

**Ministry of Health
Republic of Malawi**

**EXPERTS ON 5S-KAIZEN-TQM
FOR
HOSPITAL MANAGEMENT**

FINAL REPORT

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**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
FUJITA PLANNING CO., LTD.**

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**Experts on 5S-KAIZEN-TQM
for Hospital Management
Final Report**

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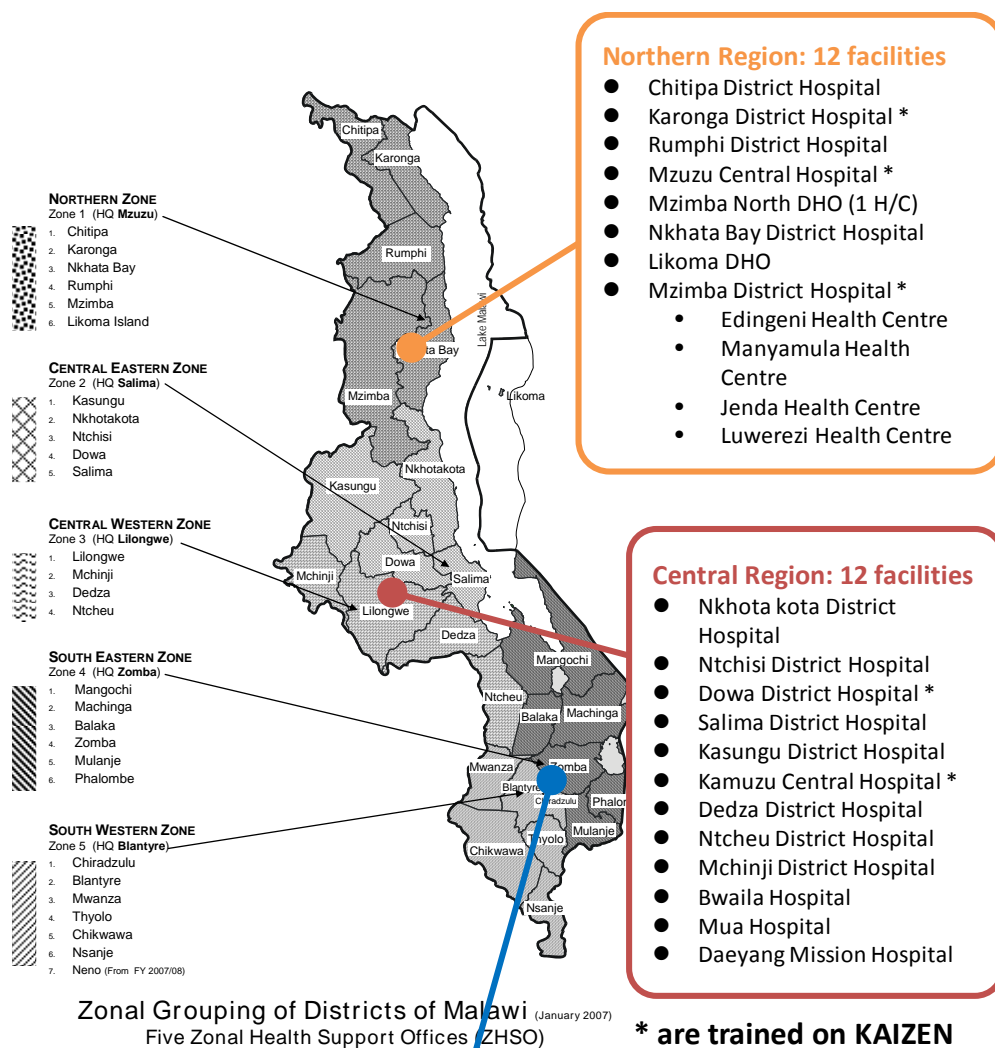
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Acronym

AAKCP	Asia Africa Knowledge Co-creation Program
C/P	Counter Part
CQI	Continuous Quality Improvement
DHMT	District Health Management Team
DHO	District Health Officer
DNO	District Nursing Officer
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
MKW	Malawi Kwacha
OJT	On the Job Training
PAM	Physical Asset Management
QATWG	Quality Assurance Technical Working Group
QA	Quality Assurance
QAU	Quality Assurance Unit
QI	Quality Improvement
QIST	Quality Improvement Support Team
QMU	Quality Management Unit
QMTWG	Quality Management Technical Working Group
TQM	Total Quality Management
USAID	US Agency of International Development
WHO	World Health Organization
WIT	Work Improvement Team

5S-KAIZEN Introduced Facilities (As of October 2016)



Note: The facilities which have been trained in the KAIZEN Basic Training are shown with *. Other facilities are implementing only 5S activities.

Pictures of Activities



5S Basic Training (Practical Session)



KAIZEN Basic Training (Practical Session)



Internal 5S Orientation



Facility Based KAIZEN Activity Meeting



Supportive Supervision



Study Tour for Tanzania
(Visit the 5S implementation hospital)



End of Project Dissemination Meeting
(Certified 5S Good Performance Hospital)



End of Project Dissemination Meeting
(Group Photo)

1. Outline of the Project

1.1. Background

In Malawi, there are several challenges to delivering high quality and safe health services equitably, including constraints on human resource inputs for health and medical supplies. In regards to safety and the quality of health services, the Quality Assurance Technical Working Group (QATWG) is a main advocate for the integration of several Quality Assurance Programs (QAP) and the establishment of a Quality Management Unit (QMU) has been discussed in order to coordinate all QAPs across the country's health sector. Given these circumstances, the Japan International Cooperation Agency (JICA) has embarked on "Total Quality Management (TQM) for Better Hospital Services", which is a sub-programme of the Asia-Africa Knowledge Co-creation Programme (AAKCP) aiming to improve health services by implementing a Japanese-style quality management method called 5S-KAIZEN-TQM in 2007. Malawi began participating in this programme in 2007, with Dowa District Hospital and Mzimba District Hospital serving as pilot facilities for 5S activities.

With the support of the former project "5S-KAIZEN-TQM for hospital management", implemented between 2012 and 2014, the 5S-KAIZEN-TQM approach has been disseminated and the implementation of its activities strengthened. Since the project began, 8 facilities in the northern region, 4 facilities in the central region, and 7 facilities in the northern region have been involved in implementing 5S activities and programmes. Furthermore, the 5S approach has been agreed upon as *the platform* for all QAPs in Malawi by the QATWG, and the "Operational Framework for 5S-KAIZEN-TQM Approach Under Quality Assurance Policy in Malawi" was subsequently issued by the Ministry of Health (MoH) in January 2014. In the same month, the MoH also issued both the 5S Basic Manual and the Facilitator's Manual.

However, challenges still remain for the Ministry with respect to independently and sustainably disseminating and upgrading 5S-KAIZEN activities, including the establishment of the QMU and ensuring the activities budget. Three JICA experts (one each from 5S-KAIZEN-TQM Promotion System Development, 5S-KAIZEN-TQM Promotion System Development/Promotion Activities Management, and 5S-KAIZEN-TQM Promotion Activities Management) have been dispatched to assist the MoH and health facilities in establishing sustainable mechanism for 5S-KAIZEN-TQM Approach in Malawi and strengthening capacity to implement the 5S-KAIZEN activities.

1.2. Overall goal, purpose, and outputs

1.2.1. Overall Goal

Overall goal of the project is to achieve the Quality Assurance for health service delivery as continuous efforts by the Ministry of Health.

1.2.2. Purpose

The capacity of MoH to sustainably disseminate and upgrade 5S-KAIZEN-TQM Approach in the health facilities in Malawi as a platform of QA for health service delivery is strengthened.

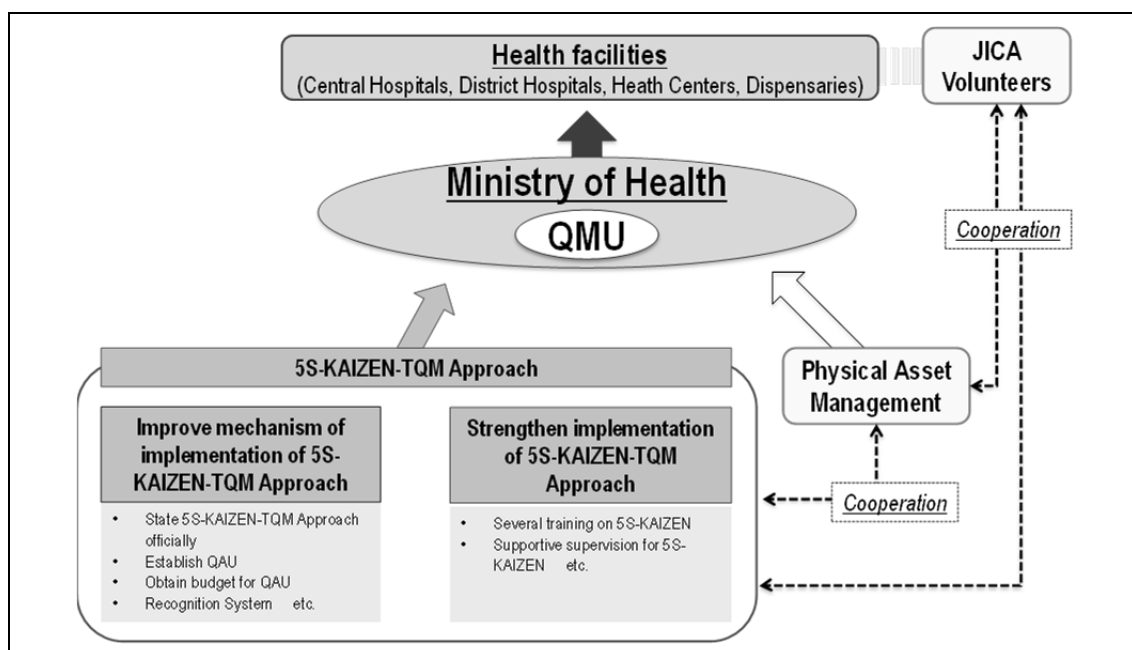


Figure 1.1: Conceptual Diagram of the Project

1.2.3. Outputs

- (1) 5S-KAIZEN-TQM Approach is clearly stated as a platform of Quality Assurance for the health service delivery in the policy document of MoH.
- (2) The single unit is established under QATWG with the cooperation between the related departments in MoH in order to disseminate and upgrade 5S-KAIZEN-TQM approach in health facilities by mobilizing National Quality Improvement Support Team (N-QIST), District-QIST (D-QIST), and Working Improvement Team (WIT).
- (3) The budget line within MoH for the activities implemented by the unit of QA mentioned under (2) above is established.
- (4) The recognition system for the health facilities that show the most remarkable improvement in QAPs is established.
- (5) The technical skills of concerned staff of MoH at all levels (National, Zonal, District, and health facilities) to continuously disseminate and upgrade 5S-KAIZEN-TQM Approach in the health facilities as a means of QA are improved.
- (6) 5S-KAIZEN-TQM Approach is introduced and utilized in Physical Asset Management (PAM) of MoH and Hospital Maintenance Unit (HMU) as one of means of QA in medical equipment management including strengthening boarding off mechanism.

- (7) The strategic plan of MoH to disseminate and upgrade 5S-KAIZEN-TQM Approach in health facilities after the completion of the dispatch of the expert is formulated and stipulated in Health Sector Strategic Plan 2.

1.2.4. Implementation Structure

To achieve the purpose of the project, the JICA experts were dispatched to support all related activities conducted by the Ministry of Health. The implementation structure is depicted in Figure 1.2. The details of each activity are described in the following chapter.

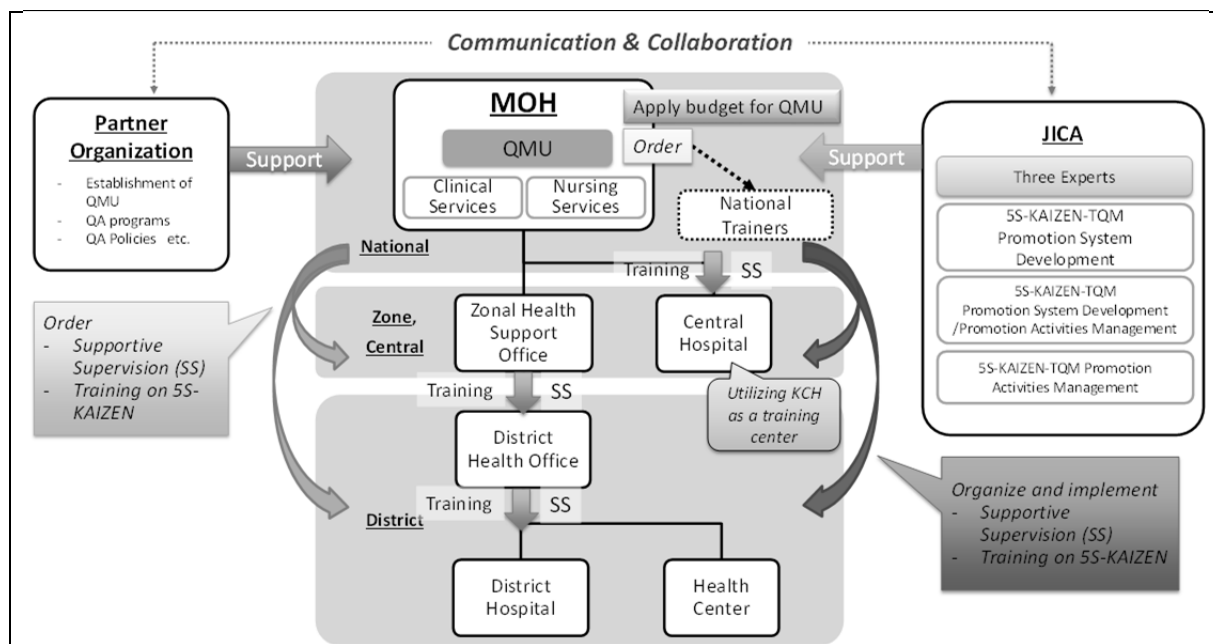


Figure 1.2: Implementation Structure

1.3. 5S-KAIZEN-TQM Approach

5S-KAIZEN-TQM Approach is a stepwise approach for improving hospital management comprised with 5S which is improvement of work environment, KAIZEN which is a participatory problems solving in the service front, and TQM which is an approach to make maximal use of the capacity of the entire organization. This approach was developed under ‘Total Quality Management (TQM) for Better Hospital Services’ which is the sub-program of an Asia-Africa Knowledge Co-creation Program (AAKCP) commenced by JICA based on the experience of Sri Lanka where introduced 5S

1.3.1. 5S

5S is work environment improvement by the following activities.

- Sort (S1): to categorize necessary and unnecessary items and eliminate unnecessary items.
- Set (S2): to align the necessary items in order to work easily.
- Shine (S3): to keep things clean without trash or dust.

- Standardize (S4): to standardize and maintain S1 to S3 so that all departments can implement 5S.
- Sustain (S5): to voluntarily continue S1 to S4.

5S is implemented by Work Improvement Team (WIT) which is formulated at department level under support of Quality Improvement Support team (QIST). This is all staff participatory activities.

1.3.2. KAIZEN

Origin of the term, KAIZEN is a Japanese word implying “Change for the better” or “Improvement”. KAIZEN means Continuous Quality Improvement in English. KAIZEN is a team-based activity for improving work process through a participatory problem solving. KAIZEN is an evidence based problem-solving technique which is implemented by WIT with the KAIZEN 7 steps (see Figure 1.3).

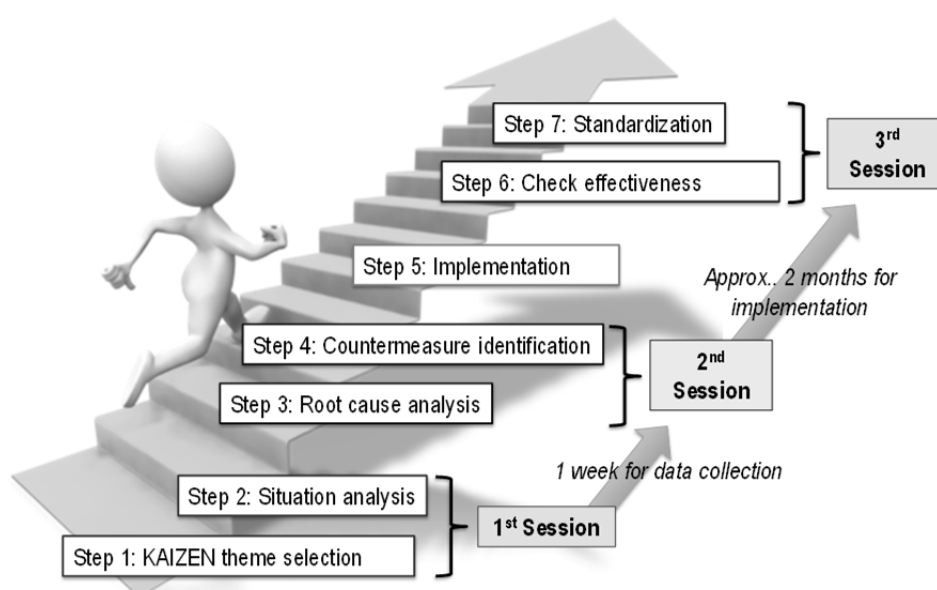


Figure 1.3: KAIZEN Step

1.3.3. Total Quality Management (TQM)

TQM is a comprehensive and participatory management comprised with several kinds of systematic and scientific approaches, with which “quality of products or services” are specifically emphasized with the purpose to ensure managerial successes also in productivity enhancement, cost control, delivery effectiveness improvement, safety promotion and moral establishment both of personnel and organization¹.

¹ Change Management for Hospitals (2013, JICA)

2. Work Achievements

2.1. Dispatch of JICA Experts

(1) 5S-KAIZEN-TQM Promotion System Development: Shuichi SUZUKI Mr.

- 1) First Dispatch: From 15th January 2015 to 24th January 2015 (10 days)
- 2) Second Dispatch: From 7th May 2015 to 10th May 2015 (65 days)
- 3) Third Dispatch: From 6th January 2016 to 20th February 2016 (46 days)
- 4) Fourth Dispatch: From 3rd August 2016 to 15th October 2016 (74 days)

(2) 5S-KAIZEN-TQM Promotion System Development / Promotion Activities Management: Kaori NISHIKIDO Ms.

- 1) First Dispatch: From 14th September 2015 to 19th December (97 days)
- 2) Second Dispatch: From 27th March 2016 to 16th July 2016 (112 days)
- 3) Third Dispatch: From 15th September 2016 to 15th October (31 days)

(3) 5S-KAIZEN-TQM Promotion Activities Management: Noriyuki MIYAMOTO Mr.

- 1) First Dispatch: From 15th January to 13th February 2015 (30 days)
- 2) Second Dispatch: From 19th October 2015 to 16th November 2015 (29 days)
- 3) Third Dispatch: From 17th April 2016 to 30th April 2016 (14 days)

2.2. Achievements by the activities

At the onset of the work period, information was collected about the progress and challenges of all related activities. After discussion with the clinical and nursing services departments of the MoH, the Malawian counterparts for this project, the work plan was developed and got approved by the MoH. The progress of each activity in the work plan is described below.

2.2.1. Development of Implementation System to disseminate and upgrade 5S-KAIZEN-TQM Approach

2.2.1.1. 5S-KAIZEN-TQM Approach is clearly stated as a platform of Quality Assurance for the health service delivery in the policy document of MoH (Output (1)): Not completed due to a delay of developing the policy documents

The Health Sector Strategic Plan 2 (HSSP 2), Quality Assurance Policy (revised) and Quality Assurance Guidelines are the targeted policy documents for this activity.

In terms of the Quality Assurance Policy, the revision work has been undertaken by the QMU supported by the consultant from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ²)

² GIZ supports the institutionalisation of the QMU at a central level as a health systems strengthening with a focus on reproductive health in the Malawi German Health Programme. In addition, at a facility level, it

and World Health Organization (WHO). In March 2016, the relevant MoH officials took part in the workshop to discuss the contents of the revised QA policy. Then, between the 31st of March and 1st April 2016, the meeting was held among the relevant QMU officials to formulate the draft of the revised QA policy based on the output provided at the previous workshop mentioned above. The expert attended the meeting and made some comments such as the necessity to include “strengthen the working environment” as a strategy in the policy. The formulated revised draft was presented at the Quality Assurance Technical Working Group (QATWG) on the 20th of April 2016, and the following workshop for elaborating the contents of the QA policy was held from the 30th of May to the 3rd of June 2016.

After these discussions, the implementation framework and strategic plan were discussed in the workshop from the 5th to the 9th of September 2016 in Mangochi, as supported by WHO. The workshop’s results were elaborated upon in the meeting conducted from the 12th to the 15th of September 2016. Though it was planned that the elaborated QA framework and strategic plan would be circulated at Quality Management Technical Working Group³ (QMTWG), QMTWG was not conducted within the final experts’ dispatch period. Therefore, the experts submitted the comments to the head of QMU regarding the QA framework and strategic plan. The contents of the strategic plan will be reflected to the HSSP 2. In terms of developing the strategic plan, though a specific approach and methodology for quality improvement was not discussed, the 5S-KAIZEN-TQM approach needs to be considered as a platform for quality management. Since 5S and KAIZEN are already disseminated nationwide as a good approach for work environment improvement, team building, IPC and work process improvement, involving the activities of 5S-KAIZEN-TQM approach in the future developed guidelines should be also considered.

2.2.1.2. Establishment of Quality Management Unit (QMU) (Output (2)): Almost completed

For the establishment of the Quality Management Unit (QMU), has started to assist in institutionalisation of the QMU and the development of its Terms of Reference (ToR), as of the end of 2013. In 2014, a concept note on the establishment of the QMU in the Department of Planning and Policy Development (DoPP) within the MoH was endorsed by the senior management of MoH. The proposed QMU aims to strengthen, streamline, and coordinate quality assurance and quality improvement interventions across the health sector, and incorporates the following functions: (1) leadership and coordination, (2) planning, policy and strategy development, (3) monitoring,

supports the improvement of quality management and health information management in the four target districts: Balaka, Dedza, Mchinji and Ntcheu (Reference: GIZ website, 7 November 2015. <https://www.giz.de/en/worldwide/20127.html>). These activities are supported through EPOS Health Management, where the headquarter at Germany, under GIZ (Reference: EPOS Health Management website, 7 November 2015. <http://www.epos.de/projects/strengthening-quality-management-structures-malawian-healthcare-system-focus-reproductive>)

³ The name of QATWG was changed to Quality Management Technical Working Gourp (QMTWG) from the meeting held on 17th June 2016.

evaluation and research, and (4) technical support. For its organisational structure, one full-time head of unit and two other full-time staff (doctors, nurses, and other para-medicals) has been proposed. In addition, the establishment of the Quality Management steering committee, which comprises all QA/QI focal points in different directorates ranging from service delivery, human health resources, health financing, medicines and medical supplies, and representatives of Central Hospitals and Zonal Health Support Offices (ZHSOs) was also proposed.⁴

As of the first dispatch of JICA experts in January 2015, the QMU's planned establishment in April 2015 was delayed. It was finally approved by the Secretary for Health (Principal Secretary, hereafter, PS) in October 2015 in his response to a document submitted by the director of the DoPP. However, as of the beginning of November 2015, the Minister of Health has required amendments to provide the QMU with a stronger auditing role and more comprehensive personnel in the areas of human resources, health financing, medicine and medical supplies.

In January 2016, Dr Likaka, who used to be District Health Officer (DHO) of Thyolo District and had returned from his master's study in Australia, was named the head of the QMU, and the work of the QMU started. The MoH asked the Office of President and Cabinet to establish new positions for the QMU, which are now under discussion.

In the project, to learn and to be familiarised with the set-up and implementation process of QA/QI activities for the newly established Quality Management Unit and its relevant officials, a study tour was conducted in Tanzania from the 5th to the 10th of June 2016. Tanzania has a department within the ministry that manages the quality improvement of health care services in the country. The members of the Tanzania mission were the Chief Director (Special Duties), the Director of Planning and Policy Development, the Head of QMU and the Deputy Director of Clinical Services. The mission team visited the Ministry of Health's regional and council health offices to learn the national quality improvement structure of Tanzania's health sector. The mission also visited Muhimbili National Hospital and Amana Regional Hospital to observe quality improvement activities at the facility level. The mission team confirmed the importance of the following actions: 1) Identify QMU's mission, vision and goal; 2) Develop QA strategic framework; 3) Establish QA structure on national, regional and facility levels; 4) Conduct a national quality forum. Additionally, the mission team was deeply impressed that the visited hospitals are implementing 5S for work environment improvement and KAIZEN for work process improvement, and the mission team developed a deeper appreciation for the necessity to promote 5S and KAIZEN nationwide in Malawi.

⁴ This is a partial excerpt from the concept note "Strengthening Quality Assurance (QA) and Quality Improvement (QI) structures at the central level – Institutionalising a QM Secretariat (Draft Concept Note, March 2014).

In addition, at the end of June 2016, the QMU officers also visited Kenya and Ethiopia, as supported by EPOS. The request to establish new QMU positions is now under discussion at the Office of President and Cabinet.

2.2.1.3. Ensuring the Budget Line within MoH for the activities implemented by QMU (Output (3)): Done partialy (Budget was estimated but not applied.)

The budget application for the fiscal year is scheduled to be submitted between December and January of each year. However, the budget application procedure within the MoH is conducted between the end of April and the beginning of May 2016 for FY 2016/17. Included in estimations of the budget for QMU activities (approximately 960 million MWK) are operational costs, costs to develop an implementation framework and strategic plan, zonal review meeting (quarterly) and supportive supervisions. Out of the whole estimated QMU budget, costs for training and supportive supervision of the 5S-KAIZEN-TQM approach are planned to be included (approximately 41 million MWK). Since the QMU's total estimated budget is extremely high, the operational costs to functions of the QMU itself was prioritised. Therefore, the costs for activities by various QA initiatives are considered obtaining external resources from partner organisations.

2.2.1.4. Establishment and Implementation of the Recognition System for the Health Facilities which show the most remarkable improvement in Quality Assurance (Output (4)): Done partialy (System was developed but not yet implemented)

Participants and facilitators of the 5S Basic Training in June 2015 and the 5S Training of Trainers in November 2015 were administered a questionnaire focusing on both the existing recognition system and the required future recognition system regarding QA. Thus far, 20 responses have been returned. According to the results of the questionnaire, the optimal type of recognition system is an award system (i.e. awards given to each department where the facilities have shown good performance), followed by personnel appraisal (individual evaluation) and accreditation. As a reward, a certificate of commendation and trophies were the most common examples suggested. The QMU was selected as the nomination body, and the District Health Management Team (DHMT) was selected as the decision-making body. The results of monitoring and evaluation were the most common type of selection criteria mentioned. Opportunities for recognition, including a specific ceremony, accounted for 50% of the responses, while utilising an existing DHMT meeting for recognition accounted for nearly 30% of the responses.

Based on the results, there was a discussion about an implementation plan and selection criteria among the MoH counterpart, the JICA Malawi national staff, the expert and facilitators from the three health facilities (Mzimba District Hospital, Kamuzu Central Hospital and Queen Elizabeth Central Hospital). Sponsorship will probably be received from TOYOTA Malawi supported by the JICA Malawi Office. It was proposed that a trophy (or shield) and certificate be given to a facility as

well as items for promoting 5S activities valued at 1 million Malawi Kwacha. The final proposed selection criteria are presented in the following table.

Table 2.1: Proposed Selection Criteria for 5S Award

1	Scores from the external assessment	Average score per showcasing department	Over 80%
		Average score for the hospital's total scores extracted from each showcasing department	Over 80%
2	Expansion percentage	5S activities were introduced during and within a 1 year period	30% of the expansion
		5S activities were introduced during and within a 2 year period	60% of the expansion
		5S activities were introduced during and within a 5 year period	100% of the expansion

Initially, the recognised facilities were planned to be awarded in the National Quality Conference, which was planned to be held in November 2016. Then, based on self-recommendations from the hospitals, the Ministry of Health conducted an external assessment of six hospitals, namely Mzimba DH, Balaka DH, Mulanje DH, Mwanza DH, Mua Mission Hospital and Malamulo Mission Hospital, from August to September 2016. Unfortunately, no hospitals met the criteria mentioned above. However, the Ministry has determined to certify three hospitals, Mzimba DH, Mwanza DH and Malamulo Mission Hospital, that closely met the criteria and showed good performance. These certificates were awarded to the hospitals at the project's final dissemination seminar held on the 12th of October 2016.

In terms of the approval process for system recognition within the Ministry of Health, the Secretary for Health suggested the establishment of a holistic system, not an individual system. Therefore, the recognition of 5S is possibly integrated into the new recognition.

2.2.2. Strengthening Implementation Capacity of 5S-KAIZEN-TQM Approach: Almost complete

In order for the MoH and related organisations to be able to independently practice each implementation process (e.g. planning, preparation, implementation and reporting), On the Job Trainings (OJT) were conducted for relevant personnel through supportive supervisions.

The main target to be strengthened in each implementation process via OJT is shown in Table 2.2, and the contents of each implementation process are detailed in Figure 2.1.

Table 2.2: Major targets for each implementation process strengthened through OJT

Target of OJT for strengthening implementation capacity	Implementation process of activities strengthened through OJT			
	Plan	Preparation	Implementation	Reporting
Ministry of Health (QMU)	○	○	○	○
Training Facility (KCH)		○	○	
Facilitators		○	○	○

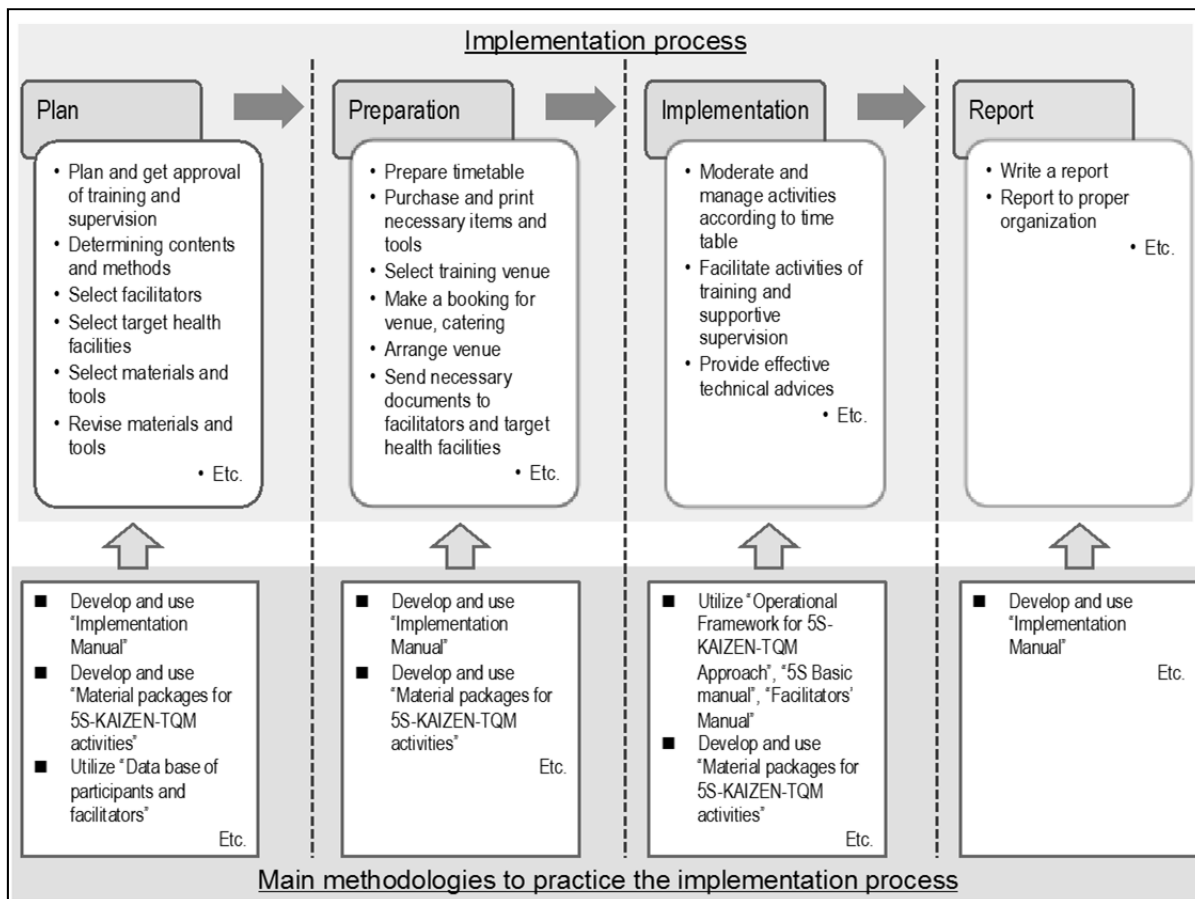


Figure 2.1: Implementation Process

2.2.2.1. Improvement of the technical skills of concerned organization/staff of MOH to continuously disseminate and upgrade the 5S-KAIZEN-TQM Approach in the health facilities (Output (5)): Completed

(1) 5S-KAIZEN Training: Completed

In the project, the following have been accomplished: 5S Training for Kamuzu Central Hospital (carried out in February 2015), 5S Basic Training for a newly introduced facility (carried out in June 2015, February, April, and June 2016), 5S ToT for a facility to expand 5S activities to the whole area (carried out in November 2015) and KAIZEN Basic Training for facilities implementing newly introduced KAIZEN activities (carried out in October 2015). See Table 2.3 for an overview of each training programme.

According to the national cascade training scheme in Malawi, 5S training is divided into 5S Basic Training (introduction) and 5S ToT (expansion). However, it seems that these two shall be integrated respecting efficiency, and the 5S Basic Training held in February 2016 included the component of monitoring and evaluation, which is the key session in the 5S ToT. The results showed no problems conducting this kind of training in newly introduced hospitals. Therefore, it was determined that these two 5S trainings are completely integrated.

Table 2.3: Overview of Implemented Trainings

Training	Month/ Year	Implementor	Facilitator	Participants (Number)
5S Training	February 2015	MOH C/P, QIST of Kamuzu Central Hospital	MOH C/P QIST of Kamuzu Central Hospital (3 persons)	Kamuzu Central Hospital (22 persons)
5S Basic Training	June 2015	MOH C/P, QIST of Kamuzu Central Hospital	MOH C/P QIST of Kamuzu Central Hospital (3 persons)	Nkhata Bay District Hospital (4 persons) Ntchisi District Hospital (4 persons) Dedza District Hospital (4 persons) Zomba District HealthOffice (4 persons)
KAIZEN Basic Training	October 2015	MOH C/P, QIST of Kamuzu Central Hospital	MOH C/P Zomba District HealthOfficer Mwanza District Health Officer* QIST of Kamuzu Central Hospital (1 person)* QIST of Mzimba District Hospital (1 person)*	Kamuzu Central Hospital (2 persons) Mzuzu Central Hospital (4 persons) Karonga District Hospital (4 persons) Mwanza District Hospital (4 persons) Thyolo District Hospital (4 persons) Malamulo Mission Hospital (4 persons)
5S Training of Trainers	November 2015	MoH C/P, QIST of Kamuzu Central Hospital	MoH C/P QIST of Kamuzu Central Hospital (2 persons) QIST of Dowa District Hospital (2 persons)	Kamuzu Central Hospital (3 persons) Mzuzu Central Hospital (4 persons) Queen Elizabeth Central Hospital (4 persons) Balaka District Hospital (3 persons) Mangochi District Hospital (3 persons) Mwanza District Hospital (1 person) Zomba DHO (1 person)** Mwanza District Hospital (1 person)** Thyolo District Hospital (1 person)** Karonga District Hospital (1 person)** North ZHSO (1 person) Central West ZHSO (1person) South West ZHSO (1 person)
5S Basic Training	February 2016	MoH C/P, QIST of Kamuzu Central Hospital	MoH C/P, QIST of Kamuzu Central Hospital (2 persons), QIST Mzimba District Hospital (1 person), QIST of Queen Elizabeth Central Hospital (1 person)	Kamuzu Central Hospital (6 persons) Zomba Central Hospital (4 persons) Chitipa District Hospital (4 persons) Nkhota-kota DistrictHospital (4 persons) Kasungu District Hospital (4 persons) Machinga District Hospital (4 persons), Mulanje District Hospital (4 persons)
5S Basic Training	April 2016	MoH C/P, Kamuzu Central Hospital QIST	MoH C/P QIST of Kamuzu Central Hospital (2 persons), QIST of Mzimba District Hospital (1 person), QIST of Mzuzu Central Hospital (1 person)	Kamuzu Central Hospital (4 persons), Likoma DHO (1 person), Mchinji District Hospital (3 persons), Bwaila Hospital (3 persons), Mua Mission Hospital (4 persons)

Training	Month/ Year	Implementor	Facilitator	Participants (Number)
5S Basic Training	June 2016	MoH C/P, Queen Elizabeth Central Hospital QIST	MoH C/P QIST of QE Central Hospital (3 persons), QIST of Thyolo District Hospital (1 person), QIST of Kamuzu Central Hospital (1 person)	QE Central Hospital (7 persons), Phalombe DHO (4 person), Chikuwawa District Hospital (3 persons), Neno District Hospital (4 persons), Blantyre DHO (4 persons) ZHSO South West (1 person), ZHSO South East (1 person)

* The facilitators who could not facilitate from the first day or the middle of first day due to inevitable matters.

** In collaboration with PAM, the Senior Maintenance Officers were invited to the training.

Six trainings supported in the project were held at Kamuzu Central Hospital, and one training was held at QE Central Hospital. Its aim to hold a training at these Central Hospitals was to improve the functioning of training implementation at the hospital so the MoH can rely on the facility to continuously disseminate the 5S-KAIZEN-TQM Approach.

Table 2.4 shows the current status of each process being strengthened at each target organisation via the OJT. Although some direction and assistance were required from the JICA experts, many of the activities required by the MoH, Kamuzu Central Hospital (and QE Central Hospital) and the training facilitator have been carried out independently.

In terms of facilitation skills regarding 5S training, facilitators showed some improvements. For example, they facilitated the lectures to be more interactive, or they included a detailed example in their explanation based on their experience. In addition, they tried to give input regarding the management of training, such as suggestions about the amendment of presentation slides, the order of each session and time management. The new facilitators learn through on-the-job training with experienced facilitators, and the number of potential national trainers were increased through such training. It is expected that the facilitation skills of less experienced facilitators will be continuously strengthened through OJT by combination of well experienced facilitators.

In addition, detailed information about the current situation as well as current challenges facing the implementation process (e.g. planning, preparation, implementation and reporting) are shown in Table 2.5. It was confirmed that facilitators from Malawi could coordinate the 5S training. This is because the facilitators improved the experience, and it seems conducive to such improvement that the facilitators' guide was developed and the facilitators' meeting was conducted to clarify the training programme and each role one day before training. In terms of logistical arrangements, the facilities already have sufficient capacity to organise trainings once the facilities are institutionalised as national training centres with the necessary budgets for

training. The necessity of institutionalising a national training centre shall be continuously discussed during the process of establishing a QA implementation structure.

In the project, training packages, such as training materials, timetables and facilitators' guides, were developed to standardise the training, and these were submitted to QMU.

Table 2.4: The Current Status of the Points to be Strengthened at Target Organisations (persons) in the Work Plan Developed in February 2015

Target	The points to be strengthened	As of the end of October 2015*	As of the end of April 2016	As of the end of the project
Ministry of Health	Developing a timetable	○	○	◎
	Developing training materials (original materials)	○	○	◎
	Selecting the training venue	◎	◎	◎
	Developing official documents (e.g. invitation letters to participating facilities, request letters to facilitators)	○	○	◎
	Sending official letters (to participating facilities, facilitators)	○	○	◎
	Making requests to the training implementation facility: Printing training materials, reserving the training venue, and arranging lunch and refreshments	○	○	◎
Training implementation facility (Central Hospitals)	Printing training materials	◎	○	◎
	Reserving the training venue, arranging lunch and refreshments	◎	○	◎
	Purchasing necessary stationery and supplies	◎	○	◎
	Preparing the training venue	◎	◎	◎
Facilitators (Ministry of Health, Zonal Health Support Offices, national trainers etc.)	Implementing the training program	○	◎	◎
	Facilitating lectures and exercises effectively	○	○	◎
	Measuring training effectiveness and identifying the points to be improved	○	○	◎
	Making a report	△	△	○

* ◎ It is possible to be implemented only by the target organisation (persons)

○ It is possible to be implemented by partial support from JICA experts

△ Primarily implemented by JICA experts

Table 2.5: Attainment Status and Further Challenges to Training Implementation Process

Implementation Process	Attainment Status	Further Challenges
Plan	The MoH's counterpart departments can select facilitators and target facilitators for each training course. (Training timetable and materials have been standardised.)	Although the training materials are already standardised, some materials need to be revised based on the renewed QA policy and other updated guidelines. The further utilisation of a database for selecting facilitators by the Ministry of Health's counterpart departments is required.
Preparation	The MoH's counterpart departments can develop and send official letters to participating facilities and facilitators	Kamuzu Central Hospital is not officially established as a national training centre, and the budget and personnel for implementing training has not been allocated. Thus, full support from the hospital has not been ensured. Possibilities for the establishment of central hospitals as national training centres will be considered in the discussion through the establishment of a QA implementation structure.
Implementation	Training facilitators can coordinate lectures and exercises using existing training materials. In addition, some facilitators showed improvement in their facilitation skills. For example, they included their own experiences as examples, rather than reading the contents of a slide. Moreover, there was an increase in facilitators who can provide positive suggestions for an opinion or questions showing the difficulties in implementing activities. The training facilitators are nearly able to implement some aspects of the training programmes, including confirming participant attendance, the status of lunch and refreshments, and the development of CD-ROM training materials. In addition, the facilitators add more input to the training programme.	Insufficient performance, like simply reading the contents of presentation slides, is still observed from less experienced facilitators. Further capacity building of national trainers is necessary through OJT. Some equipment, such as computers, printers and projectors, must be purchased for the trainings.
Reporting	A report can be finalised based on the report template, and JICA experts can prepare a draft.	There have been difficulties completing reports on time after training due to the MoH's counterpart departments being busy with other official work. In the project, pre- and post-assessments, methodologies to measure training effectiveness and report formats were developed. The Ministry of Health should evaluate the training and revise a plan for improving future training sessions.

(2) Supportive supervisions: Complete in 4 regions out of 5 regions

The current status of areas to strengthen at the target organisation (persons) in the work plan (developed in February 2015) is shown in Table 2.6, while the current status and challenges associated with the implementation process (e.g. planning, preparation, administration and reporting) are shown in Table 2.7 (next page).

The work plan was originally intended for supportive supervision in each zone to be conducted by a team comprised of a ZHSO officer and a national trainer (hereafter, a ZHSO supervision team), while the ministry (JICA experts) would supervise those facilities with newly introduced 5S and KAIZEN activities only. However, the involvement of the ZHSO was limited during the first and second dispatch period of the experts. In the previous project, ZHSO officers were invited to the 5S training in an attempt to strengthen their capacity to supervise 5S activities. However, progress in this regard has been hindered as a result of scheduling conflicts and the transfer of ZHSO officers trained in QA. Therefore, a specific orientation was conducted to explain the concept of the 5S-KAIZEN-TQM Approach and supportive supervision for the approach in each ZHSO between the second and third dispatch period. The implementation status of supportive supervision such as the target facilities, month and year for implementation and supervisors are shown in the Appendix 1.

In terms of initially planned supportive supervision by the ZHSO team, the project team selected the north ZHSO, which has supervisors who demonstrate sufficient monitoring and evaluation skills on 5S, as the initial ZHSO team, and they conducted the supportive supervision for Mzuzu Health Centre in January 2016 and Karonga District Hospital in May 2016 without any support from the MoH. They basically have conducted all activities, such as monitoring and evaluation with a checklist, the implementation of feedback presentation and writing a report, without any problems. In addition to the North ZHSO, the same trials have been done in the other regions, except the Central East region, and all ZHSO teams performed with enough capacity to conduct supportive supervision individually. In terms of ZHSO Central East, it seems difficult to involve them due to work conflicts or their other duties.

In the project, a tutorial for 5S supportive supervision was developed to standardise supervision activities, and it was submitted to QMU.

Table 2.6: The Current Status of the Points to be Strengthened at Target Organisations (persons) in the Work Plan Developed in February 2015

Target	The points to be strengthened	As of Oct. 15*	As of April 16	As of the end of the project
Ministry of Health Headquarters (In the case of MoH HQ implementation)	Developing a schedule	○	○	◎
	Developing official documents (informative letters to the target facilities, requests to national trainers)	○	○	◎
	Preparing supportive supervision tools	○	○	◎
	Sending time schedule and official letters	◎	◎	◎
	Formulating the supportive supervision team	○	○	◎
	Providing effective technical advice to the target facilities (departments)	○	○	◎
	Making a report	○	○	○
Ministry of Health Headquarters (In the case of ZHSO implementation under the direction of MoH HQ)	Requesting ZHSOs to implement supportive supervisions (development of tentative time schedule, preparation of supportive supervision tools, informing the target facilities)	○	○	◎
	Requesting ZHSOs to make a report and submit the report to MoH HQ	×	△	○
Facilitators (MoH HQ, ZHSOs, national trainers, etc.)	Appropriately utilising monitoring check sheets, preparing feedback presentations	○	○	◎
	Providing technical advice to the target facilities (departments)	○	○	◎
	Making a report and submitting it to MoH HQ	×	△	○

- * ◎ It is possible to be implemented only by the target organisation (persons)
○ It is possible to be implemented by partial support from JICA experts
△ Primarily implemented by JICA experts
× Incomplete or not yet started

**Table 2.7: Attainment Status and Further Challenges in Supportive Supervision
Implementation Process**

Implementation Process	Attainment Status	Further Challenges
Plan	The MoH's counterpart departments can develop a time schedule of supportive supervision.	The implementation structure for quality management is still being established. Further database utilisation is necessary for selecting national trainers to accompany the supervision. Further utilisation of a database is necessary for selecting national trainers to accompany supervision.
Preparation	The MoH's counterpart departments can inform the target facilities and the DHMT of supportive supervisions and send requests to Zonal Health Support Offices and national trainers to accompany.	In terms of supportive supervisions conducted only by ZHSOs, a standardised reporting mechanism between ZHSO and QMU is necessary. Also, the results should be shared among ZHSOs.
Implementation	<p>Almost all major supervisory activities have been implemented, including collecting information about QIST activities, scoring by monitoring check sheets, compiling results and providing feedback.</p> <p>It was confirmed that supportive supervision is able to be conducted by ZHSOs excepting for Central East.</p> <p>The QIST member in Mzimba District Hospital and Thyolo District Hospital (where 5S activities were conducted for a long time) has good facilitation skills in the supportive supervisions under their offices.</p>	<p>Supervisory levels are varied in terms of support, feedback and the promotion of 5S activities. It is important to increase the number of skilful supervisors who can provide more technical advice for improvement. These skills will consequently be strengthened.</p> <p>It is assumed that a laptop computer and a projector are not available when a team with only ZHSOs and national trainers conduct supportive supervision.</p>
Reporting	A report can be finalised based on the report template and the draft prepared by the JICA experts.	<p>There have been difficulties completing reports on time after training due to the MoH's counterpart departments being busy with other official work.</p> <p>The report formats are not standardised among other supervisory formats used by the ZHSOs. Thus, this can be a burden for them.</p> <p>An integrated reporting format is considered, as well as an integrated assessment sheet.</p>

(3) 5S at facility level: All Central and District hospitals installed 5S; however, there are variations in the level of implementation.

Although 5S was initially planned to be installed into approximately 10 new facilities through two 5S basic trainings, it was decided that 5S would be installed into all central- and district-level hospitals through four 5S trainings.

The progress of implementing 5S activities at each facility was monitored and evaluated using the monitoring and evaluation check sheet. The scored results from the monitoring check sheet are shown in Appendix 2. The only facilities to reach a 70% average overall score were Mzimba, Mwanza, Karonga, Ntcheu and Dedza District Hospitals and Malamulo Mission Hospital. However, since the ZHSO team scored the Karonga, Ntcheu and Dedza District Hospitals, the scores might be higher than those done by the MoH HQ team. Scoring skills must be strengthened so that all evaluations can be standardised among supervisors.

There has been a stagnation of activities in many other facilities because the 5S activities have not been adopted after changes of the DHO or staff.

Regarding these circumstances, the project conducted an orientation for hospital staffs with unsatisfactory progress, based on either the results of supervision or the hospitals' own requests. A half-day orientation was conducted (Dowa and Rumphi District Hospitals). This support is expected to strengthen the management's leadership, vitalise QIST and promote 5S activities.

However, many hospitals showed a positive attitude to implement 5S activities even though they face numerous challenges, such as delays in the disbursement of budgets, no electricity and no water supply. Improved working environments have been observed despite the facilities' limited resources. The factors for success and failure and the further challenges of 5S implementation are described in Table 2.8.

Table 2.8: Factors for Success and Failure and the Further Challenges of 5S Implementation

	Factors for Success and Failure	Further Challenges
Management	A facility where the same managers are assigned for a long term demonstrates a strong commitment to supporting 5S activities. However, a facility where the manager changes frequently has a tendency to show a lack of commitment from the management team, and then the QIST members are also demotivated.	An environment with less frequent management turnover strengthens hospital management and the commitment to quality improvement activities.
QIST	In a facility where management team members serve as QIST members, QIST is well managed with good support from the management team. A facility where QIST is established for each programme has a difficult time coordinating quality activities for the whole hospital. Therefore, 5S is not performed as a platform for quality improvement.	One QIST must be established at each hospital to address all quality issues within the hospital. TOR of QIST needs to be clarified, and activities such as meetings, internal monitoring and evaluation should be conducted according to the developed action plan.
WIT	A facility where there is no WIT shows weak performance in 5S activities.	WIT needs to be established at each department/unit, and a turnover mechanism for WIT members is also necessary. Towards the implementation of KAIZEN activities, a culture to share successes and challenges through periodic meetings must be cultivated through 5S implementation.
Expansion	A facility where 5S is recognised as a platform for quality assurance, 5S activities are expanded through internal trainings/orientations, even with external funds and resources from other QA programmes. However, DSA customs and refreshment in training/orientation are constraints for expanding 5S due to budget limitations.	In collaboration with the other QA programmes, internal orientation and refresher trainings need to be conducted continuously.

(4) KAIZEN activities: Complete up to the making action plan of countermeasures implementation

In terms of KAIZEN activities, the introduction of KAIZEN activities in the pilot area have been delayed in the hospitals participating in KAIZEN Basic Training excepting for Malamulo Mission Hospital. Though the project planned KAIZEN TOT originally, the implementation process of the training was changed to promote practice at the pilot area. Specifically, the project supported a KAIZEN meeting at the pilot area and QIST with participants in the training and development of a KAIZEN case in the pilot area. Four target hospitals were selected from hospitals participating in KAIZEN Basic Training. Thyolo DH, Mwanza DH, Kamuzu CH and Mzuzu CH were supported for conducting the meeting and developing an action plan for KAIZEN. Selected KAIZEN themes are in Table 2.9.

Table 2.9: KAIZEN Themes in Pilot Area

Hospital	Pilot Area	KAIZEN Theme
Thyolo DH	Kitchen	To distribute the food as schedule for each ward
	Maintenance	To maintain sustainable environment improvement
	Obstetric Ward	To improve monitoring of maternal and neonatal
	Pharmacy	To improve medicine dispensing process to each department
Mwanza DH	Laboratory	To improve medical waste segregation
	Pharmacy	To improve registration of inventory cards
	Administration	To improve information sharing within the department
	Operation Theatre	To improve handling the instruments and supplies in the operation theatre
Mzuzu CH	Laboratory	To improve sample collection
	Female Surgical Ward	To reduce stack of sink and toilet
	QIST	To improve traffic of visitors out of visiting hours
Kamuzu CH	Maternity HDU	To document patient record properly
	QIST	To improve attendance of QIST on meeting

The KAIZEN process is composed of seven steps. It takes approximately six months to complete all the steps, from the identification of the problem to checking the effectiveness and standardisation of countermeasures (see Figure 1.3).

As a result of the support, the pilot areas of Mzuzu CH and Kamuzu CH were completed up until developing an action plan (step 5), and the pilot area of Thyolo DH was completed up to identifying countermeasures (step 4). The pilot area of Mwanza DH was completed up to situation analysis (step 2).

In Mzimba DH, KAIZEN activities were implemented in accordance with other QA programmes; however, the progress of the activities has stagnated. Therefore, four staff from the Mzimba hospital were invited to the KAIZEN training conducted by PAM (from the 14th to the 16th of September 2016).

(5) Seminar for Nursing Students: Done partially (Activity was changed to the development of the training manual, and it has yet to be completed)

In July 2015, the JICA experts and their MoH counterparts met with the principal, dean and QA manager of Kamuzu College of Nursing, where both the concept of the project and the introduction of 5S into the college curriculum were discussed. It was planned that more modules about quality improvement should be added to enhance student knowledge, and a specific lecturer should be allocated to the task who would be sent to Mauritius for training.

The college expected improvements to quality knowledge not only for students, but also academic and administrative staff. Towards those ends, a short orientation (about 1 day) was proposed. However, it was postponed due to the absence of the person in charge.

After the establishment of a QMU, there was new consideration for installing a quality module into the curriculum of pre-service and in-service training, and the development of these trainings was proposed to the project. In May 2016, the major training institutes, the medical council, the nurse and midwives council and the major partners all agreed upon a proposal for the joint development of the curriculum and a training module for quality improvement. In June 2016, a taskforce for developing the quality improvement training manual was established officially at MOH. Although the first task force meeting was planned in September 2016, it was postponed due to schedule conflicts with a workshop for developing the QA framework and strategy. In terms of 5S and KAIZEN, it is expected that the existing training materials, including the 5S Basic Manual, will be referred to for the development of the training manual.

2.2.2.2. The establishment of a national trainer system and national training centre scheme: Partially complete (developing capacity but not institutionalizing)

In the project, QIST members of 5S-KAIZEN implementation facilities have been appointed for training and supportive supervision as national trainers to help strengthen implementation capacity via on-the-job training. This is being carried out in order to identify a national trainer who can play a role in disseminating and upgrading the 5S-KAIZEN-TQM approach in the future. In addition, Kamuzu and Queen Elizabeth Central Hospital were being used as a training venue for 5S-KAIZEN, and QIST members at the hospitals are preparing for implementation.

As a result, the capacity of more than 20 persons was strengthened to facilitate 5S activities as national trainers. They are able to conduct 5S training and 5S supportive supervisions independently. However, in terms of KAIZEN, it is still difficult for the country to facilitate the trainings without support from Japanese experts due to the lack of KAIZEN trainers. The national trainer system and the national training centre scheme is expected to be continuously discussed in the process of establishing a new quality management policy, framework and strategy.

3. Recommendations after the Project

3.1. Strengthening implementation capacity of 5S-KAIZEN-TQM Approach based on the new QA implementation structure after the establishment of QMU

The project aims to strengthen the capacity of concerned organisations (persons) according to the existing Quality Assurance Policy. For example, MoH HQ supervises central hospitals, ZHSOs supervise district-level hospitals, and DHOs supervise health centres. Currently, the new QA structure is under discussion. According to the new structure, the supervision structure for 5S should be reviewed, and then further capacity building should be done as necessary.

Depending on the new structure, supportive supervision related to QA/QI will be possibly integrated; however, it seems difficult for one supervisor to cover all QA/QI categories. Therefore, some hospital staff specialised in QA need to participate in the integrated supervisions with ZHSO supervisors. Also, 5S and KAIZEN supervising skills at ZHSO need to be continuously strengthened in consideration of the new structure.

3.2. Institutionalisation of national training centres and national trainers

In the project, training and supportive supervision developed the functions of Kamuzu and Queen Elizabeth Central Hospitals as a model national training centre and strengthened the capacity of national trainers. At the practical level, the ministry has sufficient capacity to conduct 5S trainings and supportive supervisions without any support from Japanese experts. Institutionalising a national trainer system and a national training centres scheme must be continuously discussed in the process of developing the TOR of the QMU and a revised Quality Assurance Policy.

In terms of the national training centre scheme, although there is a plan to entrust training to academic bodies, a practical session using the showcase hospital is necessary, particularly for in-service training. Therefore, it is recommended that in-service training be conducted in central hospitals and that pre-service trainings are entrusted to academic bodies.

In terms of the national trainer system, it is difficult for one person to obtain the knowledge and skills of wide-ranging quality issues; therefore, specialists for several categories need to be cultivated, depending on the methods and approach. Thus, the establishment of specialised national trainers for each programme is recommended. However, integration of some programmes, such as 5S and IPC, may be considered.

3.3. Sustainability of the 5S-KAIZEN-TQM approach and harmonisation with other QA programmes

After revising the QA policy, there is a plan to develop the QA implementation framework and QA strategic plan. The 5S-KAIZEN-TQM approach is a cross-cutting approach to be adopted by all QA

programs as a QA platform in Malawi and in securing the approach's sustainability. Therefore, it is recommended that the 5S-KAIZEN-TQM approach as a platform of QA is essential and needs to be included in the QA strategic and action plan.

The integration of QA assessment tools is planned on the drafted QMU action plan. Furthermore, 'Health Policy +', which is supported by USAID, has planned to integrate supportive supervision and to develop an electronic check sheet for the monitoring. In terms of 5S activities, the integration with other programmes is effective for securing supportive supervision through the simplification and improving of infection prevention control. When assessment tools are integrated, it is recommended that the indicators for monitoring work environment improvement are included with proper checkpoints into the integrated tool.

4. Conclusion

The purpose of this project is to strengthen the capacity of the MoH to sustainably disseminate and upgrade the 5S-KAIZEN-TQM approach in strengthening health facilities in Malawi as a QA platform for health service delivery.

Since the establishment of QMU and its activities was delayed or changed compared to the initial work plan, strengthening the structure of quality improvement through the 5S-KAIZEN-TQM approach is insufficient.

In terms of the QM policy documents, the position of the 5S-KAIZEN-TQM approach as the platform for other QA programmes will be strengthened through clear descriptions of the approach's positions in the developed QA action plan. However, the QA action plan was not finalised prior to project completion.

In terms of support for planning and applying the annual budget of QM activities, although the project supported the estimated annual budget for QM with 5S-KAIZEN activities' costs, the 5S-KAIZEN operational costs was not approved in the budget line for QMU due to MOH budget limitations.

In terms of the recognition system, the recognised hospitals were initially planned to be awarded in the National Quality Conference in November 2016. Towards the conference, the external assessments were conducted between August and September 2016 based on self-nomination from the facilities. However, the conference was postponed to next year, and no hospitals met the criteria according to the results of external assessments. Therefore, in the meeting held in October 2016, certificates were only awarded to the three hospitals that closely met the criteria and that showed good performance of 5S activities.

In terms of HSSP 2 (2017-2021), though the importance of quality improvement was documented on the HSSP, the paper does not mention a specific approach and/or methodology for QM.

In terms of a seminar for nursing students, the activity was changed to the development of a QM training manual. The taskforce for development was formulated in June 2016. However, since the taskforce meeting has not been conducted during the project period, the Japanese experts' contributions are limited.

In terms of establishing a national trainer system and a national training centre scheme, it is expected to be discussed after developing the QM policy, framework, strategy and action plan documents.

The capacity to disseminate and improve the 5S activities was properly developed to coordinate 5S training and supportive supervision without Japanese experts. However, further capacity development

is necessary, particularly for facilitating KAIZEN activities. In addition, the financial resources to conduct trainings and supervisions should be secured.

In terms of 5S training, the training packages, which were developed for integrated 5S training (5S basic training and TOT), enable the Ministry to conduct standardised 5S training. Kamuzu and Queen Elizabeth Central Hospitals have enough capacity to operate 5S training and to provide a proper showcase for training participants. Also, more than 20 5S national trainers can be assigned to facilitate the 5S trainings.

In terms of supportive supervisions, the developed tutorial for 5S supportive supervisions enables the Ministry to conduct standardised supportive supervisions at all levels for 5S activities. All ZHSOs, except for the Central East, have staff that are able to coordinate and conduct 5S supervisions with the national trainers.

In terms of KAIZEN, although the training package was developed, it is still difficult for the Ministry to manage KAIZEN trainings and supervisions without support from Japanese experts due to a shortage of national trainers who precisely understand KAIZEN and facilitate trainings and supervisions.

In conclusion, the project successfully scaled up 5S to all central- and district-level hospitals and strengthened its implementation at the facility level; however, the description of the 5S-KAIZEN-TQM approach in the policy documents on quality has not been completed within the project period.

Appendix

Appendix 1: Attainment Status of Implementation of Supportive Supervisions

Dispatch Period	Facility	Month/Year	Supervisors	
			Plan	Status
First Dispatch	Ntcheu District Hospital	January 2015		MoH HQ, Central West PAM
	Chiradzulu District Hospital	January 2015	MoH Head Quarter (MoH HQ), ZHSOs, National Trainers	MoH HQ, PAM
	Thyolo District Hospital	January 2015		MoH HQ, PAM
	Mwanza District Hospital	January 2015		MoH HQ, PAM
	Queen Elizabeth Central Hospital	January 2015		MoH HQ, PAM
	Kamuzu Central Hospital	February 2015		MoH HQ, PAM
Second Dispatch	Malamulo Mission Hospital	May 2015		
	Mangochi District Hospital	May 2015		MoH HQ, Zomba District Health Officer
	Balaka District Hospital	May 2015		MoH HQ, Zomba District Health Officer
	Dowa District Hospital	June 2015		MoH HQ
	Salima District Hospital	June 2015		MoH HQ, Central East ZHSO
	Mzuzu Central Hospital	June 2015		MoH HQ
	Mzimba North District Health Office (Mzuzu Health Centre)	June 2015	MOH HQ, ZHSOs, National trainers	MoH HQ, Mzuzu Central Hospital QIST
	Mzimba District Hospital	June 2015		MoH HQ (JOCVs of Mzimba District Hospital)
	Manyamula Health Centre	June 2015		MoH HQ, Mzimba District Hospital QIST (JOCVs of Manyamula Health Centre and Mzimba District Hospital)
	Edingeni Health Centre	June 2015		MoH HQ, Mzimba District Hospital QIST (JOCV of Edingeni Health Centre)
	Nkhata Bay District Hospital	June 2015		MoH HQ, Mzuzu Central Hospital QIST
Third Dispatch	Mwanza District Hospital	October 2015		MoH HQ, Queen Elizabeth Central Hospital QIST
	Thyolo District Hospital	October 2015		MoH HQ, Mwanza District Hospital QIST
	Matawale Health Centre (Zomba District)	October 2015	MOH HQ, ZHSOs, National trainers	MoH HQ
	Machinga District Hospital	October 2015		MoH HQ
	Ntchisi District Hospital	October 2015		MoH HQ, Central East PAM
	Dedza District Hospital	October 2015		MoH HQ, Central West ZHSO
	Dowa District Hospital	November 2015	ZHSO team	MoH HQ, Central East ZHSO
	Ntcheu District Hospital	November 2015		MoH HQ, Kamuzu Central Hospital QIST

Dispatch Period	Facility	Month/Year	Supervisors	
			Plan	Status
	Balaka District Hospital	November 2015		MoH HQ, South East ZHSO, Machinga District Hospital QIST
	Rumphi District Hospital	November 2015	MoH HQ, ZHSO, National Trainer	MoH HQ, North ZHSO, Mzuzu Central Hospital QIST
	Karonga District Hospital	November 2015		MoH HQ, North ZHSO, Mzuzu Central Hospital QIST
	Jenda Health Centre	November 2015		MoH HQ, Mzimba District Hospital QIST
	Luweresi Health Centre	November 2015		MoH HQ, Mzimba District Hospital QIST
	Kamuzu Central Hospital	December 2015	MoH HQ, National Trainer	MoH HQ
	Malamulo Mission Hospital	December 2015	Thyolo District Hospital QIST	MoH HQ, Thyolo District Hospital QIST
	Queen Elizabeth Central Hospital	December 2015	MoH HQ, National Trainer	MoH HQ
Fouth Dispatch	Mzuzu Central Hospital	January 2016	MoH HQ, National Trainer	MoH HQ
	Mzimba District Hospital	January 2016	ZHSO team	MoH HQ, ZHSO
	Mzuzu Health Centre	January 2016		ZHSO team
	Dezza District Hospital	February 2016		MoH HQ, ZHSO
	Ntchisi District Hospital	February 2016		MoH HQ
	Ntcheu District Hospital	February 2016		MoH HQ, ZHSO
	Salima District Hospital	February 2016		MoH HQ
	Balaka District Hospital	February 2016		MoH HQ
Fifth Dispatch	Kasungu District Hospital	April 2016	MoH HQ, ZHSO, National Trainer	MoH HQ, ZHSO
	Nkhota-kota District Hospital	April 2016	National Trainer	MoH HQ, ZHSO
	Dowa District Hospital	April 2016	ZHSO team	MoH HQ
	Nkata Bay District Hospital	May 2016	MoH HQ, ZHSO	MoH HQ, ZHSO
	Rumpi District Hospital	May 2016	ZHSO team	MoH HQ, ZHSO
	Karonga District Hospital*	May 2016		ZHSO team
	Manyamura Health Centre	May 2016	MoH HQ, Mzimba DH QIST	MoH HQ, Mzimba DH QIST
	Edingeni Health Centre	May 2016	DH QIST	DH QIST
	Thyolo District Hospital	June 2016	MoH HQ, ZHSO	MoH HQ, National Trainer
	CHiradzuru District Hospital	June 2016	ZHSO team	Trainer
	Malamulo Mission Hospital**	June 2016	Thyolo DH QIST	Thyolo DH QIST
	Queen Elizabeth Central Hospital	June 2016	MoH HQ, ZHSO	MoH HQ, National Trainer
	Mulanje District Hospital	July 2016		MoH HQ, ZHSO
Zomba Central Hospital	July 2016		MoH HQ	
Sixth Dispatch	Chitipa District Hospital	August 2016	MoH HQ, ZHSO	MoH HQ
	Mzimba District Hospital ***	August 2016	MoH HQ, ZHSO	MoH HQ, ZHSO
	Ntchisi Dustirict Hostpial	September 2016	ZHSO team	MoH HQ, ZHSO, National Trainer
	Mchinji District Hospital	September 2016	MoH HQ, ZHSO	MoH HQ, ZHSO, National Trainer
	Bwaila Hospital	September 2016		MoH HQ, ZHSO, National Trainer
	Mua Mission Hospital ****	September 2016		MoH HQ, ZHSO, National Trainer

Dispatch Period	Facility	Month/Year	Supervisors	
			Plan	Status
	Machinga District Hospital	September 2016	ZHSO team	ZHSO team, National Trainer
	Matawale Health Centre	September 2016		ZHSO team, National Trainer
	Balaka District Hospital ***	September 2016	MoH HQ, ZHSO	MoH HQ, ZHSO
	Nambazo Health Centre (Phalombe DHO)	September 2016		MoH HQ, ZHSO
	Mulanje District Hospital ***	September 2016		MoH HQ, ZHSO
	Ntcheu District Hospital	September 2016	ZHSO team	ZHSO team
	Dedza District Hospital	September 2016		ZHSO team
	Ndirande Health Centre (Blantyre DHO)	September 2016	MoH HQ, ZHSO	MoH HQ, ZHSO, National Trainer
	Chikwawa District Hospital	September 2016		MoH HQ, ZHSO, National Trainer
	Neno District Hospital	September 2016		MoH HQ, ZHSO
	Nsanje District Hospital	September 2016		MoH HQ, National Trainer
	Mwanza District Hospital	September 2016		MoH HQ, ZHSO
	Malamolo Mission Hospital ***	September 2016		MoH HQ, ZHSO, National Trainer
	Chiradzulu District Hospital	September 2016	ZHSO team	ZHSO team

* Only ZHSO supervisor or ZHSO supervisor and National Trainer

** Only DHO QIST

*** Exnternal Assessment for recognition

**Appendix 2: Implementation Status of 5S Activities at each Facility
(The result of scoring by the monitoring check sheet)**

	Facility	Month/Year	Leadership	Sort	Set	Shine	Standardize	Sustain	Average	
Level 3	Mzimba DH	Aug. 2016	73	73	71	72	69	67	71	
		Jan. 2016	69	72	75	69	70	72	71	
		Jun. 2015	71	74	74	74	69	71	72	
	Dowa DH	Apr. 2016	No scoring							
		Nov. 2015	65	56	53	53	49	46	54	
		Jun. 2015	53	62	58	60	50	54	56	
	Mwanza DH	Sep. 2016	84	76	76	76	71	80	77	
		Oct. 2015	66	63	60	62	61	70	64	
		Jan. 2016	64	62	55	60	53	55	58	
	Karonga DH	May. 2016*	88	84	87	81	82	73	82	
		Nov. 2015	59	65	60	61	55	56	59	
	Thyolo DH	Jun. 2015	65	66	65	62	52	59	62	
		Oct. 2015	55	62	55	63	55	53	57	
	Kamuzu CH	Dec. 2015	60	61	54	57	49	50	55	
		Fb. 2015	53	56	45	61	42	39	49	
Mzuzu CH	Jan. 2016	75	78	73	69	64	67	68		
	Jun. 2015	65	65	64	62	60	63	63		
Level 2-1	Chiradzulu DH	Jun. 2016	40	56	50	54	41	41	47	
		Jan. 2015	48	52	45	46	45	41	46	
	Rumphi DH	May. 2016	No scoring							
		Nov. 2015	55	55	54	64	49	49	54	
	Ntcheu DH	Sep. 2016*	90	84	84	80	81	63	80	
		Feb. 2016	71	65	66	66	69	64	67	
		Nov. 2015	52	47	45	45	29	27	41	
		Jan. 2015	42	53	44	49	45	34	45	
	Salima DH	Feb. 2016	50	54	52	55	45	40	49	
		Jun. 2016	56	58	47	64	55	56	56	
	Queen Elizabeth CH	Jun. 2016	68	68	69	71	64	71	69	
		Dec. 2015	80	66	65	66	61	67	67	
		Jan. 2015	40	45	40	50	40	36	42	
	Balaka DH	Swp. 2016	56	66	60	62	56	53	59	
		Feb. 2016	74	74	71	67	64	67	70	
		Nov. 2015	57	45	42	38	37	39	43	
		May. 2015	50	62	51	54	44	60	53	
	Mangochi DH	May. 2015	45	45	37	46	36	44	42	

	Facility	Month/Year	Leadership	Sort	Set	Shine	Standardize	Sustain	Average
Level 1	Mzimba North DHO (Mzuzu HC)	Jan. 2016*	45	30	29	34	24	32	32
		Jun. 2015	50	35	34	37	24	36	36
	Nkhata Bay DH	Jun. 2015	No scoring						
	Ntchisi DH	Sep. 2016	60	64	58	60	56	51	58
		Feb. 2016	65	65	56	53	50	50	56
		Oct. 2015	No scoring						
	Dedza DH	Sep. 2016*	70	76	79	89	81	59	77
		Feb. 2016	45	45	43	46	38	44	43
		Oct. 2015	No scoring						
	Machinga DH	Sep. 2016*	58	65	60	52	53	57	55
		Oct. 2015	No scoring						
	Chitipa DH	Aug. 2016	62	67	61	64	59	50	61
	Zomba DHO (Matawale HC)	Sep. 2016*	32	63	55	62	44	56	54
		Oct. 2015	No scoring						
	Kasungu DH	Apr. 2016	No scoring						
	Nkhota kota DH	Apr. 2016	No scoring						
	Bwaila Hospital	Sep. 2016	No scoring						
	Mulanje DH	Sep. 2016	63	59	56	60	49	60	58
		Jul. 2016	No scoring						
	Mchinji DH	Sep. 2016	No scoring						
Phalombe DHO (Nambazo HC)	Sep. 2016	60	63	58	56	40	60	56	
Blantyre DHO (Ndirande HC)	Sep. 2016	No scoring							
Chikwawa DH	Sep. 2016	No scoring							
Neno DH	Sep. 2016	No scoring							
Nsanje DH	Sep. 2016	No scoring							
Under DHO	Malamulo MH	Sep. 2016	67	87	81	83	77	83	80
		Jun. 2016*	60	62	66	67	57	63	62
		Dec. 2015	60	55	51	57	55	65	57
		May 2015	70	75	69	63	67	61	67
	Mua MH	Sep. 2016	84	74	64	70	53	59	67
	Edingeni HC	May 2015	55	70	43	49	36	40	49
		Jun. 2015	No scoring						
	Manyamula HC	May. 2016	No scoring						
		Jun. 2015	No scoring						
Jenda HC	Nov. 2015	55	70	49	51	48	36	52	
Luweresi HC	Nov. 2015	70	75	63	66	48	80	67	

DH-District Hospital, CH-Central Hospital, H/C-Health Centre, MH-Mission Hospital

Level 1: Introducing 5S in pilot area, Level 2-1: Expanding 5S in all area, Level 3; Introducing KAIZEN in pilot area

* Supervision implemented by ZHSO

Appendix 3: Candidates of National Trainers

	Name	Title	Organisation	Training		Supportive Supervision (5S)
				5S	KAIZEN	
1	Enock Phale	Asst. Director	Clinical Service Department, MoH	○	○	○
2	Angela Chiotcha	QIST Manager	Nursing Service Department, MoH	○		○
3	Grace Bamusi	Principle Nurisng Officer	Nursing Service Department, MoH	○		○
4	Nelson Z. Nkosi	Zone supervisor	North ZHSO	○		○
5	Chimwemwe Kalambo	Zone supervisor	North ZHSO	○		○
6	Christina Mchoma	Zone supervisor	Central West ZHSO			○
7	Hastings Ntutha	Zone supervisor	South West ZHSO			○
8	Dorothy Kamalizeni	Zone supervisor	South West ZHSO			○
9	Alinafe Mangulenje	Zone supervisor	South East ZHSO			○
10	Rose Mswoya	QIST	KCH	○	○	○
11	Dorothy Kabambe	QIST	KCH	○		○
12	Msandani Chiume	MD	KCH	○		
13	Mcwilliam Kalua	QIST	KCH	○		
14	Raphael Piringu	District Health Officer	Mwanza DHO	○	○	○
15	Agnes Mtonga	DNO	Mwanza DHO	○		○
16	Gift Kawalazira	District Health Officer	Zomba DHO	○	○	○
17	Selemani Kondowe	DNO	Chitipa DHO	○	○	○
18	Kandakuone Makamo	QIST	Dowa District Hospital	○		○
19	Monica Mwale	QIST	Dowa District Hospital	○		○
20	Lucy Chigwerembe	QIST Chairperson	QECH	○		○
21	Wezzie Nyirongo	QIST	Mzimba District Hospital	○		○
22	Chisomo Phethi Jere	QIST	Mzimba District Hospital	○		○
23	Shidah Kannyika	QIST	Mzuzu Central Hospital	○		○
24	Zikomo Masina Chagwadira	QIST	Mzuzu Central Hospital	○		
25	Barbara Ussein	QIST	Thyolo District Hospital	○		○
26	Semu Kholola	QIST	Thyolo District Hospital	○		○

Appendix 4: Report on Trainings

- 5S Basic Training (May 2015)
- KAIZEN Basic Training (October 2015)
- 5S Training of Trainers (November 2015)
- 5S Basic Training (February 2016)
- 5S Basic Training (April 2016)
- 5S Basic Training (June 2016)
- KAIZEN Activity Meeting @ Thyolo District Hospital (April 2016)
- KAIZEN Activity Meeting @ Mwanza District Hospital (April 2016)
- KAIZEN Activity Meeting @ Mzuzu Central Hospital (May 2016)
- KAIZEN Activity Meeting @ Kamuzu Central Hospital (June 2016)
- KAIZEN Activity Meeting @ Mzuzu Central Hospital (August 2016)
- KAIZEN Activity Meeting @ Thyolo District Hospital (September 2016)
- KAIZEN Activity Meeting @ Kamuzu Central Hospital (October 2016)



Republic of Malawi

The Project for 5S-KAIZEN-TQM
for
Hospital Management

Report on the 5S Basic Training

at Kamuzu Central Hospital

8th July 2015

- Enock PHALE Mr. (Assistant Director of Clinical Services, MOH)
- Anseline (Angela) Chiotcha (QIST Coordinator, KCH)
- Rose Msowaya (QIST, KCH)
- Mewilliam Kalua (QIST, KCH)
- S.G. Aquino Mr. (JICA Expert)
- Shuichi Suzuki Mr. (5S-KAIZEN-TQM Expert, MOH/JICA)

1. Objectives

(1) For Participants

- 1) To disseminate necessary knowledge and skills on 5S
- 2) To commence 5S activities in pilot areas in each hospital

(2) For Facilitators

- 1) To obtain and enhance knowledge and skills for facilitating a training on 5S as national facilitators

(3) For QIST of Kamuzu Central Hospital (KCH)

- 1) To organize the training such as series of work from preparation to implementation

2. Outline

(1) Date and Venue: From 16th to 18th June, 2015

Date	Main Activity	Venue
16 th June (Tue)	Introduction of 5S-AKIZEN-TQM Approach and demonstration on 5S	Kamuzu Central Hospital (Lilongwe)
17 th June (Wed)	Observation 5S activities at Kamuzu Central Hospital	
18 th June (Thu)	Development of Action Plan	

*Time table is shown as Appendix 1

(2) Participants and Facilitators

1) Participants: 27 participants

Five new hospitals (Level 0) were selected to install 5S, and Zonal Health Support Offices (ZHSOs) were invited to the training. And Japanese Volunteers (JOCV) were also invited to the training for enhancing 5S activities in their working facilities. However, Chikwawa District Hospital, and ZHSOs except Central East Office did not participate in the training. The total number of the participants was 27, and the category of the participants are shown as Table 1.

Table1: The Category of the Participants

Facility / Organisation	The number of participants / Category
Hospitals that will newly install 5S	
Nkhata Bay DH	Total: 4 people from each hospital *DMO or DHO, DNO or DEO, QIST members
Ntchisi DH	
Dedza DH	
Zomba DH	
Zonal Health Support Office	
Central East	1 officer
Physical Asset Management (Observer)	
PAM Clerk	1 person
Japan Overseas Cooperation Volunteers (Observer)	
	9 JOCVs

2) Facilitators

- Enoch Phale Mr. (Assistant Director, Clinical Services, MOH)
- Anseline Angela Chiotcha Mrs. (QIST-QI Coordinator/Manager, KCH)
- Dorothy Kabambe Mrs. (Chief Nursing Officer, KCH)
- Mcwilliam Kalua Mr. (QIST, KCH)
- Rose Msowaya Mrs. (State Registered Nurse and Midwife, KCH)
- S.G. Aquino Mr. (JICA Expert)
- Shuichi Suzuki Ms. (JICA Expert)

(3) Methodology of the training

Lectures, Practices, Pre/Post-assessment and Course evaluation

(4) Guest Attendance

Opening ceremony (16th June) by Director of KCH.

JICA Officers who are in charge of Health Sector

Closing ceremony (18th June) by Director of KCH

3. Results of pre and post assessment

The table below shows scores of pre and post-assessment. Fifty eight per cent of the participants excluding the participants who did not take pre or post assessment got

increased or maintained their score. Although increases of scores was slight, it was admitted that their understandings on 5S and Quality Assurance Programme.

Table 2: The results of Pre and Post assessment

	Pre	Post
Average score	25.9	26.2
Number of participants improved the score	-	6 (26%)
Number of participants maintained the score		5 (32%)
Number of participants decline score	-	3 (16%)
Number of participants who did not took pre or post assessment		5 (26%)

4. Results of Course Evaluation

Number of respondents is 23 out of 28 participants. Satisfaction towards the training materials is relatively high as the results indicates that 77% of the respondents is satisfied with the material, and also participants are satisfied with duration of the training and time allocation of each lecture and practice. The satisfaction towards overall training is significantly high, and more than 80% of participants is satisfied with each lecture and practice.

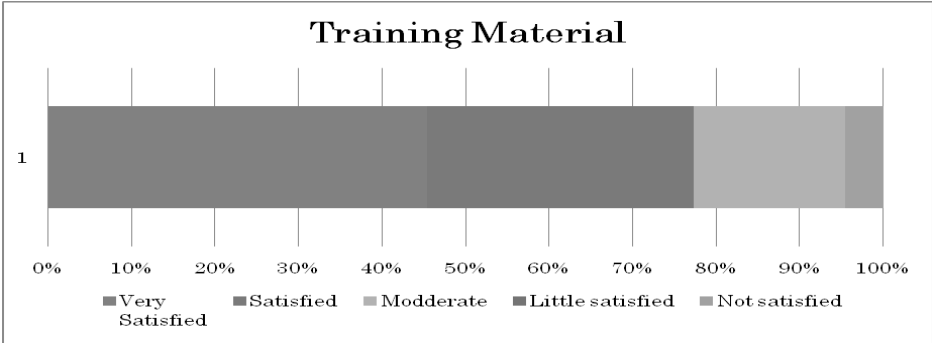


Figure 1: Satisfaction towards the training materials

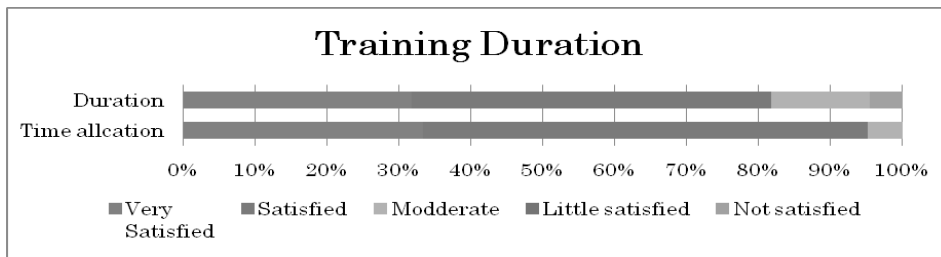


Figure 2: Appropriation of duration and time allocation of the training

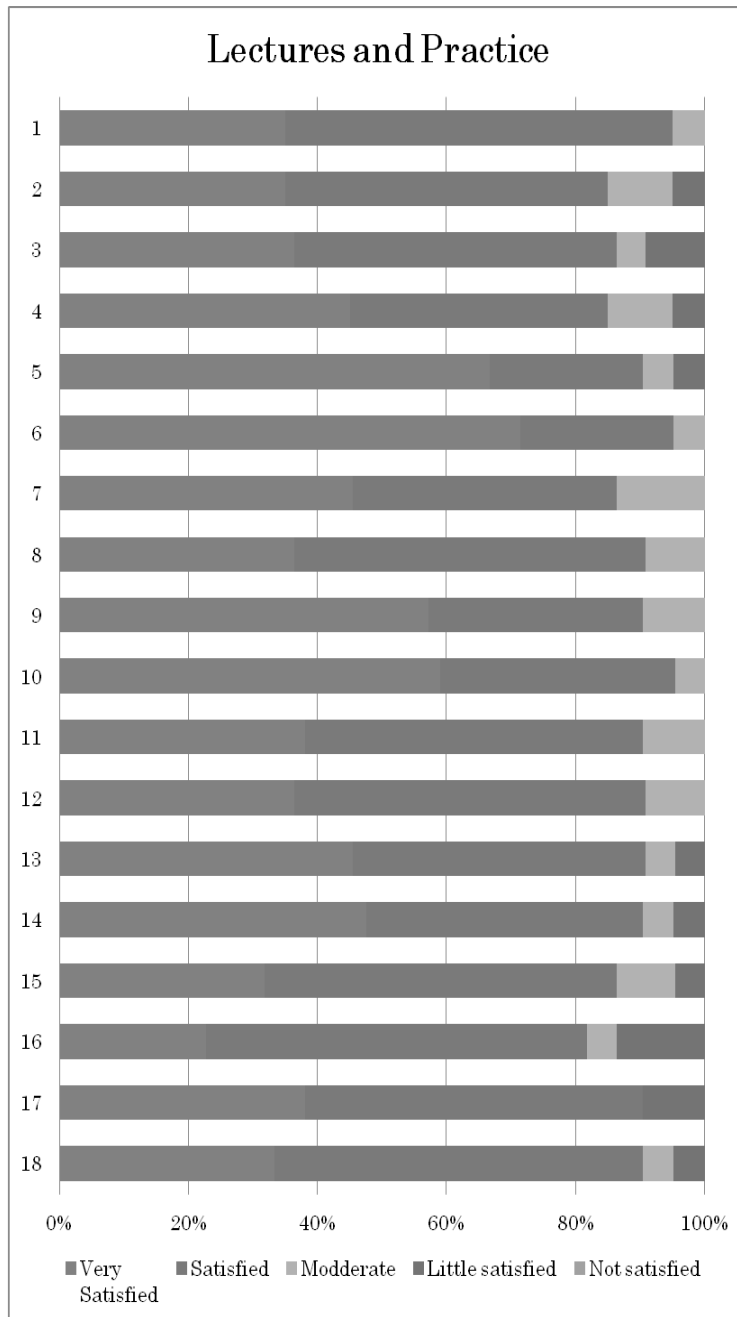


Figure 3 : Satisfaction towards each lecture and practice of the training

*Subject/Activity are shown as the following table.

Table 3: Category of Subject and Activity of course evaluation sheet

No	Subject/Activity
1	Current situation of QAPs in Malawi
2	Quality and Safety in Healthcare
3	Responsiveness / Positive Attitude
4	5S-KAIZEN-TQM Approaches
5	S1, S2 and S3 activities
6	5S tools
7	How to implement 5S activities
8	HPT (Hazard Prediction Training)
9	Experience of 5S activities from Kamuzu Central Hospital
10	Observation of actual 5S activities at Kamuzu Central Hospital
11	Group presentation on observation results
12	QIST and WIT
13	5S implementation structure
14	Team work/building
15	How to conduct situation analysis
16	Development of action plan (Lecture)
17	Development of action plan (Practice)
18	Group presentation on the action plan

5. Achievements

(1) For Participants

- 1) **To disseminate necessary knowledge and skills on 5S to the participants in each of the hospital and organization**

The improvement of the results of post assessment is relatively low, because average of pre-test is high. Response and demonstration of the participants in the lectures and practice indicated that their understanding on the concept of 5S-KAIZEN-TQM approach and the way of installation and implementation.

Though some participants felt the constrains to install 5S in their facilities because of lack of budget, most of the participants understood 5S activities will reduce wasting money and implement with saved money.

Willingness of the participants were very high and most of the participants enjoyed the lecture and practice.

2) To commence 5S activities at pilot areas in each hospital

Follow up through supportive supervision is necessary, but the training results have started to be recognized. For example, Nhkata Bay District Hospital conducted initial training of 5S to the staff supported by MOH / JICA. The participants worked as facilitators well.

(2) For Facilitators

1) To obtain and enhance knowledge and skills for facilitating a training on 5S as national facilitators

Facilitators got new experience of facilitating on 5S to other facilities. All lectures are well implemented; however it was possible more support in practical sessions. And it is better to understand how to answer about negative questions from participants.

(3) For QIST of Kamuzu Central Hospital (KCH)

1) To organize the training such as series of work from preparation to implementation

Training materials and venue are well organized by QIST of KCH. However there is no support from management of KCH.

(4) Remarks

The observation-visit to three areas in KCH were conducted on the second day. Through presentation by QIST and observation, the participants could have positive aspects towards 5S activities. The participants could observe how 5S could contribute to improve work environment through observation. However it is not sufficient for the participants of 5S TOT. KCH shall enhance their 5S activities as well as to expand to other departments.

KCH shall be recognized as the training center of QA. After the establishment of Quality Management Unit (QMU) in MOH, we would like to promote the recognition.

6. Lesson learnt

(1) Nomination System

The invitation of the training was sent to the facilities which ZHSO recommended. However, one hospital and four ZHSO were not attended. Two weeks before the training, list of participants shall be received and filling vacancy is necessary if some nominated facilities have not sent the participants' list.

(2) Duration of the training and time management

Satisfaction towards each lecture and practice was remarkably high, as well as duration and time allocation. However we could not start the training on time. We have to inform the time and venue more clearly and make sure that the participants are staying the accommodation from one day before the training.

(3) Logistics

During the training, some logistic issues, such as preparation of certificates and CD-ROM, arrangement of refreshment and lunch, etc, shall be arranged by QIST in KCH from next time.

(4) Training materials

Training materials, especially each presentation, was improved and standardized; however, some of them such as "current situation of Quality Assurance Programs" should be updated according to the current situation and "Quality and Safety" should be more compiled according to the time allocation Also, all presentation slides should be reviewed and revised to be more standardized and to be improved to more effective lecture.

7. Way forward

5S training is divided into two trainings based on implementation phase such as 5S Basic Training and 5S Training of Trainers. New facilities for 5S activities shall be expanded and all Central and District Hospitals shall install 5S as plat form of QA programs.

Appendix 1: Timetable of the training

Tentative Timetable of 5S Basic Training

From 16th to 18th June 2015 @ Kamuzu Central Hospital

Act #	Time	Activities	Type	Responsible person	Breif explanation of the topics	Training Venue
Day 1: 16th June						
1	08:00 - 08:30	Registration		All		Conference room
2	08:30 - 08:45	Self introduction		All		
3	08:45 - 08:55	Opening remarks		All		
4	08:55 - 09:00	Objectives and logistics	Presentation		To explain objectives and logistics issues of the training	
5	09:00 - 09:20	Pre course assessment	Paper assessment	All	To measure knowledge on QIP before the training	
6	09:20 - 10:00	Current situation of QAPs in Malawi	Lecture		To explain current situation of QIPs in Malawi	
7	10:00 - 10:30	Tea break		All		
8	10:30 - 11:10	Quality and Safety in Healthcare	Lecture		To explain necessity of quality and safety in health care facility	
9	11:10 - 11:40	Responsiveness / Positive Attitude	Lecture		To explain non-health expectation of clients and how to meet with those needs and expectations, and importance of positive attitude	
10	11:40 - 12:30	5S-KAIZEN-TQM Approaches	Lecture		To explain overview of 5S-KAIZEN-TQM Approach	
11	12:30 - 13:30	Lunch		All		
12	13:30 - 14:10	S1, S2 and S3 activities	Lecture		To explain S1, S2 and S3 activities	
13	14:10 - 14:40	5S tools	Lecture		To explain 5S tools and effectively to improve working place	
14	14:40 - 15:10	Tea break		All		
15	15:10 - 16:30	How to implement 5S activities	Practice, Group presentation	All	To practice 5S activities by demonstration	
Day 2: 17th June						
16	08:00 - 08:30	Registration		All		Conference Room
17	08:30 - 08:40	Recap	Presentation		To review lessons learnt of the previous training day	
18	08:40 - 09:00	Experience of 5S activities from Kamuzu Central Hospital	Presentation		To explain and share experience of 5S activities at a hospital	
19	09:00 - 09:10	Explanation of observation	Lecture		To explain how to observe and observation tools	5S Pilot Area
20	09:10 - 10:40	Observation of actual 5S activities at Dowa District Hospital	Observation	All	To observe actual 5S activities and 5S tools at a hospital	
21	10:40 - 11:00	Tea break		All		Conference Room
22	11:00 - 12:00	Group presentation on observation results	Group presentation	All	Each group will have a presentation on the observation results and share with all participants	
23	12:00 - 12:30	Team work/building	Lecture		To explain team work and building	
24	12:30 - 13:30	Lunch		All		
25	13:30 - 14:00	QIST and WIT	Lecture		To explain activities and roles of QIST and WIT	
26	14:00 - 14:40	5S implementation structure	Lecture		To explain how to introduce 5S and practice 5S at a health facility	
27	14:40 - 15:00	Tea break		All		
28	15:00 - 15:30	How to conduct situation analysis	Lecture		To explain how to conduct situation analysis and "what is problem?" and how to identify and analyze current challenges by situation analysis	
29	15:30 - 17:00	HPT (Hazard Prediction Training)	Lecture, Practice		To explain HPT and its methodology	
Day 3: 18th June						
30	08:00 - 08:30	Registration		All		Conference Room
31	08:30 - 08:40	Recap	Presentation		To review lessons learnt of the previous training day	
32	08:40 - 09:10	Development of action plan	Lecture		To explain how to develop an action plan	
33	09:10 - 10:30	Development of action plan	Practice	All	To develop draft of action plan	
34	10:30 - 10:50	Tea break		All		
35	10:50 - 11:30	Development of action plan (Continue)	Practice	All	To develop draft of action plan	
36	11:30 - 12:30	Group presentation	Group presentation	All	To present action plan by each health facility	
37	12:30 - 13:30	Lunch				
38	13:30 - 14:00	Question and Answer Session	Discussion	All		
39	14:00 - 14:30	Post course assessment, Training evaluation	Paper assessment, Evaluation	All	To measure knowledge on QAP after the training, Training evaluation	
40	14:30 - 14:45	Closing ceremony		All	Course summary, Certificate handing over	



Republic of Malawi
Ministry of Health

Report on KAIZEN Basic Training

From 27th October to 30th October 2015
At Kamuzu Central Hospital, Lilongwe

Experts on 5S-KAIZEN-TQM for Hospital Management



Japan International Cooperation Agency

1. Background

Ministry of Health in collaboration with Japan International Cooperation Agency (JICA) has been rolling out 5S-KAIZEN-TQM Approach to health facilities in Malawi since 2007, aiming to improve health care services. As a result of the prior efforts of MOH and the health facilities, pleasantly 5S-KAIZEN-TQM Approach has been introduced to 25 health facilities where 5S activities are practicing; three Central Hospitals, fifteen District Hospitals, six Health Centres and one mission hospital. In some of the health facilities, their work environment has been gradually improved through 5S activities. For further improvement of the work environment and work process at the health facilities, MOH decided to conduct “KAIZEN Basic Training” for the hospitals showing high performance in 5S implementation.

2. Outline of the training

2.1. Purpose of the training

To build the participants’ capacities in terms of knowledge and skills on KAIZEN Approach

2.2. Training objectives

At the end of the training, all participants are able to:

- Understand basic concepts of KAIZEN Approach
- Obtain knowledge and skills of KAIZEN process for problem solving
- Practice KAIZEN activities in the respective hospital

2.3. Date and venue

Period and date of the training: 4 days from 27th October 2015 to 30th October 2015

Training venue: Seminar hall of Eye Department at Kamuzu Central Hospital

2.4. Timetable of the training

See “Appendix 1: Tentative timetable of KAIZEN Basic Training”. All the planned activities were completed.

2.5. Participants and facilitators (For details, see “Appendix 2: List of participant and facilitators”)

(1) Participants

Four participants were invited from selected six hospitals, and one participant from five Zonal Health Support Offices (ZHSO) was invited. However, two participants from Kamuzu Central Hospital did not attend and two from ZHSOs; Central East and South East ZHSOs did not attend as well. Therefore, total number of the participants was 25. Detailed number of the participants are shown and listed below.

#	Name of participating hospital and organization	Number of participants
1	Kamuzu Central Hospital	2
2	Muzuzu Central Hospital	4
3	Karonga District Hospital	4
4	Thyolo District Hospital	4
5	Mwanza District Hospital	4
6	Malamulo Mission Hospital	4
7	Central western Zonal Health Support Office	1
8	Southwestern Zonal Health Support Office	1
9	Northern Zonal Health Support Office	1

(2) Facilitators

Four facilitators were selected from the pool of national facilitators of 5S-KAIZEN as listed in the below, and three JICA Experts were supported the facilitators.

#	Name of facilitators' hospital and organization	Number of participants
1	Ministry of Health	1
2	Kamuzu Central Hospital	1
3	Zomba District Hospital	1
4	Mwanza District Hospital	1
5	JICA Expert (Physical Assets Management)	1
6	JICA Expert (Expert on 5S-KAIZEN-TQM Approach for Hospital Management)	2

(3) Observers

Five JICA volunteers were participating in the training as observers.

#	Name of assigned health facility	Number of participants
1	Thyolo District Hospital	1
2	Ntcheu District Hospital	1
3	Mzimba District Hospital	1
4	Kasungu District Hospital	1
5	Manyamula Health Centre	1

2.6. Guest attendance

- Opening remarks on 27th October 2015 by Deputy Director of Nursing Service Department in MOH, and JICA Officers who are in charge of Health Sector Programs
- Closing remarks on 30th October 2015 by the Hospital Director and Deputy Director of Kamuzu Central Hospital

3. Methodologies and contents of the training

3.1. Methodology of the training

The training was composed by “*Lecture discussion*” and “*Practical session (group work and group presentation)*” in order to attain the training purpose mentioned in the above.

- **Lecture discussion** aimed at equipping the participants with basic knowledge on all the topics related with KAIZEN Approach
- **Practical session** aimed at equipping the participants with practical skills to carry out QC story and use QC tools properly by utilizing the knowledge obtained in the lecture discussions, and moreover, aimed at promoting mutual learning among the participants



During the practical session, the participants learn how to practice KAIZEN process with QC tools.

The facilitators of the training utilized “**KAIZEN Facilitators’ Guide**” for smooth and effective teaching.

3.2. Contents of the training

Contents of the training are listed on the table below.

Topic	Lecture	Practical session
5S-KAIZEN-TQM concept	<input type="checkbox"/>	
Hazard Prediction Training	<input type="checkbox"/>	
Overview of KAIZEN approach	<input type="checkbox"/>	
Actual KAIZEN implementation for improvement in hospital care and services	<input type="checkbox"/>	
KAIZEN Step 1 (KAIZEN theme selection)	<input type="checkbox"/>	<input type="checkbox"/>
KAIZEN Step 2 (Situation analysis)	<input type="checkbox"/>	<input type="checkbox"/>
KAIZEN Step 3 (Root cause analysis)	<input type="checkbox"/>	<input type="checkbox"/>

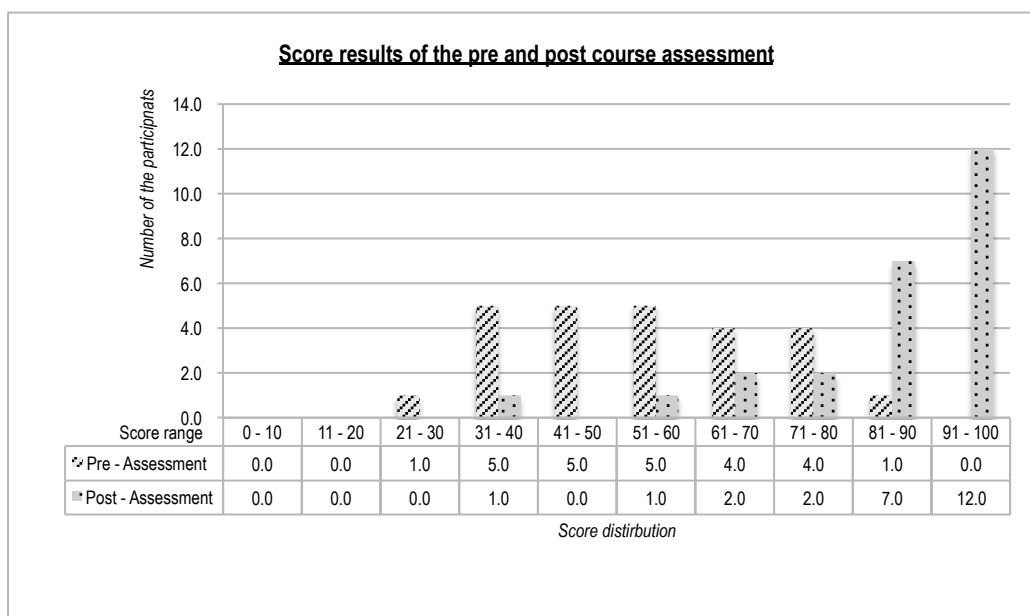
Topic	Lecture	Practical session
KAIZEN Step 4 (Identification of countermeasure)	<input type="checkbox"/>	<input type="checkbox"/>
KAIZEN Step 5 (Implementation of countermeasure)	<input type="checkbox"/>	<input type="checkbox"/>
KAIZEN Step 6 (Check effectiveness)	<input type="checkbox"/>	<input type="checkbox"/>
KAIZEN Step 7 (Standardization)	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring and evaluation of KAIZEN	<input type="checkbox"/>	

4. Results of pre and post course assessment, and course evaluation of the training

4.1. Score gaps of the pre and post course assessment

The pre and post course assessment were designed to identify the gap in the participants' knowledge on KAIZEN between before and after the training.

Improvement of the average score was observed as the average score from 54.7 (before the training) to 84.8 (after the training); the improvement is 30.1. It can be assumed that the participants' basic knowledge on KAIZEN is increased. Score distribution is shown on the diagram in the below.



4.2. Effect size (Δ) of the training

Based on the results of pre and post course assessment, Effect size (Δ) was calculated to measure effectiveness of the training. Effect size (Δ) is 2.03 and it is showing large effect as shown in the below.

Effect size (Δ) of the pre and post course assessment					
	Average	Standard Deviation	Effect size (Δ)	Effect size report	Level of effect size
Pre	54.7	14.78399576			
Post	84.8	14.24497047			

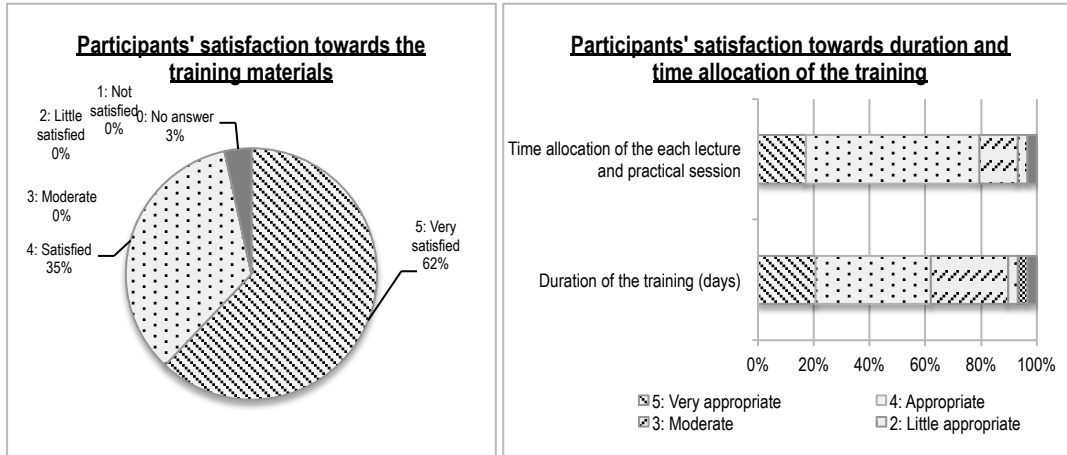
If Δ is over 0.5, it has meaning "effective" (Koizumi & Katagiri, 2007)

$|.20| \leq \text{small} <|.50|$ **Small effect**
 $|.50| < \text{medium} <|.80|$ **Medium effect**
 $|.80| \leq \text{large}$ **Large effect**

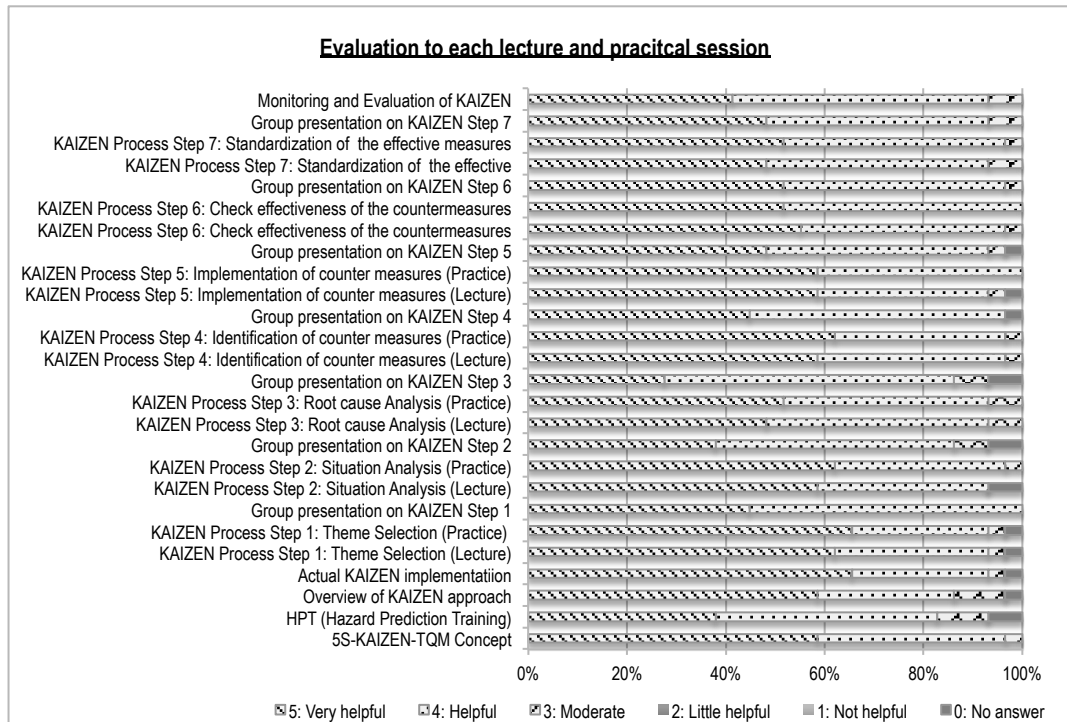
Koizumi, R., & Katagiri, K. (2007). Changes in speaking performance of Japanese high school students: The case of an English course at a SELHi. ARELE, 18, p.81-90.

4.3. Course evaluation

Course evaluation was held in the end of the training, with 5-rated to each question on the evaluation sheet. Number of respondents was 29 out of 32 (90.6% of a total number of the participants and observers). As the results shown in the below, most of participants were satisfied with the training materials, duration and time allocation of the training.



In the questions regarding lectures and practical sessions, the majority of the participants answered that the lectures and practical sessions were “very helpful” or “helpful” as shown on the diagram below.



Moreover, the participants gave overall comments to the training as follows:

- The training was a little difficult but KAIZEN is very interesting.
- The training was very educative.
- Please follow up the hospitals you trained in the future.
- Time allocation of each activity was not enough.
- There is need to consider time to rest after meals in the next time.
- The accommodation was not clean and comfortable.

5. Achievement

As the results of pre and post course assessment, and participants' satisfaction towards the training, it can be assumed that the training was conducted successfully and effectively to equip knowledge and skills of KAIZEN with the participants.

Moreover, the facilitators and the participants discussed and identified “way forwards after the training” on the last training day. As a result, four necessary activities were identified as follows:

After the training, all the participants are expected to:

- 1) Brief KAIZEN Approach and what they learnt during the training to the respective hospital management team
- 2) Develop an action plan of implementation of KAIZEN process
- 3) Commence KAIZEN activities according to the action plan at the respective hospital
- 4) Share the action plan and progress of KAIZEN activities periodically to QIST of the respective hospital and MOH

Moreover, the participants requested MOH to conduct supervision for the trained hospitals to follow up the progress of KAIZEN activities, and provide technical advices.

6. Way forwards

- **To increase a number of competent national facilitators for KAIZEN**

There is still shortage of competent facilitators in teaching KAIZEN properly and effectively. In this situation, it is difficult for MOH to disseminate KAIZEN activities to health facilities. Hence, increasing the number of competent facilitators and continuous skill building are some of the challenges that need to be done.

- **To improve “KAIZEN Facilitators’ Guide for KAIZEN Training” and the training materials**

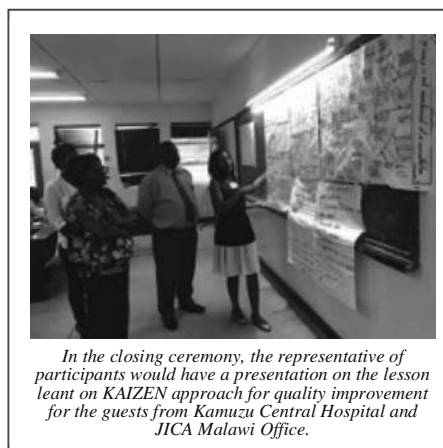
In this time, the facilitators used “KAIZEN Facilitators’ Guide” for smooth and effective implementation of KAIZEN training. The guide and training materials will be finalized based on the improvements that were identified from the use of the Guide during the KAIZEN Basic Training.

- **To keep track the progress of KAIZEN and provide technical advices**

MOH will plan to conduct supportive supervision for the trained hospitals with support of JICA. Follow-up activities are important activities to support the hospitals make 5S-KAIZEN-TQM Approach to take its root and grow. Therefore, during the supervision, the supervisors assigned by MOH are requested not only to keep track of the KAIZEN progress but also to provide effective technical advices for smooth and successful implementation of KAIZEN.

- **To provide technical support to Kamuzu Central Hospital to strengthen its 5S-KAIZEN activities**

In the Project, KCH is expected to develop capacity as a future national training center for 5S-KAIZEN-TQM Approach. However, according to the supervision report (in February 2015), the hospital is facing several challenges in the implementation of 5S-KAIZEN activities, such as dysfunctional QA/QI implementation structure and disharmonized QA/QI programs. Therefore, firstly, it is necessary for MOH and the Project to discuss possibilities and



In the closing ceremony, the representative of participants would have a presentation on the lesson learnt on KAIZEN approach for quality improvement for the guests from Kamuzu Central Hospital and JICA Malawi Office.

opportunities to provide further technical support to KCH to strengthen its 5S-KAIZEN implementation.

7. Acknowledgement

Ministry of Health acknowledges all the supports rendered by Kamuzu Central Hospital to host KAIZEN Basic Training. The Ministry also expresses gratitude to the facilitators' team for the effective and efficient conduct of the training exercise.

Likewise, the Ministry is extending its gratitude to the support staff and secretariat for supporting the organizers of the training course as well as for making the stay of the participants an enjoyable one.



*Group photo in KAIZEN Basic Training, from 27th November to 30th November 2015,
Kamuzu Central Hospital, Lilongwe*

Appendix 1: Timetable of KAIZEN Basic Training

Act #	Time	Activities	Type	Responsible Person	Brief explanation of the topics
Day 1: 27th October (Moderator: Dr. Kawalazira)					
1	07:30 - 08:00	Move to KCH from Crown Hotel	-	-	<i>* Thank you very much for your punctuality</i>
2	08:00 - 08:30	Participants' Registration	-	All	-
3	08:30 - 08:45	Self-introduction	-	All	-
4	08:45 - 09:00	Opening remarks	-	MOH, Kamuzu CH, JICA	Official opening ceremony by Deputy Director of Nursing Service Department (MOH), Deputy Director of Kamuzu Central Hospital, JICA Representative
5	09:00 - 09:15	Objectives & Logistics	Presentation	K. Nishikido	Objectives and logistics of KAIZEN Basic Training
6	09:15 - 09:40	Pre Assessment	Paper assessment	Dr. Kawalazira, K. Nishikido	Paper assessment on 5S-KAIZEN-TQM Approach to measure participants' knowledge
7	09:40 - 10:30	5S-KAIZEN-TQM Concept	Lecture	Mr. Phale	Basic Concepts of this stepwise QI approach and management tools
8	10:30 - 10:50	Tea Break	-	-	-
9	10:50 - 11:30	HPT (Hazard Prediction Training)	Lecture	K. Nishikido	HPT methodology will be explained
10	11:30 - 12:10	Overview of KAIZEN approach	Lecture	Mr. Phale	Overview of KAIZEN approach and how to practice KAIZEN will be exercise
11	12:10 - 12:30	Actual KAIZEN implementation for improvement in hospital care and services	Lecture	Mr. Piringu	Actual KAIZEN cases in hospitals in other countries will be introduced.
12	12:30 - 13:15	Lunch	-	-	-
14	13:15 - 14:00	KAIZEN Process Step 1: Theme Selection (Lecture)	Lecture	Miyamoto	1st step of KAIZEN process will be explained
15	14:00 - 15:00	KAIZEN Process Step 1: Theme Selection (Practice)	Practical session	Miyamoto (all)	Practice how to select KAIZEN theme with matrix diagram
16	15:00 - 15:20	Tea Break	-	-	-
17	15:20 - 16:20	KAIZEN Process Step 1: Theme Selection (Practice)	Practice	N. Miyamoto (all)	Practice how to select KAIZEN theme with matrix diagram
Day 2: 28th October 2015 (Moderator: Mr. Aquino)					
18	07:30 - 08:00	Move to KCH from Crown Hotel	-	-	<i>* Thank you very much for your punctuality</i>
19	08:00 - 08:30	Participants' Registration	-	All	-
20	08:30 - 09:15	Group presentation on KAIZEN Step 1	Group presentation	N. Miyamoto	Group presentation on the results of practical session by each group
21	09:15 - 10:00	KAIZEN Process Step 2: Situation Analysis (Lecture)	Lecture	Dr. Kawalazira	2nd step of KAIZEN process, meaning and usage of Pareto chart, Pareto rule (80:20 rule) will be explained
22	10:00 - 10:20	Tea Break	-	-	-
23	10:20 - 12:15	KAIZEN Process Step 2: Situation Analysis (Practice)	Practical session	Dr. Kawalazira (all)	Practice how to develop Pareto chart with example data
24	12:15 - 13:00	Lunch	-	-	-
25	13:00 - 13:45	Group presentation on KAIZEN Step 2	Group presentation	Dr. Kawalazira	Group presentation on the results of practical session by each group
26	13:45 - 14:45	KAIZEN Process Step 3: Root cause Analysis (Lecture)	Lecture	N. Miyamoto	3rd step of KAIZEN process will be explained
27	14:45 - 15:05	Tea Break	-	-	-
28	15:05 - 16:30	KAIZEN Process Step 3: Root cause Analysis (Practice)	Practical session	N. Miyamoto	Practice how to make fishbone diagram and analyze root cause of the problem
Day 3: 29th October 2015 (Moderator: Dr. Kawarazira)					
29	07:30 - 08:00	Move to KCH from Crown Hotel	-	-	<i>* Thank you very much for your punctuality</i>
30	08:00 - 08:30	Participants' Registration	-	All	-
31	08:30 - 09:30	KAIZEN Process Step 3: Root cause Analysis (Practice)	Group practice	N. Miyamoto	Practice how to identify root causes of the problem by utilizing Fishbone diagram
32	09:30 - 10:15	Group presentation on KAIZEN Step 3	Group presentation	Mr. Phale	Group presentation on the results of practical session by each group
33	10:15 - 10:35	Tea Break	-	-	-
34	10:35 - 11:20	KAIZEN Process Step 4: Identification of counter measures (Lecture)	Lecture	Dr. Kawalazira	4th step of KAIZEN process will be explained
35	13:05 - 15:10	KAIZEN Process Step 4: Identification of counter measures (Practice)	Practical session	Dr. Kawalazira (all)	Practice how to identify countermeasure(s) by utilizing Tree diagram and Matrix diagram
36	12:20 - 13:05	Lunch	-	-	-
37	13:05 - 14:10	KAIZEN Process Step 4: Identification of counter measures (Practice)	Practical session	Dr. Kawalazira (all)	Practice how to identify countermeasure(s) by utilizing Tree diagram and Matrix diagram
38	14:10 - 14:40	Group presentation on KAIZEN Step 4	Group presentation	Dr. Kawalazira	Group presentation on the results of practical session by each group
39	14:40 - 15:00	Tea Break	-	-	-
40	15:00 - 15:30	KAIZEN Process Step 5: Implementation of counter measures (Lecture)	Lecture	Mr. Phale	5th step of KAIZEN process will be explained
41	15:30 - 16:30	KAIZEN Process Step 5: Implementation of counter measures (Practice)	Practical session	Mr. Phale (all)	Practice how to develop implementation plan according to "5W1H"
Day 4: 30th October 2015 (Moderator: N. Miyamoto)					
42	07:30 - 08:00	Move to KCH from Crown Hotel	-	-	<i>* Thank you very much for your punctuality</i>
43	08:00 - 08:30	Participants' Registration	-	All	-
44	08:30 - 09:00	Group presentation on KAIZEN Step 5	Group presentation	Mr. Kawarazira	Practice how to develop implementation plan according to "5W1H"
45	09:00 - 09:40	KAIZEN Process Step 6: Check effectiveness of countermeasure (Lecture)	Lecture	Dr. Kawalazira	6th step of KAIZEN process will be explained
46	09:40 - 10:00	Tea Break	-	-	-

Act #	Time	Activities	Type	Responsible Person	Brief explanation of the topics
47	10:00 - 10:50	KAIZEN Process Step 6: Check effectiveness of countermeasure (Practice)	Practical session	Dr. Kawalazira (all)	Practice how to measure effectiveness of the implementation of the countermeasure(s), and identify effective countermeasures to be standardized
48	10:50 - 11:20	Group presentation on KAIZEN Step 6	Group presentation	Dr. Kawalazira	Group presentation on the results of practical session by each group
49	11:20 - 12:00	KAIZEN Process Step 7: Standardization of the effective countermeasures (Lecture)	Lecture	K. Nishikido	7th step of KAIZEN process will be explained
50	12:00 - 12:45	Lunch	-	-	-
51	12:45 - 13:30	KAIZEN Process Step 7: Standardization of the effective measures (Practice)	Practical session	K. Nishikido (all)	Practice to develop implementation plan of standardized countermeasure(s) to prevent recurrence of the problem
52	13:30 - 13:50	Group presentation on KAIZEN Step 7	Group presentation	K. Nishikido	Group presentation on the results of practical session by each group
53	13:50 - 14:50	Monitoring and Evaluation of KAIZEN	Lecture	Mr. Miyamoto	Explain levels of M&E, how to use M&E tools for KAIZEN
54	14:50 - 15:00	Way forward	Discussion	Mr. Phale, N. Miyamoto	Clarify way forward to start KAIZEN activities in the respective hospitals
55	15:00 - 15:25	Post Assessment	Paper assessment	Dr. Kawalazira, K. Nishikido	Paper assessment on 5S-KAIZEN-TQM Approach to measure participants' knowledge after the training
56	15:30 - 15:50	Course Evaluation	-	K. Nishikido	
57	15:50 - 16:20	Closing Ceremony	-	KCH	Certificate handing over ceremony, Official closing of the training by Deputy Directors of Kamuzu Central Hospital
58	16:20 - 16:40	Evening tea	-	All	-

Appendix 2: List of participants and facilitators

(1) Participants

No.	Office / Facility	Name	Title
1	Mzuzu Central Hospital	Stella Kumwenda	Nursing Officer
2		Fiskani Bota	Nursing Officer
3		Kelvin Chawawa	Lab Technician
4		Aubrey Nothale	Lab Technician
5	Kamuzu Central Hospital	Emmie Kamwana Jingini	Registered Nurse
6		Praise Magombo	Nursing Officer
7		Innocent Ndau	PAM Officer
8	Karonga District Hospital	Chimwemwe Mlenga	Maternity, Nurse
9		John Simbeye	Kitchen Assistant
10		Francis M. Kazembe	Messenger
11		Komani Moyo	Nurse
12	Mwanza District Hospital	Ruth Mkandawire	Nurse/Pediatric
13		Monica Mbengo	Administration
14		Kondwani Naison	Laboratory Technician
15		Feliciano Mkomaludzu	Theatre
16	Thyolo District Hospital	Chisomo Chirombo	Pharmacist
17		Maxwell Komwa	Kitchen
18		Esther Kalonga	Nurse/Labor ward
19		Barbara Ussein Thembakako	QIST member
20	Malamulo Mission Hospital	Beatrice Gunde	CHNM
21		Thokozani Sopa	NMT
22		Ruth Banda	QIST (Nursing Officer)
23		Kenneth Nyoni	Pediatric ward
25	Northern ZHSO	Nelson Z. Nkosi	Zone Supervisor
25	South Western ZHSO	Leonard Banda	Assistant Zone Supervisor
23	Central Western ZHSO	Alaizi Alice Nkhoma	Nursing Officer

(2) Facilitators

No.	Office / Facility	Name	Title
1	Ministry of Health	Enock Phale	Assistant Director (Clinical Service)
2	Mwanza District Health Office	Raphael Piringu	District Health Officer
3	Zomba District Health Office	Dr. Gift Kawalazira	District Health Officer
4	Kamuzu Central Hospital	Mathew Muhota	Clinical Officer
5	Ministry of Health /JICA	S. G. Aquino	JICA Expert
6	Ministry of Health /JICA	Noriyuki Miyamoto	JICA Expert
7	Ministry of Health /JICA	Kaori Nishikido	JICA Expert

(3) Observers

No.	Office / Facility	Name	Title
1	Thyolo District Hospital	Akane Fudo	JOCV - Nurse
2	Nthceu District Hospital	Junko Yamasaki	JOCV - Nurse
3	Mzimba District Hospital	Miki Yanagi	JOCV - Pharmacist
4	Manyamula Health Centre	Kaori Ikebe	JOCV - Public Health
5	Kasungu District Hospital	Sakiko Hamanaka	JOCV - Nutritionist
6	MoH – Nursing Services	Angela Chiotcha	QA Principle Officer
7	Kamuzu Central Hospital	Dorothy Kabambe	Chief Nursing Officer
8	JICA	Flora Nyirenda	Program Officer
9	JICA	Shinpei Akatsuka	Assistant Resident Representative

(4) Support staff

No.	Office / Facility	Name	Title
1	Kamuzu Central Hospital	Mcwiliam Kalua	Nurse
2	Kamuzu Central Hospital	Omipa	Cleaner
3	Thyolo District Hospital	Martha Rayson	Baby sitter
4	Central Western ZHSO	L. Mangani	Driver
5	South Western ZHSO	L. Manyangah	Driver
6	JICA	Jeffrey Apex	Driver
7	Northern ZHSO	Haward Qanany	Driver
8	Mzuzu Central Hospital	J Mhango	Driver
9	MOH	Kondwani Patrick	Driver
10	MOH	Tapiwa Kaunda	Driver



Republic of Malawi
Ministry of Health

Report on 5S Training of Trainers

From 17th November to 20th November 2015
At Kamuzu Central Hospital, Lilongwe

Experts on 5S-KAIZEN-TQM for Hospital Management



Japan International Cooperation Agency

1. Background

Ministry of Health (MoH) in collaboration with Japan International Cooperation Agency (JICA) have been rolling out 5S-KAIZEN-TQM Approach to health facilities in Malawi since 2007, aiming at improving health care services. As a result of the prior efforts of MoH and the health facilities, pleasantly 5S-KAIZEN-TQM Approach has been introduced to 25 health facilities are practicing 5S activities; three Central Hospitals, 15 District Hospitals, six Health Centers and one mission hospital. According to the national training cascade scheme, the training was conducted for the facilities which have been trained in the 5S Basic Training before. Additionally, some facilities, which show stagnation in terms of expansion of activities, were invited to the training. Furthermore, some senior maintenance supervisors were also invited to enhance 5S integration at PAM departments.

2. Outline of the training

2.1. Purpose of the training

To build the participants' knowledge and skills to conduct and facilitate an internal training on 5S in their facilities

2.2. Training objectives

At the end of the training, all participants are able to:

- Understand and review basic concepts of 5S-KAIZEN-TQM Approach
- Obtain practical skills on how to provide effective technical advices
- Obtain knowledge and skills how to facilitate internal 5S training
- Expand 5S activities in respective health facilities

2.3. Date and venue

Period and date of the training: 4 days from 17th November 2015 to 20th November 2015

Training venue: Seminar hall at Eye Department at Kamuzu Central Hospital (KCH)

2.4. Timetable of the training

All the planned activities were completed. See "Appendix 1: Timetable of "5S Training of Trainers".

2.5. Participants and facilitators (For details, see "Appendix 2: List of participant and facilitators")

(1) Participants

Total 25 persons participated in the training. The details of participation facilities and detailed number of the participants are shown as listed in the below.

#	Name of participating hospital and organization	Number of participants
1	Kamuzu Central Hospital	3
2	Muzuzu Central Hospital	3
3	Queen Elizabeth Central Hospital	4
4	Balaka District Hospital	3
5	Mangochi District Hospital	3
6	Mwanza District Hospital	1
7	Senior Maintenance Supervisors (Karonga DH, Mzuzu CH, Thyolo DH, Mwanza DH, Zomba DHO)	5
8	Central western Zonal Health Support Office	1
9	Southwestern Zonal Health Support Office	1
10	Northern Zonal Health Support Office	1

(2) Facilitators

Six facilitators were selected from the national facilitators of 5S-KAIZEN, and two JICA Experts supported the facilitators.

#	Name of facilitators' hospital and organization	Number of participants
1	Ministry of Health	2
2	Kamuzu Central Hospital	2
3	Dowa District Hospital	2
4	JICA Expert (Physical Assets Management)	1
5	JICA Expert (Expert on 5S-KAIZEN-TQM Approach for Hospital Management)	1

(3) Observers

Three JICA volunteers were participating in the training as observers.

#	Name of assigned health facility	Number of participants
1	Thyolo District Hospital	1
2	Ntcheu District Hospital	1
3	Kasungu District Hospital	1

2.6. Guest attendance

- Opening ceremony on 17th November 2015 by Dr. Chiwaula, Assistant Hospital Director of Kamuzu Central Hospital, and JICA programme officer who are in charge of Health Sector
- Closing ceremony on 20th November 2015 by Dr. Chiwaula, Assistant Hospital Director of of Kamuzu Central Hospital

3. Methodologies of the Training

The training was composed by “*Lecture discussion*” and “*Practical session (group work and group presentation)*” in order to attain the training purpose mentioned in the above.

- **Lecture discussion** aimed at equipping the participants with basic knowledge on all the topics related with 5S-KAIZEN-TQM approach, in particular 5S.
- **Practical session** aimed at equipping the participants with practical skills to give technical support for 5S activities and conduct monitoring and evaluation by utilizing the standardized checklist, and moreover, aimed at promoting mutual learning among the participants



The facilitators of the training utilized “*Facilitators’ Guide for 5S TOT*” for smooth and effective teaching.

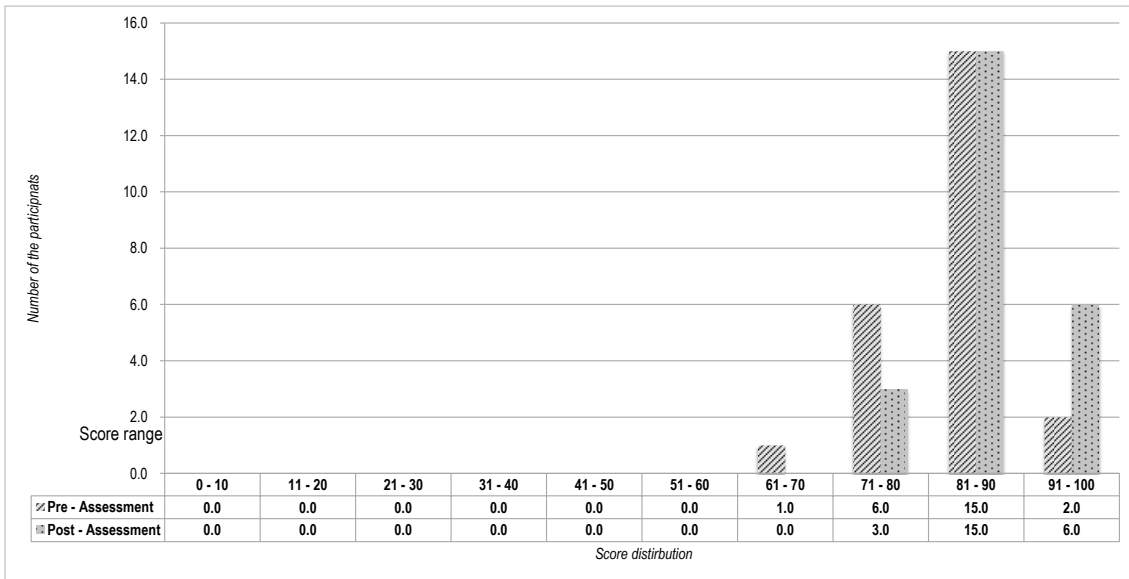
4. Results of pre and post course assessment, and course evaluation of the training

4.1. Score gaps of the pre and post course assessment

The pre and post course assessments were designed to identify the gap in the participants’ knowledge on 5S and how to facilitate a 5S internal training between before and after the training.

Improvement in the average score was observed as the average score from 84.9 (before the training) to 88.6 (after the training); This marginal improvement of the participants’ knowledge after the training (3.7%) can be attributed to already above average pre-training assessment score (84.9%).

The score distribution is shown in the following diagram.



4.2. Effect size (Δ) of the training

Based on the results of pre and post course assessment, Effect size (Δ) was calculated to measure effectiveness of the training. Effect size (Δ) is 0.62 that indicates medium effect as shown in the below.

	Average	Standard Deviation	Degree of freedom	T-test	P value
Pre	84.9	6.084221143	35	8.65	$p < .01$
Post	88.6	5.436218275			

Effect size (Δ)	Effect size report	Level of effect size
	.62	Effect size M

If Δ is over 0.5, it has meaning "effective" (Koizumi & Katagiri, 2007)

$|.20| \leq \text{small} <|.50|$ **Small effect**

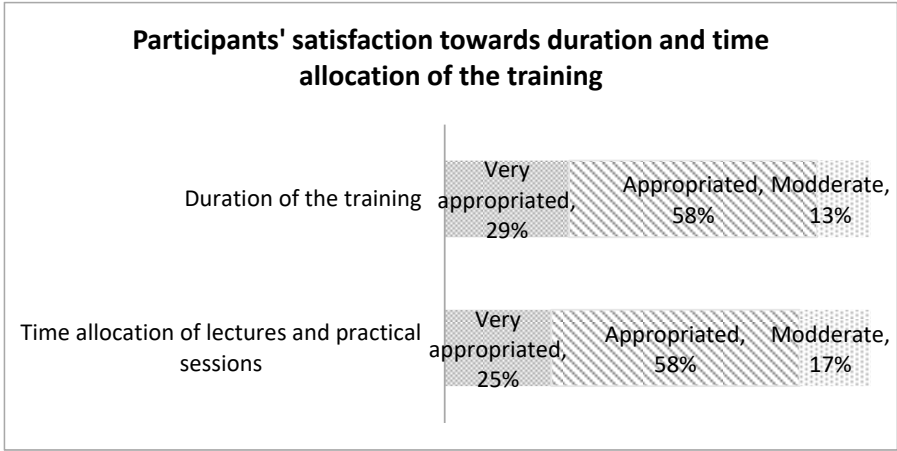
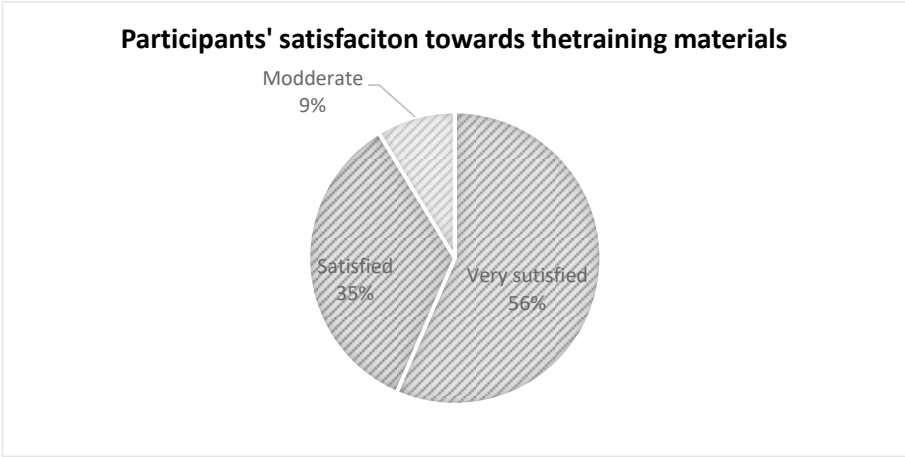
$|.50| < \text{medium} <|.80|$ **Medium effect**

$|.80| \leq \text{large}$ **Large effect**

Koizumi, R., & Katagiri, K. (2007). *Changes in speaking performance of Japanese high school students: The case of an English course at a SELHi. ARELE, 18, p.81-90.*

4.3. Course evaluation

Course evaluation was held in the end of the training, with 5-rated to each question on the evaluation sheet. Number of respondents was 27 out of 28 (96.5% of a total number of the participants and observers). As the following graphs shown below, over 80% of participants answered "very satisfied or satisfied" and "very appropriate or appropriate". Therefore, it is assumed that majority of participants were satisfied with the training materials and duration and time allocation, and delivery of the training modules.



In the questions regarding lectures and practical sessions, the majority of the participants answered that the lectures and practical sessions were “very helpful” or “helpful” as shown on the diagram below.

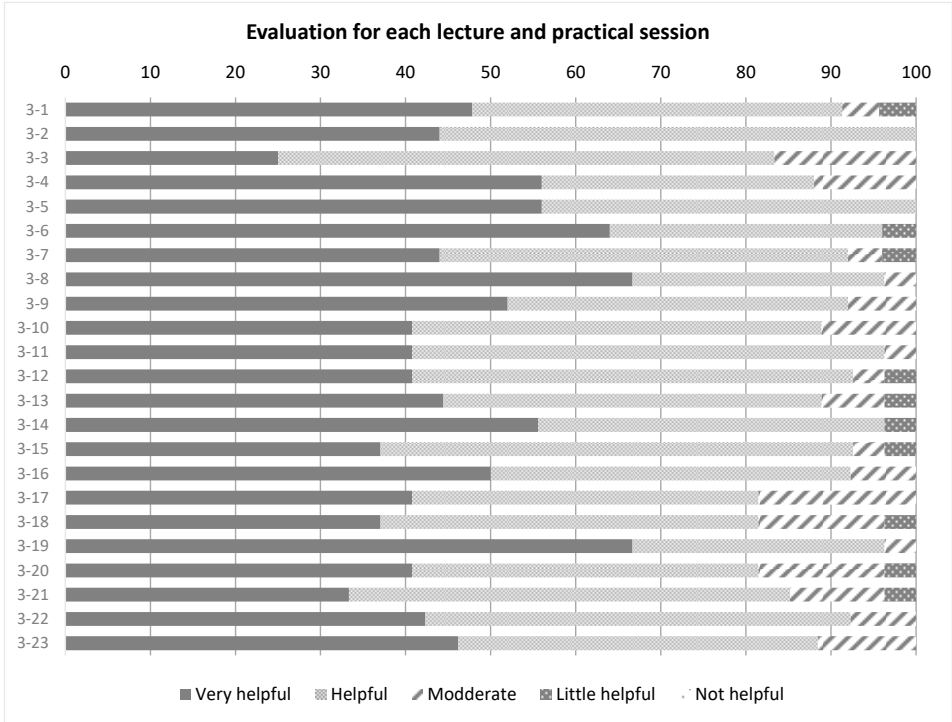


Table: List of lectures and practical sessions

3-1	Current situation of dissemination of 5S-KAIZEN-TQM approach and integration with other QAPs in Malawi
3-2	Quality and Safety in Healthcare
3-3	Responsiveness
3-4	Positive Attitude
3-5	Implementation steps of 5S
3-6	S1, S2 , S3, S4 and S5 activities
3-7	5S tools and Photo session
3-8	HPT (Hazard Prediction Training)
3-9	How to implement 5S activities
3-10	How to give effective technical advices for 5S activities (Group presentation)
3-11	How to give effective technical advices for 5S activities (Feedback presentation)
3-12	Making a plan and conducting 5S Basic Training
3-13	Roles and skills of facilitators
3-14	Team work/building
3-15	QIST and WIT
3-16	Monitoring & Evaluation of 5S-KAIZEN activities
3-17	Practice: Internal Supportive supervision
3-18	How to develop a feedback presentation
3-19	Development of Rader Chart and feedback presentation (Group work)
3-20	Group presentation on M&E results
3-21	Development of action plan (Lecture)
3-22	Development of action plan (Group work)
3-23	Present an developed action plan

Moreover, the participants gave overall comments to the training as follows:

- *The training was very good and helpful. This will motivate us a lot on 5S implementation.*
- *More practice on monitoring and evaluation is necessary.*
- *It was very hot at the room of training venue.*
- *Time allocation for positive attitude was short.*

5. Achievement

According to the results of pre and post course assessment, and participants' satisfaction towards the training, it can reasonably be assumed that the training was conducted successfully.

As the next step, it is expected that the participants will be confident to start to take an appropriate action for scaling up 5S activities within their facilities equipped with knowledge and skills after the training course.

Part of the program is for the participants to draft or revise the action plan for scaling up 5S activities for each facility. For some health facilities where the introduction of 5S is insufficient such as Mangochi DH, it included the activities for introductory phase into their action plans. The Ministry for its part has requested the participants to discuss the draft action plans with the hospital management and for the QIST to finalize the same. The finalized action plans shall be shared with the Ministry.

6. Way forwards

- **To continuously build capacity of national facilitators for 5S**

It was confirmed that all facilitators, who have gained sufficient experience through the previous training on 5S at national level, have demonstrated adequate facilitation and training management skills. However, to ensure the sufficient number of facilitators in the Ministry, new staff with potential who were trained on 5S, will be identified and invited as facilitators to national training courses in the future based on the national cascade training scheme.

- **To review and revise the training materials and timetable**

There are several comments towards the training materials and timetable from the facilitators. For example, "S1, S2, S3, S4 and S5" should not include too many 5S tools as there is already a topic on 5S tools. Timetable should start with core presentation such as 5S tool, and then the five S (S1, S2, S3...) followed by

other supporting presentations such as HPT and Positive attitude. All practical sessions should be in the afternoon. Taking into accounts the comments from the facilitators, the training materials and timetable shall be reviewed. Then, those shall be ideally revised based on the discussion and consensus among the facilitators in the future training. Good practices and experiences on S4 and S5 should also be given emphasis and if possible practical sessions. Although the example two days' training programme for an internal training course is given in the training material, it should be considered to give time to the participants to develop/write its training programme suitable to its needs.

- **To keep track the progress of expansion of 5S for participating facilities**

As mentioned in the former section, it is expected that the participating facilities will finalize the action plan and follow-up the plan to scale up 5S activities in their facilities. The Ministry as part of its mandate should follow-up the progress whether or not each facility has finalized its plan and proceed the activities based on the plan through supportive supervisions. Follow-up activity is one of important activities to support the hospitals to take root 5S-KAIZEN-TQM Approach.

- **To discuss on the possibility of the institutionalization of central hospitals as national training centres**

Kamuzu Central Hospital is not officially established as a national training centre, and the budget and personnel for implementing training courses have not been allocated. Therefore, this added work can be a burden to the hospital staff and hospital facilities. Also, the training schedule may possibly affect some programmes and activities of the hospital if not properly planned and coordinated.. For instance, the training started one hour later based on the initial timetable due to the hospital meeting on the last day.

Utilization of Kamuzu Central Hospital as the training venue for 5S and KAIZEN training courses are trial runs aimed to improve the functioning of implementing training programs such as 5s TOT course at the central hospitals, and the possibility of the institutionalization of central hospitals as national training centres needs to be discussed in the process of developing the TOR of the QMU and a revised Quality Assurance Policy as well as institutionalization of national trainers.

Also, 5S activities should be strengthened at KCH in order that the hospital can play its role as a training centre as well as a showcase and benchmark. For example, the hospital is required to provide the good practices to the participants so that it can be used for practical sessions on observational tour and monitoring and evaluation. This can be more effective in terms of time management and learning process absorption and retention by the participants/learners

- **To estimate necessary budget for trainings for budget planning purpose**

Necessary budget for trainings with general data on expense items shall be estimated for budget planning purpose. Also, it shall be clarified which organization such as the Ministry, the participating facilities, and the training centre is responsible to ensure budget for each expense item such as transport and accommodation (participants and trainers), production of training materials, training venue as well as clarification of roles and responsibilities for training in the process of developing the TOR of the QMU and implementation structure of Quality Assurance/Quality Improvement under QMU.

7. Acknowledgement

Ministry of Health acknowledges all the supports rendered by Kamuzu Central Hospital to host 5S Training of Trainers. The Ministry also expresses gratitude to the facilitators' team of the training to carry out the training effectively and efficiently. The Ministry further wishes to thank JICA for financial and logistic support

Appendix 1: Timetable of 5S Training of Trainers

Act #	Time	Activities	Type	Reponsible Person (Facilitator)	Brief explanation of the topics
Day 1: 17th November (Moderator: Ms. Kabambe)					
1	07:30 - 08:00	Move to KCH from Crown Hotel			
2	08:00 - 08:30	Registration		All	
3	08:30 - 08:45	Self introduction		All	
4	08:45 - 09:00	Opening remarks			
5	09:00 - 09:15	Objectives and logistics	Presentation	Nishikido	To explain objectives and logistics issues of the training
6	09:15 - 09:35	Pre course assessment	Paper assessment	Ms. Mwale/ Nishikido	To measure knowledge on QIP before the training course
7	09:35 - 10:25	Current situation of dissemination of 5S-KAIZEN-TQM approach and integration with other QAPs in Malawi	Lecture	Mr. Phale	To explain current situation of QAPs in Malawi
8	10:25 - 10:45	Tea break			
9	10:45 - 11:25	Implementation steps of 5S	Lecture	Mr. Muhota	To explain 5S implementation structure
10	11:25 - 12:25	S1, S2, S3, S4 and 5S activities	Lecture	Ms. Msowaya	To explain S1, S2, S3, S4 and 5S activities in detail
11	12:25 - 13:15	Lunch			
12	13:15 - 14:15	5S tools and Photo session	Lecture	Ms. Mwale	To explain 5S tools and effectively to improve working place
13	14:15 - 15:05	Quality and Safety in Healthcare	Lecture	Ms. Chiotcha	To explain necessity of quality and safety in health care facility
14	15:05 - 15:25	Tea break		All	
15	15:25 - 15:50	Responsiveness	Lecture	Ms. Kabambe	To explain non-health expectation of clients and how to meet with those needs and expectations
16	15:50 - 16:10	Positive Attitude	Lecture	Mr. Makamo	To explain how positive attitude is important
Day 2: 18th November 2015 (Moderator: Ms. Mwale)					
17	07:30 - 08:00	Move to KCH from Crown Hotel			
18	08:00 - 08:30	Registration			
19	08:40 - 09:20	HPT (Hazard Prediction Training)	Lecture	Mr. Makamo	To explain HPT and its methodology
20	09:20 - 09:50	Making a plan and conducting 5S Basic Training	Lecture	Ms. Kabambe	To explain how to make a plan and conduct 5S Basic Training
21	09:50 - 10:10	Roles and skills of facilitators	Lecture	Ms. Msowaya	To explain what roles and skills are for the facilitators
22	10:10 - 10:40	Team work/building	Lecture	Ms. Mwale	To explain team work and building
23	10:40 - 11:00	Tea break		All	
24	11:00 - 11:30	QIST and WIT	Lecture	Mr. Muhota	To explain roles and activities of QIST and WIT
25	11:30 - 12:00	Instruction on demonstration on 5S	Lecture	Nishikido	To explain methodology of 5S demonstration
26	12:00 - 12:50	Lunch			
27	13:00 - 14:00	How to implement 5S activities	Practice	All	To practice 5S activities by demonstration, and group presentation on how to teach 5S activities by demonstration
28	14:00 - 14:40	How to give effective technical advices for 5S activities (1)	Group presentation	Ms. Mwale/ Ms. Msowaya	To practice how to give effective technical advices for 5S activities
29	14:40 - 15:00	How to give effective technical advices for 5S activities (2)	Summary	Ms. Mwale/ Ms. Msowaya	To summarise on how to give effective technical advices for 5S activities
30	15:00 - 15:20	Tea break			
31	15:20 - 16:10	Monitoring & Evaluation of 5S-KAIZEN activities	Lecture	Mr. Makamo	To explain how to conduct M&E of 5S activities
32	16:10 - 16:20	Instruction on activity of next day	Lecture		To explain tomorrow's program
Day 3: 19th November 2015 (Moderator: Ms. Msowaya)					
33	07:30 - 08:00	Move to KCH from Crown Hotel			
34	08:00 - 08:30	Registration			
35	08:30 - 08:50	Presentation on experience of 5S activities at KCH			
36	08:50 - 09:10	How to develop a feedback presentation	Lecture, practice	Nishikido	To explain how to visualize the results of M&E score by using "Rader Chart" and develop a feedback presentation
37	09:10 - 09:20	Instruction on Internal Supportive supervision	Practice	Nishikido	To explain methodology of practical session "internal M&E"
38	09:20 - 11:00	Practice: Internal Supportive supervision	Practice	All	To practice internal supportive supervision for 5S activities by using M&E sheet in some hospital areas
39	11:00 - 11:20	Tea break			
40	11:20 - 12:10	Development of Rader Chart and feedback presentation (1)	Practice	All	To discuss and compile the results of M&E, and develop rader chart
41	12:10 - 13:00	Lunch			
42	13:00 - 14:00	Development of Rader Chart and feedback presentation (2)	Practice	All	To discuss and compile the results of M&E, and develop rader chart
43	14:00 - 15:00	Group presentation on M&E results	Group presentation	Mr. Makamo	
44	15:00 - 15:20	Tea break			
45	15:20 - 16:20	Development of action plan	Lecture	Mr. Phale	To explain how to develop action plan
Day 4: 20th November 2015 (Moderator: Mr. Makamo)					
46	07:30 - 09:00	Development of action plan (1)	Practice	All	To develop (or revise) an action plan
47	09:00 - 09:30	Registration			
48	09:30 - 10:30	Development of action plan (2)	Practice	All	To develop (or revise) an action plan
49	10:30 - 10:50	Tea break			
50	10:50 - 12:00	Present an developed action plan	Group presentation	Mr. Muhota/ Ms. Msowaya	To have a presentation on developed action plan by each health facility
51	12:00 - 12:20	Post course assessment	Paper assessment	Ms. Kabambe/ Ms. Mwale	To measure knowledge on QIP after the training course
52	12:20 - 12:50	Training evaluation	Evaluation	Nishikido	
53	12:50 - 13:10	Closing ceremony and certificate handing over			
54	13:10 - 13:15	Group Photo		All	
55	13:15 - 14:00	Lunch		All	

Appendix 2: List of participants and facilitators

(1) Participants

No.	Office/ Facility	Name	Title
1	Mzuzu Central Hospital	Wilson Katete	Senior Maintenance Supervisor
2	Mzuzu Central Hospital	Victoria Amisi	Registered Nurse and Midwife
3	Mzuzu Central Hospital	Teleza Mtheto Nyirenda	Nurse Midwife Technician
4	Mzuzu Central Hospital	Ellen Chipeta	Laboratory Technician
5	Kamuzu Central Hospital	Grycian Massa	Maintenance Officer
6	Kamuzu Central Hospital	Ellen Chiluzi	Laundry
7	Kamuzu Central Hospital	Marynea Kamzati	Ethel Mutharika Maternity Wing
8	Queen Elizabeth Central Hospital	Dorothy Kamalizeni	Principle Nursing Officer
9	Queen Elizabeth Central Hospital	Yanjanani Mawindo	Nursing Officer
10	Queen Elizabeth Central Hospital	Febbie Tambala Jamieson	Senior Nursing Officer
11	Queen Elizabeth Central Hospital	Tinnie Mthuzi	Nursing
12	Balaka District Hospital	Patricia Zamasiya	QIST member
13	Balaka District Hospital	Jessie Chokani	Pediatric
14	Balaka District Hospital	Evelyn Juwawo	Female Ward
15	Mangochi District Hospital	Simeon Mulewa	Clinitian (Dental)
16	Mangochi District Hospital	Shaarifa Senga	Nurse (Male Ward)
17	Mangochi District Hospital	Zuhra Chilambula	Patient Attendant (Children Ward)
18	Mwanza District Hospital	Dawira Phiri	Hospital Matron
19	Zomba DHO	Collins Gama	Senior Maintenance Supervisor
20	Mwanza DHO	Grestone Chavinda	Senior Maintenance Supervisor
21	Thyoo DHO	Justin Madzedze	Senior Maintenance Supervisor
22	Karonga DHO	Macdonald Kamwela	Senior Maintenance Supervisor
23	Nothern ZHSO	Dennis Mwagomba	EPI Officer
24	Central Western ZHSO	Alice Nkhoma	Zonal Nursing Officer
25	South Western ZHSO	Hastings Ntutha	Zonal Radiology Supervisor

(2) Facilitators

No.	Office/ Facility	Name	Title
1	Ministry of Health	Enock Phale	Assisstant Director, Clinical
2	Ministry of Health	Angeline Chiotcha	Principle Nursing Officer (QA)
3	Kamuzu Central Hospital	Dorothy Kabambe	Chief Nursing Officer
4	Kamuzu Central Hospital	Rose Msowaya	State registered nurse/Midwife
5	Dowa District Hospital	Kandakuone Makamo	Laboratory Technician
6	Dowa District Hospital	Monica Mwale	Nurse and Midwife
7	Ministry of Health /JICA	S. G. Aquino	JICA Expert
8	Ministry of Health /JICA	Kaori Nishikido	JICA Expert

(3) Observers

No.	Office/ Facility	Name	Title
1	Thyolo District Hospital	Akane Fudo	JICA Volunteer- Nurse
2	Nthceu District Hospital	Junko Yamasaki	JICA Volunteer- Nurse
3	Kasungu District Hospital	Sakiko Hamanaka	JICA Volunteer- Nutritionist
4	JICA	Flora Nyirenda	Programme officer

(4) Support staff

No.	Office/ Facility	Name	Title
1	Kamuzu Central Hospital	Christina Mwale	Cleaner
2	Kamuzu Central Hospital	Allan Kamfosi	Medical Physicist
3	Kamuzu Central Hospital	Fielda Lunguzi	Laundry
4	Kamuzu Central Hospital	Ellenwell Moyo	EMHDU
5	MOH	Tapiwa Kaunda	Driver
6	MOH	Willy Chagwira	Driver
7	NZHSO	Daniel Kumozwda	Driver
8	MOH	Mussa Cguyta	Driver
9	MOH	W. Josephy	Driver
10	SWZ	A. Mkwamba	Driver
11	JICA	Justin Msyamizoza	Driver



Republic of Malawi

The Project for 5S-KAIZEN-TQM
for
Hospital Management

Report on the 5S Basic Training

at Kamuzu Central Hospital

February 2016

1. Objectives

(1) For Participants

- 1) To disseminate necessary knowledge and skills on 5S
- 2) To commence 5S activities in pilot areas in each hospital
- 3) To conduct internal 5S training
- 4) To understand monitoring and evaluation of 5S activities

(2) For Facilitators

- 1) To obtain and enhance knowledge and skills for facilitating a training on 5S as national facilitators

(3) For QIST staff of Kamuzu Central Hospital (KCH)

- 1) To organize the training such as series of work from preparation to implementation

2. Outline

(1) Date and Venue: From 9th to 12th February, 2016

Date	Main Activity	Venue
9 th February (Tue)	Introduction of 5S-AKIZEN-TQM Approach and demonstration on 5S	Kamuzu Central Hospital (Lilongwe)
10 th February (Wed)	Responsiveness / Team building / Facilitation / Hazard Prediction Training	
11 th February (Thu)	Monitoring and Evaluation of 5S activities at Kamuzu Central Hospital	
12 th February (Fri)	Development of Action Plan	

*Time table is shown as Appendix 1

(2) Participants and Facilitators

1) Participants: 34 participants

Six new hospitals (Level 0) were selected to install 5S were invited to the training with participants from KCH (6 people). And six Japanese Volunteers who are working in health facilities in Malawi were also invited. The total number of the participants was 27, and the categories of the participants are shown as Table 1.

Table1: The Category of the Participants

Facility / Organisation	The number of participants / Category
Hospitals that will newly install 5S	
Zomba CH	Total: 24 (4 participants from each hospital) *1 from Senior Management, 3 from QIST members
Chitipa DH	
Nkhota Khota DH	
Kasungu DH	
Mangochi DH	
Mulanje DH	
Kamuzu Central Hospital	
6 participants	(Nurse / Laundry / Kitchen / Pharmacy / PAM)
Japan Overseas Cooperation Volunteers	
	6 JOCVs

2) Facilitators

- Enoch Phale Mr. (Assistant Director, Clinical Services, MOH)
- Anseline Angela Chiotcha Mrs. (Principal Nurse Officer of NS, IPC, MOH)
- Dorothy Kabambe Mrs. (Chief Nursing Officer, KCH)
- Rose Msowaya Mrs. (State Registered Nurse and Midwife, KCH)
- Lucy Chigwerembe Mrs. (Chief Nursing Officer, Queen Elizabeth Central Hospital)
- Chisomo Phethi Jere Mrs. (Senior Nursing Officer, Mzimba South DH)
- Shuichi Suzuki Mr. (JICA Expert)

(3) Methodology of the training

Lectures, Practices, Pre/Post-assessment and Course evaluation

(4) Guest Attendance

Opening ceremony (9th February)

- Deputy Director of KCH
- Deputy Resident Representative of JICA Malawi

3. Results of pre and post assessment

The table below shows scores of pre and post-assessment. 67 percent of the participants got increased or maintained their score. Although increases of scores was slight, it was admitted that their understandings on 5S and Quality Assurance Programme.

Table 2: The results of Pre and Post assessment

	Pre	Post
Average score	26.0	26.4
Number of participants improved the score	-	15 (42%)
Number of participants maintained the score		9 (25%)
Number of participants decline score	-	10 (6%)
Number of participants who did not took pre or post assessment		2 (6%)

4. Results of Course Evaluation

30 participants answered the question regarding training materials. Satisfactions towards the training materials, duration of the training and time allocation of each lecture and practice are relatively high as the results indicates that more than 90% of the respondents is satisfied. The satisfaction towards overall training is significantly high, and more than 80% of participants is satisfied with each lecture and practice.

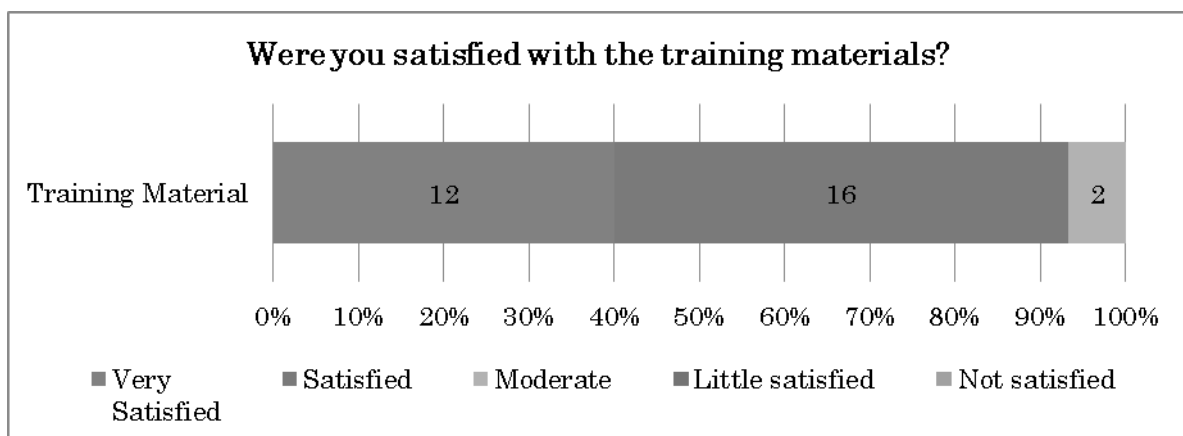


Diagram 1: Satisfaction towards the training materials

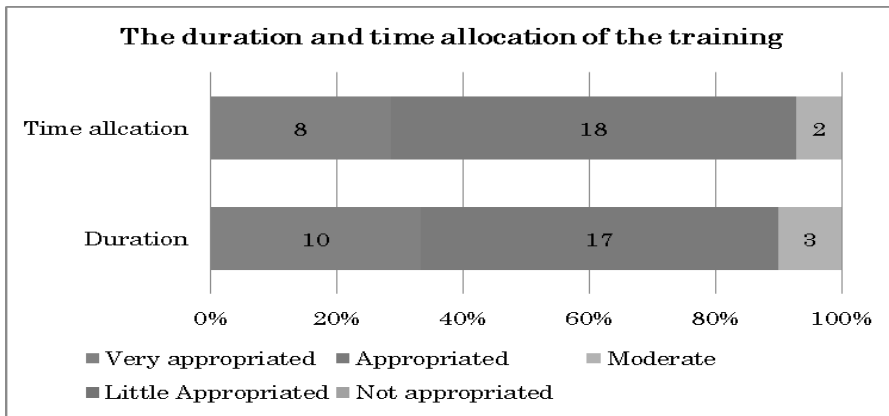


Diagram 2: Appropriation of duration and time allocation of the training

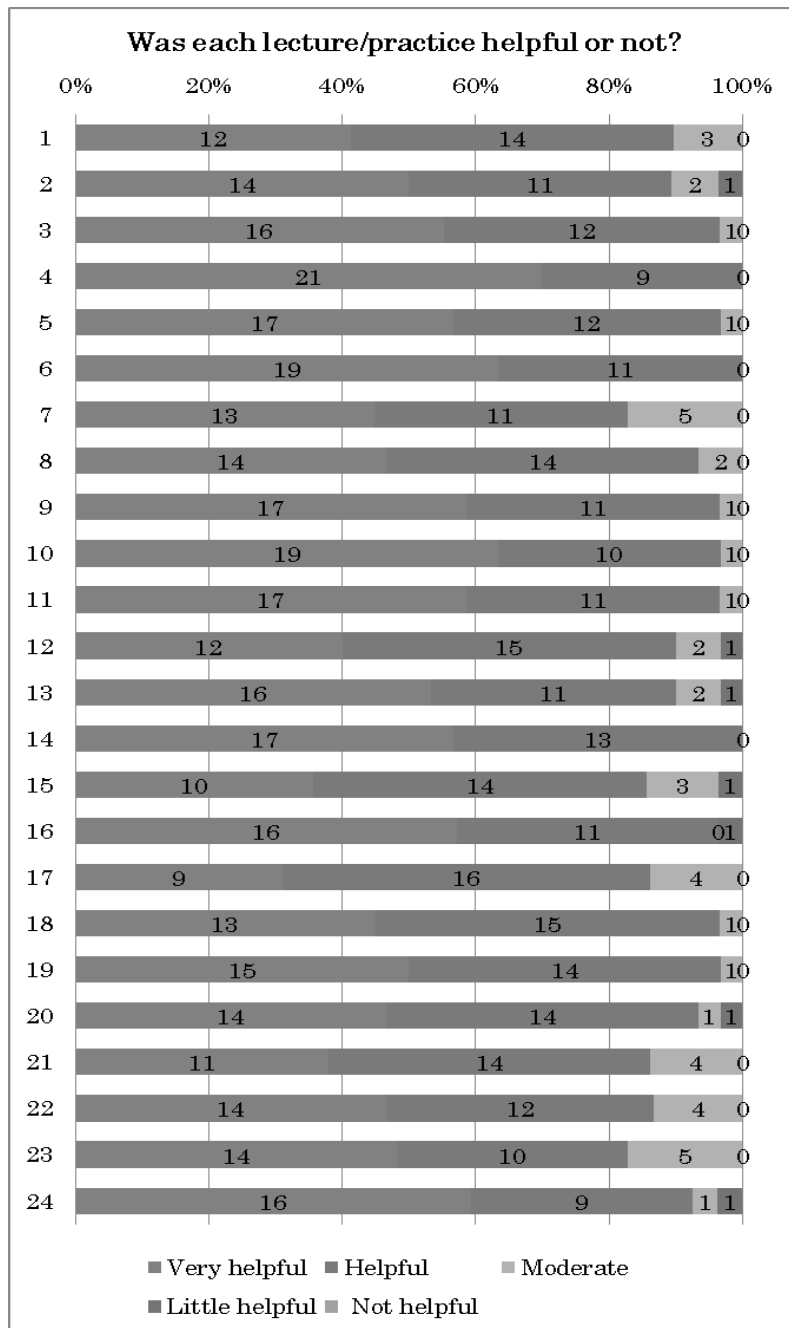


Diagram 3: Satisfaction towards each lecture and practice of the training

*Subject/Activity are shown as the following table.

Table 3: Category of Subject and Activity of course evaluation sheet

No	Subject/Activity
1	Current situation of QAPs in Malawi
2	Quality and Safety in Healthcare
3	5S implementation steps
4	S1, S2, S3, S4 and S5 activities
5	5S tools
6	How to implement 5S activities
7	Review how to do 5S
8	QIST and WIT
9	Team work and Team building
10	Responsiveness
11	Positive Attitude
12	Making Plan and conducting 5S training
13	Role and responsibility of facilitators
14	HPT (Hazard Prediction Training)
15	Monitoring & Evaluation
16	Experience of 5S activities from Kamuzu Central Hospital
17	How to use M&E sheet
18	How to make Rader Chart and Feedback presentation
19	M&E of 5S activities at Kamuzu Central Hospital
20	Development of Rader Chart and feedback presentation (Practice)
21	Group presentation on observation results
22	Development of action plan
23	Development of action plan (Group work)
24	Group presentation

Lectures of “7. Review how to do 5S”, “15. Monitoring & Evaluation “, “17. How to use M&E sheet “ and “22. Development of action plan”, and practices of “21. Group presentation on observation results” and “23. Development of action plan” has slightly lower score satisfaction.

5. Achievements

(1) For Participants

- 1) **To disseminate necessary knowledge and skills on 5S to the participants in each of the hospital and organization**

The improvement of the results of post assessment is relatively low; however, response and demonstration of the participants in the lectures and practice indicated that their understanding on the concept of 5S-KAIZEN-TQM approach and the way of installation and implementation.

In this 5S basic training, some lectures which have been developed for 5S Training of Trainers (TOT) were added for smooth dissemination of 5S activities into the target hospitals. Unfortunately, the contents from 5S TOT such as “Monitoring & evaluation”, “How to use M&E sheet” were low satisfaction compared to the other contents.

Since it is planned to integrate 5S Basic training and 5S TOT in near future, the contents of M&E need to be modified toward more user friendly.

From the comments on the evaluation, many participants commented an eye opened concept. And then the participants enhanced their understandings on 5S deeply through interactive lecture and practice.

- 2) **To commence 5S activities at pilot areas in each hospital**

Follow up through supportive supervision is necessary, but the training results have started to be recognized.

Hospital	Pilot area
Zomba Central Hospital	Laundry / Maintenance
Nkhotakota District Hospital	Pediatric ward, Dental department, Pharmacy department
Mulanje District Hospital	Pediatric ward / Maintenance department
Kasungu District Hospital	Accident and Emergency Area / Pediatric ward / Laboratory / Maintenance
Machinga District Hospital	Male Ward / Postnatal Ward / Stores Department

Chitipa District Hospital	Labour Ward / Male Ward / Maintenance Department
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3) To conduct internal 5S training

Follow up through supportive supervision is necessary, and some technical inputs such as dispatch the trainers, are necessary for smooth implementation of the training.

4) To understand monitoring and evaluation of 5S activities

Through the practice of M&E tool and report, most of all participants understood how to use the monitoring check list and how to develop the radar chart. However mind of the participants for the scoring is not objective and then the scores in the showcase department were higher than one of facilitators' expectations.

(2) For Facilitators

1) To obtain and enhance knowledge and skills for facilitating a training on 5S as national facilitators

Two out of six facilitators from hospitals got new experience of facilitating on 5S at national level. One experienced facilitator could help them to enhance their knowledge and skills through the training, and the facilitators' workshop, which was conducted one day before the training, was also contributed to have common understanding about each lecture among the facilitators and improve some presentations.

(3) Remarks

First of all, the demonstration of 5S as well as the 5S Basic training conducted on June 2015. The several items were prepared as four departments such as ward, general store, linen room and administration in cooperation with Kamuzu Central Hospital. It was helpful for the participants to understand how to use 5S tools as actual implementation.

Secondly, observation visit in Kamuzu Central Hospital were conducted on the third day for utilizing monitoring & evaluation tool. Through the observation, the participants could have positive aspects towards 5S activities. The participants could observe how 5S could contribute to improve work environment through observation.

6. Lesson learnt

(1) Duration of the training and time allocation

Satisfaction towards each lecture and practice was remarkably high as well as duration and time allocation. The time allocation of some lectures and overall time table were revised in facilitators' meeting and then, training was conducted on schedule except presentation of Action Plan. For the preparation and presentation of the action plan, it is better to allocate more time on the fourth day. Also, logistics and each roles and responsibilities of facilitators should be strengthened and more clarified because some facilitators were working hard but others were just listening to the lectures.

(2) Training materials

Training materials, especially each presentation, was improved and standardized; however, all presentation slides should be reviewed and revised to be more standardized and to be improved to be more effective lecture continuously.

6. Way forward

5S training is divided into two trainings based on implementation phase such as 5S Basic Training and 5S ToT. However, we are considering integration of both trainings near future under the integration of Quality Assurance Programs. For the internal training of 5S and expansion of the 5S implementing department are supported through the supervision by Zonal Health support Office.

Appendix 1: Timetable of the training

Timetable of 5S Basic Training						
From 9th to 12th February 2016 @ Kamuzu Central Hospital						
Act #	Time	Activities	Type	Brief explanation of the topics	Facilitator	Training Venue
Day 1: 9th February						
	08:30 - 09:00	Move to KCH from Crown Hotel				
1	09:00 - 09:15	Registration				
2	09:15 - 09:30	Self introduction				
3	09:30 - 09:45	Opening remarks			Hospital Director JICA	
4	09:45 - 09:50	Objectives and logistics	Presentation	To explain objectives and logistics issues of the training	Suzuki	
5	09:50 - 10:10	Pre course assessment	Paper assessment	To measure knowledge on QIP before the training	Lucy	
6	10:10 - 10:30	Current situation of QAPs in Malawi	Lecture	To explain current situation of QIPs in Malawi	Phale	
7	10:30 - 10:50	Tea break				
8	10:50 - 11:20	Quality and Safety in Healthcare	Lecture	To explain necessity of quality and safety in health care facility	Angera	
9	11:20 - 12:05	S1, S2, S3, S4 and S5 activities	Lecture	To explain S1, S2 and S3 activities	Chisomo	
10	12:05 - 12:35	5S tools	Lecture	To explain 5S tools and effectively to improve working place	Rose	
11	12:35 - 13:10	5S implementaiton steps	Lecture	To explain overview of 5S steps	Lucy	
12	13:10 - 14:10	Lunch				
13	14:10 - 16:00	How to implement 5S activities	Practice, Group presentation	To practice 5S activities by demonstration	Chisomo / Rose	
14	16:00 - 16:20	Tea break				
Day 2: 10th February						
	08:30 - 09:00	Move to KCH from Crown Hotel				
15	09:00 - 09:15	Registration				
16	09:15 - 09:35	Review how to do 5S	Lecture	To show the picture of 5S	Suzuki	
17	09:35 - 10:05	QIST and WIT	Lecture	To explain 5S tools and effectively to improve working place	Chisomo	
18	10:05 - 10:25	Team work and Team buidling	Lecture	To explain team work and building	Rose	
19	10:25 - 10:45	Tea break				
20	10:45 - 11:15	Responsiveness	Lecture	To explain non-health expectation of clients and how to meet with those needs and expectation	Kabambe	
21	11:15 - 11:45	Positive Attitude	Lecture	To explain importance of positive attitude	Kabame	
22	11:45 - 12:15	Making Plan and conducting 5S training	Lecture	To explain how to disseminate 5S concept in the hospital	Suzuki	
23	12:15 - 12:45	Role and responsibility of facilitators	Lecture	To explain facilitator's role and necessity of facilitation in 5S	Lucy	
24	12:45 - 13:45	Lunch				
25	13:45 - 14:45	HPT (Hazard Prediction Training)	Lecture, Practice	To explain HPT and its methodology	Angera	
26	14:45 - 15:45	Monitoring & Evaluation	Lecture	To understand M&E for 5S-KAIZEN activities	Rose	
27	15:45 - 16:05	Tea break				
Day 3: 11th February						
	08:30 - 09:00	Move to KCH from Crown Hotel				
28	09:00 - 09:15	Registration				
29	09:15 - 09:45	Experience of 5S activities from Kamuzu Central Hospital	Presentation	To explain and share experience of 5S activities at a hospital	Rose	
30	09:45-10:05	How to use M&E sheet	Lecture	To undershtad How to use M&E Sheet	Phale	
31	10:05-10:25	How to make Rader Chart and Feedback presentation	Lecture	To understand how to develop rader charts and Feedback presentation	Suzuki	
32	10:25 - 10:45	Tea break				
33	10:45 - 10:55	Explanation of observation	Lecture		Rose	
34	10:55 - 12:15	M&E of 5S activities at Kamuzu Central Hospital	Practice	To evaluate 5S activities using M&E check sheet	All	5S Pilot Area
	12:15 - 13:00	Development of Rader Chart and feedback presentation (Practice)	Practice		All	
35	13:00 - 14:00	Lunch				
36	14:00 - 15:30	Group presentation on observation results	Practice	Each group will develop feed back reprt and present the results and share with all participants	All	Conference Room
37	15:30 - 16:00	Development of action plan	Lecture	To explain how to develop an action plan	Lucy	
38	16:00- 16:20	Tea break				
Day 4: 12th February						
39	08:00 - 09:00	Development of action plan	Practice	To develop an action plan	All	At Hotel
	09:00 - 09:30	Move to KCH from Crown Hotel				
40	09:30-10:30	Development of action plan	Practice	To develop an action plan	All	
41	10:30 - 11:00	Tea break / registration				
42	11:00 - 12:30	Group presentation	Group presentation	To present action plan by each health facility	All	
43	12:30 - 12:50	Post course assessment, Training evaluation	Paper assessment, Evaluation	To measure knowledge on QAP after the training, Training evaluation	Chisomo	
44	12:50 - 13:15	Closing ceremony		Course summary, Certificate handing over	Hospital Director	
45	13:15	Lunch				

Appendix 2: Participant list

No.	Hospital	Name	Title
1	Zomba CH	Ms. Tawonga Chitaya	SNO
2	Zomba CH	Mr. Helson Semu Banda	CO
3	Zomba CH	Mr. Antonio Kamanga	Administration
4	Zomba CH	Ms. Gertrude Masinga	CNO
5	Kamuzu CH	Ms. Harriet Muleke	Kitchen
6	Kamuzu CH	Ms. Fieda Lunguzi	Laundry
7	Kamuzu CH	Ms. Olive Banda	CHNMT
8	Kamuzu CH	Ms. Tayamika Zalinga Phiri	NO
9	Kamuzu CH	Mr. Brave M. Chibambo	PAM Clerk
10	Kamuzu CH	Ms. Tadala Hamsi	Principal Pharmacist
11	Chitipa DH	Richman Gondwe	5S Coordinator (NO)
12	Chitipa DH	Mr. Enock Chiphwanya	5S deputy Coordinator (MET)
13	Chitipa DH	Mr. Richard Kaunda	NO
14	Ksungu DH	Beatrice Kaluwa	SNO
15	Ksungu DH	Dr. (Ms.) Ireen Kamwaza	DMO
16	Ksungu DH	Acbrian Nyasuru	DT
17	Ksungu DH	Mr. Ramsey W.D. Selemeni	CS
18	Nkhota Nkota DH	Mr. Martin Katanga	SCO
19	Nkhota Nkota DH	Mr. Samuel Ndhlovu	SNMT
20	Nkhota Nkota DH	Mr. Jotham Nyasulu	SNO
21	Nkhota Nkota DH	Happy Manda	Labo
22	Machinga DH	Mr. Maclean Changadeya	Senior Nursing Officer
23	Machinga DH	Ms. Eletina Sankhulani	Nursing Officer
24	Machinga DH	Ms. Nolia Chinkhwiri	Nursing Officer
25	Machinga DH	Mr. Shadreck Kaunda	Senior Store Supervisor
26	Mulanje DH	Ms. Agness Namangale	Nurse / Midwife
27	Mulanje DH	Mr. Samuel Kanyemba	Senior Nursing Officer
28	Mulanje DH	Mr. Benard Selemeni	Chief Catering Officer
29	Mulanje DH	Mr. Sangwani Mkandawire	Laboratory Technician
30	Kasungu DH	Ms. Sakiko Hamanaka	JOCV / Nutrition
31	Ncheu DH	Ms. Junko Yamasaki	JOCV / Nurse
32	QE CH	Mr. Kohei Shiota	JOCV Pharmacy
33	Thyolo DH	Ms. Sayaka Hattori	JOV / Pharmacy
34	Jenda HC	Ms. Izumi Kasai	JOCV / Public Health
35	Mzuzu CH	Ms. Miho Okabe	JOCV / Nurse

Appendix 3: Pictures of the training



Opening Ceremony



Lecture (Quality and Safety)



Group Work



Notice board (X-Y axis)



Example of Visual Control



Group Work



Lecture (Responsiveness)



Energizing Work



Lecture (Team Building)



Lecture and Practice (Hazard Prediction)



Monitoring of Showcase Department



Using Available Resources (Eye department)



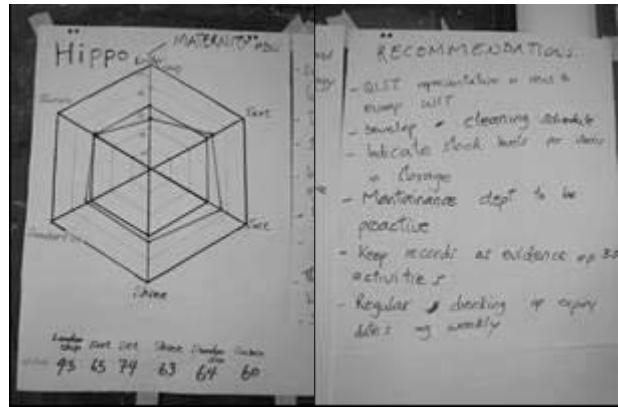
Monitoring of Showcase Department (2)



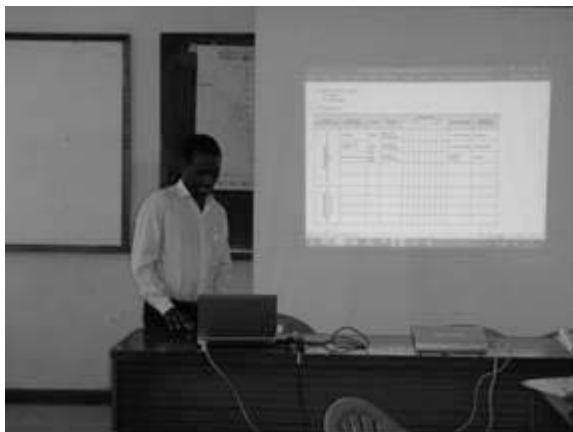
Monitoring of Showcase Department (3)



Developing Feedback Presentation



Feedback Presentation



Presentation of Action Plan



Group Photo



Republic of Malawi
Ministry of Health

Report on 5S Training of Trainers

From 26th April to 29th April 2016
At Kamuzu Central Hospital, Lilongwe

Experts on 5S-KAIZEN-TQM for Hospital Management



Japan International Cooperation Agency

1. Background

Ministry of Health (MoH) in collaboration with Japan International Cooperation Agency (JICA) have been rolling out 5S-KAIZEN-TQM Approach to health facilities in Malawi since 2007, aiming at improving health care services. As a result of the prior efforts of MoH and the health facilities, pleasantly 5S-KAIZEN-TQM Approach has been introduced to 30 health facilities are practicing 5S activities; all 4 Central Hospitals, 19 District Hospitals, 6 Health Centers and 1 mission hospital. Based on the results of the last training conducted in February 2016, the training included some components of 5S Training of Trainers in this training.

2. Outline of the training

2.1. Objectives

(1) For Participants

- 1) To disseminate necessary knowledge and skills on 5S
- 2) To commence 5S activities in pilot areas in each hospital
- 3) To conduct internal 5S training
- 4) To understand monitoring and evaluation of 5S activities

(2) For Facilitators

- 1) To obtain and enhance knowledge and skills for facilitating a training on 5S as national facilitators

(3) For QIST staff of Kamuzu Central Hospital (KCH)

- 1) To organize the training such as series of work from preparation to implementation

2.2. Date and venue

Period and date of the training: 4 days from 26th April 2016 to 29th April 2016

Training venue: Seminar hall at Eye Department at Kamuzu Central Hospital (KCH)

2.3. Timetable of the training

All the planned activities were completed. See “Appendix 1: Timetable of “5S Basic Training”.

2.4. Participants and facilitators (For details, see “Appendix 2: List of participant and facilitators”)

(1) Participants

Total 15 persons participated in the training. The details of participation facilities and detailed number of the participants are shown as listed in the below.

#	Name of participating hospital and organization	Number of participants
1	Kamuzu Central Hospital	4
2	Likoma DHO	1
3	Mchinji District Hospital	3
4	Lilongwe DHO (Bwaila Hospital)	3
5	Mua Hospital	4

(2) Facilitators

Six facilitators were selected from the national facilitators of 5S-KAIZEN, and one JICA Expert supported the facilitators.

#	Name of facilitators' hospital and organization	Number of participants
1	Ministry of Health	2
2	Kamuzu Central Hospital	2
3	Mzimba District Hospital	1
4	Mzuzu Central Hospital	1
5	JICA Expert (Expert on 5S-KAIZEN-TQM Approach for Hospital Management)	1

(3) Observers

One JICA volunteers was participating in the training as an observer.

#	Name of assigned health facility	Number of participants
1	Karonga District Hospital	1

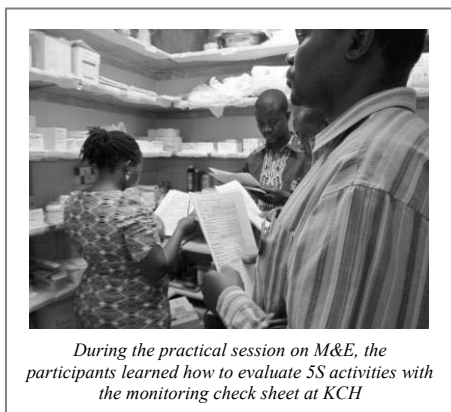
2.5. Guest attendance

- Opening ceremony on 26th April 2016 by Dr. Andrew Likaka, Head of Quality Management Unit
- Closing ceremony on 29th April 2016 by Dr. Andrew Likaka, Head of Quality Management Unit

3. Methodologies of the Training

The training was composed by “*Lecture discussion*” and “*Practical session (group work and group presentation)*” in order to attain the training purpose mentioned in the above.

- **Lecture discussion** aimed at equipping the participants with basic knowledge on all the topics related with 5S-KAIZEN-TQM approach, in particular 5S.
- **Practical session** aimed at equipping the participants with practical skills to give technical support for 5S activities and conduct monitoring and evaluation by utilizing the standardized checklist, and moreover, aimed at promoting mutual learning among the participants



During the practical session on M&E, the participants learned how to evaluate 5S activities with the monitoring check sheet at KCH

The facilitators of the training utilized “**Facilitators’ Guide for 5S Basic Training**” for smooth and effective teaching.

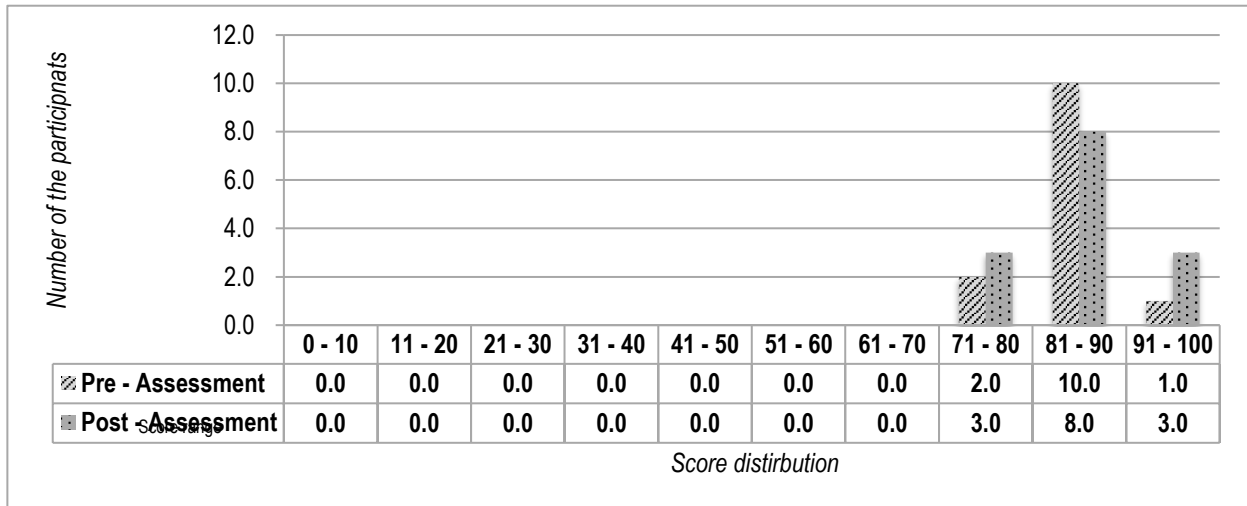
4. Results of pre and post course assessment, and course evaluation of the training

4.1. Score gaps of the pre and post course assessment

The pre and post course assessments were designed to identify the gap in the participants’ knowledge on 5S and how to facilitate a 5S internal training between before and after the training.

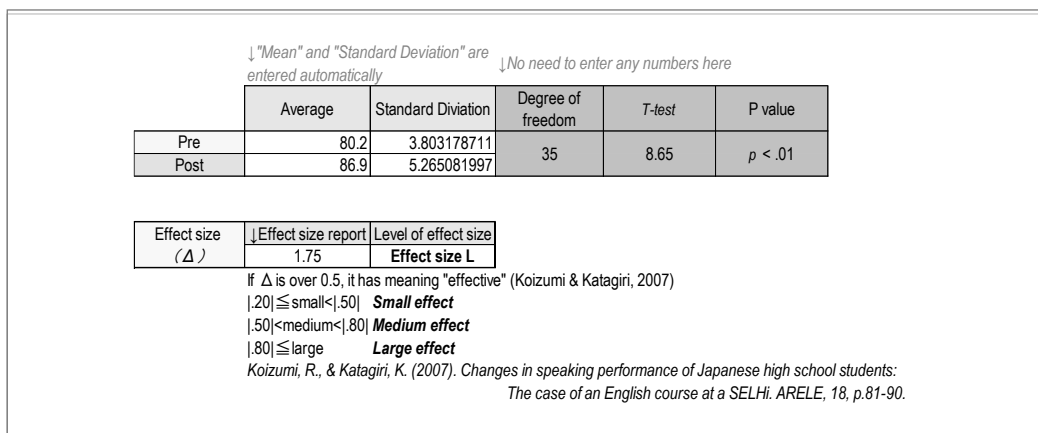
Improvement in the average score was observed as the average score from 80.2 (before the training) to 86.9 (after the training). This marginal improvement of the participants’ knowledge after the training is 6.7% attributed to already above average pre-training assessment score (84.9%).

The score distribution is shown in the following diagram.



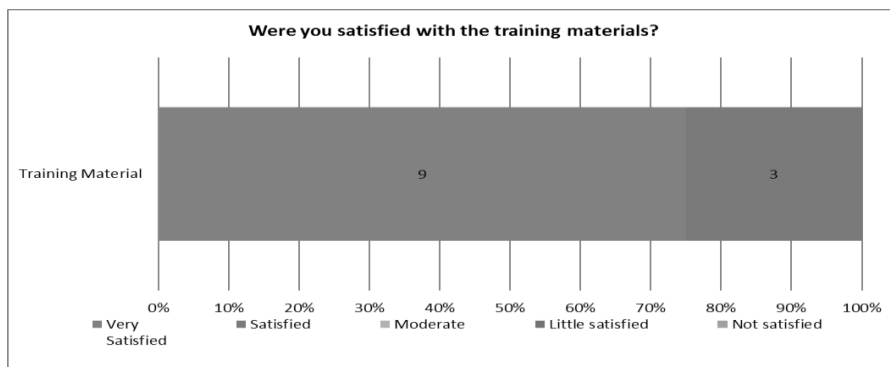
4.2. Effect size (Δ) of the training

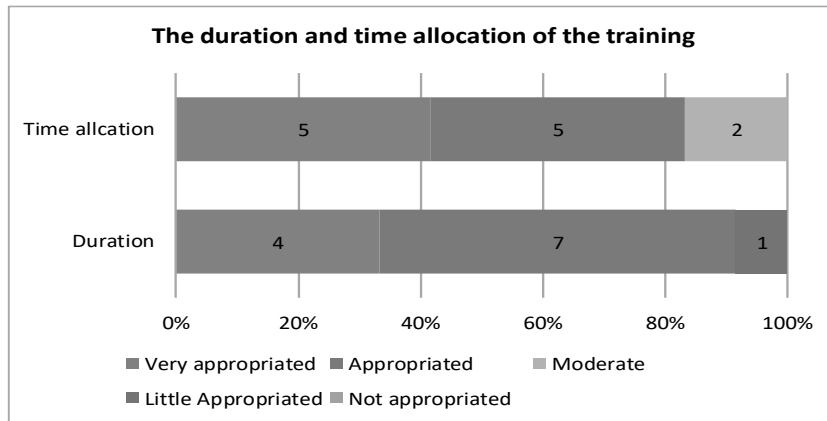
Based on the results of pre and post course assessment, Effect size (Δ) was calculated to measure effectiveness of the training. Effect size (Δ) is 1.75 that indicates large effect as shown in the below.



4.3. Course evaluation

Course evaluation was held in the end of the training, with 5-rated to each question on the evaluation sheet. Number of respondents was 13 out of 16 (81.2% of a total number of the participants and observers). As the following graphs shown below, over 80% of participants answered “very satisfied or satisfied” and “very appropriate or appropriate”. Therefore, it is assumed that majority of participants were satisfied with the training materials and duration and time allocation, and delivery of the training modules.





In the questions regarding lectures and practical sessions, over 80% of the participants answered that the lectures and practical sessions were “very helpful” or “helpful” for all sessions as shown on the diagram below.

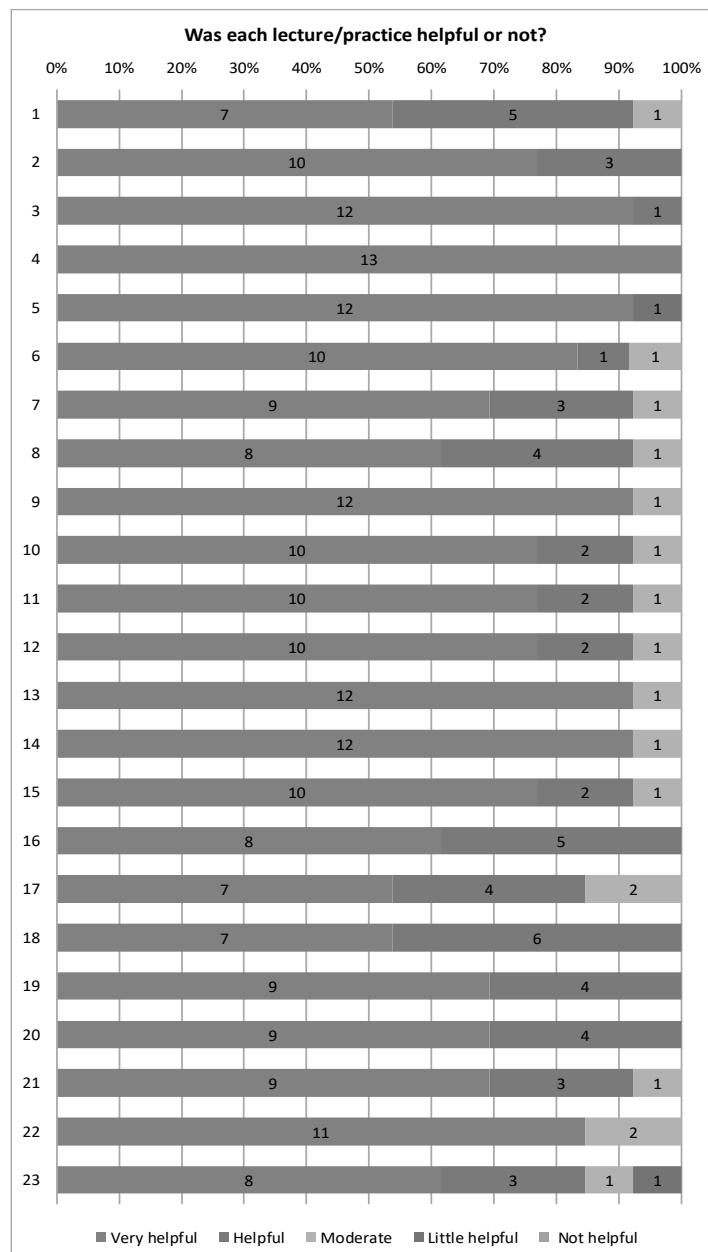


Table: List of lectures and practical sessions

No	Subject/Activity
1	Current situation of QAPs in Malawi
2	Quality and Safety in Healthcare
3	5S implementation steps
4	S1, S2, S3, S4 and S5 activities
5	5S tools
6	How to implement 5S activities
7	Review how to do 5S
8	QIST and WIT
9	Team work and Team building
10	Responsiveness
11	Positive Attitude
12	Making Plan and conducting 5S training
13	Role and responsibility of facilitators
14	HPT (Hazard Prediction Training)
15	Monitoring & Evaluation
16	Experience of 5S activities from Kamuzu Central Hospital
17	How to use M&E sheet, make Rader Chart and Feedback presentation
18	M&E of 5S activities at Kamuzu Central Hospital
19	Development of Rader Chart and feedback presentation (Practice)
20	Group presentation on observation results
21	Development of action plan
22	Development of action plan (Group work)
23	Group presentation on an action plan

Moreover, the participants gave overall comments to the training as follows:

- *The training was very useful for quality improvement.*
- *I realized that we firstly have to think about why we need 5S.*
- *The training was really an eye opener on how to improve our working environment.*
- *I enjoyed it and am ready to apply the knowledge at my work place.*
- *Some of facilitators were reading the contents without giving proper explanation.*
- *Time allocation for action plan was short.*

5. Achievement

According to the results of pre and post course assessment, and participants' satisfaction towards the training, it can reasonably be assumed that the training was conducted successfully. And new two facilitators have got the opportunities to facilitate the training at the national level as the candidate the national trainers on 5S.

For participants, as the next step, it is expected that they will be confident to start to take an appropriate action for installing 5S activities within their facilities equipped with knowledge and skills after the training course.

Part of the program is for the participants to draft or revise the action plan for installing or scaling up 5S activities for each facility. The tentative pilot area (a department where the activities shall be strengthened for KCH) is as listed in the below. The finalized action plans shall be shared with the Ministry.

Name of Hospital	Pilot areas
KCH	HDU
Likoma DHO	Male ward, Pediatric ward
Mchinji District Hospital	Male ward*
Bwaila Hospital	Antenatal ward, Nursery
Mua Hospital	Maternity, MCH / ART, Pediatrics

*Mchinji DH was suggested to increase number of pilot areas based on their situation analysis.

6. Way forwards

- **To continuously build capacity of national facilitators for 5S**

In addition to two experienced facilitators, two new facilitators, who participated in the training “TQM in Egypt” or “5S-KAIZEN-TQM training in Japan” this time. They basically well presented the lecture; however, in terms of facilitation skills, there is still gap between the experienced facilitators and new facilitators. For example, experienced facilitators can provide more detailed explanation or examples based on their experience. It is a good opportunity for new facilitators from experienced facilitators during the training. In order to increase sufficient number of facilitators on 5S, new potential facilitators shall be invited in the future training as well.

- **To review and revise the training materials and timetable**

In February 2016, the timetable was revised for the 5S Basic Training which newly included the component of 5S TOT. Before the training, the developed time table and training materials were reviewed and revised; however, some shall be re-considered. For example, the evaluation on M&E is slightly low comparing to the other lecture as well as making a radar chart and feedback presentation. This lecture may be combined into one lecture for more efficiently presenting. Also, the time allocation of development of action plan is not long enough for some hospitals. Therefore, overall time allocation can be reviewed so that the participants can use more sufficient time for developing.

- **To keep track the progress of expansion of 5S for participating facilities**

As mentioned in the former section, it is expected that the participating facilities will finalize the action plan and follow-up the plan to scale up 5S activities in their facilities. The Ministry as part of its mandate should follow-up the progress whether or not each facility has finalized its plan and proceed the activities based on the plan through supportive supervisions. Follow-up activity is one of important activities to support the hospitals to take root 5S-KAIZEN-TQM Approach, and support for a short internal orientation on 5S shall be continuously conducted for these new health facilities.

- **To discuss on the possibility of the institutionalization of central hospitals as national training centres**

This was pointed out in the 5S ToT conducted in November 2015, Kamuzu Central Hospital is not officially established as a national training centre, and the budget and personnel for implementing training courses have not been allocated. Therefore, this added work in the previous trainings was a burden to the hospital staff and hospital facilities.

Under development of QA/QI structure, the possibility of the institutionalization of central hospitals as national training centres needs to be continuously discussed.

- **To involve Zonal Health Support Office**

In addition to the health facilities, the Zonal Health Support Offices (North, Central East, and Central West) were invited to the training. However, no one participated in the training due to conflict of their other duties. In terms of monitoring and evaluation on QA/QI activities, ZHSOs will play an important role within their zones. Since there are still less number of trained supervisor on the approach, capacity building for ZHSO supervisors through training shall be necessary.

7. Acknowledgement

Ministry of Health acknowledges all the supports rendered by Kamuzu Central Hospital to host 5S Training of Trainers. The Ministry also expresses gratitude to the facilitators’ team of the training to carry out the training effectively and efficiently. The Ministry further wishes to thank JICA for financial and logistic support.

Appendix 1: Timetable of 5S Basic Training

Act #	Time	Activities	Type	Breif explanation of the topics	Training Venue
Day 1: 26th April					
	08:30 - 09:00	Move to KCH from Crown Hotel			
1	09:00 - 09:15	Registration			Conference room
2	09:15 - 09:30	Self introduction			
3	09:30 - 09:45	Opening remarks			
4	09:45 - 09:50	Objectives and logistics	Presentation	To explain objectives and logistics issues of the training	
5	09:50 - 10:10	Pre course assessment	Paper assessment	To measure knowledge on QIP before the training	
6	10:10 - 10:30	Current situation of QAPs in Malawi	Lecture	To explain current situation of QIPs in Malawi	
7	10:30 - 10:50	Tea break			
8	10:50 - 11:20	Quality and Safety in Healthcare	Lecture	To explain necessity of quality and safety in health care facility	
9	11:20 - 12:05	S1, S2, S3, S4 and S5 activities	Lecture	To explain S1, S2 and S3 activities	
10	12:05 - 12:35	5S tools	Lecture	To explain 5S tools and effectively to improve working place	
11	12:35 - 13:10	5S implementaiton steps	Lecture	To explain overview of 5S steps	
12	13:10 - 14:10	Lunch			
13	14:10 - 16:00	How to implement 5S activities	Practice, Group presentation	To practice 5S activities by demonstration	
14	16:00 - 16:20	Tea break			
Day 2: 27th April					
	08:30 - 09:00	Move to KCH from Crown Hotel			
15	09:00 - 09:15	Registration			Conference room
16	09:15 - 09:35	Review how to do 5S	Lecture	To show the picture of 5S	
17	09:35 - 10:05	QIST and WIT	Lecture	To explain 5S tools and effectively to improve working place	
18	10:05 - 10:25	Team work and Team buidling	Lecture	To explain team work and building	
19	10:25 - 10:45	Tea break			
20	10:45 - 11:15	Responsiveness	Lecture	To explain non-health expectation of clients and how to meet with those needs and expectation	
21	11:15 - 11:45	Positive Attitude	Lecture	To explain importance of positive attitude	
22	11:45 - 12:15	Making Plan and conducting 5S training	Lecture	To explain how to disseminate 5S concept in the hospital	
23	12:15 - 12:45	Role and responsibility of facilitators	Lecture	To explain facilitator's role and necessity of facilitation in 5S	
24	12:45 - 13:45	Lunch			
25	13:45 - 14:45	HPT (Hazard Prediction Training)	Lecture, Practice	To explain HPT and its methodology	
26	14:45 - 15:45	Monitoring & Evaluation	Lecture	To understand M&E for 5S-KAIZEN activities	
27	15:45 - 16:05	Tea break			
Day 3: 28th April					
	08:30 - 09:00	Move to KCH from Crown Hotel			
28	09:00 - 09:15	Registration			Conference Room
29	09:15 - 09:35	Experience of 5S activities from Kamuzu Central Hospital	Presentation	To explain and share experience of 5S activities at a hospital	
30	09:35-10:05	How to use M&E sheet, make Rader Chart, and Feedback presentation	Lecture	To understand how to develop rader charts and Feedback presentation	
31	10:05 - 10:15	Explanation of observation	Lecture		
32	10:15 - 11:35	M&E of 5S activities at Kamuzu Central Hospital	Practice	To evaluate 5S activities using M&E check sheet	
33	11:35 - 11:50	Tea break			
34	11:50 - 13:00	Development of Rader Chart and feedback presentation (Practice 1)	Practice		
35	13:00 - 14:00	Lunch			
36	14:00 - 14:40	Development of Rader Chart and feedback presentation (Practice 2)	Practice		
37	14:40 - 15:30	Group presentation on observation results	Practice	Each group will develop feed back reprt and present the results and share with all participants	
38	15:30 - 16:00	Development of action plan	Lecture	To explain how to develop an action plan	
39	16:00 - 16:20	Tea break			
Day 4: 29th April					
40	08:00 - 09:00	Development of action plan	Practice	To develop an action plan	At Hotel
	09:00 - 09:30	Move to KCH from Crown Hotel			
41	09:30-10:30	Development of action plan	Practice	To develop an action plan	Conference Room
42	10:30 - 11:00	Tea break / registration			
43	11:00 - 12:00	Group presentation	Group presentation	To present action plan by each health facility	
44	12:00 - 12:30	Post course assessment, Training evaluation	Paper assessment, Evaluation	To measure knowledge on QAP after the training, Training evaluation	
45	12:30 - 13:00	Closing ceremony		Course summary, Certificate handing over	
46	13:00	Lunch			

Appendix 2: List of participants and facilitators

(1) Participants

No.	Office/ Facility	Name	Title
1	Kamuzu Central Hospital	ROBERT MILAZI	Maintenance Officer
2	Kamuzu Central Hospital	CECILIA MULABOWA	Laundry
3	Kamuzu Central Hospital	LYTON LEMANI	Ethel Mutharika Maternity Wing
4	Kamuzu Central Hospital	ALLAN KAMFOSI	PAM
5	Likoma DHO	BONGANI CHIKWAPULO	DHO
6	Mchinji District Hospital	JUSTIN BWANAUSI	Dental Officer
7	Mchinji District Hospital	SOLOMON OBET JULIUS	Clinical Officer
8	Mchinji District Hospital	TINAMWABI MSISKA MANDO	Senior Nursing Officer
9	Bwaila Hospital	EPHRIDA NGOMA	Nursing Officer
10	Bwaila Hospital	SAINABU SAMIDU	Nursing Officer
11	Bwaila Hospital	MARTIN CHIUMBUZO	Clinical Officer
12	Mua Hospital	VIOLET SEVEN	Hospital Matron
13	Mua Hospital	CHARLES SANDRAM	Nursing Officer (Maternity)
14	Mua Hospital	BROWN GAGAMSATAYE	RNM MCH
15	Mua Hospital	ASIYATU MATONGA	Nursing Officer (Peds)

(2) Facilitators

No.	Office/ Facility	Name	Title
1	Ministry of Health	ENOCK PHALE	Assistant Director, Clinical Service
2	Ministry of Health	ANGELA CHIOTCHA	Principle Nursing Officer (QA)
3	Kamuzu Central Hospital	MSANDANI CHUMIA	MD
4	Kamuzu Central Hospital	ROSE MSOWAYA	State registered nurse/Midwife
5	Mzimba District Hospital	CHISOMO PHETHI JERE	Nursing Officer
6	Mzuzu Central Hospital	ZIKOMO MASINA CHAGWADIRA	Nursing Officer
7	Ministry of Health /JICA	KAORI NISHIKIDO	JICA Expert

(3) Observers

No.	Office/ Facility	Name	Title
1	Karonga District Hospital	TOMOE SUGA	JICA Volunteer- Nutritionist

(4) Support staff

No.	Office/ Facility	Name	Title
1	Kamuzu Central Hospital	EMMIE JINGINI	KCH QIST
2	Kamuzu Central Hospital	CHRISTINA MWALE	Cleaner
3	MOH	CHIBODA W.B.	Driver
4	MOH	KHAMA KALIZA	Driver
5	JICA	GOTANI	Driver

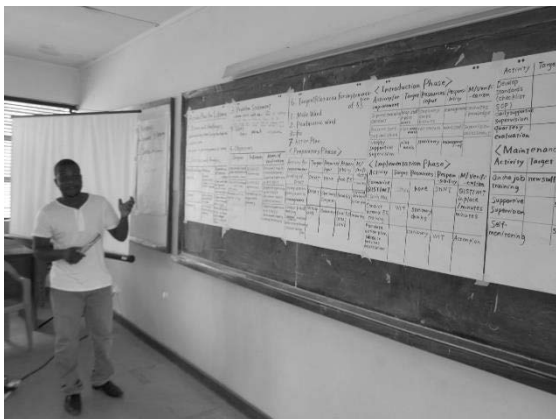
Appendix 3: Pictures



Demonstration on 5S activities



Development of Feedback Presentation of M&E



Presentation on Action Plan



Closing Ceremony



Group Photo



Republic of Malawi
Ministry of Health

Report on 5S Basic Training

From 28th June to 1st July 2016
At Queen Elizabeth Central Hospital, Blantyre

Experts on 5S-KAIZEN-TQM for Hospital Management



Japan International Cooperation Agency

1. Background

Ministry of Health (MoH) in collaboration with Japan International Cooperation Agency (JICA) have been rolling out 5S-KAIZEN-TQM Approach to health facilities in Malawi since 2007, aiming at improving health care services. As a result of the prior efforts of MoH and the health facilities, pleasantly 5S-KAIZEN-TQM Approach has been introduced to 35 health facilities are practicing 5S activities; all 4 Central Hospitals, 22 District Hospitals, 6 Health Centers and 3 mission hospitals. Based on the results of the last training conducted in April 2016, the training included some components of 5S Training of Trainers in this training.

2. Outline of the training

2.1. Objectives

(1) For Participants

- 1) To disseminate necessary knowledge and skills on 5S
- 2) To commence 5S activities in pilot areas in each hospital
- 3) To conduct internal 5S training
- 4) To understand monitoring and evaluation of 5S activities

(2) For Facilitators

- 1) To obtain and enhance knowledge and skills for facilitating a training on 5S as national facilitators

(3) For QIST staff of Queen Elizabeth Central Hospital (QECH)

- 1) To organize the training such as series of work from preparation to implementation

2.2. Date and venue

Period and date of the training: 4 days from 28th June 2016 to 1st July 2016

Training venue: Seminar hall at Malaria Alert Center at QECH

2.3. Timetable of the training

All the planned activities were completed. See “Appendix 1: Timetable of “5S Basic Training””.

2.4. Participants and facilitators (For details, see “Appendix 2: List of participant and facilitators”)

(1) Participants

Total 24 persons participated in the training. The details of participation facilities and detailed number of the participants are shown as listed in the below.

#	Name of participating hospital and organization	Number of participants
1	Queen Elizabeth Central Hospital	7
2	Blantyre DHO	4
3	Phalombe District Hospital	4
4	Neno District Hospital	4
5	Chikwawa District Hospital	3
6	South West Zonal Health Support Office	1
7	South East Zonal Health Support Office	1

(2) Facilitators

Six facilitators were selected from the national facilitators of 5S-KAIZEN, and one JICA Expert supported the facilitators.

#	Name of facilitators' hospital and organization	Number of participants
1	Ministry of Health	1
2	Queen Elizabeth Central Hospital	3
3	Kamuzu Central Hospital	1
4	Thyolo District Hospital	1
5	JICA Expert (Expert on 5S-KAIZEN-TQM Approach for Hospital Management)	1

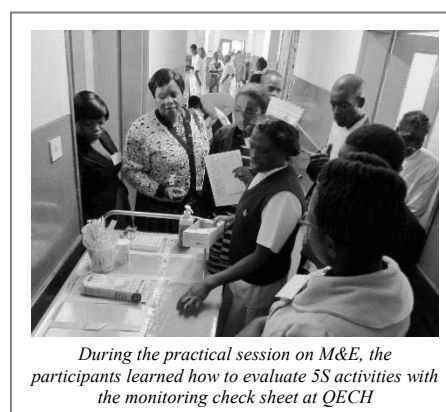
2.5. Guest attendance

- Opening ceremony on 28th June 2016 by Dr. Andrew Gonani, Director of QECH
- Closing ceremony on 1st July 2016 by Dr. Andrew Gonani, Director of QECH

3. Methodologies of the Training

The training was composed by “*Lecture discussion*” and “*Practical session (group work and group presentation)*” in order to attain the training purpose mentioned in the above.

- **Lecture discussion** aimed at equipping the participants with basic knowledge on all the topics related with 5S-KAIZEN-TQM approach, in particular 5S.
- **Practical session** aimed at equipping the participants with practical skills to give technical support for 5S activities and conduct monitoring and evaluation by utilizing the standardized checklist, and moreover, aimed at promoting mutual learning among the participants



During the practical session on M&E, the participants learned how to evaluate 5S activities with the monitoring check sheet at QECH

The facilitators of the training utilized “**Facilitators’ Guide for 5S Basic Training**” for smooth and effective teaching.

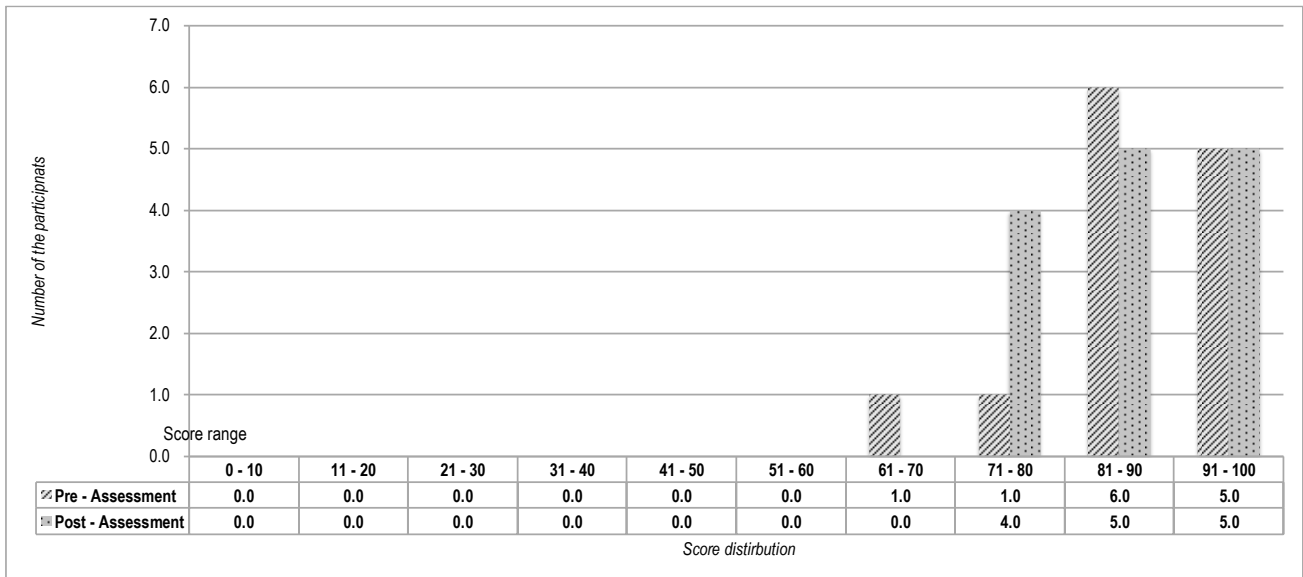
4. Results of pre and post course assessment, and course evaluation of the training

4.1. Score gaps of the pre and post course assessment

The pre and post course assessments were designed to identify the gap in the participants’ knowledge on 5S and how to facilitate a 5S internal training between before and after the training.

Improvement in the average score was observed as the average score from 87.9 (before the training) to 88.9 (after the training). This group shows good knowledge even before the training, and then the marginal improvement of the participants’ knowledge after the training is relatively small 1.0%. The results of last training held in April 2016 showed 86.9 % after the training, and therefore it indicates that the participants obtained sufficient knowledge even with small improvement between pre and post-assessment.

The score distribution is shown in the following diagram.



4.2. Effect size (Δ) of the training

Based on the results of pre and post course assessment, Effect size (Δ) was calculated to measure effectiveness of the training. Effect size (Δ) is 0.12 that indicates small effect as shown in the below. Although the effect size is relatively small, standard deviation was shortened between pre and post-test.

	Average	Standard Deviation	Degree of freedom	T-test	P value
Pre	87.9	8.687730434	35	8.65	$p < .01$
Post	88.9	7.315376903			

Effect size (Δ)	Effect size report	Level of effect size
.12	.12	Small effect

If Δ is over 0.5, it has meaning "effective" (Koizumi & Katagiri, 2007)

$|.20| \leq \text{small} <|.50|$ **Small effect**

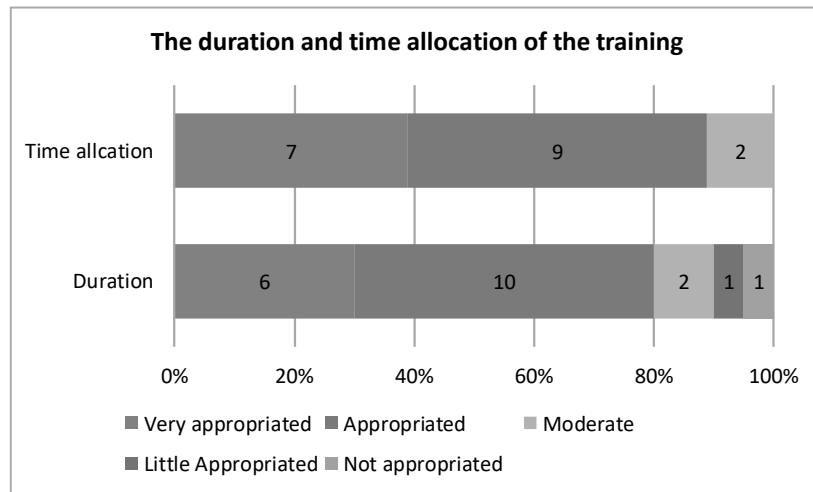
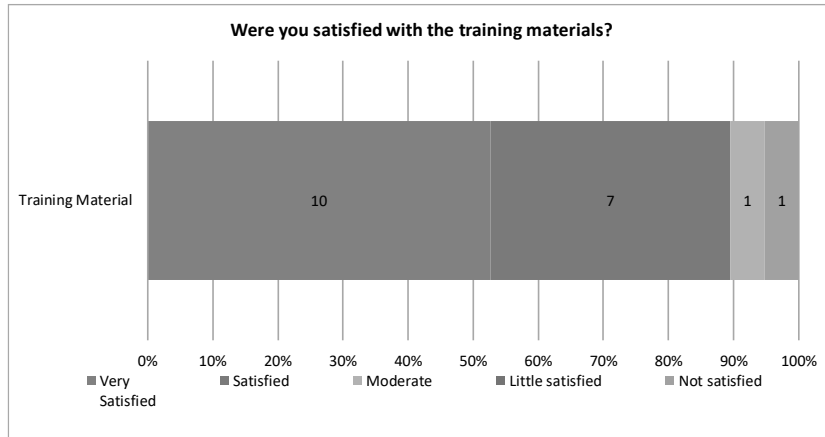
$|.50| < \text{medium} <|.80|$ **Medium effect**

$|.80| \leq \text{large}$ **Large effect**

Koizumi, R., & Katagiri, K. (2007). *Changes in speaking performance of Japanese high school students: The case of an English course at a SELHi. ARELE, 18, p.81-90.*

4.3. Course evaluation

Course evaluation was held in the end of the training, with 5-rated to each question on the evaluation sheet. Number of respondents was 20 out of 24 (83% of a total number of the participants). As the following graphs shown below, over 80% of participants answered “very satisfied or satisfied” and “very appropriate or appropriate”. Therefore, it is assumed that majority of participants were satisfied with the training materials and duration and time allocation, and delivery of the training modules.



In the questions regarding lectures and practical sessions, over 80% of the participants answered that the lectures and practical sessions were “very helpful” or “helpful” for all sessions excepting for “Quality and Safety (70%) as shown on the diagram below.

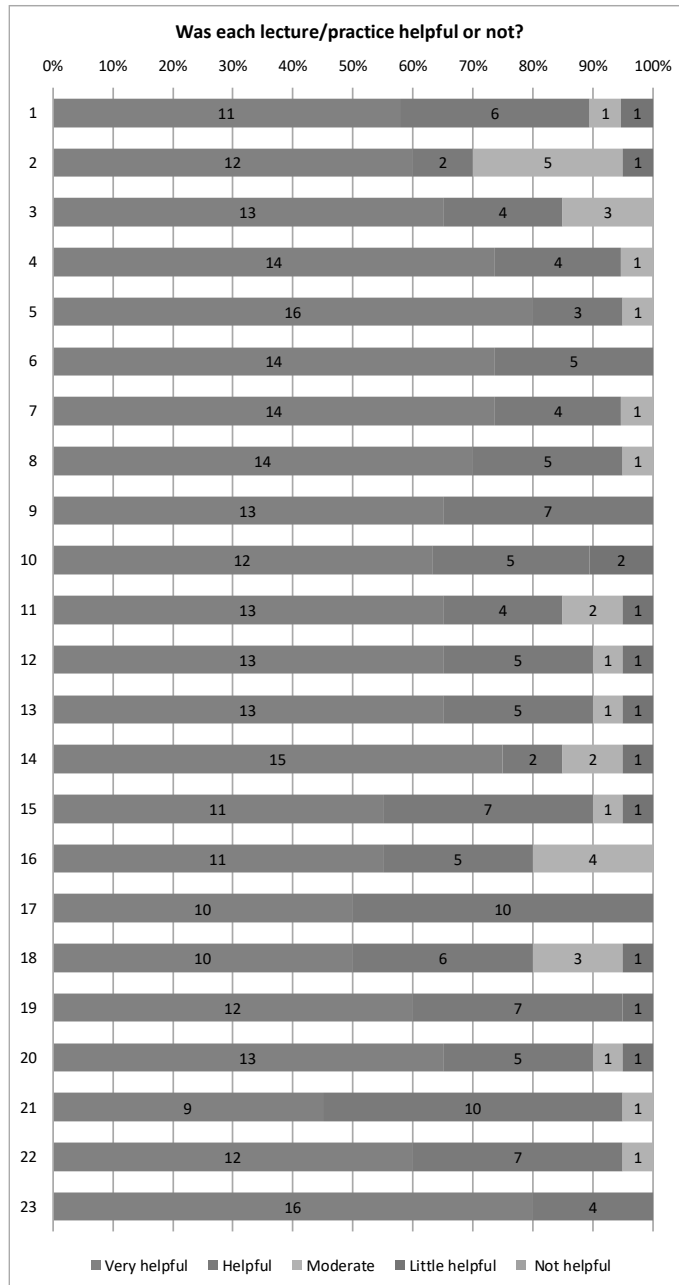


Table: List of lectures and practical sessions

No	Subject/Activity
1	Current situation of QAPs in Malawi
2	Quality and Safety in Healthcare
3	5S implementation steps
4	S1, S2, S3, S4 and S5 activities
5	5S tools
6	How to implement 5S activities
7	Review how to do 5S
8	QIST and WIT
9	Team work and Team building
10	Responsiveness
11	Positive Attitude
12	Making Plan and conducting 5S training

No	Subject/Activity
13	Role and responsibility of facilitators
14	HPT (Hazard Prediction Training)
15	Monitoring & Evaluation
16	How to use M&E sheet, make Rader Chart and Feedback presentation
17	Experience of 5S activities from Queen Elizabeth Central Hospital
18	M&E of 5S activities at Queen Elizabeth Central Hospital
19	Development of Rader Chart and feedback presentation (Practice)
20	Group presentation on observation results
21	Development of action plan
22	Development of action plan (Group work)
23	Group presentation on an action plan

Moreover, the participants gave overall comments to the training as follows:

- *The training was very helpful for making hospital environment clean and safe for both patients and staff members.*
- *It was a wonderful training that can have a great impact to our life and working environment.*
- *This training is helpful and it can be applied not only in the working environment but also our homes.*
- *Full board arrangement should be changed next time.*

5. Achievement

According to the results of pre and post course assessment, and participants' satisfaction towards the training, it can reasonably be assumed that the training was conducted successfully. And it was a good opportunity to develop capacity building of new three facilitators as national trainers on 5S as well as QECH as a national training centre. For participants, as the next step, it is expected that they will be confident to start to take an appropriate action for installing 5S activities within their facilities equipped with knowledge and skills after the training course. Part of the program is for the participants to draft or revise the action plan for installing or scaling up 5S activities for each facility. The tentative pilot area (a department where the activities shall be strengthened for QECH) is as listed in the below.

Name of Hospital	Pilot areas
QECH	Additional pilot areas will be identified after the training
Phalomber District Hospital	Environmental Office, Outpatients department, Maternity
Neno District Hospital	Theatre, Pediatric, Pharmacy
Chikwawa District Hospital	Pharmacy, Orthopedics (OPD)
Blantyre DHO	South Lunzu HC, Zinawangwa HC, Chikowa HC

6. Way forwards

- **To keep track the progress of expansion of 5S for participating facilities**

As mentioned in the former section, it is expected that the participating facilities will finalize the action plan and follow-up the plan to scale up 5S activities in their facilities. The Ministry as part of its mandate should follow-up the progress whether or not each facility has finalized its plan and proceed the activities based on the plan through supportive supervisions. Follow-up activity is one of important activities to support the hospitals to take root 5S-KAIZEN-TQM Approach, and support for a short internal orientation on 5S shall be continuously conducted for these new health facilities as necessary.

- **To continuously build capacity of national facilitators for 5S through either future trainings and supportive supervisions**

In the training, three additional facilitators facilitated the training. They basically well presented the lecture based on their implementation experiences of 5S activities. These facilitators should be continuously invited

for several activities such as trainings and supportive supervisions as national trainers. In addition, in order to increase sufficient number of facilitators on 5S, new potential facilitators shall be invited to the future training as well.

- **To review and revise the training materials**

Under Quality Management Unit, national training manual on quality will be developed for both pre-service and in-service training. 5S-KAIZEN-TQM approach should be included as platform of quality assurance/quality improvement in the manual. For the national training manual, the contents should be reviewed and revised for further effective training.

- **To discuss on the possibility of the institutionalization of central hospitals as national training centres**

In addition to Kamzu Central Hospital, the capacity of QECH as a national training centre was developed through this training. Under development of QA/QI structure, the possibility of the institutionalization of central hospitals as national training centres needs to be continuously discussed.

- **To support of introduction of 5S into Nsanje District Hospital**

Due to internal reasons of Nsanje District Hospital, the participants from the hospital were unable to participated in the training. Introduction of 5S into all central and district hospitals was planned to be completed in this training, and a future training for central and district hospitals are not planned at this moment. Regarding the introduction of 5S into Nsanje District Hospital, alternative support may be considered such as providing 5S short orientation to management and QIST members at the facility.

7. Acknowledgement

Ministry of Health acknowledges all the supports rendered by Queen Elizabeth Central Hospital to host 5S Basic Training. The Ministry also expresses gratitude to the facilitators' team of the training to carry out the training effectively and efficiently. The Ministry further wishes to thank JICA for financial and logistic support.

Appendix 1: Timetable of 5S Basic Training

Timetable of 5S Basic Training

From 28th June to 1st July 2016 @ Queen Elizabeth Central Hospital

Act #	Time	Activities	Type	Brief explanation of the topics	Training Venue
Day 1: 28th June					
	08:00 - 08:30	Move to QECH from Top Lodge			
1	08:30 - 08:45	Registration			Conference room
2	08:45 - 09:00	Self introduction			
3	09:00 - 09:15	Opening remarks			
4	09:15 - 09:20	Objectives and logistics	Presentation	To explain objectives and logistics issues of the training	
5	09:20 - 09:40	Pre course assessment	Paper assessment	To measure knowledge on QIP before the training	
6	09:40 - 10:10	Current situation of QAPs in Malawi	Lecture	To explain current situation of QIPs in Malawi	
7	10:10- 10:30	Tea break			
8	10:30 - 11:10	Quality and Safety in Healthcare	Lecture	To explain necessity of quality and safety in health care facility	
9	11:10 - 11:50	S1, S2, S3, S4 and S5 activities	Lecture	To explain S1, S2 and S3 activities	
10	11:50 - 12:30	5S tools	Lecture	To explain 5S tools and effectively to improve working place	
11	13:00 - 14:00	Lunch			
12	14:00 - 16:00	How to implement 5S activities	Practice, Group presentation	To practice 5S activities by demonstration	
13	16:00 - 16:20	Tea break			
Day 2: 29th June					
	08:00 - 08:30	Move to QECH from Top Lodge			
14	08:30 - 08:45	Registration			Conference room
15	08:45 - 09:05	Review how to do 5S	Lecture	To show the picture of 5S	
16	12:30 - 13:00	5S implementaiton steps	Lecture	To explain overview of 5S steps	
17	09:05 - 09:35	QIST and WIT	Lecture	To explain 5S tools and effectively to improve working place	
18	09:35 - 10:00	Team work and Team buidling	Lecture	To explain team work and building	
19	10:00- 10:20	Tea break			
20	10:20 - 10:50	Responsiveness	Lecture	To explain non-health expectation of clients and how to meet with those needs and expectation	
21	10:50 - 11:20	Positive Attitude	Lecture	To explain importance of positive attitude	
22	11:20 - 11:40	Making Plan and conducting 5S training	Lecture	To explain how to disseminate 5S concept in the hospital	
23	11:40 - 12:10	Role and responsibility of facilitators	Lecture	To explain facilitator's role and necessity of facilitation in 5S	
24	12:10 - 13:00	Lunch			
25	13:00 - 14:00	HPT (Hazard Prediction Training)	Lecture, Practice	To explain HPT and its methodology	
26	14:00 - 15:00	Monitoring & Evaluation	Lecture	To understand M&E for 5S-KAIZEN activities	
27	15:00 - 15:20	Tea break			
Day 3: 30th June					
	08:00 - 08:30	Move to QECH from Top Lodge			
28	08:30 - 08:45	Registration			Conference Room
29	15:20 - 16:00	How to use M&E sheet, make Rader Chart, and Feedback presentation	Lecture	To understand how to develop rader charts and Feedback presentation	
30	08:45 - 09:05	Experience of 5S activities from Queen Elizabeth Central Hospital	Presentation	To explain and share experience of 5S activities at a hospital	
31	09:05 - 09:15	Explanation of observation	Lecture		
32	09:15 - 10:40	M&E of 5S activities at Queen Elizabeth Central Hospital	Practice	To evaluate 5S activities using M&E check sheet	5S Pilot Area
33	10:40 - 11:00	Tea break			
34	11:00 - 12:30	Development of Rader Chart and feedback presentation (Practice 1)	Practice		
35	12:30 - 13:30	Lunch			
36	13:30 - 14:15	Development of Rader Chart and feedback presentation (Practice 2)	Practice		
37	14:15 - 15:10	Group presentation on observation results	Practice	Each group will develop feed back reprt and present the results and share with all participants	Conference Room
38	15:10 - 15:40	Development of action plan	Lecture	To explain how to develop an action plan	
39	15:40 - 16:00	Tea break			
Day 4: 1st July					
	08:00 - 08:30	Move to QECH from Top Lodge			
41	08:30-10:40	Development of action plan	Practice	To develop an action plan	Conference Room
42	10:40 - 11:00	Tea break / registration			
43	11:00 - 11:45	Group presentation	Group presentation	To present action plan by each health facility	
44	11:45 - 12:15	Post course assessment, Training evaluation	Paper assessment, Evaluation	To measure knowledge on QAP after the training, Training evaluation	
45	12:15 - 12:45	Closing ceremony		Course summary, Certificate handing over	
46	13:00	Lunch			

Appendix 2: List of participants and facilitators

(1) Participants

No.	Office/ Facility	Name	Title
1	Queen Elizabeth Central Hospital	CATHERINE MUNGONI	PHRMO (Administration)
2	Queen Elizabeth Central Hospital	WEZZIE MWAFULIRWA	SNO (ICU)
3	Queen Elizabeth Central Hospital	LYDIA MAGOMBO	PNO (Peads)
4	Queen Elizabeth Central Hospital	SUWEDI SUMANI	CDO (Dental)
5	Queen Elizabeth Central Hospital	SUSAN BANDA	NMT
6	Queen Elizabeth Central Hospital	SHAMEEM OMAR	NO
7	Queen Elizabeth Central Hospital	MARY KACHONDE-MWALE	SNO
8	Phalombe District Hospital	LEONARD MCHOMBO	DNO (DHMT Member)
9	Phalombe District Hospital	VERONICA L. MAKONDE TSA	IP Coordinator (QIST Member)
10	Phalombe District Hospital	NELSON MWANGO	Clinical Technician (Qist Member)
11	Phalombe District Hospital	GIDEON CHAUYA	Assistant Environmental Health Officer (QIST Member)
12	Chikwawa District Hospital	WINNIE MHONE	DMO
13	Chikwawa District Hospital	GEORGE MASSI	AHSA
14	Chikwawa District Hospital	PATRICK CHRISS BALUWA	NO
15	Neno DHO	LATIFA MOOSA	Hospital matron
16	Neno DHO	FRANCIS MPINGANJIRA	Ass. Human Resource officer
17	Neno DHO	ANTHONY SANDIYANG'ANE	IP focal person
18	Neno DHO	BLECIOUS ZINAN'DALA	anaesthetist
19	Blantyre DHO	MODESTA MWAGOMBA	DHMT
20	Blantyre DHO(Chikowa HC)	ESTER BOKO	Nurse
21	Blantyre DHO(South Lunzu HC)	SUZAN CHIPETA	QIST (Nurse)
22	Blantyre DHO (Zingwangwa HC)	CECILIA MUKAWA	QIST (Nurse)
23	South West ZHSO	CATHERINE CHITEDZE	Lab Supervisor
24	South East ZHSO (Zomba DHO)	VERONICA MTAMBO	Nursing Officer

(2) Facilitators

No.	Office/ Facility	Name	Title
1	Ministry of Health	ENOCK PHALE	Assistant Director, Clinical Service
2	Ministry of Health	LUCY CHIGWENEMBE	Chief Nursing Officer
3	Kamuzu Central Hospital	PAULINA MWASIGALA	QA officer
4	Dowa District Hospital	TINNIE MTHUZI	Nursing Officer
5	Dowa District Hospital	ROSE MSOWAYA	State registered nurse/Midwife
6	Ministry of Health /JICA	SEMU KHOLOLA	Environmental Health Officer
7	Ministry of Health /JICA	KAORI NISHIKIDO	JICA Expert

Appendix 3: Pictures



Lecture by a facilitator



Demonstration on 5S activities



Group presentation (5S demonstration)



Practicce of Monitoring and Evaluation



Presentation on Action Plan



Closing Ceremony



Republic of Malawi
Ministry of Health

Report on
Supportive Supervision of 5S-KAIZEN-TQM
“KAIZEN Activity Meeting”

Thyolo District Hospital
25th April and 26th April 2016

- Supervision (Facilitation) Team -

	Name	Title
1	Dr. Gift Kawalazira	District Health Officer, Zomba District Hospital
2	Noriyuki Miyamoto	5S-KAIZEN-TQM Expert, MOH/JICA

1. Outline of KAIZEN meeting

(1) Purpose

The purpose of KAIZEN meeting is to support the hospital to start KAIZEN implementation at their pilot areas.

(2) Objectives

- To understand KAIZEN Approach for improving health care services
- To understand how to practice KAIZEN Steps, especially KAIZEN Step 1 and Step 2), with useful Quality Control tools

(3) Participants

23 hospital staff from four pilot areas; Kitchen, Labor ward, Pharmacy and Maintenance unit, and some of QIST members participated (See the Annex 1: Participant list).

(4) Timetable

Time	Activity	Brief explanation of the activity
Day 1		
10:00 - 10:10	Courtesy call to DHO and DHMT	Explanation on the purpose of KAIZEN meeting
10:10 - 11:00	Interview to QIST and the participants on the progress of KAIZEN activities	Check the progress of any activities related with KAIZEN done after KAIZEN Basic Training in October 2015
11:30 - 12:30	Observation visit at areas practicing 5S-KAIZEN	Observe current 5S-KAIZEN activities at Maintenance unit, Labor ward, Pharmacy and Kitchen
14:30 - 14:40	Introduction on "KAIZEN meeting"	Explanation the objectives of KAIZEN meeting and timetable
14:40 - 15:00	Presentation on KAIZEN Approach	Explanation on KAIZEN Approach and outline of KAIZEN process
15:00 - 15:20	Presentation on KAIZEN step 1 (KAIZEN Theme selection)	Explanation on KAIZEN step 1 and how to practice KAIZEN step 1 with QC tool
15:20 - 16:30	Practice KAIZEN step 1	Implementation of KAIZEN step 1 with actual situation
16:30 - 16:40	Group presentation on KAIZEN step 1	Each group to have a oral presentation on own KAIZEN Step 1
Day 2		
10:40 - 12:00	Presentation on KAIZEN step 2 (Situation Analysis)	Explanation on KAIZEN step 2 and how to practice KAIZEN step 2 with necessary QC tool
14:00 - 16:15	Practice KAIZEN step 2	Identification of contributing factors (composing factors) of the problems, Clarification of methods of situation analysis
16:15 - 16:25	Develop an action plan for KAIZEN activities	Develop action plan for KAIZEN activities

2. Results

(1) Results of the interview to QIST members on activities done after KAIZEN Basic Training

Four hospital staff were trained in KAIZEN Training in October 2015. They are still working in the hospital. However, all necessary activities for initiating KAIZEN activities, which were agreed among the participants during the training, have not yet been done so far as follows:

- *(Not yet done) Brief KAIZEN Approach and what they learnt during the training to*

- *the respective hospital management team*
- *(Not yet done) Develop an action plan of implementation of KAIZEN process*
- *(Not yet done) Commence KAIZEN activities according to the action plan at the respective hospital*
- *(Not yet done) Share the action plan and progress of KAIZEN activities periodically to QIST of the respective hospital and MOH*

(2) Results of KAIZEN Activity Meeting

The target areas have done KAIZEN step 1; KAIZEN theme selection, and the beginning of KAIZEN step 2; identification of comprising elements, clarification of data collection methods and development of checklist for data collection. Moreover, the participants learned how to develop Pareto chart through demonstration. Selected KAIZEN themes are:

- *“Food provision is on time” at Kitchen*
- *“Organization of items in workshop is improved for sustainable work environment improvement” at Maintenance unit*
- *“Patient monitoring is improved” at Labor ward*
- *“Issuing the medicines to the wards and departments is improved” at Pharmacy*

For detailed activities done in the training, see Annex 2: KAIZEN activities at target areas in Thyolo District Hospital.

(3) Time frame for KAIZEN activities in Thyolo District Hospital

The end of the meeting, the participants clarified and agreed time frame for implementation of each KAIZEN step as follows:

2016	April	May	June	July	August	September
KAIZEN Step 1						
KAIZEN Step 2						
KAIZEN Step 3						
KAIZEN Step 4						
KAIZEN Step 5						
KAIZEN Step 6						
KAIZEN Step 7						

3. Recommendation

After KAIZEN Basic Training in October 2016, in Thyolo District Hospital, any actions for starting KAIZEN activities have not taken place yet. Therefore, it is recommended to do followings:

- **Trained staff** in collaboration with some of QIST members who knows KAIZEN approach brief DHMT members and QIST members on KAIZEN approach
- **QIST** needs to conduct periodical consultation visit to four target areas of KAIZEN to check whether KAIZEN activities are done on right track or not (monitoring KAIZEN step by step)
- **WIT** of each KAIZEN target area need to follow the time frame of KAIZEN activities
- **WIT** of each KAIZEN target area need to record all KAIZEN process properly and share it with QIST

4. Remarks

During the KAIZEN Activity Meeting, the supervisors realize that the most of DHMT members does not know 5S-KAIZEN-TQM Approach and its significance for improving health care service provision. This situation can be one of the major contributing factors to lead to improper implementation of 5S-KAIZEN-TQM Approach within the health facility. Therefore, apart from the methods, it is recommended that MoH provide chances for key DHMT members of DHMTs to obtain knowledge and skills on 5S-KAIZEN-TQM Approach in future.

5. Pictures



Well organized shelves for keeping spare parts and working tools (Maintenance unit)



Well managed waste bins (Labor ward)



Well organized kitchen (Kitchen)



Presentations on KAIZEN Process by National Facilitator of 5S-KAIZEN-TQM Approach



FEASIBILITY CHECK WITH MATRIX DIAGRAM					
POSSIBLE KAIZEN IMPACT THEME	URGENCY	IMPACT	RISK	RESOURCES	FEASIBILITY
Quality of food is improved	3	3	2	2	10
Food provision is on time	3	3	3	3	(12)
Misery of instrument is reduced	3	2	3	2	10

Group work for KAIZEN Step 1	Selected KAIZEN theme by using Matrix diagram (Kitchen)
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Annex 1. Participant list

#	Name	Title	Department/Section	Attendance	
				Day 1	Day 2
1.	Richard Muhaiwa	Electrician	Maintenance unit	✓	✓
2.	God-spell Kang'ombe	Plumber	Maintenance unit	✓	✓
3.	Emmerson Jumbe	Carpenter	Maintenance unit	✓	✓
4.	Elijah Nyozani	MET	Maintenance unit	✓	✓
5.	Mary Makresa	Nurse Midwife Technician	Labor ward	✓	
6.	Agnes Malinga	Health attendant	Labor ward	✓	✓
7.	Meronisha Lodoviko	In-charge of Labor ward	Labor ward	✓	✓
8.	Snossia Kumpasa	Nurse	Labor ward	✓	
9.	Egjher Kwenga	Nurse	Labor ward	✓	✓
10.	Elard F. Kahiafi	Pharmacy Assistant	Pharmacy	✓	✓
11.	Chisomo Chiombo	Pharmacy Technician	Pharmacy		✓
12.	Collins Chiwosi	Pharmacy Assistant	Pharmacy	✓	✓
13.	Recheal Kapoloza	Kitchen Attendant	Kitchen	✓	✓
14.	Ibadi Anubi	Kitchen Attendant	Kitchen	✓	✓
15.	Annie Rakusa	Catering Assistant	Kitchen	✓	✓
16.	Maxwell Komua	Catering Assistant	Kitchen	✓	✓
17.	Semu Kholola	Environmental Health Officer	Environmental Health Office	✓	✓
18.	Prince Chimanya	Dental Therapist	Dental	✓	✓
19.	Mkuntha Lameck	Laboratory Technician	Laboratory	✓	✓
20.	Steady Vinkhumbo	Clinician	PSC	✓	✓
21.	Lucy Nyrenda	Chief Nursing Officer	Laboratory	✓	✓
22.	Chris Balaka	Accountant	Administration	✓	
23.	Byson Mpakata	Accountant	Administration	✓	✓
24.	Akane Fudo	Nurse	QIST	✓	✓
25.	Sayaka Hattori	Pharmacist	Pharmacy	✓	✓

Annex 2. KAIZEN activities at target areas in Thyolo District Hospital

(1) Kitchen

KAIZEN Step 1	Date of implementation		25th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Quality of food is improved	3	3	2	2	10
Food provision is on time	3	3	3	3	12
Missing of instruments is reduced	3	2	3	2	10
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		26th April 2016		
Possible comprising elements	1	Number of days breakfast is delay			
	2	Number of days lunch is delay			
	3	Number of days supper is delay			
Data source	Observation data				
Period of data collection	1 month from 1st May to 31st May				
Methods of data collection	Observation				
Responsible persons of data collection	Rachael Rapoloza, Ibadi Anudi				
Remarks	Checklist for data collection is developed on 26th April 2016. Time survey will be done in catering procedure 1) Get number of patients from all wards 2) Figure out quantity of food 3) Start cooking (prepare the foods) 4) Portion foods to each ward 5) Deliver foods to each ward				

(2) Maintenance unit

KAIZEN Step 1	Date of implementation		25th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Organization of items in workshop is improved	3	3	3	3	12
Missing tools	3	2	2	2	9
Board off of items facilitation is improved	3	1	1	1	6
Support staff required is improved	3	3	1	1	8
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		26th April 2016		
Possible composing elements	1	Number of misplaced working tools			
	2	Number of misplaced broken items			
	3	Number of misplaced PPE			
	4	Number of misplaced new parts			
Data source	Prospective data from Inventory sheet				
Period of data collection	1 month from 1st May to 31st May				
Methods of data collection	Observation by using checklist				
Responsible persons of data collection	WIT Chairperson				
Remarks	Checklist for data collection is developed on 26th April 2016.				

(3) Labor ward

KAIZEN Step 1		Date of implementation		25th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility	
Patient monitoring is improved	3	3	3	2	11	
Documentation of care is improved	3	3	3	2	11	
Patient diagnosis is improved	3	3	2	1	9	
Clinician availability is improved	3	2	2	3	10	
Proper use of PPTs is improved	3	2	1	1	7	
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement						
KAIZEN Step 2		Date of implementation		26th April 2016		
Possible composing elements	1	Number of patients not checked vital sign				
	2	Number of patients not maintained urine output				
	3	Number of patients not checked fetal heart rate				
	4	Number of patients not checked color of liquor				
	5	Number of patients not assessed caput and molding				
	6	Number of patients not assessed contractions				
	7	Number of patients not assessed decent				
	8	Number of patients not assessed cervical dilatation				
Data source	Retrospective data from Labor charts, maternity resister, HBB Resister					
Period of data collection	1 week from 3rd May to 9th May 2016					
Methods of data collection	Checking, Use tailoring table					
Responsible persons of data collection	WIT chairperson					
Remarks	Data collection checklist is developed on 26th April 2016. The section need to collect data before KAIZEN activities as follows: - Number of patients with prolonged labor - Number of babies born with birth asphyxia - Number of fresh still birth - Number of neonatal deaths - Number of mothers dying (Maternal death)					

(4) Pharmacy

KAIZEN Step 1		Date of implementation		25th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility	
Order to CMST is improved	3	3	1	2	9	
Issuing the medicines to the wards and departments is improved	3	3	3	1	10	
Stock medicines at proper condition	1	1	2	1	5	
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement						
KAIZEN Step 2		Date of implementation		26th April 2016		
Possible comprising elements	1	Number of inappropriate decision of the amount of the items to be issued				
	2	Number of improper authorization				
	3	Number of improper subtraction from the stock card				
	4	Number of improper assembling items				
	5	Number of improper verification				
	6	Number of improper giving the items to the section(s)				
Data source	Observation data					
Period of data collection	2 weeks from 2nd May to 13th May 2016					
Methods of data collection	Use checklist, Observation					
Responsible persons of data collection	WIT					



Republic of Malawi

Ministry of Health

Report on
Supportive Supervision of 5S-KAIZEN-TQM
“KAIZEN Activity Meeting”

Mwanza District Hospital
27th April and 28th April 2016

- Supervision (Facilitation) Team -

	Name	Title
1	Noriyuki Miyamoto	5S-KAIZEN-TQM Expert, MOH/JICA

1. Outline of KAIZEN meeting

(1) Purpose

The purpose of KAIZEN meeting is to support the hospital to start KAIZEN implementation at their pilot areas.

(2) Objectives

- To understand KAIZEN Approach for improving health care services
- To understand how to practice KAIZEN Steps, especially KAIZEN Step 1 and Step 2), with useful Quality Control tools

(3) Participants

30 hospital staff from four pilot areas; Laboratory, Pharmacy, Administration and Operation Theater participated (See the Annex 1: Participant list).

(4) Timetable

Time	Activity	Brief explanation of the activity
Day 1		
10:10 - 10:15	Courtesy call to DMO	Explanation on the purpose of KAIZEN meeting
10:25 - 11:00	Interview to QIST on the progress of KAIZEN activities	Check the progress of any activities related with KAIZEN done after KAIZEN Basic Training in October 2015
11:00 - 12:00	Observation visit at areas practicing 5S-KAIZEN	Observe current 5S-KAIZEN activities at Maintenance unit, Labor ward, Pharmacy and Kitchen
14:30 - 14:40	Introduction on "KAIZEN meeting"	Explanation the objectives of KAIZEN meeting and timetable
14:40 - 15:00	Presentation on KAIZEN Approach	Explanation on KAIZEN Approach and outline of KAIZEN process
15:00 - 15:20	Presentation on KAIZEN step 1 (KAIZEN Theme selection)	Explanation on KAIZEN step 1 and how to practice KAIZEN step 1 with QC tool
15:20 - 16:30	Practice KAIZEN step 1	Implementation of KAIZEN step 1 with actual situation
16:30 - 16:40	Group presentation on KAIZEN step 1	Each group to have a oral presentation on own KAIZEN Step 1
Day 2		
14:00 - 14:20	Presentation on KAIZEN step 2 (Situation Analysis)	Explanation on KAIZEN step 2 and how to practice KAIZEN step 2 with necessary QC tool
14:20 - 16:30	Practice KAIZEN step 2	Identification of contributing factors (composing factors) of the problems, Clarification of methods of situation analysis
16:30 - 16:40	Develop an action plan for KAIZEN activities	Develop action plan for KAIZEN activities

2. Results

(1) Results of the interview to QIST members on activities done after KAIZEN Basic Training

Four hospital staff were trained in KAIZEN Training in October 2015. They are still working in the hospital. Although briefing session for QIST members on KAIZEN and selection of target areas for KAIZEN were done after the training, necessary activities for initiating KAIZEN activities, which were agreed among the participants during the training, have been done as follows:

- *(Not yet done) Brief KAIZEN Approach and what they learnt during the training to the respective hospital management team (DHMT)*

- *(Not yet done) Develop an action plan of implementation of KAIZEN process*
- *(Not yet done) Commence KAIZEN activities according to the action plan at the respective hospital*
- *(Not yet done) Share the action plan and progress of KAIZEN activities periodically to QIST of the respective hospital and MOH*

(2) Results of KAIZEN Activity Meeting

The participants have done KAIZEN step 1; KAIZEN theme selection, and the beginning of KAIZEN step 2; identification of comprising elements, clarification of data collection methods and development of checklist for data collection. Moreover, the participants learned how to develop Pareto chart through demonstration. Selected KAIZEN themes are:

- *“Segregation of waste is improved” at Laboratory*
- *“Documentation on stock cards is improved” at Pharmacy*
- *“Information sharing among administration staff is improved” at Administration*
- *“Handling of theater equipment and supplies is improved” at Operating Theater*

For detailed activities done in the training, see Annex 2: KAIZEN activities at target areas in Mwanza District Hospital.

(3) Time frame for KAIZEN activities in Mwanza District Hospital

The end of the meeting, the participants clarified and agreed time frame for implementation of each KAIZEN step as follows:

[KAIZEN activity plan of Mwanza District Hospital]

2016	April	May	June	July	August	September	October
KAIZEN Step 1							
KAIZEN Step 2							
KAIZEN Step 3							
KAIZEN Step 4							
KAIZEN Step 5							
KAIZEN Step 6							
KAIZEN Step 7							

3. Recommendation

For sustainable implementation of KAIZEN process, it is essential to **establish monitoring or following-up mechanism for KAIZEN activities** through two ways communications between QIST and WITs of the target areas. Recommended activities are follows:

- **QIST** needs to conduct monthly visit to the target areas to check whether the KAIZEN activities are on right track or not
- **QIST** needs to provide technical advices during the monthly visit mentioned above
- **QIST** needs to report the progress of KAIZEN activities to DHMT monthly
- **WITs** of the target areas need to report the progress of KAIZEN activities to QIST whenever one KAIZEN step is finished
- **WITs** need to check the progress of KAIZEN activities against the action plan

4. Pictures



Well organized files on the shelves (Administration)



Small KAIZEN: Indication for use/un-use of operation room (Operating theater)



Improper waste management (Laboratory)



Presentations on KAIZEN Process by National Facilitator of 5S-KAIZEN-TQM Approach



Group work of KAIZEN process (The team of Operating Theater)



Developed checklist for data collection (KAIZEN Step 2, The team of Laboratory)

Annex 1. Participant list

#	Name	Title	Department/Section	Attendance	
				Day 1	Day 2
1.	Christopher Mamhich	Hospital attendant	Laboratory	A	A
2.	Kondwani Naison (*)	Laboratory technician		A	A
3.	Chifundo Kaadima	Hospital attendant		A	A
4.	Lonely Phwitiko	Laboratory technician		A	A
5.	Innocent Clilesani	Laboratory technician		A	A
6.	Enock Chilambula	Laboratory officer		A	A
7.	Lazaros Kafselladimba	Laboratory technician		A	A
8.	Enock Phwitiko	Pharmacist	Pharmacy	A	A
9.	Eviness Mwesele	Hospital attendant		A	A
10.	Limbani S. Mkwichi	Hospital attendant		A	A
11.	Grace Chawinga	Pharmacy technician		A	A
12.	Ayella Nyondo	Pharmacist		A	A
13.	Obin Asam	Data clerk	Administration	A	A
14.	Monica Mbengo (*)	Accountant		A	A
15.	Henry B. Kaliwa	Administrator		A	A
16.	Lawrence Chingakhaze	Hospital attendant		A	A
17.	Harrison Kampanje	Programmer		A	
18.	Maness Eleven	Messenger		A	A
19.	Priscilla Mgogo	Secretary		A	A
20.	Collins Noniwa	Assistant clinical officer	Operating Theatre	A	
21.	Blessings Banda	Hospital attendant		A	A
22.	Nyson Chifenthe	Hospital attendant		A	A
23.	Lovemore Kwmanda	Dentist		A	A
24.	Fellina Masesa	Nurse technician		A	A
25.	Clara Batan	Hospital attendant		A	A
26.	Lucky Matipmiri	Hospital attendant		A	A
27.	Feliciano Mkomaludzu (*)	Assistant clinical officer		A	A
28.	Arnold Kapachika	District Medical Officer	DHMT	A	
29.	Agnes Mtong	District Nursing Officer		A	
30.	Joana Chalwa	Nursing officer	QIST		A

(*): Trained staff on KAIZEN in October 2016

A: Attended

Annex 2. KAIZEN activities at target areas in Mwanza District Hospital

(1) Laboratory

KAIZEN Step 1	Date of implementation		27th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Patient triage assessment is improved	3	2	3	3	11
Patient congestion is reduced	3	3	2	3	11
Management of stationery is improved	3	2	2	1	8
Entry of other staff and visitors is controlled	2	2	3	2	9
Segregation of waste is improved	3	3	3	3	12
Documentation of patient information is improved	3	3	2	3	11
Documentation of equipment and machine log is improved	3	2	3	3	11
<u>Score scale</u> 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		28th April 2016		
Possible comprising elements	1	Number of days sharps is found in the container of dry waste			
	2	Number of days contaminated waste is found in the container of sharps			
	3	Number of days infectious waste is found in the container of non-contaminated waste			
	4	Number of days non-contaminated wastes is found in the container of contaminated waste			
Data source	Observation data				
Period of data collection	20 working days from 3rd of May 2016				
Methods of data collection	Observation and checking by using checklist				
Responsible persons of data collection	One person is appointed				
Remarks	Checklist for data collection was developed.				

(2) Pharmacy

KAIZEN Step 1	Date of implementation		27th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Overstocking is reduced	2	3	2	3	10
Documentation on stock cards is improved	3	3	3	3	12
Processing of patient files and orders is on time	3	3	2	2	10
<u>Score scale</u> 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		28th April 2016		
Possible comprising elements	1	Number of miscalculation			
	2	Number of incorrect filling of unit of issues of drugs			
	3	Number of poor handwriting (unreadable)			
Data source	Stock card				
Period of data collection	23 days from 1st May to 23rd May 2016				
Methods of data collection	Observation by using checklist				
Responsible persons of data collection	Ignacio Chisaka, Angellah Nyondo				
Remarks	Checklist for data collection is developed				

(3) Administration

KAIZEN Step 1	Date of implementation		27th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Budget allocation is improved	2	2	3	3	10
Information sharing among administration staff is improved	3	3	3	2	11
Planning of every day work is improved	2	2	1	1	6
Security measures are improved	3	2	2	1	8
Proper use of storage facilities	2	3	1	1	7
Availability of changing room	3	3	1	1	8
<u>Score scale</u> 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		28th April 2016		
Possible comprising elements	1	Number of information on sick personnel not properly communicated			
	2	Number of information on meeting not properly communicated			
	3	Number of information on visitors not communicated			
Data source	Observation results				
Period of data collection	1 month from 1st May to 31st May 2016				
Methods of data collection	Observation by using data collection checklist				
Responsible persons of data collection	Mr. Kaliwa, Mrs. Mgogo, MR. O. J. Asam, Mrs. Mbengo				
Remarks	Checklist for data collection is developed.				

(4) Operating Theater

KAIZEN Step 1	Date of implementation		27th April 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Traffic flow of patients and staff is improved	3	3	2	1	9
Use of PPE is improved	2	3	1	1	7
Packing of operating sets is improved	3	3	1	1	8
Handling of theater equipment and supplies is improved	3	3	2	2	10
					0
<u>Score scale</u> 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		28th April 2016		
Possible comprising elements	1	Number of missing scissors			
	2	Number of suture given to other department			
	3	Number of cannulas given to other wards			
	4	Number of I.V. fluids given to other wards			
Data source	Observation results				
Period of data collection	1 month from 1st May to 31st May 2016				
Methods of data collection	Observation by using checklist				
Responsible persons of data collection	F. Masesa, F. Mkomaludzu, C. Batani				
Remarks	Checklist for data collection is developed.				



Republic of Malawi
Ministry of Health

Report on
Supportive Supervision of 5S-KAIZEN-TQM
“KAIZEN Activity Meeting”

Mzuzu Central Hospital
11th and 13th May 2016

- Supervision (Facilitation) Team -

	Name	Title
1	Enock Phale Mr.	Assistant Director, Clinical Services/MoH
2	Kaori Nishikido Ms.	5S-KAIZEN-TQM Expert, MOH/JICA

1. Outline of KAIZEN meeting

(1) Purpose

The purpose of KAIZEN meeting is to support the hospital to start KAIZEN implementation at their pilot areas.

(2) Objectives

- To understand KAIZEN Approach for improving health care services
- To understand how to practice KAIZEN Steps, especially KAIZEN Step 1 and Step 2), with useful Quality Control tools

(3) Participants

30 hospital staff from two pilot areas and QIST; Laboratory and Female surgical ward (See the Annex 1: Participant list).

(4) Timetable

Time	Activity	Brief explanation of the activity
Day 1		
10:30 - 10:45	Courtesy call to Deputy Director	Explanation on the purpose of KAIZEN meeting
10:45 - 13:00	Observation visit at areas practicing 5S-KAIZEN	Observe current 5S-KAIZEN activities
14:20 - 14:40	Introduction on "KAIZEN meeting"	Explanation the objectives of KAIZEN meeting and timetable
14:40 - 15:00	Presentation on KAIZEN Approach	Explanation on KAIZEN Approach and outline of KAIZEN process
15:00 - 15:20	Presentation on KAIZEN step 1 (KAIZEN Theme selection)	Explanation on KAIZEN step 1 and how to practice KAIZEN step 1 with QC tool
15:20 - 16:20	Practice KAIZEN step 1	Implementation of KAIZEN step 1 with actual situation
16:20 - 16:40	Group presentation on KAIZEN step 1	Each group to have a oral presentation on own KAIZEN Step 1
Day 2		
14:00 - 14:20	Presentation on KAIZEN step 2 (Situation Analysis)	Explanation on KAIZEN step 2 and how to practice KAIZEN step 2 with necessary QC tool
14:20 - 16:30	Practice KAIZEN step 2	Identification of contributing factors (composing factors) of the problems, Clarification of methods of situation analysis
16:30 - 16:40	Develop an action plan for KAIZEN activities	Develop action plan for KAIZEN activities This has not been done by QIST. It will be shared with MoH by QIST later.

2. Results

(1) Results of the interview to QIST members on activities done after KAIZEN Basic Training

Four hospital staff were trained in KAIZEN Training in October 2015. They are still working in the hospital. Although briefing session for QIST members on KAIZEN and selection of target areas for KAIZEN were done after the training, necessary activities for initiating KAIZEN activities, which were agreed among the participants during the training, have been done as follows:

- *(Not yet done) Brief KAIZEN Approach and what they learnt during the training to the respective hospital management team (DHMT)*

- *(Not yet done) Develop an action plan of implementation of KAIZEN process*
- *(Not yet done) Commence KAIZEN activities according to the action plan at the respective hospital*
- *(Not yet done) Share the action plan and progress of KAIZEN activities periodically to QIST of the respective hospital and MOH*

(2) Results of KAIZEN Activity Meeting

The participants have done KAIZEN step 1; KAIZEN theme selection, and the beginning of KAIZEN step 2; identification of comprising elements, clarification of data collection methods. Moreover, the participants learned how to develop Pareto chart through demonstration. Selected KAIZEN themes are:

- *“Segregation of waste is improved” at Laboratory*
- *“Documentation on stock cards is improved” at Pharmacy*
- *“Information sharing among administration staff is improved” at Administration*
- *“Handling of theater equipment and supplies is improved” at Operating Theater*

For detailed activities done in the training, see Annex 2: KAIZEN activities at target areas in Mzuzu Central Hospital.

(3) Time frame for KAIZEN activities in Mzuzu Central Hospital

This has not been done by QIST. It will be shared with MoH by QIST later.

3. Recommendation

For sustainable implementation of KAIZEN process, it is essential to **establish monitoring or following-up mechanism for KAIZEN activities** through two ways communications between QIST and WITs of the target areas. Recommended activities are follows:

- **QIST** needs to develop action plan (KAIZEN activities schedule) and then it shall be shared with the pilot departments and MoH.
- **WIT** needs to collect actual data according to the data collection table.
- **QIST** needs to follow whether their data collection is on right track or not
- **QIST** needs to identify the comprising elements for their KAIZEN theme and then collect data.
- **QIST** needs to conduct KAIZEN meetings according to the developed action plan/meeting schedule so that the target areas can proceed and complete KAIZEN steps.
- **QIST needs to** report the progress of KAIZEN activities to HMT monthly
- **WITs** of the target areas need to report the progress of KAIZEN activities to QIST whenever one KAIZEN step is finished
- **WITs** need to check the progress of KAIZEN activities against the action plan

4. Pictures



Annex 1. Participant list

#	Name	Title	Department/Section	Attendance		
				Day 1	Day 2	
1	Martas Bondue	PNO	Female Surgical Ward	A	A	
2	Prisca Nyirenda	P/A		A		
3	Milliam Causi	RNMT		A		
4	Joyce Mtonga	NO		A		
5	Hilda Lungu	RN		A	A	
6	Frank K Banda	LT	Laboratory	A	A	
7	Aubrey Nuthale*	Lab Technitian		A		
8	John Kawnda	Lab Technitian		A	A	
9	Joseph Kachikoji	Lab Technitian		A		
10	Ellen Chupeth	Lab Technitian		A	A	
11	M. Mgomzulu	P/A	CSSD	QIST	A	A
12	Alice E. Khonje	Nurse	CSSD		A	A
13	Wilson F. Katete	SMS	Maintenance		A	A
14	Loveness Nyizenda	PNO	ICU		A	
15	Lucy Uta	PNO	Eye Department		A	
16	Getrode Moyo	PNO	Medical		A	
17	Bestha Chapufela	PNO	Pediatrics		A	
18	Daisy Simeza	PNO	Obs & Gynae		A	
19	Paul Kaseka	CNO	Pediatrics		A	A
20	Conex Simwela	AMS	Maintenance		A	A
21	Violet Kamfose	CNO	Administration		A	
22	Bwamakhuzi Banda	Dental Technitian	Dental		A	
23	Stella Kumwenda*	Nurse	OPD		A	
24	Shida Kanyike	Nurse	ICU		A	A
25	Stanley Y Theu	P/A	Eye Department	A	A	
26	Zikomo Masina Chagwilla	NO	Emergency		A	
27	Elizabeth Chiputu Jere	Nurse	MSW		A	

(*): Trained staff on KAIZEN in October 2016

A: Attended

Annex 2. KAIZEN activities at target areas in Mzuzu Central Hospital

(1) Laboratory

Name of section	Laboratory
KAIZEN theme	Specimen collection is improved

KAIZEN Step 1	Date of implementation		11th May 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Blood at blood bank is adequate	2	3	1	1	7
Specimen collection is improved	3	3	3	3	12
Availability of lab reagents is improved	2	3	1	1	7
Smooth running of lab equipment is increased	2	3	2	1	8
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		13th May 2016		
Possible comprising elements	1	Number of Incorrect sample tubes			
	2	Number of insufficient sample volumes			
	3	Number of haemolysed samples			
	4	Number of samples without labels			
	5	Number of wrong sample patient's IDs			
Data source	Observation data				
Period of data collection	1 month from 17 May 2016				
Methods of data collection	Observation and checking by using checklist				

(2) Female Surgical Ward

Name of section	Female Surgical Ward
KAIZEN theme	Number of blocked sinks and toilets is reduced

KAIZEN Step 1	Date of implementation		11th May 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Number of blocked sinks and toilets is reduced	3	3	3	2	11
Number of patients sent back from theatre is reduced	2	2	1	2	7
Number of staff is increased	3	3	1	1	8
Number of unused properties in the ward is reduced	2	2	2	2	8
Storage space for patients laggages is adequate	2	1	1	1	5
Availability of stationaries is increased	3	3	2	1	9
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		13th May 2016		
Possible comprising elements	1	Number of sinks blocked by food items			
	2	Number of toilets blocked by plastic papers			
	3	Number of toilets blocked by wed gloves			
Data source	Observation results				
Period of data collection	1 month from 17 May 2016				
Methods of data collection	Observation by using checklist				

(3) QIST

Name of section	QIST
KAIZEN theme	Traffic control within the hospital is improved

KAIZEN Step 1	Date of implementation		11th May 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Supportive supervision is regularly done	3	2	3	3	11
Knowledge on 5S-KAIZEN -TQM among QIST members is improved	2	3	2	1	8
Traffic control within the hospital is improved	3	3	3	3	12
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

*Comprising elements (KAIZEN step 2) for QIST is still under discussion. The elements have not been identified within the session.



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Report on
Supportive Supervision of 5S-KAIZEN-TQM
“KAIZEN Activity Meeting”

Kamuzu Central Hospital
22nd and 23rd June 2016

- Supervision (Facilitation) Team -

	Name	Title
1	Enock Phale Mr.	Assistant Director, Clinical Services/MoH
2	Kaori Nishikido Ms.	5S-KAIZEN-TQM Expert, MOH/JICA

1. Outline of KAIZEN meeting

(1) Purpose

The purpose of KAIZEN meeting is to support the hospital to start KAIZEN implementation at their pilot areas.

(2) Objectives

- To understand KAIZEN Approach for improving health care services
- To understand how to practice KAIZEN Steps, especially KAIZEN Step 1 and Step 2), with useful Quality Control tools

(3) Participants

30 hospital staff from two pilot areas and QIST; Laboratory and Female surgical ward (See the Annex 1: Participant list).

(4) Timetable

Time	Activity	Brief explanation of the activity
Day 1		
14:20 - 14:40	Introduction on "KAIZEN meeting"	Explanation the objectives of KAIZEN meeting and timetable
14:40 - 15:00	Presentation on KAIZEN Approach	Explanation on KAIZEN Approach and outline of KAIZEN process
15:00 - 15:20	Presentation on KAIZEN step 1 (KAIZEN Theme selection)	Explanation on KAIZEN step 1 and how to practice KAIZEN step 1 with QC tool
15:20 - 16:00	Practice KAIZEN step 1	Implementation of KAIZEN step 1 with actual situation
Day 2		
14:20 - 14:40	Group presentation on KAIZEN step 1	Each group to have an oral presentation on own KAIZEN Step 1
14:40 - 15:10	Presentation on KAIZEN step 2 (Situation Analysis)	Explanation on KAIZEN step 2 and how to practice KAIZEN step 2 with necessary QC tool
15:10 - 16:10	Practice KAIZEN step 2	Identification of contributing factors (composing factors) of the problems, Clarification of methods of situation analysis

2. Results

(1) Results of the interview to QIST members on activities done after KAIZEN Basic Training

Four hospital staff were trained in KAIZEN Training in October 2015. They are still working in the hospital. Although briefing session for QIST members on KAIZEN and selection of target areas for KAIZEN were done after the training, necessary activities for initiating KAIZEN activities, which were agreed among the participants during the training, have been done as follows:

- *(Not yet done) Brief KAIZEN Approach and what they learnt during the training to the respective hospital management team (HMT)*
- *(Not yet done) Develop an action plan of implementation of KAIZEN process*
- *(Not yet done) Commence KAIZEN activities according to the action plan at the respective hospital*
- *(Not yet done) Share the action plan and progress of KAIZEN activities periodically to QIST of the respective hospital and MOH*

(2) Results of KAIZEN Activity Meeting

The participants have done KAIZEN step 1; KAIZEN theme selection, and the beginning of KAIZEN step 2; identification of comprising elements, clarification of data collection methods. Moreover, the participants learned how to develop Pareto chart through demonstration. Selected KAIZEN themes are:

- *“Patients’ files documentation is done properly”* at High Dependency Unit (HDU)
- *“QIST turn-up to the meetings is improved”* at QIST

For detailed activities done in the training, see Annex 2: KAIZEN activities at target areas in Kamuzu Central Hospital.

(3) Time frame for KAIZEN activities in Kamuzu Central Hospital

This has not been done by QIST. It will be shared with MoH by QIST later.

3. Recommendation

For sustainable implementation of KAIZEN process, it is essential to **establish monitoring or following-up mechanism for KAIZEN activities** through two ways communications between QIST and WITs of the target areas. Recommended activities are follows:

- **QIST** needs to develop action plan (KAIZEN activities schedule) and then it shall be shared with the pilot departments and MoH.
- **WIT** needs to collect actual data according to the data collection table.
- **QIST** needs to follow whether their data collection is on right track or not
- **QIST** needs to identify the data resource, methods, duration, and responsible persons for data collection.

In the meeting, the QIST agreed that the QIST will visit the pilot department such as eye department and laundry to facilitate KAIZEN activities at sites because it was difficult for the hospital staff to meet in the afternoon during this KAIZEN meetings.

4. Pictures



Annex 1. Participant list

#	Name	Title	Department/Section	Attendance	
				Day 1	Day 2
1	Dorothy Kabambe	CNO	QIST	A	A
2	Mcwilliam Kalua	NO		A	A
3	Rose Msowaya	SRNM		A	A
4	Emmie Jingini	SRNM		A	A
5	Ellen Chilua	STA		A	A
6	Ovias F. Mtalimenja	Anaestegist		A	A
7	Brave M. Chibambo	PAM		A	A
8	Lyton Lemani	OCO			A
9	Mercy Katanths	PNO			A
10	Jean Chibwe	NO	HDU	A	A
11	Ellen Chupeth	CHNMT		A	A

(*): Trained staff on KAIZEN in October 2016

A: Attended

Annex 2. KAIZEN activities at target areas in Kamuzu Central Hospital

(1) HDU

Name of section	High Dependency Unit (HDU)
KAIZEN theme	Patients' files documentation is done properly

KAIZEN Step 1	Date of implementation		22nd June 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Personal protection equipment is available	2	3	1	1	7
Patients' privacy is maintained	3	3	2	1	9
Monitors are properly placed	2	3	2	1	8
Patients' files documentation is done properly	3	3	3	2	11
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		23rd June 2016		
Possible composing elements	1	Data not clearly written			
	2	Use of signature instead of full name			
	3	Time not indicated in the patient file			
	4	Use of unrecognised abbreviations			
	5	Designation not indicated			
	6	Stationary inavailable			
Data source	Observation data				
Period of data collection	14 days from 27th June to 11th July				
Methods of data collection	Checking the patients files				
Responsible persons of data collection	Mrs Chibwe / Mrs. Banda				

(2) QIST

Name of section	QIST
KAIZEN theme	QIST turn-up to the meetings is improved

KAIZEN Step 1	Date of implementation		22nd June 2016		
Possible KAIZEN theme	Impact	Urgency	Possibility	Resource availability	Feasibility
Frequent stock-out of drugs and medical supplies is reduced	3	3	2	1	9
QIST turn-up to the meetings is improved	3	3	2	2	10
Documentation in the patient files is improved	3	2	2	2	9
[Score scale] 3: High priority, easy to implement 2: Moderate 1: Low priority, difficult to implement					

KAIZEN Step 2	Date of implementation		23rd June 2016		
Possible composing elements	1	QIST members not available			
	2	Information not reaching to the QIST members			
	3	No agenda for QIST members			
	4	Short notice for QIST members			
	5	Negligence			
Data source	This should be discussed later				
Period of data collection	This should be discussed later				
Methods of data collection	This should be discussed later				
Responsible persons of data collection	This should be discussed later				



Republic of Malawi

Ministry of Health

Report on
Supportive Supervision of 5S-KAIZEN-TQM
“KAIZEN Activity Meeting”

Mzuzu Central Hospital
23rd and 26th August 2016

- Supervision (Facilitation) Team -

	Name	Title
1	Salvador G. Aquino	MOH/JICA
2	Shuichi Suzuki	MOH/JICA

1. Outline of KAIZEN meeting

(1) Purpose

The purpose of KAIZEN meeting is to support the hospital to start KAIZEN implementation at their pilot areas.

(2) Objectives

- To understand KAIZEN Approach for improving health care services
- To understand how to practice KAIZEN Steps, especially KAIZEN Step 3, 4 and 5), with useful Quality Control tools
- To

(3) Participants

30 hospital staff from two pilot areas and QIST; Laboratory and Female surgical ward (See the Annex 1: Participant list).

(4) Timetable

23rd August 2016

Time	
13:30 - 14:00	Review of progress KAIZEN steps
14:00 - 14:30	Explanation of KAIZEN step 3 (Root Cause Analysis)
14:30 - 15:50	Practice KAIZEN step 3 (Identify Cause and Effects on the fishbone)
15:50 - 16:00	Tea Break
16:00 - 16:15	Feedback and explanation on the next steps and tasks

26th August 2016

Time	
09:30 - 10:00	Review of progress KAIZEN steps
10:00 - 10:30	Explanation of KAIZEN step 4 (Identification of countermeasure)
10:30 - 11:30	Practice KAIZEN step 4 (Develop Tree diagram and Matrix Diagram)
11:30 - 11:40	Tea Break
11:40 - 12:00	Explanation of KAIZEN step 5 (Implementation of countermeasure)
12:00 - 12:50	Practice KAIZEN step 5 (Develop action plan)
12:50 - 13:00	Feedback and explanation on the next steps and tasks

2. Results

(1) Review of progress KAIZEN steps

There is no group to collect data for Pareto chart. Therefore, all groups will collect data before KAIZEN at the beginning of KAIZEN implementation.

Based on KAIZEN Steps, each group selected element which may be most influenced to selected theme,

Laboratory: Number of insufficient sample volumes

Female Surgical Ward: Number of blocked sink by food items

QIST: uncontrolled traffic

In terms of “uncontrolled traffic”, we discussed the meaning of the words. And we

agreed that it means the number of visitors who are still in the ward after finishing visiting hours.

(2) Step 3; Root Cause Analysis

Each group developed fish-bone diagram and identified root causes.

(3) Step 4; Identification of Countermeasures

Based on identified root causes, each group developed tree diagram and matrix diagram and then, they selected countermeasures.

(4) Step 5; Develop Action Plan

The action plan for each group is developed based on Step 4. However, baseline data collection must be conducted beginning of the action to be taken,

(5) Way Forward

Based on the action plan, QIST has to monitor the activities and the results of the action has to be evaluated at Step 6.

3. Recommendation

For sustainable implementation of KAIZEN process, it is essential to **establish monitoring or following-up mechanism for KAIZEN activities** through two ways communications between QIST and WITs of the target areas. Recommended activities are follows:

- **QIST** needs to monitor action plan (KAIZEN activities schedule) and then it shall be shared with the pilot departments and MoH.
- **WIT** needs to collect actual data according to the data collection table.
- **QIST** needs to follow whether their data collection is on right track or not
- **QIST** needs to conduct KAIZEN meetings according to the developed action plan/meeting schedule so that the target areas can proceed and complete KAIZEN steps.
- **QIST needs to** report the progress of KAIZEN activities to HMT monthly
- **WITs** of the target areas need to report the progress of KAIZEN activities to QIST whenever one KAIZEN step is finished
- **WITs** need to check the progress of KAIZEN activities against the action plan

4. Pictures



Annex 1. Participant list

#	Name	Title	Department/Section	Attendance			
				11-May	13-May	23-Aug	26-Aug
1	Martas Bondwe	PNO	Female Surgical Ward	A	A	A	
2	Prisca Nyirenda	P/A		A		A	
3	Milliam Causi	RNMT		A			
4	Fiskani Bota	NO				A	
5	Rciard Msukwa	NO				A	A
6	Joyce Mtonga	NO		A			
7	Hilda Lungu	RN		A	A		
8	Frank K Banda	LT	Laboratory	A	A		
9	Aubrey Nuthale*	Lab Technitian		A			A
10	John Kawnda	Lab Technitian		A	A	A	A
11	Joseph Kachikoji	Lab Technitian		A			
12	Ellen Chupeth	Lab Technitian		A	A		
13	M. Mgonezulu	P/A	CSSD	A	A		
14	Alice E. Khonje	Nurse	CSSD	A	A		
15	Wilson F. Katete	SMS	Maintenance	A	A	A	
16	Austin K. Kondwe	Electrician	Maintenance			A	
17	Loveness Nyirenda	PNO	ICU	A		A	
18	Lucy Uta	PNO	Eye Department	A			
19	Getrode Moyo	PNO	Medical	A			
20	Bestha Chapufela	PNO	Pediatrics	A			
21	Daisy Simeza	PNO	Obs & Gynae	A			
22	Paul Kaseka	CNO	Pediatrics	A	A		
23	Conex Simwela	AMS	Maintenance	A	A		
24	Violet Kamfose	CNO	ANC	A		A	
25	Bwamakhuzi Banda	Dental Technitian	Dental	A			
26	Stella Kumwenda*	NO	OPD	A		A	A
27	Shida Kanyike	NO	ICU	A	A	A	
28	Doreen Nyasulu	PNO	OPD			A	
29	Lusekero Munthani	NO	Male Medical Ward			A	
30	Grace Mhone	NMT	Male Surgical Ward			A	
31	Daniel Mlenga	NO	Male Surgical Ward			A	A
32	Blair Sibale	CNO	Administration			A	
33	Stanley Y Theu	P/A	Eye Department	A	A		A
34	Zikomo Masina Chagwillla	NO	Emergency		A		
35	Esthes Kegame	Assistant Admin	Administration				A
36	Elizabeth Chiputu Jere	Nurse	MSW		A		
37	Miho Okabe					A	A

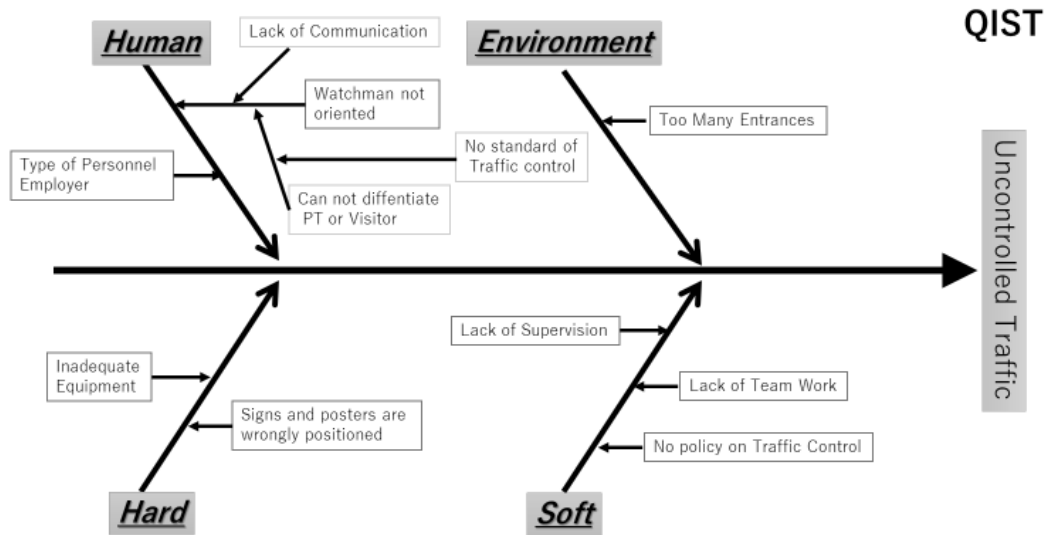
(*): Trained staff on KAIZEN in October 2016

A: Attended

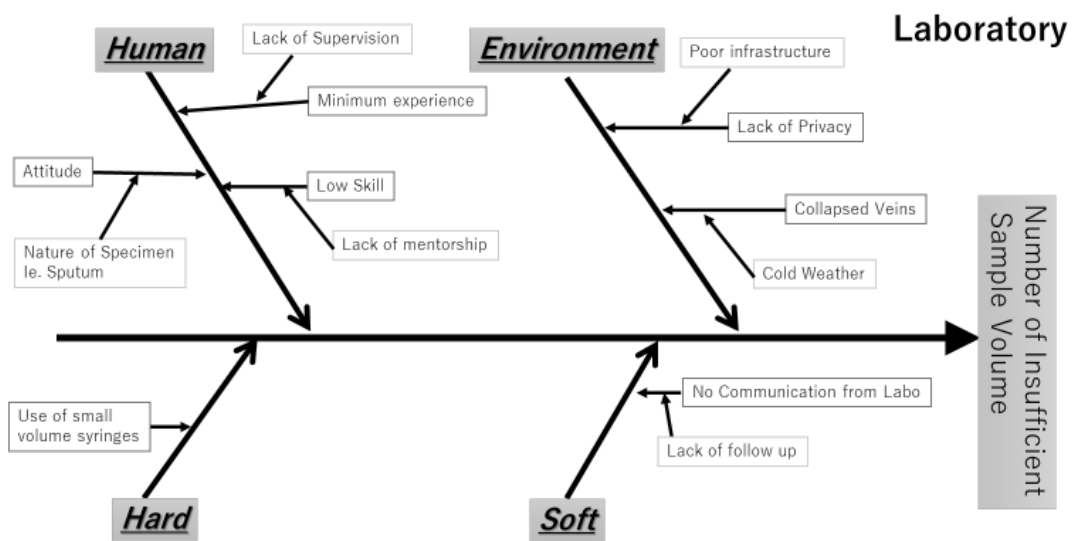
Annex 2. KAIZEN activities in Mzuzu Central Hospital

Step 3 Root Cause Analysis; Fish-Bone Diagram

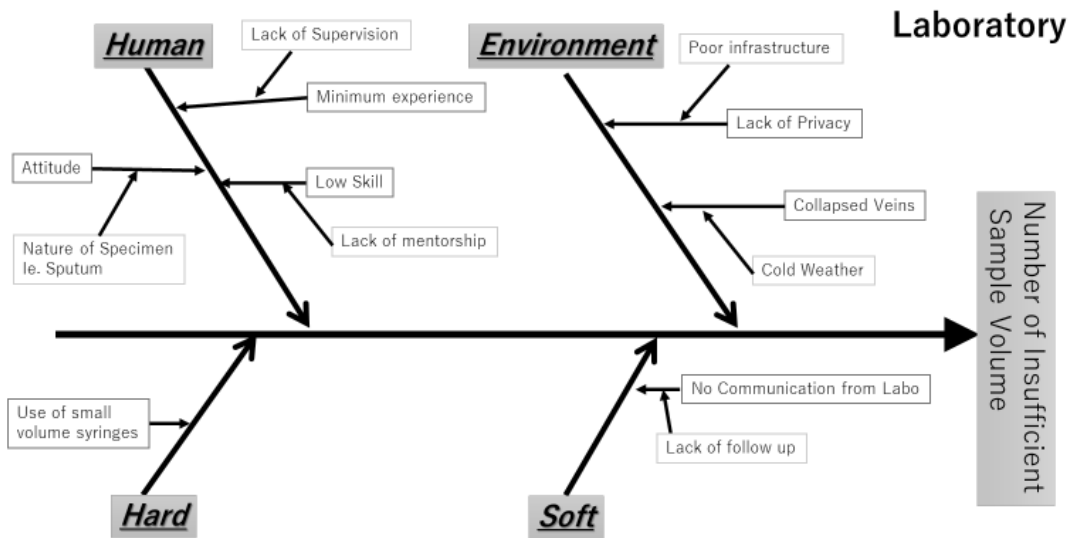
(1) QIST



(2) Female surgical Ward



(3) Laboratory



Step 4 Identify countermeasures; Tree diagram and Matrix Diagram

(1) QIST

QIST			Importance	Urgency	Difficulty	Time consumption	Resource Availability	Feasibility	
#	Root Cause	1st Countermeasure	2nd Countermeasure						
1	Lack of Commitment	Motivate Team Member	3	2	2	3	3	13	
		Develop Regulation	3	2	3	2	2	12	
2	Standards not Formulated	Formulate Standard	3	2	3	1	2	11	
		Orient people on Standard	3	3	3	3	3	15	
3	Poor Supervision	Formulate supervision schedule	3	3	3	2	2	13	
4	No education on Visiting hours	Identify health education on daily basis	Develop Visiting hrs Poster in Local Language	3	3	3	3	2	14
			Develop H/Education Schedule in all department	3	3	2	2	2	12
			WIT members to manage follow-up on H/Education	3	2	2	2	2	11

(2) Female surgical Ward

	Female Surgical Ward			Importance	Urgency	Difficulty	Time consumption	Resource Availability	Feasibility
#	Root Cause	1st Countermeasure	2nd Countermeasure						
1	Little Exposure to proper use of sinks by PTs and Guardians	Orient PTs and Guardians on Proper use of sink	Develop a schedule for orientation of Guardian on daily basis	3	2	2	3	2	12
			Develop Teaching and Learning Materials	3	3	3	2	1	12
			Orient Staff on Waste Disposal	3	2	3	3	3	14
2	Misuse of Water bins by PTs and Guardians	Orient PTs and Guardians on Proper waste segregation							
			Develop IEC in Local Language	3	2	3	2	3	13
			Replace all Waste bins	3	3	3	3	2	14

(3) Laboratory

	Laboratory			Importance	Urgency	Difficulty	Time consumption	Resource Availability	Feasibility
#	Root Cause	1st Countermeasure	2nd Countermeasure						
1	Nature of Specimen	Create Positive Environment for attitude change	Give incentive to good performance staff	3	3	1	1	1	9
			Encourage those with poor attitude by talking to them	3	3	2	2	2	12
2	Lack of mentorship	Mentor other staff	Conduct on the Job Training	3	3	1	1	1	9
3	Lack of Follow-up	Follow-up errors	Enforcing standard by calling respective departments	3	3	3	2	3	14
4	Poor Supervision	Conduct Supervision	Formulate roster	3	2	2	2	1	10
5	Poor infrastructure	Construct improved wards / buildings	Demarcating sections by using screens to improve privacy	3	3	1	2	1	10
6	Patients are cold	Make wards / building warm so patient are confirmable	Close windows in cold days	3	2	1	3	3	12
			Make patients warm cloth	3	2	3	3	2	13

Step 5 Develop Action Plan

(1) QIST

#	Countermeasures	WHO	What	Where	When	Why	How
0	Collect Baseline Data						
1	Sensitize people on Standard	QIST members	Standard	Hospital	By Oct 30	Improve Traffic control measures	sensitize
2	Develop Visiting hrs Poster in Local Language	QIST members HODs	Posters	All Section / Department	By Oct 30	Reduce traffic during working hours	Develop
3	Develop supervision schedule	Incharges Unit Matron HOD	Schedule	Wards Department	By Sep 30	Make sure traffic control	Develop
4	Clarifying roles for everyone	Supervisor Incharges QIST	Roles	All Section / Department	By Sep 30	active participation in traffic control	Clarify

(2) Female surgical Ward

#	Countermeasures	WHO	What	Where	When	Why	How
0	Collect Baseline Data						
1	Develop a schedule for orientation of Guardian on daily basis	Ward Incharge WIT	Schedule	Ward	by 5 Sep	Improve knowledge for proper usage of sinks	Develop
2	Develop Teaching and Learning Materials	Ward Incharge WIT	Teaching and learning materials	Ward	by 20 Sep	to simplify taching on waste disposal	Develop
3	Orient Staff on Waste Disposal	WIT	Waste disposal	Ward	by 30 Sep	manage waste disposal	Incorporate it during morning handover
4	Develop IEC in Local Language						
5	Replace all Waste bins						

(3) Laboratory

#	Countermeasures	WHO	What	Where	When	Why	How
0	Collect Baseline Data						
1	Enforcing standard by calling respective departments	HOD	standard	Respective Wards	Mid Sep	Reduce reject sample	follow standard
2	Make patients warm cloth	Nurse QIST	Keep PTs warm	Wards	During Cold day	Veins are visible	advice to patient
3	Encourage those with poor attitude by talking to them	WIT QIST	Motivation talk	Wards	Immediat ely	increase morale	conduct meeting
4	Close windows in cold days	Nurse on duty WIT	Monitoring Schedule	Wards	During Cold season	patient is warm	controlling air in the room



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“KAIZEN Activity Meeting”

Thyolo District Hospital
23rd September 2016

- Supervision (Facilitation) Team -

	Name	Title
1	Mr. Enock Phale	Assistant Director of Clinical services, MOH
2	Kaori Nishikido	5S-KAIZEN-TQM Expert, MOH/JICA

1. Outline of KAIZEN meeting

(1) Purpose

The purpose of KAIZEN meeting is to support the hospital to start KAIZEN implementation at their pilot areas.

(2) Objectives

- To understand KAIZEN Approach for improving health care services
- To understand how to practice KAIZEN Steps, especially from KAIZEN Step 3 to Step 5), with useful Quality Control tools

(3) Participants

Sixteen hospital staff from four pilot areas; Kitchen, Labor ward, Pharmacy and Maintenance unit, and some of QIST members participated (See the Annex 1: Participant list).

(4) Timetable

Time	Activity	Brief explanation of the activity
09:00 - 09:10	Courtesy call to DHO	Explanation on the purpose of KAIZEN meeting
10:20 - 10:30	Interview to QIST and the participants on the progress of KAIZEN activities	Check the progress of data collection and development of Parato chart to the participants
10:30 - 11:00	Presentation on KAIZEN step 3 (Root cause analysis)	Explanation on KAIZEN step 3 and how to practice KAIZEN step 3 with QC tool
11:00 - 12:40	Practice KAIZEN step 3	Implementation of KAIZEN step 3 with actual situation
12:40 - 13:00	Group presentation on KAIZEN step 3	Each group to have an oral presentation on own KAIZEN Step 3
13:00 - 13:20	Presentation on KAIZEN step 4 (Identify countermeasures)	Explanation on KAIZEN step 4 and how to practice KAIZEN step 4 with QC tool
13:20 - 14:20	Lunch Break	
14:20 - 15:30	Practice KAIZEN step 4	Implementation of KAIZEN step 4 with actual situation
15:30 - 15:40	Group presentation on KAIZEN step 4	One group to have an oral presentation on own KAIZEN Step 4
15:40 - 16:00	Presentation on KAIZEN step 5 (Implementation countermeasures)	Explanation on KAIZEN step 5 and how to practice KAIZEN step 5 with QC tool
16:00 - 16:20	Practice KAIZEN step 5	Implementation of KAIZEN step 5 with actual situation
16:20 - 16:30	Feedback and Explanation on the next task	

2. Results

(1) Review of progress KAIZEN steps

Only Labour ward and Kitchen collected actual data and developed parato chart to identify major contributing factors. Pharmacy and Maintenance should collect actual data after the KAIZEN meeting. In the session, Pharmacy and Maintenance assumed major contributing factors for practice.

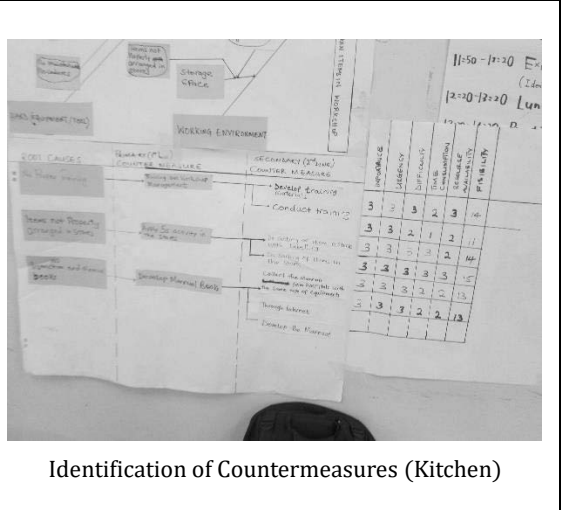
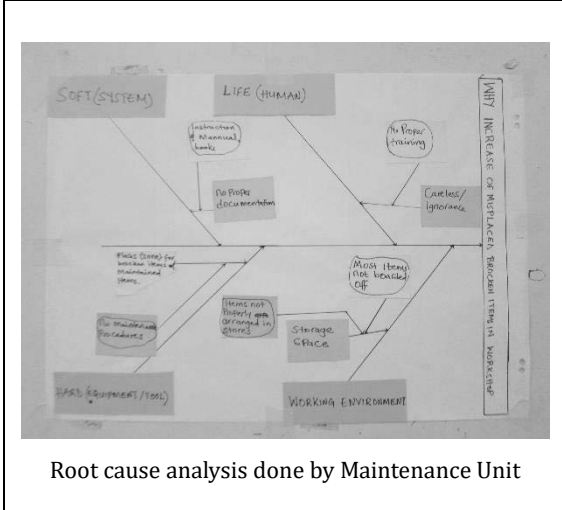
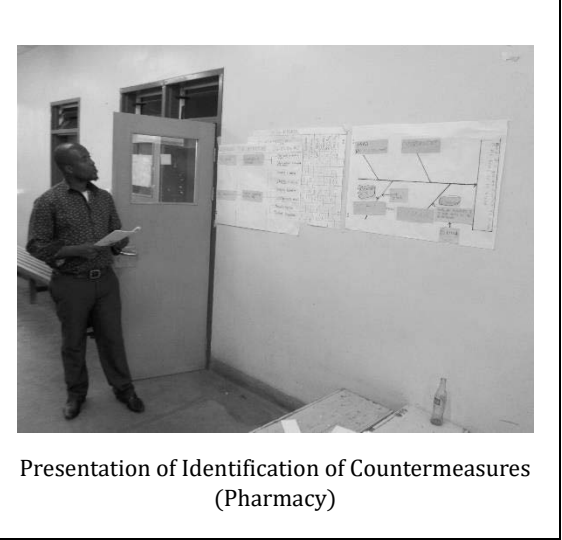
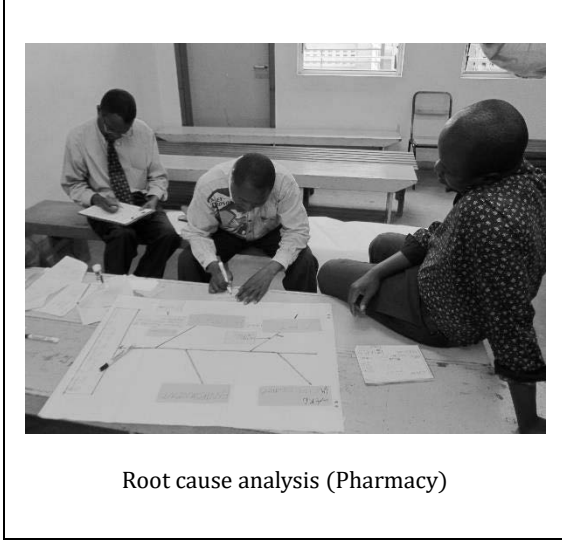
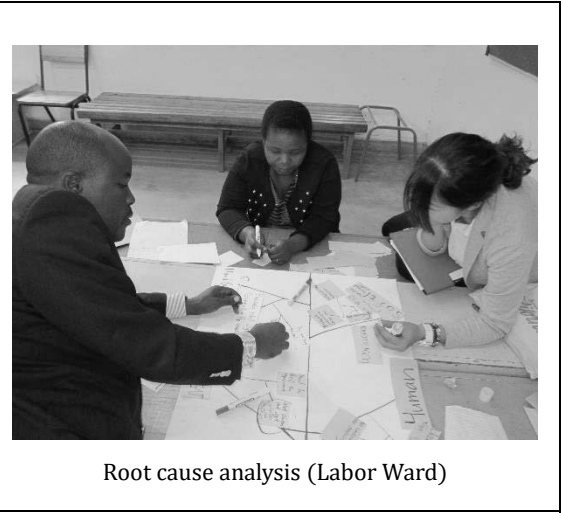
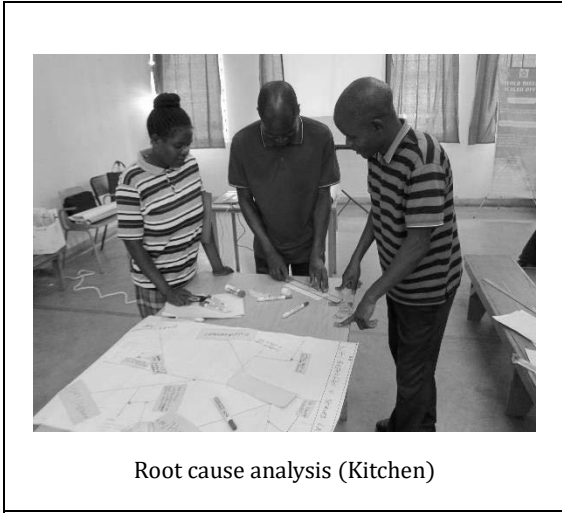
- (2) **Step 3: Root Cause Analysis**
Each group developed fish-bone diagram and identified root causes.
- (3) **Step 4: Identification of Countermeasures**
Based on identified root causes, each group developed tree diagram and matrix diagram, and then they selected countermeasures.
- (4) **Step 5: Develop Action Plan**
The action plan for each group is developed on Step 4. However, all groups failed to complete their action plan within the meeting due to time constraints, and therefore they need to continuously make their action plan under support by QIST.
- (5) **Way Forward**
Labour ward has not been completed the identification of countermeasures. They should continuously identify by regular KAIZEN meeting among staff. Also, other groups should review what they did with other staff of members, and the analysis and countermeasures should be modified as necessary because the participants from each department were limited in the meeting. Then, QIST has to monitor the activities and the results of the action plan has to be evaluated at Step 6.

3. Recommendation

For sustainable implementation of KAIZEN process, it is essential to establish monitoring or following-up mechanism for KAIZEN activities through two ways communication between QIST and WITs of the target areas, Recommended activities are follows:

- **QIST** needs to monitor action plan (KAIZEN activities schedule) and then it shall be shared with the pilot departments and MoH,
- **QIST** needs to conduct KAIZEN meetings according to the developed action plan/meeting schedule so that the target areas can proceed and complete KAIZEN steps.
- **QIST** needs to report the progress of KAIZEN activities to HMT monthly.
- **WITs** of each KAIZEN target area need to record all KAIZEN process properly and report the progress of KAIZEN activities to QIST whenever one KAIZEN step is finished.

4. Pictures



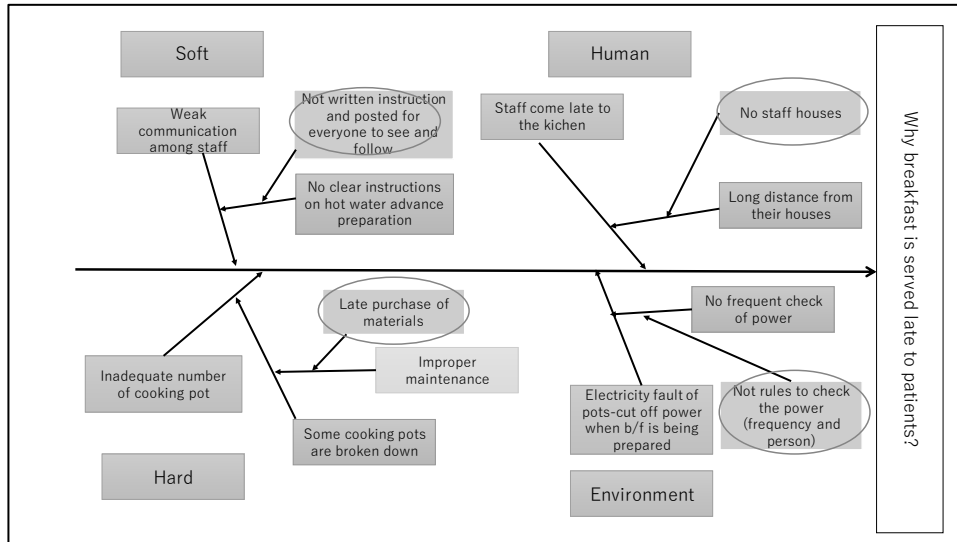
Annex 1. Participant list

#	Name	Title	Department/Section	Attendance		
				April (Day 1)	April (Day 2)	September
1.	Richard Muhaiwa	Electrician	Maintenance unit	✓	✓	✓
2.	God-spell Kang'ombe	Plumber	Maintenance unit	✓	✓	✓
3.	Emmerson Jumbe	Carpenter	Maintenance unit	✓	✓	✓
4.	Elijah Nyozani	MET	Maintenance unit	✓	✓	✓
5.	Halmiton Malibo	Painter	Maintenance unit			✓
6.	Mary Makresa	Nurse Midwife Technician	Labor ward	✓		
7.	Agnes Malinga	Health attendant	Labor ward	✓	✓	
8.	Meronisha Lodoviko	In-charge of Labor ward	Labor ward	✓	✓	
9.	Snossia Kumpasa	Nurse	Labor ward	✓		✓
10.	Chisomo Kasore	Nurse	Labor ward			✓
11.	Florida Maguwa	Nurse	Labor ward			✓
12.	Egjher Kwelenga	Nurse	Labor ward	✓	✓	
13.	Elard F. Kahiafi	Pharmacy Assistant	Pharmacy	✓	✓	✓
14.	Chisomo Chiombo	Pharmacy Technician	Pharmacy		✓	
15.	Collins Chiwosi	Pharmacy Assistant	Pharmacy	✓	✓	✓
16.	Recheal Kapoloza	Kitchen Attendant	Kitchen	✓	✓	
17.	Ibadi Anubi	Kitchen Attendant	Kitchen	✓	✓	
18.	Annie Rakusa	Catering Assistant	Kitchen	✓	✓	
19.	Maxwell Komua	Catering Assistant	Kitchen	✓	✓	✓
20.	Prisca Chiwanda	Cook	Kitchen			✓
21.	Francis Josaya	Cook	Kitchen			✓
22.	Semu Kholola	Environmental Health Officer	Environmental Health Office	✓	✓	✓
23.	Prince Chimanya	Dental Therapist	Dental	✓	✓	
24.	Mkuntha Lameck	Laboratory Technician	Laboratory	✓	✓	
25.	Steady Vinkhumbo	Clinician	PSC	✓	✓	
26.	Lucy Nyrenda	Chief Nursing Officer	Laboratory	✓	✓	
27.	Chris Balaka	Accountant	Administration	✓		✓
28.	Byson Mpakata	Accountant	Administration	✓	✓	✓
29.	Akane Fudo	Nurse	QIST	✓	✓	
30.	Sayaka Hattori	Pharmacist	Pharmacy	✓	✓	

Annex 2. KAIZEN activities at target areas in Thyolo District Hospital

(1) Kitchen

Step 3 (Root Cause Analysis)

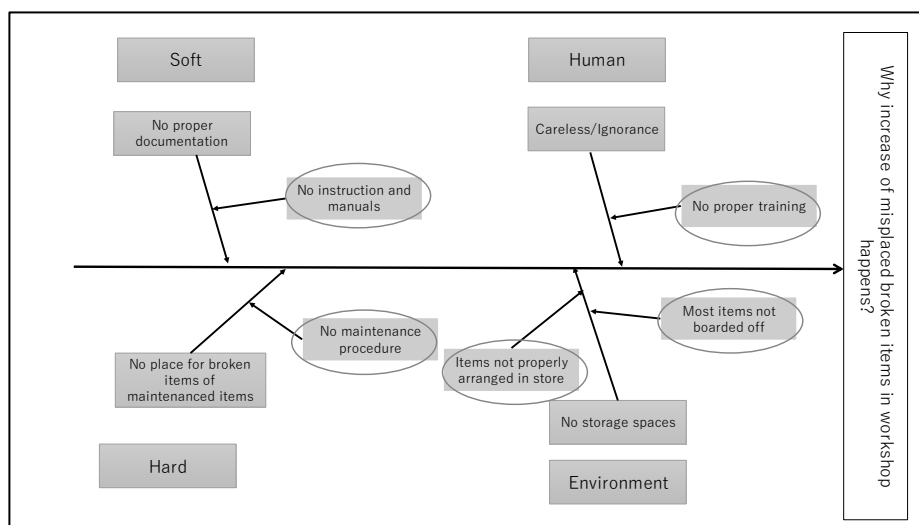


Step 4 Identification of Countermeasures

Root cases	1st Line Countermeasures	2nd Line Countermeasures	Importance	Urgency	Difficulty	Time Consumption	Resource Availability	Feasibility
No written and posted for everyone to see and follow	Written information on the notice board	Formulate and develop relevant message and information	3	3	3	3	3	15
		Post the information and message on the notice board	3	3	3	3	3	15
Late purchase of materials of broken cooking pots	Frequent communication with the maintenance department	Develop stock maintenance request forms	2	3	3	3	3	14
		Fill and send timely	3	3	3	2	3	14
No rules who check and when for faulty pots	Make rules who and when to check for faulty pots	Formulate rules and regulations	3	3	3	3	3	15
		Post the rules on the notice board	3	3	3	3	3	15

(2) Maintenance unit

Step 3 (Root Cause Analysis)

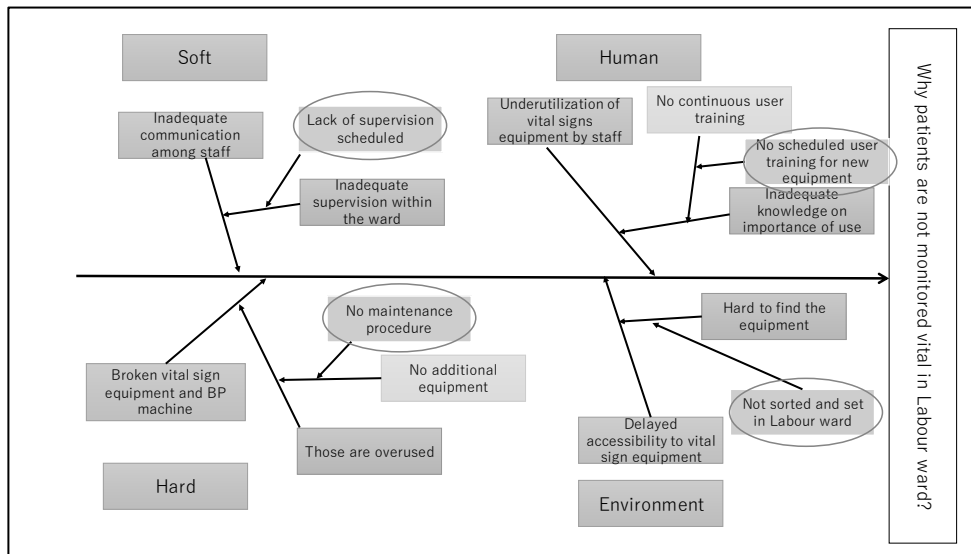


Step 4 Identification of Countermeasures

Root cases	1st Line Countermeasures	2nd Line Countermeasures	Importance	Urgency	Difficulty	Time Consumption	Resource Availability	Feasibility
No proper training	Training on workshop management	Develop training materials	3	3	3	2	3	14
		Conduct training	3	3	2	1	2	11
Items are not properly arranged in the store	Apply 5S activity in the stores	Do sorting of items in store	3	3	3	3	2	14
		Do setting of items in the store with labelling	3	3	3	2	3	14
No instructions and manual books	Develop manual books	Collect the manuals from other hospitals or internet for the same type of equipment	3	3	3	2	2	13
		Develop the manual	3	3	3	2	2	13

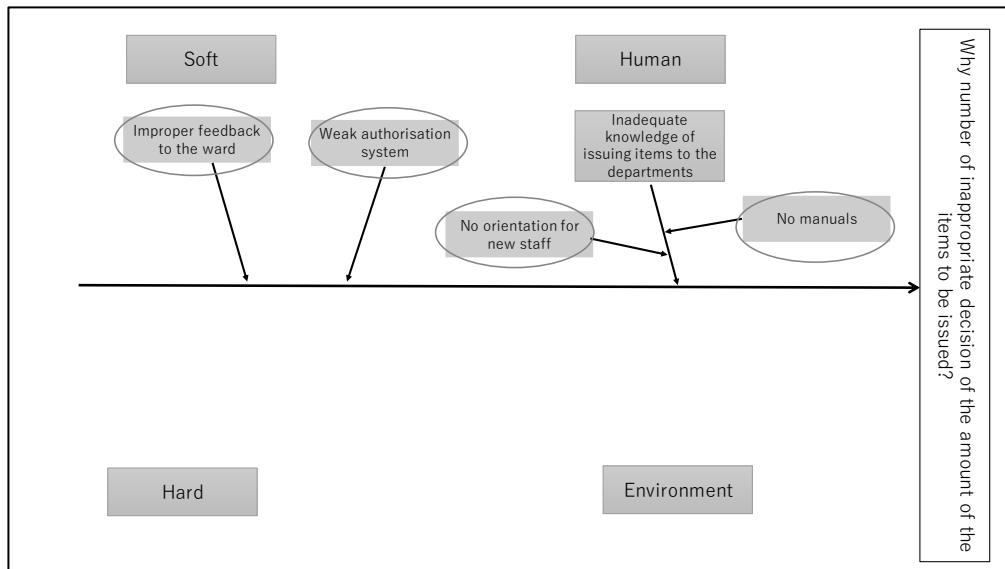
(3) Labor ward

Step 3 (Root Cause Analysis)



(4) Pharmacy

Step 3 (Root Cause Analysis)



Step 4 Identification of Countermeasures

Root cases	1st Line Countermeasures	2nd Line Countermeasures	Importance	Urgency	Difficulty	Time Consumption	Resource Availability	Feasibility
No manual	Introduction of manuals	Staff meeting to develop of manual	3	3	3	2	3	14
		Gathering information to be included in the manual	3	2	2	2	2	11
		Developing a manual	3	3	2	2	2	12
		Orientation of staff on the manual	3	3	3	2	3	14
No training	Conduct orientaion to every staff	Identifying facilitaters	3	3	3	3	3	15
		Organising resource materials	3	2	3	2	2	12
		Organising logistics	3	3	2	2	2	12
		Conduct an orientation	3	3	2	2	2	12



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Kamuzu Central Hospital
4th and 5th October 2016

- Supervision (Facilitation) Team -

	Name	Title
1	Shuichi Suzuki Mr.	5S-KAIZEN-TQM Expert, MOH/JICA
2	Kaori Nishikido Ms.	5S-KAIZEN-TQM Expert, MOH/JICA

1. Outline of KAIZEN meeting

(1) Purpose

The purpose of KAIZEN meeting is to support the hospital to start KAIZEN implementation at their pilot areas.

(2) Objectives

- To understand KAIZEN Approach for improving health care services
- To understand how to practice KAIZEN Steps, especially from KAIZEN Step 3 to Step 5), with useful Quality Control tools

(3) Participants

10 hospital staff from QIST (and some departments) (See the Annex 1: Participant list).

(4) Timetable

Time	Activity	Brief explanation of the activity
Day 1 (4 th October 2016)		
13:00 - 13:10	Courtesy call to CNO	Explanation on the purpose of KAIZEN meeting
14:40 - 14:50	Interview to QIST and the participants on the progress of KAIZEN activities	Check the progress of data collection and development of Parato chart to the participants
14:50 - 15:10	Presentation on KAIZEN step 3 (Root cause analysis)	Explanation on KAIZEN step 3 and how to practice KAIZEN step 3 with QC tool
15:10 - 16:10	Practice KAIZEN step 3	Implementation of KAIZEN step 3 with actual situation
16:10 - 16:25	Group presentation on KAIZEN step 3	Each group to have an oral presentation on own KAIZEN Step 3
Day 2 (5 th October 2016)		
14:10 - 14:30	Presentation on KAIZEN step 4	Explanation on KAIZEN step 3 and how to practice KAIZEN step 4 with QC tool
14:30 - 15:20	Practice KAIZEN step 4	Implementation of KAIZEN step 4 with actual situation
15:20 - 15:30	Group presentation on KAIZEN step 4	Each group to have an oral presentation on own KAIZEN Step 4
15:30 - 15:45	Presentation on KAIZEN step 5 (Implementation countermeasures)	Explanation on KAIZEN step 5 and how to practice KAIZEN step 5 with QC tool
15:45 - 16:20	Practice KAIZEN step 5	Implementation of KAIZEN step 5 with actual situation
16:20 - 16:30	Feedback and Explanation on the next task	

2. Results

(1) Review of progress KAIZEN steps

No teams which started KAIZEN implementation in the last meeting collected actual data and developed pareto chart to identify major contributing factors. Therefore, HDU and QIST should collect actual data after the KAIZEN meeting. I

(2) Step 3: Root Cause Analysis

The staff could not attend the meeting, and therefore the participants were divided into two groups to process the KAIZEN of QIST in the meeting. In the session, QIST assumed two major contributing factors for practice. Each group developed fish-bone diagram

and identified root causes.

- (3) Step 4: Identification of Countermeasures
Based on identified root causes, each group developed tree diagram and matrix diagram, and then they selected countermeasures.
- (4) Step 5: Develop Action Plan
The action plan for each group is developed on Step 4.
- (5) Way Forward
QIST and HDU have to collect actual data in Step 2, and process the KAIZEN step based on the data under support QIST. Then, QIST has to monitor the progress of activities and the results of the implementation of countermeasures has to be evaluated at Step 6.

3. Recommendation

For sustainable implementation of KAIZEN process, it is essential to establish monitoring or following-up mechanism for KAIZEN activities through two ways communication between QIST and WITs of the target areas, Recommended activities are follows:

- **QIST** needs to monitor action plan (KAIZEN activities schedule) and then it shall be shared with the pilot departments and MoH,
- **QIST** needs to conduct KAIZEN meetings according to the developed action plan/meeting schedule so that the target areas can proceed and complete KAIZEN steps.
- **QIST** needs to report the progress of KAIZEN activities to HMT monthly.
- **WITs** of each KAIZEN target area need to record all KAIZEN process properly and report the progress of KAIZEN activities to QIST whenever one KAIZEN step is finished.

4. Pictures



Annex 1. Participant list

#	Name	Title	Department/Section	Jun-16		Oct-16	
				Day 1	Day 2	Day 1	Day 2
1	Dorothy Kabambe	CNO	QIST	A	A	A	A
2	Mcwilliam Kalua	NO		A	A	A	A
3	Rose Msowaya	SRNM		A	A		
4	Emmie Jingini	SRNM		A	A	A	A
5	Ellen Chilua	STA		A	A		
6	Ovias F. Mtalimenja	Anaestegist		A	A		
7	Brave M. Chibambo	PAM		A	A		
8	Lyton Lemani	OCO			A	A	A
9	Mercy Katanths	PNO			A		
10	Lovely Ndundu	CNO				A	A
11	Richard Nyasulu	Dental Therapist				A	A
12	Memory Thev	Patient Attendant				A	
13	Prisca Mzumara	SNO				A	
14	Karren Scott	Hospital Attendant				A	A
15	Chiwaula Sizala	PAM				A	A
16	Howado Namuku	IT					A
17	Carolyn Mwalwanda	CMO					A
18	Grycian Massa	PAM					A
19	Jean Chibwe	NO	HDU	A	A		
20	Ellen Chupeth	CHNMT		A	A		

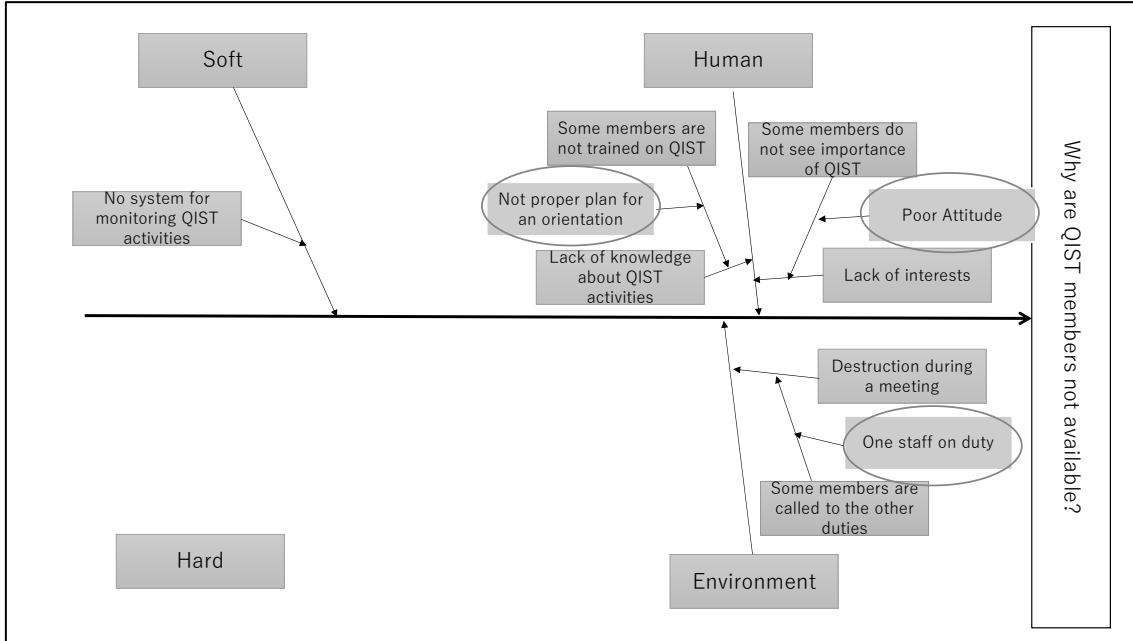
(*): Trained staff on KAIZEN in October 2016

A: Attended

Annex 2. KAIZEN activities at target areas in Kamuzu Central Hospital

(1) QIST team 1

Step 3: Analysis of Root Causes



Step 4: Identification of Countermeasures

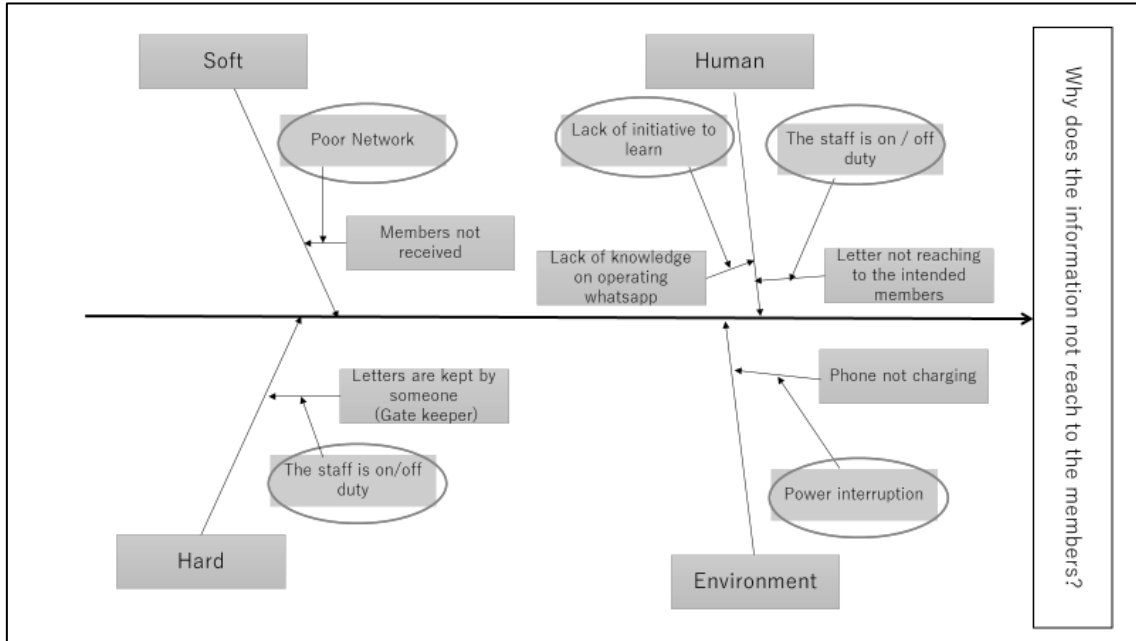
Root cases	1st Line Countermeasures	2nd Line Countermeasures	Importance	Urgency	Difficulty	Time Consumption	Resource Availability	Feasibility
No proper plan for QIST activities	Scheduled plan for QIST activities	Discussion among QIST members	3	3	1	2	3	12
		Plan the schedule of QIST activities	3	2	2	2	2	11
		Print the plan and share the copy	3	2	2	3	1	11
Poor Attitude	Individual approach	Coordinator approach to QIST members individually	3	3	1	1	3	11
One staff on duty	Find locam staff	Notify the management	3	1	3	2	3	12

Step 5: Action Plan

Activities	Who	When	Where	What	Why	How
Discussion among QIST members	QIST members	By 31st Oct	KCH	Making a plan	to improve turn up to QIST meeting	discuss
Plan the schedule of QIST activities	QIST members	By 31st Oct	KCH	Schedule	to improve strengthen QIST activities	develop
Print the plan and share the copy	QIST members	By 11th Nov	KCH	Schedule and Plan	to share among QIST members	print and circulate
Coordinator approach to QIST members individually	Core chair QIST	By 18th Nov	KCH		to improve attendance	
Notify the management	Secretary	By 18th Nov	KCH management	necessity of allocation of locam staff	to improve attendance	Notify

(2) QIST team 2

Step 3: Analysis of Root Causes



Step 4: Identification of countermeasures

Root cases	1st Line Countermeasures	2nd Line Countermeasures	Importance	Urgency	Difficulty	Time Consumption	Resource Availability	Feasibility
Lack of initiative to learn	Conduct Training	Develop teaching materials	3	3	3	2	3	14
		Make a training plan	3	3	3	2	3	14
		Conduct training	3	3	3	2	3	14
QIST members are on / off duty	Secretary inform/remind to all QIST members	Set the rules	3	3	3	3	3	15
		Inform and remind through SMS	3	3	2	3	2	12
		QIST members end apology on time for rescheduling a meeting if necessary	3	3	2	2	2	12
Power interruption	Send SMS two days before	-	3	3	3	2	2	13

Step 5: Action Plan

Activities	Who	When	Where	What	Why	How
Develop teaching materials	QIST	End of Dec 2016	QIST meeing	Teaching materials	to improve communication	develop
Make a training plan	QIST	End of Dec 2016	QIST meeing	Training plan	to improve communication	develop
Conduct training	QIST	End of Dec 2016	KCH	Training	to improve communication	conduct
Set the rules	QIST	Next QIST meeting	QIST members	new rule	to agree	set
Inform and remind through SMS	Secretary	After set the rule	QIST members	SMS	to alert QIST members	send
QIST members end apology on time for rescheduling a meeting if necessary	QIST	After set the rule	to secretary	Apology	to reschedule	send
Send SMS two days before	QIST	After set the rule	QIST meeting	SMS	to improve communication	send