.

To promote learning, the first phase centered on three intermittently-organized training programs; namely, 1) start-up training, 2) mid-term training and 3) final wrap-up training. As an integral part of the program, advisory missions composed of experts from Sri Lanka, Japan and neighboring countries were also sent to support implementation at each country level. Additionally, complementary bilateral cooperation may be provided through JICA's country offices in response to the request of the participating countries. Figure 1 illustrates the process of learning and practices:

Figure 1: Program Design of Better Hospital Service Program



Source: The author

The first start-up session is targeted at both ministerial staff in charge of health quality and human resources policy as well as senior managers of the pilot hospitals, who are expected to exercise the leadership to promote change. It aims to facilitate mind-set change by eliciting a deeper understanding of and commitment to this approach among them. Soon after the first session, a separate second training is organized, this time for both middle-level managers and frontline staff directly in

charge of day-to-day 5S actions. At the end of these introductory training phases, participants are expected to formulate a strategic action plan to translate what they have learned about 5S-KAIZEN-TQM into practices in their countries. These plans are implemented in the officially designated pilot hospital of each participating country. The main objective of this step is to test the applicability of the approach in each country' specific context and try whatever adaptions as necessary. After about a year of experimentation, the key senior staff of participating countries gathers again to report back the results of their pilots, share lessons learned and reflect for further actions in the group. Through this continuing process of learning and practice, the implementing countries are expected to deepen their understanding of the approach.

The program package of the second phase, largely similar to that of the first phase, is composed of training programs and advisory field missions with complementary technical cooperation that has been official requested at each country level.

2-5 Progress and Achievements[5]

Since the launch of the program in 2007, fifteen African countries in two separated groups have completed the first phase, and they are all in the second phase as shown in Table 2.

Table 2: List of Better Hospital Service Program Participating Countries

	Sub-region	Country	Program duration
First Group	West Africa	Nigeria, Senegal,	***(Phase 1)*** March 2007 ~ November 2008 ***(Phase 2)*** October 2009 ~
	Eastern and Central Africa	Eritrea, Kenya, Tanzania, Uganda	
	Southern Africa	Madagascar, Malawi,	
Second Group	North Africa	Morocco	***(Phase 1)*** March 2009 ~ October 2010 ***(Phase 2)*** August 2011~
	West Africa	Benin, Burkina Faso, Mali, Niger	
	Eastern and Central Africa	Burundi, DRC Congo,	

Several African participants commented that they were particularly inspired by what CSHW in Sri Lanka has achieved in the quality improvement of hospital care in spite of the challenging context including the lack of resources.

As of now, all of the participating countries are continuing their 5S practice,

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5 JICA 2011b.

albeit at a different stage. In general, countries among the first group are at a more advanced stage due to their long years of execution than the second group countries, which are mostly in the process of adapting the approach into each country context through the pilot implementation.
Countries are at different stages. Three countries, namely Tanzania, Nigeria and Uganda, have progressed to the full KAIZEN implementation stage. Madagascar, Senegal and Democratic Republic of Congo are at the early phase of KAIZEN field trials with promising good practices in several hospitals. The institutionalization and scaling-up is advancing in virtually all of the countries of the first group. In Kenya, Malawi, Tanzania and Uganda, 5S-KAIZEN-TQM has been institutionalized through incorporation into the government official program, guideline or tools related to health services quality. It is also worth noting that the collaboration and mutual exchange among these countries are increasing and deepening, triggered by the country actions of 5S-KAIZEN-TQM. The work toward institutionalization is also underway in Eritrea, Madagascar, and Senegal. Replication of the 5S pilot is progressing in all countries with Tanzania prominent, where 56 hospitals including all tertiary and specialist hospitals have already started to practice 5S.

Apart from the different length of implementation years between the two groups, several factors for the different progress seem to have emerged from the records of the field monitoring mission. First, a better policy and institutional environment including country stability do matter. As will be touched upon in the next section, Tanzania had already laid out much of its policy and institutional frameworks in relation to quality improvement in health services prior to the introduction of 5S-KAIZEN-TQM, based on which the approach has been able to thrive and be sustained, whereas such a framework was not in place in most countries at the time of introduction. Such a favorable environment emphasizing quality improvement also supported the key like-minded leaders and change agents through the provision of legitimacy and incentives to take risk and experiment with the new approach for adaption and its rolling-out.

According to the report prepared by a field advisory and support mission dispatched by JICA, responses from training participants indicated that what they have learned on 5S-KAIZEN-TQM through BHSP has been very relevant and applicable to the organizations they

belong to[6]. Almost all respondents stated that the approach fits well to the direction of policies and strategies of their ministries and hospitals. Several respondents commented that the simplicity and affordability of the approach have made it easier for them to apply. With such relevance and applicability, the majority of participants stated that they are applying the approach in their organizations after their training and have felt the impacts. The areas of concrete actions they are taking include:

- revision of policies, institutional frameworks and guidelines related to the quality of health services;
- actions to improve the facilities and the work environment in their hospitals;
- revision of the structure and setting of organizations they manage or belong to;
- improvement of techniques and methods in the daily service and;
- improvement of staff skills and the change of mind-set toward quality hospital services.

3. Tanzania Case Study: An Emerging Pivotal Country in 5S-KAIZEN-TQM

As stated above, Tanzania has come farthest among the fifteen countries. This section specifically illustrates the Tanzanian case, illuminating how the country has translated BHSP learning into its national practice and earned a position as an African regional center of excellence in 5S-KAIZEN-TQM[7].

After the successful piloting in the initial pilot hospital, the practice has been institutionalized and rolled out to other hospitals across the country as an integral part of the national quality improvement program under the country's sector-wide Health Sector Strategic Plan (HSSP). Moreover, Tanzania's achievement has become a regional program of excellence for the neighboring East African countries of Kenya, Uganda and Malawi, which are now in the process of expediting implementation of the approach.

3-1 Participation in BHSP and the Initial Pilot

For Tanzania, improving health services quality at health facilities was a daunting task. Recognizing the challenge, MoHSW had taken several

[6] ibid.

[7] In Tanzania, 5S-KAIZEN-TQM is formally called as 5S-CQI-TQM in which CQI denotes "Continuous Quality Improvement". In this paper, 5S-KAIZEN-TQM is used throughout.

actions in this area including the establishment of Department of Health Quality Assurance under the Office of Chief Medical Officer (CMO) and the formulation of "Tanzania Quality Improvement Framework (TQIF)" aiming to promote and help embed the culture of quality services at all levels through a number of concrete actions. But even with these efforts, progress in quality improvement (QI) including that in the health facilities had been limited due to various bottlenecks.

It was in this context when the opportunity of participation in BHSP was offered to Tanzania and several other African countries. Through preparatory communications between MoHSW and JICA[8], MoHSW became increasingly aware of the potential of 5S-KAIZEN-TQM in QI and decided to participate in BHSP. The Ministry proceeded to select Mbeya Referral Hospital (MRH) as the first pilot hospital for the trial in Tanzania and sent several staff of MRH to the introductory seminar held in 2007.

Mbeya Referral Hospital (MRH) is a third tier referral hospital serving four regions in Tanzanian Southern Highlands. It is the top tier hospital, however; MRH is also a hospital located in a very remote city, 1,000 kilometers from Dar es Salaam. Through the training sessions including

Figure 2: Before and After the Introduction of 5S Activities

(The case of Mbeya Referral Hospital in Tanzania)

August, 2007
Before the start of 5S practice

August, 2008
One year after the 5S launch

[8] JICA, with its policy adviser in human resources for health attached to MoHSW, has been supporting the development of Human Resources for Health Strategy and other accompanying policy instruments and the potential relevance of 5S-KAIZEN-TQM was discussed as an integral part of JICA's support to Tanzania's health sector.

the observation tour to Sri Lanka and Japan, Dr. Elueter Samky, Director-General of the hospital, and his staff were firmly convinced of the relevance and high potentiality of the concept and approach for improving hospital management. Upon his return to MRH, he exercised leadership to designate five hospital units as model areas for pilot 5S activities in August 2007 with the establishment of a work improvement team for each unit. In just four months, the first five units demonstrated tangible results, such as the continuous improvement of the work environment by the committed staff, as was confirmed by the first monitoring and evaluation by MoHSW conducted in December the same year.

3-2 Institutionalization and National Scaling-up

Witnessing the visible changes in the first pilots at MRH, MoHSW was quick to take actions in preparation for national rollout. The first action was the dissemination of concepts among key officials of MoHSW and a demonstration. A national seminar was organized with the participation of key officials of MoHSW including the directors of major hospitals. The seminar introduced the concepts and approaches with visual illustrations of the successes and experiences of Sri Lanka, as well as that of the MRH pilot. Following the unanimous agreement at the end of the national seminar, MoHSW proceeded to implement two demonstration pilot programs in MRH and Muhimbili National Hospital. The two Hospitals then succeeded in further validating the effectiveness and efficiency of the approach, which was then reported back to the senior management of MoHSW.

At the beginning of 2008, MoHSW officially adopted the approach as the core of the national quality improvement program as part of the national Health Sector Strategy and moved ahead for national rollout with the following institutional arrangements:

■ **The mechanism for sustained national scale-up:**

- ***Institutionalization of 5S-KAIZEN-TQM:*** MoHSW incorporated the approach into the revised Tanzania Quality Improvement Framework (TQIF), a document for concretizing the QI-related actions of HSSP. This was followed by the development of "Implementation Guideline for 5S-CQI-TQM approaches in Tanzania," which provides the key knowledge of the approach as well as standardized implementation steps for the national rollout.

- ***Cascaded training approach for national rollout:*** MoHSW organized multiple ToT sessions to train nominated staff from participating hospitals including all national, specialized and regional referral hospitals as well as the significant number of district hospitals.
- ***Quality Improvement Team (QIT):*** All participating hospitals receiving 5S-KAIZEN training have established QIT for operationalizing 5S.
- ***Communication:*** MoHSW also devised instruments for communicating the 5S concept to health workers such as through the preparation and nationwide distribution of 5S posters in English and Kiswahili.

■ **Monitoring mechanism for continuous learning cycle:**

- ***Bi-annual Progress Report Meeting (PRM):*** Representatives from hospitals implementing 5S meet bi-annually to share their concrete experiences and discuss the way forward to further improvement of 5S activities complemented by learning sessions for skill enhancement.
- ***Periodic consultation visits with user-oriented performance assessment:*** 5S experts regularly visit implementing hospitals for performance assessment using a standardized monitoring and evaluation sheet and provide technical advice for further refinement of 5S activities.

3-3 Scaling-up at the National Level

Building on the inspiration gained from Sri Lankan best practice, 5S-KAIZEN-TQM has started to take root in a large number of hospitals in Tanzania. First of all, it has been officially designated the foundation of all QI approaches in Tanzania as stated in TQIF and implementation guideline[9]. As of September 2012, some 56 hospitals including all national, specialized and regional referral hospitals as well as a number of municipal and district hospitals have been trained, have established QIT and have implemented 5S[10]. Thirteen out of these hospitals have moved on to the second step of KAIZEN, the evidence-based participatory problem-solving actions for service quality improvement. Through the cascaded approach, well over 5,000 health workers have been trained in 5S. Moreover, it has been reported that not only the hospitals but also several health administrations at the regional and district levels have

[9] MoHSW 2009

[10] Mohamed 2012

started to monitor the progress of 5S activities in the health facilities under their jurisdictions. According to a performance assessment, the majority of workers trained and implementing 5S-KAIZEN expressed a more positive attitude now toward QI than previously.

MRH, the first pilot hospital, has advanced further and started to produce notable outcomes while the approach is being scaled-up nationally. Under the leadership of Dr. Samky, MRH has now expanded 5S with QIT to all 54 units in three years with many units moving to the KAIZEN stage. Some of the achievements through KAIZEN include the reduction of overstocked inventory at medical stores sections, the reduction of waiting time for patient consultation (down to one third from 46 minutes to 15 minutes) and the doubling of reimbursement to MRH from the National Health Insurance Fund through better management at the accounts unit.

The incorporation of 5S-KAIZEN-TQM into pre-service training programs is being tried at some hospitals. Nursing students in clinical rotation are taught the approaches and are practicing during their clinical rotation.

3-4 Tanzania as the Regional Center of Excellence

Over five years of continuous execution has made Tanzania the regional center of excellence in quality improvement of hospital care through the application of 5S-KAIZEN-TQM. MoHSW has locally developed original training materials and tools including a practical session guideline for 5S training of teachers (ToT) facilitators and monitoring and evaluation tools among others. These materials have been continuously updated and improved. With these materials and trained local experts at hand, the country has actively shared its experience and lessons learned with other African countries— especially with its three neighbors of Kenya, Uganda and Malawi—since 2009.

Tanzania annually welcomed African participants into the regularly-organized training of trainers programs for both 5S and more advanced KAIZEN approach, accepted a study tour for a group of African countries to observe the work of MRH and dispatched Tanzanian experts to neighboring countries. The participation of officials from neighboring countries helped accelerate the formulation of official documents related to quality improvement as well as the preparation of

5S-KAIZEN training materials in these countries. Such examples include Quality Model of Kenya, 5S-CQI-TQM Guideline and 5S Handbook of Uganda, and 5S-KAIZEN Monitoring and Evaluation Tools of Malawi[11]. What is more, a new groundbreaking collaboration among WHO, U.K. North Cumbria University Hospital NHS Trust, Mbeya Referral Hospital , and JICA has started under the Africa-wide initiative of African Partnership for Patient Safety led by WHO Afro.

At the DAC Triangular Cooperation Workshop held in Lisbon in September 2012, Dr. Mohamed, Acting Director of Health Quality Assurance of MHSW, stated that the acceptance of trainees from neighboring countries to hospitals in Tanzania has also motivated Tanzanian staff in the promotion of 5S and KAIZEN activities[12]. This clearly indicates that sharing and disseminating knowledge and experiences with other countries is a two-way joint learning process toward stronger capacity.

4. Scaling-up 5S-KAIZEN-TQM through a Multi-layered Triangular Program of Learning and Actions

Despite its ongoing status, the program has produced several notable achievements as seen above. Practical applications of 5S-KAIZEN-TQM are underway in the pilot hospitals of fifteen countries. Several countries have been mainstreamed or are in the process of mainstreaming the approach into their strategies and framework of quality assurance for health services. Countries like Tanzania and Kenya are now scaling-up pilot practices to other hospitals. Through the participation in the program, Tanzania has emerged as an African pivotal country in this approach for other African countries to learn from. What then are the key factors for these achievements?

4-1 Matching the Country's Knowledge Demands and the Supply of Appropriate Knowledge

(1) Local knowledge needs

One factor for the achievement so far was timely response to the increasing demands and needs for a practical and low-cost change management approach for better hospital services. As stated earlier, the quality of care has become an important global health theme. In response to such global moves, many African countries have completed

[11] ibid.

[12] ibid.

or are in the process of formulating quality improvement frameworks with the assistance of donor agencies. For instance, the ministry and hospital staff in Tanzania are expected to improve their performance in line with the client service charter and the quality improvement framework for health service.

(2) Supplying relevant and appropriate knowledge – simple ideas and practicable models

Such knowledge demands then needed to be matched by the timely supply of a high quality program with practical and relevant knowledge contents. In that regards, it is safe to say that BHSP with 5S-KAIZEN-TQM has been able to fulfill such knowledge demands of the African health workforce under the increasing pressure for better management and performance.

Its approach, tools and implementation methods are simple, flexible and affordable. It is also a proven approach in the developing-country context of Sri Lanka which had a lot in common with African countries. In spite of the ongoing reform, medical and health practitioners in African countries continue to face shortage of resources including budget, human resources and medical supplies. The simple and practical design centered on the step-by-step approach enables users in developing countries to easily learn and apply even in a challenging working environment.

The approach can be flexibly adapted to suit diverse country and sector contexts. Its application requires only minimal costs such as those for undertaking necessary training programs. Its simple design does not necessitate expensive professional consultant services for implementation. Improved efficiency in service provision through its application could even generate extra savings for other essential activities. The simple and practicable nature of 5S-KAIZEN-TQM eventually resulted in its swift localization in Tanzania, from which other African countries are now able to learn.

4-2 Institutional Innovations for Mutual Learning and Knowledge Co-creation

(1) Systematic creation of processes and spaces or "*Ba*" for mutual learning and actions

BHSP is so designed that it systematically creates processes and spaces or "*Ba*" for learning and actions beyond the knowledge of 5S-KAIZEN-

TQM through clear task-orientation, the integration of a PDCA cycle (Plan, Do, Check and Action), a combination of class room teaching and field observation and through opportunities for mutual learning among other African colleagues. BHSP training sessions combine both class-room teaching by experts and field observation trips in Sri Lanka and Japan. In the wrap-up training program at the end of the first phase, participants from beneficiary countries gather to share the experiences and lessons from their pilot implementation with African counterparts for reflection. Toward the end of training program, each country representative is tasked to draft a national action plan for further actions such as the start of more advanced KAIZEN activities and institutionalization of 5S-KAIZEN-TQM into their national framework. These features of process-oriented learning have thus been instrumental in bringing out a stronger commitment in participants for sustained national practice.

Also, within each hospital, the core implementation strategies of 5S-KAIZEN-TQM embody the creation and institutionalization of spaces or "*ba*" for learning and actions toward continuous incremental improvement for better management. Under the leadership of senior management, WITs were established at unit/section level. This was then followed by the establishment of a QIT consisting of senior management and representatives of WITs in charge of monitoring and supervising the activities of WITs. The implementation strategy of 5S-KAIZEN-TQM is consciously designed to devise these task-oriented and self-organized improvement teams under the leadership of senior management for continuous and sustained practices of improvement toward better hospital services.

(2) Systematic engagement of and support for leaders and agents of change

The leaders and agents for change have certainly played critical roles all through the program. An additional but important feature of this program, however, is its systematic engagement of such leaders and key change agents ensuring that they lead the process of translating knowledge into sustained actions on a wide scale. Firstly, the program consciously involves both key ministry officials in charge of health service quality as well as the key staff of the designated pilot hospital, the latter including both hospital managers and the practitioners, from the onset. By engaging both of these, the program was able to assure its legitimacy and heighten motivation to the pilot experimentation.

Secondly, the simple and flexible implementation strategy such as the establishment of WITs and QIT has also helped provide a more-enabling institutional environment for both top leaders and the leaders of middle-management in driving and sustaining the improvement activities.

4-3 The Role of External Actors (Donors)

(1) Sri Lanka as the source for appropriate knowledge and inspiration

In this program, the basis of the knowledge was first developed in Sri Lanka, while the root ideas came from Japanese manufacturing practices. Thus, Sri Lanka can be said to have played the role of a pivotal country, providing the knowledge base. Following refinement and full development of 5S-KAIZEN-TQM among the Sri Lankan and Japanese specialists, the CSHW, with the distinction as the Asian center of excellence in the approach, has continued to play the key role of inspiring and presenting a replicable model to senior officials and key hospital staff of African countries.

(2) The emergence of Tanzania as an African center of excellence in 5S-KAIZEN-TQM

A remarkable aspect of BHSP is the emergence of Tanzania as an African center of excellence at a relatively early period as depicted in Figure 3.

Figure 3: Multi-layered Knowledge Exchange Process of 5S-KAIZEN-TQM

Source: The author

The emergence of Tanzanian as an African pivotal country has enabled the learning to be dynamic and multi-layered. The geographical, cultural and contextual proximity of Tanzania to African countries, especially to its East African neighbors, has helped to enhance the knowledge accessibility and the relevance. In other words, Tanzania has started to play the dual role of beneficiary and pivotal country in knowledge sharing in the course of a single triangular program.

It is interesting to note that a Tanzanian senior health ministry official in charge of quality assurance stated in his presentation at an international workshop that "Continuous practice of Triangular and South-South Cooperation develop not only other country's capacity but also ours." This statement underscores that fulfilling the dual roles of learning and teaching could further lead to deeper understanding of the knowledge in question.

(3) JICA and Japanese experts as knowledge mediator and facilitator

JICA has played multiple roles in the initiative. In all of them, the presence of committed Japanese experts and staff were instrumental in JICA's effectiveness as a knowledge mediator and facilitator.

Firstly, Japanese experts including Dr. Hasegawa were active mediators and facilitators of knowledge connecting Sri Lanka, Japan and African countries. Dr. Hasegawa, a Japanese Health Policy specialist, both identified and gave professional validation to the excellent practice at CHSW through his JICA-funded field survey. Along with professional colleagues from Japan and Sri Lanka, including Dr. Karandagoda and Dr. Handa, Dr. Hasegawa went on to further conceptualize the practice into 5S-KAIZEN-TQM and, with the aid of experts from developing countries and Japan, disseminated this know-how to other countries through channels such as BHSP.

Secondly, JICA, using its extensive network of field offices, also helped facilitate the BHSP process of knowledge exchange between Sri Lanka and African beneficiaries, both in program formulation and implementation. During the implementation, JICA technical cooperation experts and JOCV (Japan Overseas Cooperation Volunteers) in the country assisted in the execution of pilot projects, institutionalization and rollout of the approach by hospitals and ministries.

Finally, it is interesting to note that several Japanese hospitals have invited Dr. Karandagoda to their hospitals in Japan to learn from the Sri Lankan experiences. This is a proof of the importance of the two-way process of knowledge sharing and learning in this globalizing world.

5. Implications and Lessons

This case clearly presents several lessons and implications for other similar triangular cooperation programs involving multiple beneficiary countries. The case highlights:

a) the importance of effectively matching the demands and supply of knowledge by the identification of knowledge needs as well as the relevance and applicability of knowledge contents;
b) the importance of good program design with adequate sequencing and combination of various instruments such as training and pilot practices, so as to ensure the continuous process of mutual learning, reflections and actions among the partners;
c) the systematic engagement and nurturing of leaders and key change agents for sustained country practices;
d) the need for complementary technical support to beneficiaries in the process of pilots, institutionalization and rollout in most cases; and
e) the identification and promotion of the good performer among the beneficiaries whenever appropriate so as to create multiple channels of knowledge exchange.

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