Manual for Healthcare Quality & Safety

Directorate of Healthcare Quality & Safety

Ministry of Health

Sri Lanka

Manual for Master Trainers Healthcare Quality & Safety

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Message from Secretary – Health . . . .

 The history of Medicine in Sri Lanka has been flourishing over the decades as various governments have committed themselves to ensure continuous provision of healthcare to the public which is safe, accessible, of good quality and sustainable. At present, the health system of the country is facing a period of transition with the recent introduction of Quality & Safety in healthcare.

The development of a collective national commitment island wide is very important in order to pursue the health vision addressed by *'Mahinda Chinthana'*. It is a well identified fact that even though the policy support from the central government and the high level administration is satisfactory, the leadership island wide at all levels is insufficient in the implementation of those policies. Hence, it is a challenge that requires significant changes in the current health system towards a health promoting nation.

Accordingly, the Ministry of Health has taken all necessary actions for decentralization of authority by continuous policy development, staff development, conducting island wide training programmes, re-orientation of health services and re-organization of the health system shifting the paradigm towards a health promoting nation. As a step forward, the Directorate of Healthcare Quality & Safety was first established in September, 2012 to ensure provision of quality care and patient safety island wide.

As capacity building is one of the key components of Healthcare Quality & Safety programme, this Manual for Master Trainers in Healthcare Quality & Safety is published as a reference book for Master Trainers island wide.

I wish to thank all the stakeholders involved in the development of this manual. In particular, Dr. Reggie Perera, former Secretary – Health who led the working group; Dr. Lakshmi C Somatunge, Deputy Director General (Medical Services – I) who supervised the whole developmental process and Dr. S Sridharan, Director - Healthcare Quality & Safety who coordinated and facilitated the drafting work of the manual.

While appreciating the hard work of all the experts who actively participated in the project, I sincerely wish this manual be fruitful for all Master Trainers island wide in achieving the goals of a health system nourished with quality care and patient safety!

Dr. Y D Nihal Jayathilaka
Secretary - Health

Message from Director General of Health Services . . .

Sri Lanka, being a country with a low middle income, possesses an unstinted commitment in the provision of quality health care as indicated by impressive health indicators.

Even though indicators are satisfactory, unfortunately, many patients in the country possess firsthand experiences related to adverse events, near misses, unresponsiveness and poor quality care of the existing health system. Therefore, it has been a pressure to change the system, to effectively enforce the policies made and to assure the provision of quality care and patient safety towards a healthier nation which is driven by continuously increasing demands from unsatisfied patients in the country.

In order to meet these challenges and experiencing the need to improve the quality & safety of care, which is the responsibility of all healthcare providers, this manual is published demarcating a benchmark in the process of decentralization of the training programmes and development of Master Trainers in Healthcare Quality & Safety island wide.

It is a movement that holds great promise for improved continuous quality and safety of the system and with the publication of this Manual for Master Trainers in Healthcare Quality & Safety, a reference book is presented as a sound material support for capacity building programmes, making training a rewarding experience for both the trainer and the trainees.

I hope all Master Trainers Island wide will understand the fruitfulness of the use of this manual as a concise reference book in their training programmes.

Dr. P G Mahipala

Director General of Health Services

Preface

Deputy Director General (Medical Services) 1 …..

It is a pleasure to preface this *Manual for Master Trainers in Healthcare Quality & Safety* which is published by the Directorate of Healthcare Quality & Safety, fulfilling a long awaited need in the health system of the country.

The journey to write a complete and comprehensive manual is strewn with triumphs, failures and near misses. This manual is the final fruit of combined experiential knowledge, evidence and analyses of the experts in the field of healthcare management. Primarily, it is intended as a reference book for Master Trainers in Healthcare Quality & Safety to equip the prospective trainer with essential understanding of the training procedure. Throughout these pages, a trainer will find a wide range of issues related to patient safety and quality care which are at the core of the health system of the country. This manual is structured to allow the trainer a great deal of freedom in how to organize and present the material in their training programmes and the flow charts and the explanatory text provide definitive and irrefutable details making understanding easy.

Spurred by the impressive feedback obtained following the pilot programme conducted for 14 selected Master Trainers from Southern and Northern provinces, it was convinced that subject areas and contents of this Manual were tempered by the test of being able to teach trainers effectively.

There are a number of individuals who have helped us with the contents of this manual. First and foremost, I offer my sincere gratitude to Dr. Reggie Perera, former Secretary – Health and Health Systems Management Specialist/Institution for Health Policy, who has

been a well recognized pioneer in the introduction of Quality & Safety to health system of the country, for his enormous contribution in offering chairmanship for the working group and editing the manual.

Many thanks go to all the members of the working group for their material support, constructive criticisms and useful suggestions which were extremely fruitful in finalizing the draft manual.

I am grateful for all the contributors in the list who have collaborated in various sections of this manual. In addition, I would like to acknowledge the Translators at the Translation Branch – Ministry of Health for the efforts made in translating the manual into Sinhala and Tamil media.

Last, but not least I am indebted to Dr. S Sridharan, Director/Healthcare Quality & Safety for coordinating the process, for bearing the whole burden under his untiring shoulders and all the triumphs and tribulations made in publishing the manual.

I hope this manual will be a useful reference book for Master Trainers in Healthcare Quality & Safety Island wide and a curtain raiser in the identification of multifaceted strategies to create change within health systems of the country striving for excellence.

Dr. Lakshmi C Somatunge
Deputy Director General (MS) 1

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ABBREVIATIONS

AAKCP	Asia-Africa Knowledge Co-creation Programme
ADE	Adverse Drug Events
BH	Base Hospital
BHT	Bed Head Ticket
CHI	Commission for Health Improvement
CLSD	Central Linen Supplies Department
CQI	Continuous Quality Improvement
CSSD	Central Sterile Supplies Department
DDG (MS)	Deputy Director General (Medical Services)
DGH	District General Hospital
DPDHS	Deputy Provincial Director of Health Services
EBM	Evidence-Based Medicine
ETU	Emergency Treatment Unit
EUA/D &C	Examination Under Anaesthesia / Dilatation and Curettage
FHS	Fetal Heart Sound
GDP	Gross Domestic Product
GNP	Gross National Product
HMA	Health Management Assistant
HQS	Healthcare Quality & Safety
IOM	Institute of Medicine
IOM	Institute of Medicine
ISO	International Organization for Standardization
JCAHO	Joint commission for Accreditation of Health care Organizations
JICA	Japan International Cooperation Agency
KPA	Key Performance Assessment
LOS	Length of Stay

LRMP	Last Regular Menstrual Period
MCSS	Multi-country Survey Study
MH	Mental Hospital
MO/MCH	Medical Officer / Maternal & Child Health
MOH	Medical Officer of Health
NPSA	National Patient Safety Agency
OPD	Out Patient Department
OPD	Out Patient Department
PDCA	Plan Do Check Act
PDHS	Provincial Director of Health Services
PHI	Public Health Inspector
PU	Peripheral Unit
QA	Quality Assurance
QALYs	Quality Adjusted Life Years
QIT	Quality Improvement Teams
QMU	Quality Management Units
QWL	Quality of Work Life
RDHS	Regional Director of Health Services
RH	Rural Hospital
TH	Teaching Hospital
TOT	Training of Trainers
UK	United Kingdom
USA	United States of America
WEI	Work Environment Improvement
WHO	World Health Organization
WIT	Work Improvement Teams

Introduction

INTRODUCTION TO THE TRAINER'S MANUAL

Introduction

Sri Lanka has achieved a commendable health status measured in terms of traditional health indices in relation to its Gross Domestic Product (GDP). Sri Lanka's health indicators have over the past few decades been above the regional averages. For further improvement, the island's health system is focusing more towards patient-centered quality care and patient safety.

The focus on patient-centered care, holistic practice and provision of value for money means that there is a greater need to ensure health professionals, allied teams and managers have the necessary knowledge and skills and they develop appropriate attitudes, to improve and develop healthcare services. A wide range of techniques have been used to improve healthcare including establishment of Quality Improvement Teams (QIT) and Work Improvement Teams (WIT), introduction of Quality Improvement Tools, Clinical Audits, Guidelines, Evidence-Based Medicine (EBM), Continuous Quality Improvement (CQI), leadership, choice and competition. All of these initiatives require health professionals and managers to learn and apply new skills. The Ministry of Health believes that training can be an effective lever for improving the quality of healthcare. This initiative needs to be decentralized to the Provinces/Districts/Institutions, so that the training teams at these levels can tailor make programmes to cater to their needs. As a prelude to this initiative, this manual on training of trainers has been developed.

Research suggests that lack of knowledge and skills among managers and clinical staff is a significant barrier to improving quality in healthcare (Neale, 2007). Training health professionals in quality improvement has the potential to impact positively on attitudes, knowledge and behaviours (O'Brien, 2001). In fact, some suggest that training professionals may be just as effective as financial incentives for improving the quality of healthcare (Epstein, 2008).

This manual addresses basic concepts in healthcare quality and safety for the human resources for health. It is expected that master trainers in healthcare quality and safety should use this manual to design training programmes in their provinces/institutions. In the health sector, there are several categories of staff. Each category needs training relevant to their work area. Therefore, the master trainers can adapt this training programme according to their needs. For example, clinicians might need more inputs on patient safety. Thus, more emphasis can be given to patient safety when training clinicians on healthcare quality and safety by reducing the time allocated to other areas. The basic practical guidelines are given in the annexure I of this chapter.

Objectives of the Programme

The objectives of the programme are shown in the following boxes:

The **overall objective** is:

To build the capacity of Continuous Quality Improvement trainers to design, deliver and institutionalize Continuous Quality Improvement (CQI) training programmes.

The **specific objectives** of the workshop are to enable participants:

1. To discuss the concepts of Healthcare Quality, Patient Safety, Quality Improvement Techniques, Dimensions of Quality, Responsiveness and Monitoring the implementation of Quality Assurance (QA) programme of healthcare institutions
2. To develop required knowledge and skills on conducting group work and study visits
3. To analyze the existing attitudes and values towards Continuous Quality Improvement (CQI) programme with a view to improve the commitment towards CQI
4. To acquire the skills to facilitate a range of interactive methodologies used for the training of health personnel
5. To acquire basic knowledge in adopting CQI training programme to their specific situations

Expected Outcome: The development of confident, competent CQI trainers with the skills to design, implement and evaluate training programmes in CQI for human resources for health in their respective districts / institutions.

Expected Impact: Institutionalization of the CQI programme in their districts / institutions to assure sustainability of Quality & Safety in health institutions.

Expected Time for Training: An average of 21 hours (03 days) but may vary from training to training. The topics and exercises presented here are organized into day-long sessions. There are flexible amount of time allocated, so no exact time table is presented for each day. A trainer should review the material ahead of time and plan the amount of time that fits the needs of the particular training

Manual Guidelines

To improve quality of care in healthcare institutions, health personnel need to learn about healthcare quality and safety. There is progression from knowing "what" to knowing "how" and ultimately to "doing" it. Best learning is through hands-on experience with feedback from trainees, along with mentoring and coaching. The topics for this programme have been carefully designed so that health care workers in Sri Lanka will be able to understand the concepts of quality and patient safety comprehensively.

MODULE 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

Chapter 01: Chapter one addresses the concept of Continuous Quality Improvement, different quality concepts and history of healthcare quality improvement programme in Sri Lanka and the world. In order to understand the concept of quality unambiguously, basic terms used in healthcare management are explained in this chapter.

Chapter 02: A *system* may be defined as an assemblage or combination of things or parts forming a complex or unitary whole, a set of interacting units. The essential focus of the systems approach is the relationship and interdependence of the parts. The system approach moves beyond structure or function (e.g. organization charts, departmentalization) to emphasize the flow of information, the work, the inputs and the outputs. Hence, knowledge on systems is important in improving healthcare quality & safety. This chapter will focus on system level issues that result from dynamic interactions in the health care system (human factors and technical systems) and how they may affect health care quality and safety.

Chapter 03: Quality improvement is mainly associated with change management. In any change management, positive thinking of employees of an organization plays a dominant role. Setting a positive mindset among health personnel has been detailed in chapter three. This chapter mainly focuses on the significance of positive thinking and ways and means of developing positive attitude.

Chapter 04: Responsiveness to patients is now seen as a key characteristic of an effective health system. Health systems throughout the world are searching for ways of making their services more responsive to patients and the public. The seven domains of responsiveness as discussed in this chapter are, dignity, autonomy, confidentiality of information, prompt attention, access to social-support networks, quality of basic amenities, and choice of health-care provider.

Chapter 05: Patient safety is relatively a new field of science. In 1999, the Institute of Medicine (IOM) of the National Academy of Sciences, USA released a report, 'To Err is Human: Building a Safer Health System' and the report was focused on the staggering statistics: out of 44,000 to 98,000 preventable deaths occurring annually due to medical

errors in hospitals, 7,000 preventable deaths are related to medication errors alone. This chapter will focus on causes of medical errors and their mitigations.

MODULE 02: QUALITY IMPROVEMENT TECHNIQUES

Chapter 06: Japanese 5S concept is considered as the entry point for the quality improvement programme in Sri Lankan health sector. This chapter elaborates on the 5S concept, application of 5S concept in healthcare settings, its benefits and 5S tools.

Chapter 07: Kaizen is a system that involves every employee - from upper management level to the cleaning crew on an ongoing basis. Everyone is encouraged to come up with small improvement suggestions on a regular basis. This is not a once a month or once a year activity but it is continuous. In Japanese companies, such as Toyota and Canon, a total of 60 to 70 suggestions per employee per year are written down, shared and implemented using the PDCA cycle. There is evidence that this Kaizen practice has been successfully implemented in health sector too. Hence, this chapter orients on Kaizen, Gemba Kaizen and PDCA cycle.

Chapter 08: Work Improvement Teams (WIT) are small groups of employees from the workplace organized to participate in mutual development and problem-solving activities that are helpful to improve the quality and productivity of an organization. Understanding the concept of Work Improvement Teams as detailed in this chapter is fundamental to improving productivity, quality and safety in a healthcare institution.

Chapter 09: In order to improve a process to deliver desired results, a systematic, fact-based approach that enables permanent solutions to root causes of problems should be used. Quality improvement is a continuous process. This chapter addresses important quality improvement tools such as Histograms, Pareto Analysis, Why-Why diagram, Fish-Bone Diagram and Problem Tree. The knowledge gained from these chapters can be applied to identify the root causes of problems.

MODULE 03: IMPLEMENTATION OF QUALITY IMPROVEMENT PROGRAMME

Chapter 10: Knowing the dimensions of service quality will enable healthcare organizations to maximize patient satisfaction and meet their expectations. This chapter elaborates on the dimensions of quality in the Sri Lankan context.

Chapter 11: A monitoring system enables healthcare providers to set priorities, establish quality indicators and assess the hospital's performance to ensure that the desired outcomes are achieved. The foundation of a monitoring system consists of standards and indicators, the guideposts for achieving quality. Monitoring provides a way to compare performance with standards, both at a specific point in time and over a period of time, and also with the performance of other hospitals. The results provide a way to determine causes for variance and identify areas for improvement.

Chapter 12: A Chinese philosopher & reformer Confucius (551 BC - 479 BC) said "I hear and I forget; I see and I remember; I do and I understand". The next two chapters are about developing skills by seeing, interviewing and doing things. Chapter 13 briefs on conducting study visits to a best performing hospitals.

Chapter 13: Action planning is a process which will help you to focus your ideas and to decide on the steps you need to take to achieve particular goals that you may have. Preparing an Action Plan is a good way to help you to reach your objectives in the Continuous Quality Improvement (CQI) programme. This chapter guides the trainees to identify the barriers and challenges in implementing Continuous Quality Improvement (CQI) programmes and to develop action plans for their health institutions.

Quality is not about creating individual heroes but building up a team that enables the healthcare organization to create a sustainable CQI programme. The training programme 'Introduction to Continuous Quality Improvement in Healthcare' will be an impetus to create such a dedicated team.

The Curriculum of the training programme is annexed (Annexure: II).

The evaluation form for the training programme is annexed (Annexure: III). Make sure that the evaluation form is given at the start of the training programme and collected at the end of the training programme. It is also necessary to analyze and give feedback to the resource personnel and coordinator of the programme so that the future programmes can be improved.

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Annexure I

PRACTICAL TIPS TO CONDUCT A TRAINING PROGRAMME

KEY CONSIDERATIONS FOR COORDNIATORS

The role of a coordinator is very important during a group discussion or workshop. A coordinator should never forget his/her roles and responsibilities, which include the following:

- Always remain neutral!! Your role as a coordinator is to facilitate the discussion of others; your own personal opinions and priorities must be put aside.
- Be positive and try to go to the workshop with energy and genuine enthusiasm!
- Ensure that the participants feel welcome and are encouraged to participate.
- Always remember the objectives of the meeting.
- Try not to let one or two people dominate the discussion; provide an opportunity for everyone to participate.
- After a group discussion has finished, try to summarize the discussion before moving on to the next topic or agenda item.
- It is your responsibility to prepare the agenda and follow it.
- Always listen carefully to what others have to say.
- Guide and encourage the groups' participation.
- Always observe your group; if energy or interest levels are low, change gears, do an energizer or take a small break.
- Always stay in communication with your group; ensure that the information presented is clear and that people are ready to move forward. Do not always wait for someone to ask a question; observe body language and facial expressions.
- Create a comfortable and safe environment for participants.

- Be prepared to handle people with different opinions or situations of conflicts. Ensure that the tone is always respectful and while people may disagree, everyone should feel safe and welcome to participate.
- Be aware of the different backgrounds of the participants and design a process that reflects different contributions and be aware of 'sensitive' issues that may require attention.
- Ensure that you are organized. Participants will lose confidence if there aren't enough handouts, if the Power-point projector is not working properly; if tea/coffee is late!
- Lastly, take the opportunity to continue your own learning. Participants often have insights, experiences and opinions that challenge your own. Be open!

Dos and Don'ts of Training

The following "Dos and Don'ts" should ALWAYS be kept in mind by the coordinators during any session of this module.

Dos –

- Prepare in advance
- Maintain good eye contact
- Involve participants
- Write clearly and boldly
- Use visual aids and ensure visibility of aids to all
- Speak clearly and loud enough
- Recap at the end of each session
- Encourage questions
- Use logical sequencing of the topics
- Bridge one topic to the next
- Encourage participation and give appropriate feedbacks
- Avoid distracting mannerisms and distractions in the room
- Be aware of the participant's body language

- Provide clear instructions
- Check whether your instructions are understood clearly
- Keep the group focused on the task
- Use good time management and evaluate as you go
- Keep it simple and summarized

Don'ts –

- Don't talk to the flip chart
- Don't read from the curriculum
- Don't block the visual-aids
- Don't stand at one spot
- Don't ignore the participants' comments and feedbacks (verbal & non-verbal)
- Don't lose your temper

Training Basics

People learn best when they know what to expect. Irrespective of the duration of the training programme, the participants should know the following:

What can I expect?

Participants often arrive feeling nervous, particularly with a sensitive topic like Patient Safety. Help participants relax by reviewing the agenda with the group.

Who are my fellow participants?

Through introductions, talking about participant expectations and ice breakers, participants can learn about each other and express their own identities.

Who is my trainer?

Telling participants about you, your background and a few personal details sets a friendly and open tone.

What is the purpose of this training?

Tell participants the purpose of each session. This can be done by reviewing the learning objectives.

Training Tips:

- Be positive and confident; Smile!
- Show excitement and enthusiasm.
- Express genuine interest in each individual's contribution.
- Speak loudly, clearly and not too quickly—especially if you or the participants are speaking a second language.
- Take notes for the group to see clearly and quickly, in dark colors considering alternating between two colors when writing on a flipchart.
- If working with people from different groups, find positive ways to acknowledge and bridge differences.
- Use open-ended questions that truly encourage discussion.
- Encourage discussion among group members instead of dialogues between participants and yourself. One way is to redirect questions to the entire group, for example: "What do you think of Gamini's suggestion?"
- Tell participants when you have learned something new from them.
- Come prepared with necessary supplies.
- Practice techniques beforehand to feel confident and think clearly. Visualize the entire session—imagining how to arrange the room, what to say, how to create transition between activities and so on; Jot short notes on a card to refer to.
- Participants have different learning styles. Use different speeds, styles, and types of activities to reach them all.

- Good discussions must sometimes be stopped when time runs out. Place key ideas on a "parking lot" paper—to revisit later. Be sure to schedule time to do get back to the "parking lot" issues.
- At times, you may have difficulty getting discussion started. If you ask a question and no one answers it, wait—count to five slowly to yourself without showing anxiety or irritation. Be comfortable with the silence. If no one answers, smile, rephrase the question, and wait again. If discussion continues to be slow, ask participants to discuss the question with a partner for a few minutes. Then ask several pairs what they came up with.
- When energy is low, take a three minute break for an "energizer." Ask participants for "energizer" ideas.
- Often a few participants dominate, while others seem interested but keep quiet. *****Tips for balancing the group:
    - Don't put the quiet ones on the spot—but do ask them if they'd like to contribute or not
    - Change the makeup of small groups often. Quieter people will eventually meet up with other quiet types and speak up.
    - In a large group discussion, ask participants to jot down a few ideas before anyone speaks; then, ask each person around the room to read an idea.
    - Look for body language. People who are ready with ideas may sit forward, meet your eyes, or shift in their seats while another person is speaking.
    - If a participant begins to over-dominate, enlist their help in encouraging others to speak up.

When dealing with sensitive issues, it is important to try to *****set people at ease. You can model using words that may be uncomfortable and allow people to "come along" with you gradually.

Don't put people on the spot to share information they may not want to share, or that they may regret sharing later. Avoid building false expectations of confidentiality.

The Training Environment

What is the training environment?

The training environment includes everything that affects the learner including physical, social, cultural, psychological and emotional influences.

How can you create a physical environment that supports and enhances learning?
Participants are more likely to learn and share their experiences when they feel comfortable and safe in their training environment.

There are several factors to consider when selecting or using a space for effective learning:

- Space size
- Room layout
- Accessibility
- Cleanliness
- Temperature
- Decoration
- Atmosphere
- Social/emotional safety

How do you make sure that your learning environment supports learning?

Know your audience: To create a safe space, it is important to base decisions on each participant group. Consider gender, culture, ethnicity, hierarchy, language, tensions between subgroups and typical ways of learning of each group.

- **Size:** Is the space for the learning activities of the right size? It should be large enough for participants to move about but small enough to create a bit of intimacy. If the space is not ideal, consider re-arranging furniture, removing tables, or adding some decorations.
- **Layout:** What is the ideal room arrangement for what you want to accomplish? Having people seated formally around a large conference table can make people feel nervous and awkward. Having rows of chairs with a teacher standing in front of the room can put participants in a hierarchical teacher-student mindset. However, seating arrangements in a circle or semi-circle in chairs (or on the floor) encourages participation. Another option is arranging groups spread around the room, seated on the floor or chairs around small tables when there is lot of writing but small group work.

- **Accessibility:** Can people get to the workshop location? Provide good directions before commencement of the workshop and display signs directing people once they arrive. Let participants know where to find toilets, water and snacks, if appropriate.

- **Visuals**: Can participants see you, each other, materials you plan to use from the given places seated? Be sure to try out your visuals by actually writing something on the flipchart or chalkboard or by turning on a video/DVD, or projector beforehand. Is your handwriting legible? Posters or other materials on the walls and/or a resource table can provide additional information and color. Consider literacy levels and the language of your participants when deciding on posters and written resources.

- **Atmosphere:** Once you have designed the sessions and created a comfortable physical space, consider the per-to-person atmosphere. The first day sets the tone for the entire training experience. Every learner brings fears and expectations to a new learning situation. You and the training team can make participants

comfortable within a welcoming atmosphere of open communication, respect and learning.

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CURRICULUM FOR CQI TRAINING PROGRAMME

Learning Objectives	Content	Training/Learning Method	Training/Learning Material	Time Duration	Assessment
MODULE 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY					
1.1 To explain the basic concepts of Healthcare Quality & Safety	• Global trends in healthcare • Definitions of Quality • Importance of Quality • Sri Lankan health sector approach to Quality Improvement Programme • Implementation of Quality Improvement Programme • Definitions of basic terms in healthcare management related to Quality & Safety	Lectures & Discussions	Power-point presentations/PPT/ Handouts	90 Minutes	Questions & Answers
1.2 To explain Hospital Systems	• Introduction to a System • Essential characteristics of a Hospital System	Lecturers & Discussions	Power-point presentations/PPT/	45 Minutes	Questions & Answers

			Handouts		
1.3 To build up Positive Mindset for improved Quality of Healthcare	• Overview of Positive Attitudes • Benefits of Positive Attitudes • Steps in building up of Positive Attitudes	Lectures & Discussions Appropriate case studies Role play Management games Individual group work etc.	Power-point presentations/PPT/ Handouts/Practical examples	150 Minutes	Questions & Answers
1.4 To explain the concept of Responsiveness	• Introduction to responsiveness • Elements of Responsiveness • Perceived relative importance of domains of Responsiveness	Lecturers & Discussions Case studies	Power-point presentations/PPT/ Handouts	60 Minutes	Questions & Answers
1.5 To describe the basic	• Introduction to Patient Safety	Lectures &	Power-point	90	Questions &

concepts of Patient Safety	• Classification of Hospital Accidents • Evolution of a Patient Safety culture • Elements of Safety culture • Types of Medical Errors	Discussions Case studies	presentations/PPT/ Handouts	Minutes	Answers
MODULE 02: QUALITY IMPROVEMENT TECHNIQUES					
2.1 To explain the application of Japanese management practices to the health sector (5S)	• Introduction to 5S • Importance of 5S • Implementation of 5S • Benefits of 5S • 5S Tools	Lectures & Discussions Management games Case studies	Power-point presentations/PPT/ Handouts/Films Photo Presentations Games	150 Minutes	Questions & Answers
2.2 To describe Kaizen & Gemba Kaizen in healthcare Management	• Introduction to Kaizen & Gemba Kaizen • Elements of Kaizen • Different types of wastes	Lectures & Discussions	Power-point presentations/PPT/ Handouts/Photo	120 Minutes	Questions & Answers

	• Benefits of Kaizen • Rules of implementing Kaizen		presentations		
2.3 To explain roles and functions of Work Improvement Teams (WIT)	• Importance of WIT • Components of WIT • Roles & functions of members of WIT • Functioning of WIT	Lectures & Discussions Case studies	Power-point presentations/PPT/ Handouts	90 Minutes	Questions & Answers
To describe the relevant Quality Improvement Tools (QIT)	• Introduction to Quality Improvement Tools • Explain Histogram, Performances importance Matrix, Why-Why diagram, Fishbone diagram, Problem Tree with examples	Lectures & Discussions	Power-point presentations/PPT/ Handouts	150 Minutes	Questions & Answers
MODULE 03: IMPLEMENTATION OF QUALITY IMPROVEMENT PROGRAMME					
3.1 Discuss the Dimensions of Quality	• Introduce Dimensions of Quality in relation to Healthcare (WHO specifies)	Lectures & Discussions	Power-point presentations/PPT	45 Minutes	Questions & Answers

3.2 To explain the monitoring of Productivity and Quality Improvement Programme	• Introduction to Standards & Indicators • Process of developing Standards & Indicators in relation to productivity and Quality Improvement Programme • Process of Monitoring of Healthcare Institutions with developed standards and indicators	Lectures & Discussions	Power-point presentations/PPT/Handouts/List of developed Standards & Indicators	60 Minutes	Questions & Answers
3.3 To explain the process of Study Visit to a hospital practicing Total Quality Management (TQM)	• Receive on-site experience on the implementation of 5S, CQI, TQM programmes • Gain experience in the implementation of 5S-CQI-TQM programme • Provide feedback to the visiting institution on their	Study Visit & Discussion	Study Visit to best performing units in a hospital/inspection of photos documents, registers etc.	150 Minutes	Questions & Answers

	practices • Reflect on the practices of visitors and identify measures for improvement of their own institutions				
3.4 To develop an Action Plan (Group Work) and presentation of Group Work	• Introduction to Group Work • Performing Group Work • Presentation of Group work to a panel of resource personnel	Group work presentation & Discussion	Group Work presentations using Flip charts	150 Minutes	Questions & Answers during presentations
Preparation	The Lecturer's attire should be appropriate. He/she should not use negative/disappointing terms to the participants. He/she should thoroughly go through the training material before conducting the lecture session. In addition, the lecturer should use suitable examples relevant to health sector. The handouts must be made available to the participants beforehand.				
Training Material	The handouts based on Power-point presentations need to be given to participants (06 slides/page). Along with pens and pencils, half sheets/note pad can be given to make important remarks. Give handouts before the lecture. Materials should be attractive, clear and of as high a quality as possible; include instructions where relevant. It may be worth making some material reusable. Supply everything needed for all activities in sufficient quantity.				

Annexure III

Overall Session/Lecture Evaluation by trainees on Training of Introduction to Healthcare Quality and Safety

Your valuable ideas are very much appreciated to improve future programmes and therefore please feel free to share your unbiased ideas with us. Please complete each lecture evaluation immediately after the lecture.

A. Overall module (please complete after finishing the module)

Please underline your response.

1. Timing of the entire module: Too congested/ congested/ Just right/ relaxed/ Too relaxed
2. Sequence of the lectures: Excellent/ Very good/ Good/ Satisfactory/ Needs improvement
3. Did the module fulfill your expectations? Not at all/ to some extent/ reasonable/ good/ very good
4. Has the module helped you to develop new skills or improved your knowledge? Not at all/ to some extent/ reasonable/ good/ very good
5. Lecture hall facilities: Excellent/ Very good/ Good/ Satisfactory/ Needs improvement
6. Hand outs and other materials for learning: Excellent/ Very good/ Good/ Satisfactory/ Needs improvement
7. Your honest opinion on how the lectures/ module could be further improved (please write in your own words):

   ……

B. Lectures: Please rate in a scale of 1 to 4 (instructions on how to fill the table below is provided)

Please mark 1 or 2 or 3 or 4 in the space that best represents your evaluation of the lecture.

1-Poor 2-Adequate 3-Good 4-Excellent

Enthusiasm
Speaks expressively or emphatically
Moves about while lecturing
Gestures with hands and arms
Shows facial expressions
Uses humor
Uses extemporaneous delivery

Clarity
Uses concrete examples of concepts
Gives multiple examples
Points out practical applications
Stresses important points
Repeats difficult ideas

Interaction
Addresses students by name
Encourages questions and comments
Talks with participants after class
Praises students for good ideas
Asks questions of class

Task Orientation
Proceeds at good pace for topic
Stays on the theme of the lecture
States course objectives

Rapport
Friendly, easy to talk to
Shows concern for participant's progress
Offers to help participants with problems
Tolerant of other viewpoints

Organization
Puts outline of lecture on board
Uses headings and subheadings
Gives preliminary overview of lecture
Signals transition to new topic

Explains how each topic fits in

Topic	Enthusiasm	clarity	Interaction	Task orientation	Rapport	Organization

This evaluation form was adapted from Pamela Cooper's adaptation of the form by Harry Murray, "Classroom teaching behaviors related to college teaching effectiveness." In J. Donald and A. Sullivan (eds.) *Using Research to Improve Teaching.*San Francisco: Jossey-Bass, 1985, p. 25

Changes for this or other sessions:

- ☐ Add activities
- ☐ Better preparation by facilitator / trainer
- ☐ Draw more on participants' experience
- ☐ More review, move more slowly
- ☐ Incorporate more collaboration
- ☐ Move faster
- ☐ Other _____

Other Topics to Cover:

_____

_____

_____

MODULE 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

CHAPTER 01

SESSION PLAN - 01

TOPIC: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

Objectives: To make the participants understand and recognize the basic concepts of Quality & Safety in relation to different levels of organizations

Total Amount of Time: 90 Minutes **Number of Participants:** 35 (Approx.)

Preparation: Since this is the first lecturer in this training programme, the lecturer should come to the lecture at least 15 minutes in advance and make sure that the auditorium is well set up for the training programme as mentioned in the introduction chapter. Also refer the curriculum (Annexure: II of Introduction Chapter)

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Start with emphasizing the importance of Quality Assurance Programme for their provinces, regions and institutions and the milestones of Quality Assurance Programme in Sri Lanka.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 10 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Introduce the topic with definitions of Quality and moving towards Healthcare Quality. Give examples of 'poor quality' as against 'good quality' (develop examples of your own experience) with implications for the staff, patients and cost.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 60 Minutes

Explain various quality concepts, approaches to Quality Improvement Programmes and practical ways of implementing such programmes in a healthcare organization. Also, finally explain the basic definitions of Quality & Safety in healthcare management.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 10 Minutes

Summarize learning; ask for questions and look back at objectives. Discuss questions in full group; ask for participant responses to questions. Display the first power-point slide showing the main areas that were covered. Possible obstacles that they may face should be discussed.

Closing Comments: Acknowledge, motivate and inspire

Reinforce the importance of Quality & Safety in the healthcare organization; confirm that the time was well spent and thank participants; reinforce group respect and rapport.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Introduction to Healthcare Quality & Safety **Date:** _____

Attendees:

_____
_____
_____
_____

Observations Made by the Trainer:

_____
_____
_____
_____
_____
_____
_____
_____

CHAPTER 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

1.1 Background & Situation Analysis

This chapter is for the trainers to be convinced of the need for quality assurance in health care. It starts with the current situation with regard to the health services, the reasons for the good health indicators, the need of the hour, namely quality and the approaches made so far and what more is required. It recaps the difficult road traversed so far to establish the national QA programme. Further consolidation and gains depend on the efforts to be made by the Provinces/Districts to which, the manual on Training of Trainers (TOT) is to provide a road map.

Sri Lanka provides free healthcare services to all the citizens irrespective of their status, income or geographic location and has achieved remarkable health outcomes, particularly relative to neighboring countries with a similar income range. Nevertheless, there are certain drawbacks in the hospital-based component of the healthcare delivery system which have affected the quality and efficiency of its services as demonstrated by overcrowding in the higher level institutions, deficiencies of amenities and patient dissatisfaction.

Over the last three decades successive governments in Sri Lanka have strived to address these deficiencies in order to improve the healthcare service provision in the preventive and curative sectors. The preventive health service areas were re-demarcated to serve people more efficiently. Many hospitals in the remote areas were upgraded. The Health Sector reforms instituted from 1994 established District General Hospitals in each district which provide basic specialized services. Training of health personnel was intensified. Medical/Nursing and Paramedical staff were appointed. The intensive care facilities and laboratory services were expanded with appropriate technology.

Despite these initiatives by the Ministry of Health to improve the services, certain major deficiencies still exist in the government health sector, as follows:

- Some hospitals do not provide services focusing on the expectations of customers/patients

- Services provided by the hospitals are not attractively presented to the people
- Many hospitals ignore non-health related expectations of the people such as,
    - Basic human needs
    - Dignity
    - Kindness & compassion
    - Communication with patients and relatives
    - Prompt attention in emergency care

There had been numerous complaints on deaths and disabilities due to inappropriate care in hospitals (WHO, 2000).

These deficiencies can be addressed by strengthening the National Quality Assurance Programme.

Globally, the main reasons to implement quality assurance strategies are:

- Unsafe health systems
- Unacceptable levels of variations in performance, practice and outcome
- Ineffective or inefficient (overuse, misuse or underuse) healthcare technologies and/or delivery
- User dissatisfaction
- Waiting lists (in OPD, clinics, Operating Theatre etc.)
- Unaffordable costs to the society
- Waste from poor quality

According to a report by the Institute of Medicine (IOM) that quotes estimates from two major studies, between 44 000 and 98 000 preventable medical deaths occur in healthcare facilities in the United States each year. A study published by Health Grades in March 2011 found that, from 2007 through 2009, 52 127 Medicare inpatients developed hospital-acquired bloodstream infections and 8,114 of them did not survive their hospitalization. The study also reported that in the same period there were 708 642 total patent events affecting 667 828 Medicare beneficiaries and there were 79 670 patient deaths among those who experienced one or more patient events. According to a World Health Organization report, 1 in 10 individuals receiving medical care will suffer preventable harm.

A study by the IOM found that 1.5 million Americans are injured by a medication error every year. According to the Centres for the Disease Control, there are two million acquired infections in hospitals in the United States every year. It is estimated that medical errors cost between US$ 17 – 29 billion annually (Pauley & Pauley, 2011).

Even though our hospitals provide valuable services to the public, the services are not well recognized by the public. Consequently, many hospitals have taken their own initiatives to improve the services by way of improving infrastructure, introducing monthly performance reviews, preparing manuals and guidelines, productivity improvement programmes etc. The Ministry of Health has published valuable documents in Quality related activities in different service areas such as Quality Assurance of Patient Care Services in 1995 and Guidelines on Introduction to Quality and Safety in Healthcare Institutions in 2010.

The formal initiative in Quality Assurance in Sri Lanka has origins in late 1988, when the DDG (MS) at that time came across with the publication, "Quality Assessment & Assurance in Primary Health Care; M.I. Roemer & C. Montoya Aguilar. WHO Geneva, 1988". Two pilot projects were undertaken in the same year, one by the DDG (MS) & the other by the DPDHS (the Regional Director of Health Services at that time) Kegalle. A presentation was made at the monthly conference of the senior staff of the Ministry of Health in 1989 and a decision was taken to initiate a Quality Assurance Programme for the health sector. A National Consultative meeting was held in December same year & a National Programme with 32 sets of indicators & standards was launched (see Quality Assurance of Patient Care Services, pages 13 to18). This programme mostly was concentrated on the availability of services and improving quality in the areas of basic patient needs, cleanliness, health education and maternity care. The programme was extended in a phased manner to selected Teaching & Provincial hospitals. Some senior managers made use of the indicators to assess quality of care during their inspections of institutions. A competition was held in 1991/92 to select the best hospital that makes use of the indicators above to assess quality of care. The competition was carried out at different levels of care namely, primary, secondary & tertiary. Winners were selected at the provincial level. The final stage to judge winners at the national level was however, not held.

An innovative work was done in the Uva province with the center being the GH Badulla. The pioneering work was the result of individual initiatives led by Drs. Neil Fernando & Wimal Karandagoda. The former started the programme in the MH - Angoda, when he assumed duties as the Consultant Psychiatrist. The programme commenced on the 1st of July 2001. The latter played the leading role in the revitalization of the programme in the contemporary era. During 1990 – 1995 a number of awareness programmes were conducted in the state sector hospitals around the country. A manual on Quality Assurance of Patient Care Services was published in 1995.

A review of the programme was held in Kurunegala in 1994. It was felt that the programme needed more focus. Accordingly, five critical areas of care were selected; fresh indicators & standards were developed. An attempt was also made to extend the programme to the Preventive sector but the initiative did not take root (Perera, MALR, 2004).

In 1995, the Ministry of Health has published a handbook on National Quality Assurance Programme which provides basic concepts of Quality and Guidelines on monitoring indicators. Even though, the pilot project was not formally expanded to other hospitals, some institutions have embraced the concept and marched forward to introduce quality improvement programmes to their own institutions.

The major drawbacks observed in this programme were not paying attention to customers' expectations, staff welfare and human resource development. The concept was worked out in a closed environment with limited participation of employees. As such, during late 1990's and in the new millennium, the professionals working on quality emphasized the importance of improving systems rather than blaming failures and ensuring that the customers' expectations are properly addressed. The philosophy, '***Quality fails when System Fails'*** by Sir Donald Berwick, one of the pioneers in Quality Healthcare in USA and European countries, took root. Learning from health and non-health organizations to prevent mistakes, improve systems and satisfy the customers was considered more fruitful.

The Quality Assurance Programme was re-launched in 2000 with the concept of '***Quality Healthcare through Productivity'***. As an entry point for the quality improvement programme, Castle Street Hospital for Women used the celebrated Japanese concept of '5S'

to organize the hospital and to improve efficiency and reduce waste using productivity concepts. Then the hospital concentrated on the healthcare quality related activities. For the first time in the history of Sri Lankan health services, Castle Street Hospital won National awards for Quality of Care and Productivity in years 2001 - 2004.

The Ministry was quick to use the opportunity to fill a long felt void and named Castle Street Hospital for Women (Teaching) as the Focal Point for the National Quality Assurance Programme by circular No: SH/178/93 dated 08 – 10 – 2003.

Due to the perceived need to establish a Quality Secretariat, Castle Street Hospital for Women was selected to site it temporarily. Subsequently, measures were taken to expand this programme to other hospitals too. As a result, hospitals such as DGH – Ampara, TH - Peradeniya and PGH - Kurunegala initiated their Quality Improvement Programmes and won National awards. It was said that quality improvement programmes can be implemented only in the line ministry institutions because of the limited availability of resources in other institutions. Quality improvement programme at BH – Mahiyangana in 2004-2005 paved the way for hospitals which come under provincial councils and other smaller hospitals to join with this initiative. With this experience, a pilot study was carried out in five different levels of hospitals in North Western Province with the assistance of JICA. In 2007-2009, with this experience, the programme was expanded to eight hospitals in Southern and Uva provinces. This later resulted in other institutions such as DGH – Gampaha, PU – Ettampitiya and RH – Dambana winning national productivity awards. With these pilot studies it was felt that the establishment of District/Healthcare Quality & Safety (HQS) Units and Quality Management Units (QMU) in hospitals is important to facilitate and monitor the quality improvement programme.

The strategy of using 5S to organize the hospital and improve the systems, then marching towards Total Quality Management is well accepted by the other developing countries as a cost effective method. Through the Asia-Africa Knowledge Co-creation Programme (AAKCP), Ministry of Health trained 23 African and Bangladeshi teams on 5S-CQI-TQM. This programme is funded by JICA.

In the year 2008, with the objective of reducing some variations in clinical practice, 93 clinical guidelines were prepared and disseminated to all secondary and tertiary care hospitals. This was funded by the World Bank under Hospital Quality and Efficiency component of the Health Sector Development Project. Also, six guidelines for the improvement of healthcare quality and safety of different types of healthcare institutions were prepared by the Ministry of Health.

Post war conditions in Sri Lanka have created a unique climate for overall development. Sri Lanka's private healthcare industry grew by 23 percent last year and the country has a huge potential to develop medical tourism (WHO 2012). To achieve this, it is imperative that the quality and safety standards of healthcare be assured. The need arose to establish an apex body to facilitate the quality improvement programme. Therefore, under World Bank - HSDP funds, a building was constructed for the apex body of the National Quality Assurance Programme. A consultative committee was appointed to decide on the scope and functions of the Directorate / Healthcare Quality and Safety. The Directorate was commissioned in September 2012. Since then, measures have been taken to carry out the quality improvement programme of the Ministry of Health in a planned manner. The Directorate which is situated at the premises of the Castle Street Hospital for Women functions under a Director under the purview of DDG (MS) 1. Currently this Directorate works towards a ***'Centrally Driven, Locally Led, Clinically Oriented, Patient Centered Continuous Quality Improvement Programme***.'

1.2 Introduction to Healthcare Quality

Quality can be defined in a variety of ways and increasingly, the terms, 'Quality' and 'Safety' are being used interchangeably. Safety may be regarded as one element of quality. The most widely used definition of quality in healthcare is one that is safe, efficient, effective, patient –centered, equitable, and timely.

In his book, 'Managing for World-Class Quality', Edwin Schecter (1992) states that achieving quality requires a clear sense of what quality is. He defines quality using the following characteristics:

1. Conformance: meeting or exceeding the minimum standards
2. Fitness for use: performing the task as advertised Reliability: performing the intended function in the specified environment for the prescribed period of time
3. Yield: the percent of the product/service that conforms to specifications at each evaluation point
4. Customer satisfaction: the customer's perception of value; meeting customer expectations (Schecter1992).

Defining quality by specific characteristics enables one to convert quality goals into measurable indicators of performance.

1.3 Definitions of Quality

To define quality, it is worth considering several definitions that present the concept most expressively. Here is a list of some of these definitions:

- *"Quality is conformance to requirements or specifications"* – Philip Crosby, 1978
- *"Quality is doing the right thing right the first time and doing it better next time"* - AL-Assaf, 1993
- *"Quality is the degree to which care services influence the probability of optimal patient outcomes"* - American Medical Association, 1991
- *"Quality is meeting the requirements of the customer, both internally and externally, for defect free products and services"* – IBM, 1992
- *"Quality is providing our customers with innovative products and services that fully satisfy their requirements"*- Xerox,1993
- *"Quality is a process of meeting the needs and expectations of the customers, both internal and external. Quality can also be referred to as a continuous process of incremental improvement"* - AL-Assaf, 1998

By these definitions, the importance of meeting the needs not the wants of the customers is emphasized. Certainly, the issue of affordability and availability of resources should be taken into consideration. Also, one should study the needs and expectations of both types of customers, external and internal. Staff and employees are internal customers to the administration and their needs and expectations should be studied and every effort should be made to meet them.

External customers are represented primarily by the patients, but other entities that the organization in question deals with should also be investigated and studied to identify and meet their needs and expectations. Thus, quality has many perspectives where each customer has specific needs and expectations to be fulfilled by the provider organization (Al-Assaf, 2001).

Definitions of Quality in Healthcare

Work groups such as those in the Institute of Medicine (IOM) have attempted to define quality of health care in terms of standards.

> Initially, the IOM defined quality as the "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Lohr, 1990).

This led to a definition of quality that appeared to be dependent on listings of quality indicators, which are expressions of the standards. These standards are not necessarily in terms of the possibilities or conceptual clusters for these indicators. Further, most clusters of quality indicators were and often continue to be comprised of the 5Ds— Death, Disease, Disability, Discomfort and Dissatisfaction rather than more positive components of quality (Mitchell, 2008).

> The definition of Quality in Public Care in defined as 'Fully meeting the needs of those who need the service most, at the lowest cost to the organization, within limits and directives set by higher authority (Ovretveit, 1990).

The idea behind the phrase 'Fully meeting the needs of those who need the service most' reflects that there may not be sufficient resources to meet everyone's needs. The phrase 'at the lowest cost to the organization' is a management issue, i.e., using the resources more efficiently by eliminating all possible waste. The phrase 'within limits and directives set by higher authority' indicates that the public sector organizations do have responsibilities placed upon them that are essentially non-negotiable and have to work within these (Moullin, 2002).

The appearance of certain recurrent quality related problems in a hospital shows clearly the importance of maintaining quality. The need for quality is perhaps self-evident; it is useful to list some of the main reasons why quality is important:

- It is important for patients and service users
- It is important for the staff
- It can help reduce costs and provide an even better service within a given budget (Moulin, 2002)

The implications of poor quality in hospitals are described in the following table.

Table 2.1: Implications of poor quality in hospitals

Description	Implications for patients	Implications for the staff	Cost implications
(Examples from a Government hospital) Inadequate clinical details given to the Pathology Department E.g. Not mentioning the LRMP of the patient when her curetting was sent to the laboratory following EUA/D &C	• Delays to patients • Risks of incorrect test results and interpretations • Increased length of stay	• Extra work for the Pathology staff	• Extra pathology costs • Cost for the increased length of stay • Cancellation of some other appointments given
(Example from a private hospital) Patients are kept waiting over an hour for pre-booked appointments	• Stress & frustration • Problems in parking vehicles as car park is not being cleared	• Staff has to play the defensive role	• Extra staff time on explaining and mollifying • Need for larger waiting rooms and car parks

According to Peter Drucker, a management expert, people have different stereotypes and beliefs on quality. He calls them myths of quality and they are the following:

- Quality means goodness, luxury, shininess or weight (Quality does not have to be the most expensive or the most prominent approach or product. Actually, quality can be as simple as doing one's job better continuously. A quality of care does not have to be only a care provided in the most expensive settings and by the most eminent professors of medicine. Healthcare quality can be as simple as providing appropriate and necessary care to the right healthcare consumer in the most efficient manner, utilizing the currently available resources).

- Quality is intangible and therefore is not measurable (People often believe that Quality is something of an ideal that cannot be calculated or attained. However, this is not true. Quality is tangible and is measurable. Healthcare is a system. Therefore, according to the simple system theory as applied to health care by Dr. Avedis Donabedian in 1966, each healthcare system can be divided into three components: structure i.e. human and physical resources, processes i.e. the procedure and activities of care and treatment and outcomes i.e. the results of care and services. Certainly, each of these components has a number of quantifiable elements that can be accurately defined and measured.)

- There is 'economics of quality'. The common belief is, (incorrectly), that quality is too expensive to achieve and therefore, we cannot afford it. In reality, quality is based on the principle of cost saving.

- Quality problems are caused by the workers (actually, more than 85% - 90% of the errors could be system-related while only 10-15% could be human or workers' errors).

- Quality originates in the quality department (Quality department should only act as a facilitator, an advocate or a coordinator of the quality efforts in the system. It is really the responsibility of every worker to provide quality, to practice quality and to ensure improvements towards quality. Quality is everyone's responsibility and it

should originate from the system's units and by the system's workers (Al Assaf, 2002).)

Total Quality Management (TQM) has gained wide coverage and many reported successes in a wide variety of organizations in the private and public sectors. 'TQM is an ongoing process, requiring commitment from top management and involving everyone in the organization, to meet the requirements of service users and other stakeholders while keeping costs to a minimum'.

However, there have been failures too in the organizations that have adopted the TQM approach because it seemed the right buzzword, but have ignored many of its features. TQM is not a bolt-on method that allows managers to continue as before, but with this extra 'tool' called TQM. It requires them to rethink of their entire management strategy.

1.4 Quality Control, Assurance and Total Quality Management (TQM)

There are many quality 'buzzwords' going around both in healthcare and in the wider business world. These include Quality Control, Quality Assurance, Quality Management and Total Quality Management (TQM). To some extent, these terms are used interchangeably (but incorrectly) but it is important to understand their meanings and differences.

Quality Control – Controlling and monitoring processes to produce quality products (E.g. double checking that a clinical test has been analyzed correctly).

Quality Assurance – Also concerned with the prevention of quality problems through planned and systematic activities including documentation, training, and reviewing the process (E.g. Feeding back information on quality problems which are found in the checking process and changing the procedures to reduce the number of errors).

Quality Management – This focuses on the management and people issues involved in achieving real and lasting quality improvement (E.g. Addressing, the laboratory such as poor motivation, training, staff involvement, communication and leadership)

Total Quality Management (TQM) – An ongoing process requiring commitment from top management and involving everyone in the organization, to meet the requirements of service users and other stakeholders while keeping the cost to a minimum (E.g. Going beyond the laboratory to address the problems that users encounter, not just in the laboratory but in the whole hospital and referring agencies) (Moullin, 2002).

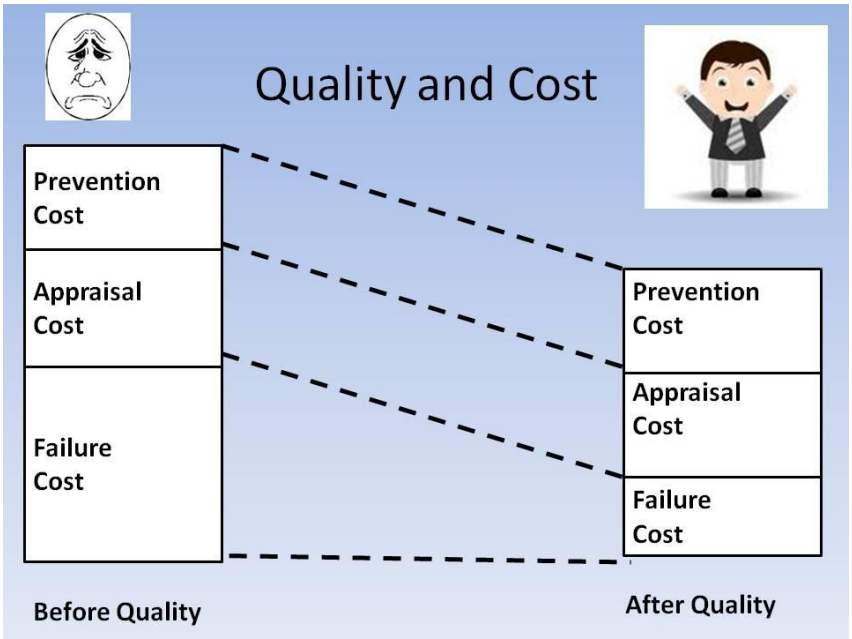
Continuous Quality Improvement (CQI) – The continuous process of attaining a new level of performance or quality that is superior to any previous level of quality (Katz & Green, 1997).

1.5 Quality & Cost

The relationship between quality and cost is often misunderstood. The following comments are perhaps typical: 'We can't afford to improve quality, we're already t over budget as it is'; 'How can we afford to improve quality when we can't even afford a decent……' However, the relationship between quality and cost is not so clear-cut. Most improvements in quality will cost money, but many can be seen as investments which will repay themselves many times over in a short space of time.

It is not difficult to think of examples where improving quality costs more. Upgrading the existing facilities or extending the opening hours of a drop-in clinic will both carry a price tag. However, other costs may be reduced. For example, better X-ray or ultrasound imaging equipment may lead to more people being diagnosed correctly or sooner, reducing the cost of patient stays in hospital. Similarly, better facilities for staff may reduce absenteeism and turnover, saving recruitment and training costs (Moulin, 2002).

Figure 1.1: Costs of quality before and after quality improvement



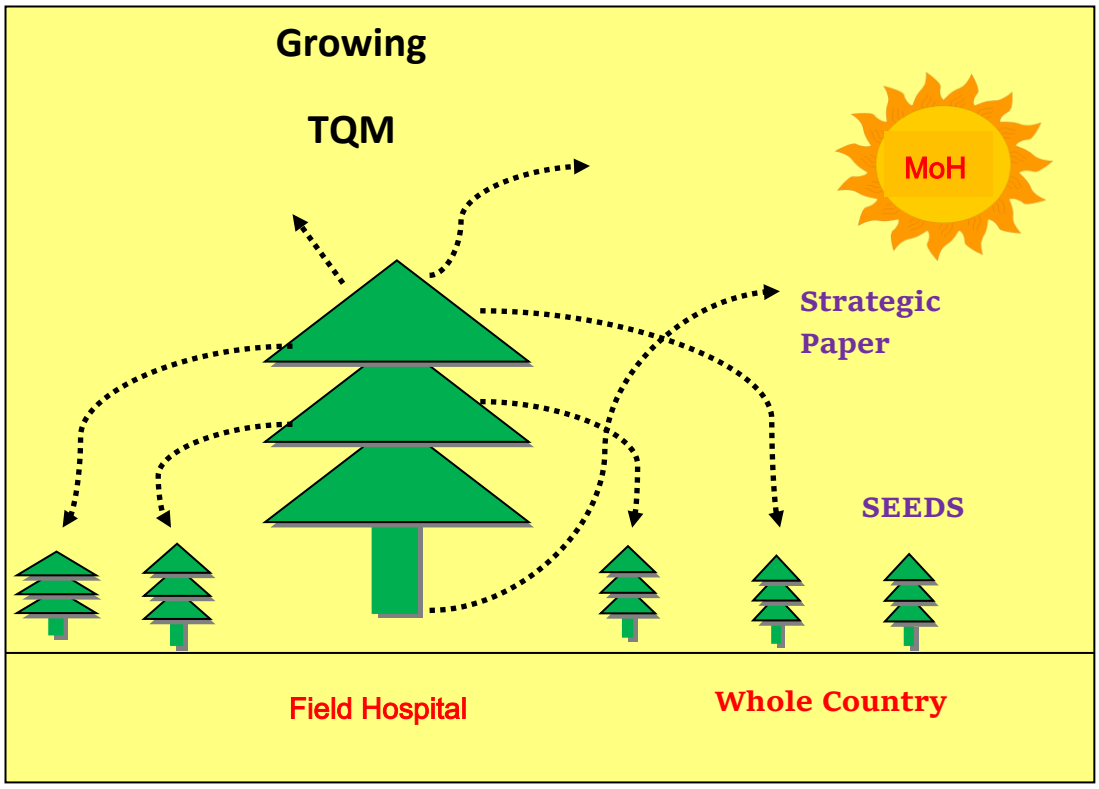
(Adopted from Moulin 2002)

1.6 Implementation of Quality Improvement Programme

The most important feature of the process to achieve quality in healthcare services is that it is lengthy and it consists of following three steps:

- Step 1 . . . . . 5S activities to improve work environment
- Step 2 . . . . . KAIZEN activities for participatory problem solving in the service front
- Step 3 . . . . . TQM as an approach to make maximal use of the capacity of the entire organization

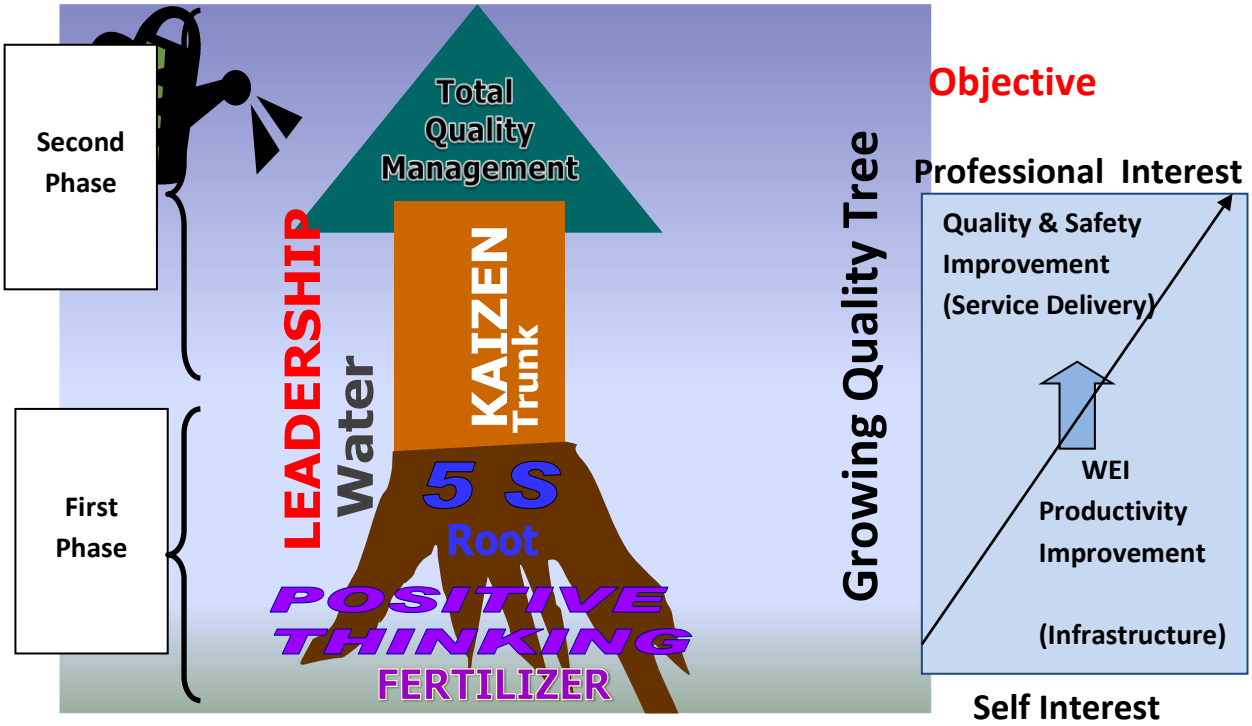
Figure 1.2: Growth of 5S – KAIZEN – TQM Programme



(Adopted from Hasegawa, 2011)

During initial 5S step (Step 1), the main focus is Work Environment Improvement (WEI) ensuring the productivity improvement of organization/hospital. Then the target is gradually shifted to the improvement of Quality/Safety and thereafter, to the realization of TQM.

Figure 1.3: Quality Improvement Programme in a Hospital



(Adopted from Hasegawa, 2011)

For that purpose, it is important to motivate workers at the beginning, through self-interests such as work efficiency or orderliness of their work environment, not to jump up to quality assurance of specific technical areas. Only after they become interested in the process and outcome of 5S activities, hospital staff serving in the front-lines, appreciates the result of WEI. Thereafter, gradually their interests shift from the environment to more professional areas such as 'Quality and Safety'.

'Positive Mind-set' is considered as a fertilizer and 'Strong Leadership' is considered as water. Those are essential for the growth of the 'Quality Tree', which is schematically described in the above figure.

In conclusion, quality is never an accident. It is always the result of a single minded intention, sincere effort, intelligent direction and skillful execution. It represents the wise choice of many alternatives. Also there are no shortcuts to achieve quality.

The implementation of quality improvement programme has five phases. Those five phases and the phases related to each activity are described in the following figures.

Figure 1.4: Road Map for Quality Improvement

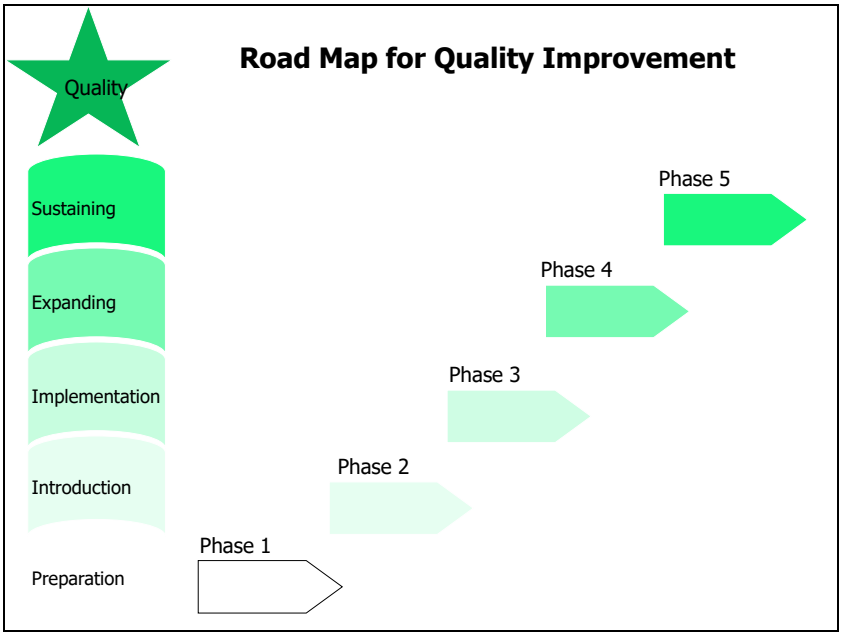


Figure 1.5: Road Map for Quality Improvement – Phase I

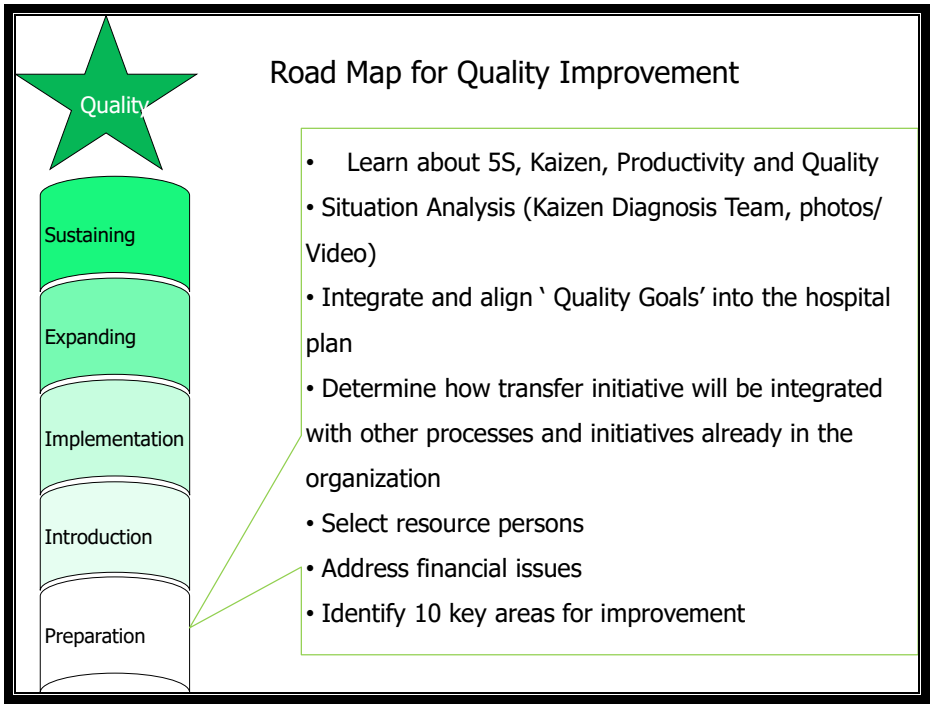


Figure 1.6: Road Map for Quality Improvement – Phase II

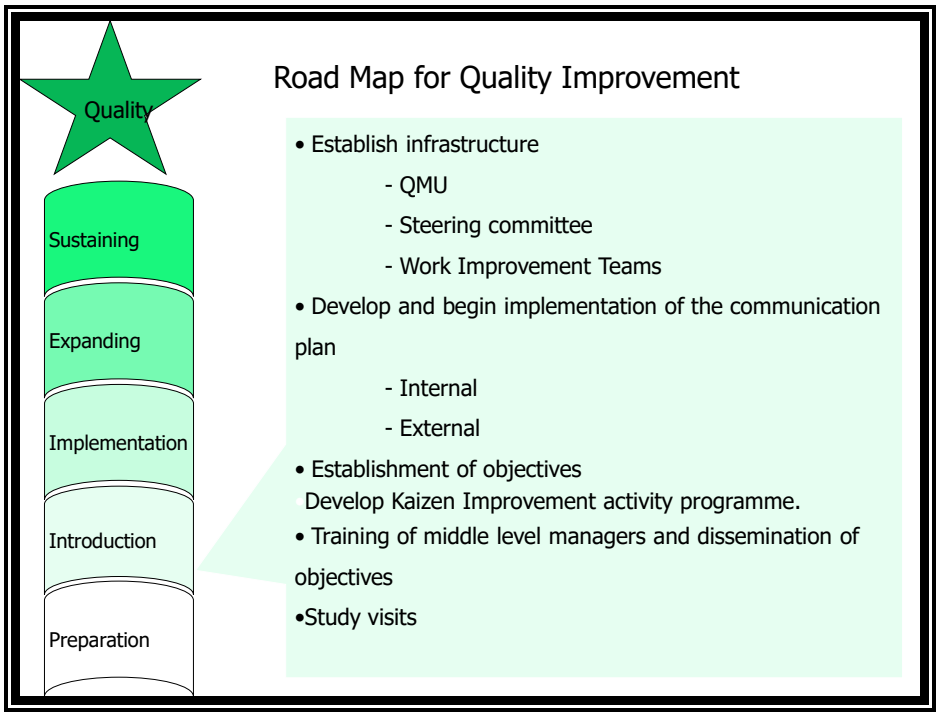


Figure 1.7: Road Map for Quality Improvement – Phase III

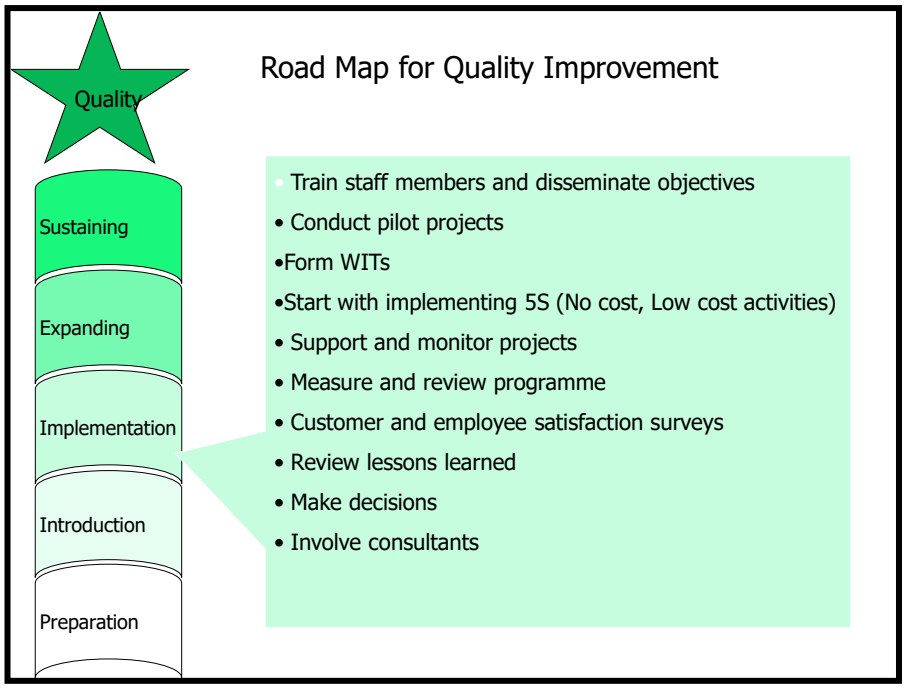


Figure 1.8: Road Map for Quality Improvement – Phase IV

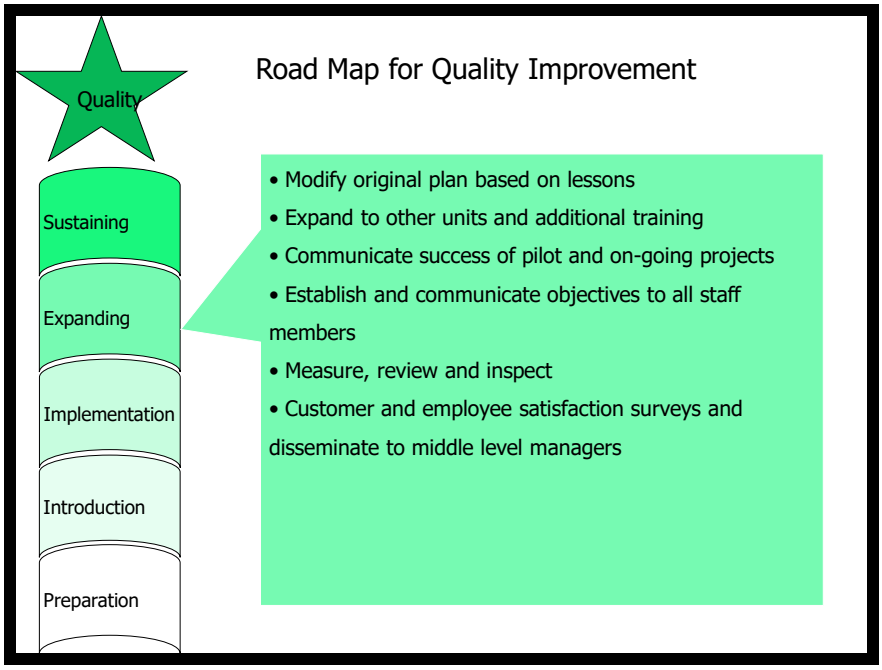
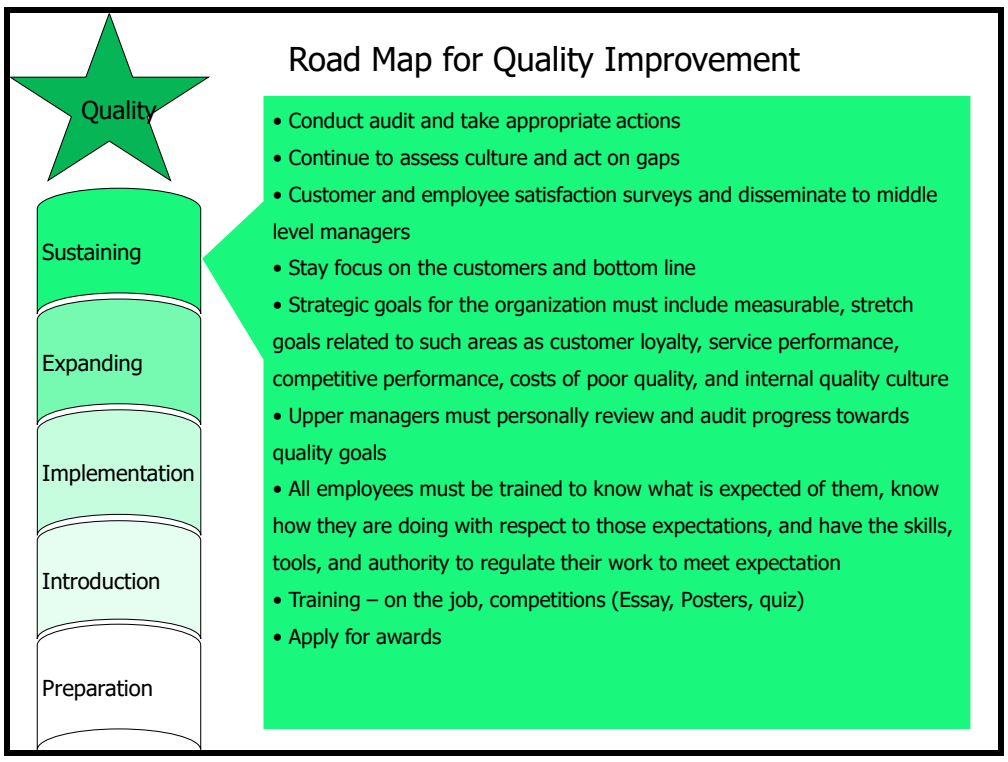


Figure 1.9: Road Map for Quality Improvement – Phase V



1.7 Basic Definitions in Healthcare Management

Term	Explanation
Problem	A difficulty requiring a solution P= (E-A) * C P = Problem E = Expected situation A = Actual situation C = Concern
Policy	An expression of **goals** for improving a situation, the **priorities** among these goals and the **main directions** for attaining them.
Planning	Making a set of advanced decisions **based on analytical approach** concerning efficient use of resources to bring the desired change in a given situation
Objective	An objective is the **desired extent** improvement **of the problem** Objectives are essentially steps towards the goal
Input	The resources available to provide the service
Process	Processes are **repeated activities** that take resources as inputs, **add value** to them and provide outputs to customers
Output	The quantifiable products of the resources
Outcome	Is the effect on the consumer on using the output
Standard	**Professionally (or humanely) agreed** level of performance for a particular setting which is Desirable, Achievable and Measurable
Quality Assurance	A system of activities which enables the production of a defined service to agreed standards within given resources.

Productivity	Optimization of production/service using the given resources. (ensure the product or service that people want to purchase/like)
Total Quality Management	A comprehensive & fundamental rule or belief for **Leading & operating** an organization aimed at, **Continuously improving performance** over long term by focusing on **Customers** while addressing the needs of all stakeholders
Quality Indicator	A variable or parameter that can measure changes in a phenomenon directly or indirectly in a valid, objective, sensitive and specific way.

(Karandagoda, 2007)

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MODULE 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

CHAPTER 02

SESSION PLAN - 02

TOPIC: HOSPITAL SYSTEMS

Objective: To describe Hospital Systems and the importance of appreciating the role of systems in Quality Assurance

Total Amount of Time: 45 Minutes **Number of Participants:** 35 (Approx.)

Preparation: As mentioned in the Curriculum (Annexure II of Introduction Chapter). Since explaining Hospital Systems is highly technical, the trainer needs to understand the concept of Hospital Systems very well. The contents of the training will be based on the type of participants. If the participants are Consultants and Medical Officers, should be more technical whereas, if they are health assistants, then the presentation should be less technical with more examples.

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 02 Minutes

Start asking questions whether any unit in a hospital can function on its own. Then say all the units in a hospital are inter-related and inter-dependent. Give examples.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 05 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Introduce the topic with Sir Donald Berwick's saying of Quality fails when System Fails' and then explain the concept of Hospital Systems.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 30 Minutes

Nature of Input, Output, throughputs and feedback should be explained. Then, viewing the work organization as a total system has to be addressed.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 05 Minutes

Allow participants to ask questions and discuss those questions

Closing Comments: Acknowledge, motivate and inspire **Time:** 03 Minutes

Inform participants that in any quality improvement programme, looking the organization as a system is vital and motivate them to build the system within their organization.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Hospital Systems **Date:** _____

Attendees:

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Observations Made by the Trainer:

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CHAPTER 02: HOSPITAL SYSTEMS

2.1 Introduction

Healthcare provision in developing countries is complicated since most of them do not perceive and appreciate the interaction of systems in the delivery of services. This is specially seen in the hospital sector. Patient care outcomes depend on how best the care is provided in different systems (sub units) in a well coordinated manner. Systems such as Logistics, Physical structures, Medical equipments & Technologies and deployment of human resources influence quality of care.

Over the last century, many theories have been put forward to understand systems. These theories teach us that a hospital has to be seen as a composite system & should be considered in terms of vertical as well as horizontal relationships of subsystems to improve quality. The outstanding performance of a human body is taken as an example where a number of sub systems actively contribute to the whole body responding to provide best outcomes in a given scenario.

Developed countries are also facing issues with systems failures. Sir Donald Berwick of IHI (Institute of Health Improvement) states,

"QUALITY FAILS WHEN SYSTEMS FAILS"

When an organized institution provides services or manufacture products, it needs resources and processes to manufacture a product or provide service. During this series of manufacturing activities, an organization needs to monitor the different processes.

2.2 The Systems Approach

Each school of management thought tends to emphasize one major feature of an organization:

1. Scientific management focuses on work
2. Human relations and behaviorism stress the worker and the worker-manager-relationship
3. Structuralism emphasizes organizational design
4. Management process theory focuses on the functions of the manager
5. Management science theory adds computer technology to the scientific method

The search for a management method that takes into account each of these essential features led to the systems approach. This focuses on the organization as a whole, its internal and external components, the people in the organization, the work process and the overall organizational environment (Liebler and McConnell, 2012).

2.3 Historical Development of the Systems Model

The systems model is generally accepted in the area of computer technology, but its use need not be limited to such an application; at its origin, it was not so restricted. A more flexible use of this approach provides the manager with a framework within which the interaction of internal and external organizational factors (systems) can be visualized. The systems approach to management emphasizes the total environment of the organization. The cycle of each component consists of inputs and processes transformed to output. The changes in organizational environment can be assessed continually in a structured manner to determine the impact of change.

Management theorists turned to biologists and other scientists to develop the idea of considering an organization as a total system. With this ecological approach, a change in any one aspect of the environment has an effect on the other components of the organization. The specifics are analyzed, but always in terms of the whole. The institution is considered an entity that 'lives' in a specific environment and has essential parts that are interdependent.

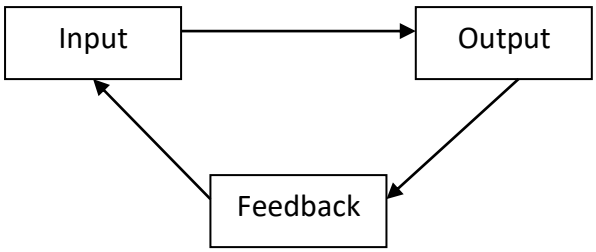
General systems theory as a concept was introduced by Bertalanffy, a biologist in 1951. His terminology is the foundation for the basic concepts of the general systems theory (Bertalanffy, 1962).

2.4 Basic Systems Concept and Definitions

A *system* may be defined as an assemblage or combination of things or parts forming a complex or unitary whole, a set of interacting units. The essential focus of the systems approach is to understand the relationship and interdependence of the parts. The system approach moves beyond the structure or function (e.g. organization charts, departmentalization) to emphasize the flow of information, the work, the inputs and the outputs. Systems and horizontal relationships to the vertical relationships contained in traditional organizational theory.

The systems model is made up of four basic components: (1) inputs, (2) throughputs or processes, (3) outputs and (4) feedback (Figure 2-2). The overall environment also must be considered.

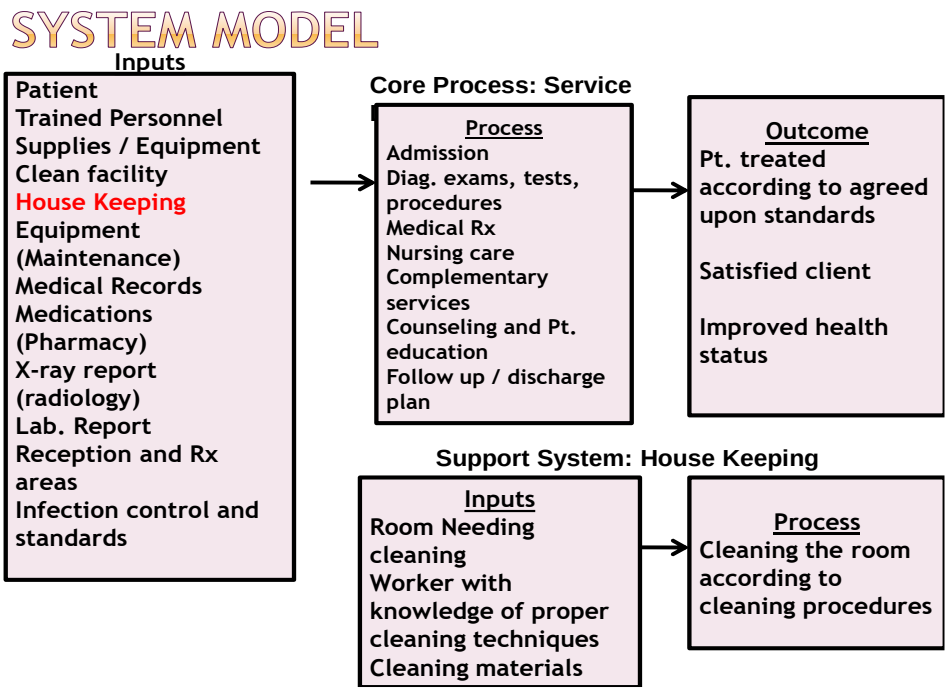
Figure 2-1: Basic Systems Model



Output of a process can be an input of another process.

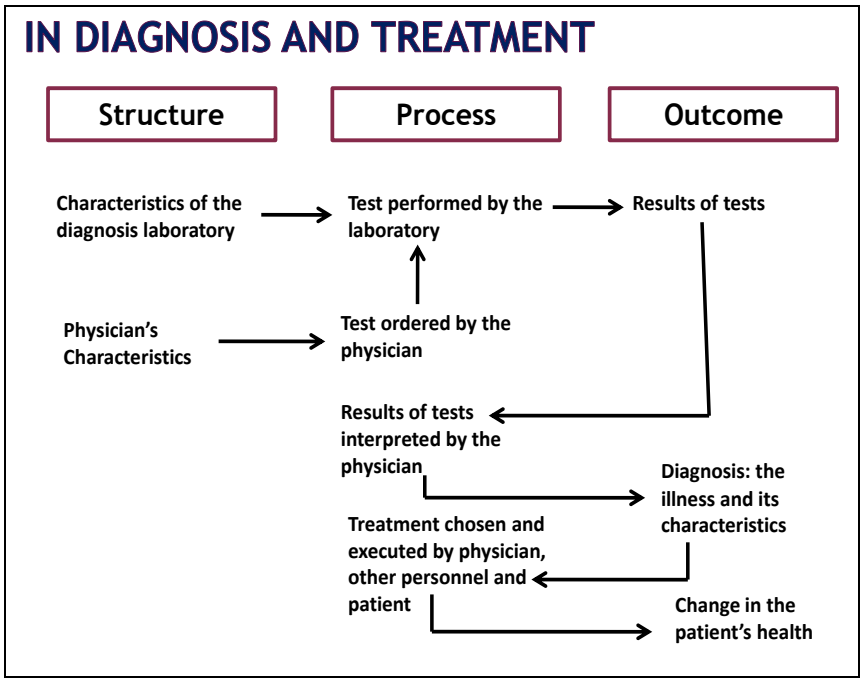
The following diagram shows the systems model.

Figure 3.2: Systems Model



The systems model in relation to diagnosis and treatment is shown below:

Figure 2.3: Systems Model in Diagnosis & Treatment



The excellence of a product or service depends on how much of values are added to the process and the removal of unwanted effects in a process.

E.g.: 1. Use of sterile material in a wound dressing is a value addition.

2. Involvement of an untrained person for the care process is a non value addition.

2.5 The Nature of Inputs

Inputs are elements the system must accept because they are imposed by outside forces. The many constraints on organizational processes, such as government regulations and economic factors are examples of typical input constraints imposed by outside forces.

Certain inputs are needed to achieve organizational goals; for example, the inputs are often the raw materials that are processed to produce some object or service. The concept of inputs may be expanded to include the demands made on the system, such as deadlines, priorities or conflicting pressures. Goodwill towards the organization and general support (or the lack of these) also may be included as inputs.

A systematic view of inputs for a healthcare organization or one of its departments could include the following elements:

- *Characteristics of clients* – average length of stay, diagnostic categories, payment status
- *Ministry requirements* – adherence to standards specified by the Ministry of Health
- *Laws concerning employers* – the Occupational Safety and Health Act, worker's compensation, Occupational Safety
- *Multiple Goals* – patient care, teaching, research

2.6 The Nature of Outputs

Outputs are the goods and services that the organization (or subdivision/unit) must produce. These outputs may be routine, frequent, predictable and somewhat easy to identify. The stated purpose of the organization usually contains information on its basic, obvious outputs. For example, a fire department provides fire protection, a hospital offers patient care, a department store sells goods, a factory produces goods and airline supplies transportation. Managers control routine and predictable outputs through proper planning.

Other necessary outputs are infrequent but predictable. By careful analysis of organizational data over a relatively long period of time, these infrequent outputs can usually be identified. For example, hospitals or programs are reaccredited periodically and plans can be made for the reaccreditation process because it is predictable. Most managers must deal with a third category of outputs: the unpredictable outputs for which they can and must plan. In an outpatient clinic, for example, the number of walk-in and emergency patients is not completely predictable. To plan for these relatively random demands of the system, the manager can study the pattern of walk-in and emergency patients, their times of arrivals and the purposes of their visits. Some patient education would probably be done to help clients to take advantage of orderly scheduling. Staffing patterns would be adjusted to meet the anticipated needs. The planning is designed to shift the unpredictable to the predictable as far as possible. Other examples of unpredictable outputs for which plans can be developed include telephone calls, employee turnover rates and even activities required by certain kinds of seasonal disasters (e.g. Floods or cyclones) or by seasonal changes in the numbers and types of clients (e.g. in a resort area).

Some outputs are unexpected, such as those that become necessary because of natural disasters or sudden economic chaos. Even in these instances, managers can anticipate and plan for Armageddon in any of its symbolic or real forms. Disaster planning, for example, is a required part if institutional healthcare management. The renewed emphasis on disaster planning in light of bioterrorism or other major political-social disruption has added urgency to such planning in contemporary times.

2.7 Throughputs

Throughputs are the structures or processes by which inputs are converted to outputs. Physical plant, work flow, methods & procedures and hours of work are throughputs. Inputs originate in the environment of the organization; throughputs, as the term implies, are contained within the organization. Throughputs are analyzed by work sampling, work simplification, methods improvement, staffing patterns and physical layout analysis.

Management may be severely limited in their ability to control inputs but the processes, structures, organizational patterns and procedures that constitute the throughputs are areas of management prerogative. For example, a chief of service cannot control patient arrival for walk-in services in a clinic; this input is imposed on the system. The policies and procedures for processing walk-in patients, however, constitute a cluster of throughputs that can be determined by the manager. The physical space allotment for a department may be imposed; the manager must accept this input but the final and detailed physical layout of the department is under the manager's control.

In a specialized service, the control of throughputs is directly related to the manager's professional knowledge. For example, procedures for processing patient flow within a clinic are developed by the head of the service because of that person's knowledge on patient care procedures, priorities and the interrelationships among components of the treatment plan. The policies and procedures for the release of information from patients' health records are aspects of highly technical processes that are the domains of the professional health information specialist.

In some cases, elements that theoretically belong to the throughputs category are considered inputs. These are elements that are imposed by the environment (i.e. the organization as a whole). Managers may not be able to exert direct control over some aspects of the work (e.g. in the case of physical space limitations, budget cuts and personnel vacancies) and these elements could be listed as special inputs.

2.8 Feedback

Changes in the input mix must be anticipated. To respond to these changes, managers need feedback on the acceptability and adequacy of the outputs. It is through the feedback process that inputs and even throughputs are adjusted to produce new outputs. The communication network and control processes are the usual sources of organized feedback. Routine, orderly feedback is provided by such activities as market research and forecasting in business organizations, client surveys in service organizations and periodic accreditation surveys in healthcare institutions, periodic employee evaluations in work groups and periodic testing and grading in an educational system. The management by objectives (MBO) process and short interval scheduling and program evaluation review technique (PERT) networks constitute specific management tools of planning and controlling that include structured, factual feedback.

If there is an absence of planned feedback, if the communication process is not sufficiently developed to permit safe and acceptable avenues for feedback, or if the feedback actually received is ignored, a certain amount of feedback will occur spontaneously. In this case, the feedback tends to take a negative form, such as a client outburst of anger, a precipitous lawsuit, a riot, a wildcat strike, a consumer boycott or an epidemic. Spontaneous feedback could take a positive form, of course, such as the acclamation of a hero or leader after a crisis or an unsolicited letter of satisfaction from a client.

Some feedback is tacit and the manager may assume that since there is no overt evidence to the contrary, all outputs are fine. The danger in such an assumption is that problems and difficulties may not come to light until a crisis occurs. The planning process is undermined because there are no reliable data that can be used to assess the impact of change and to implement the necessary adjustments.

2.9 Application of General Systems Theory

The systems approach enables managers to focus on the organization as a whole and to view each particular division or unit in the organization in relation to the whole. Through the systems approach, managers can cut across organizational lines to determine interrelationships in the work flow and to assess complexities in the structure and in the

environment of the organization. Their attention is drawn to the changes in the environment that affect the organization and its units.

Managers are aided in their analysis of the organization because the input-output model frees them of personal bias toward or attachment to the existing mode of operations. Furthermore, the classic functions of a manager, carried out in the distinct, unique environment of a given organization are reflected in the systems approach. Table 3-1 summarizes this interrelationship.

The remainder of this presentation of management principles is developed in the context of specific functions of the manager carried out in an overall organizational environment. Because the functions of the manager are shaped and modified by the particular organizational environment, the tools for analyzing the organization will be presented first, followed by detailed discussion of individual management functions.

Table 3-1: Relationship of Classic Management Functions and Systems Concepts

Systems Concept	**Predominant Management Function**
Input analysis • Identification of constraints • Assessment of client characteristics • Assessment of physical space • Budget allocation analysis	Planning Planning and controlling
Throughput determination • Development of policies, procedures and methods • Development of detailed departmental layout	Staffing Controlling leadership and motivation

• Specification of staffing pattern • Methods of worker productivity enhancement	Planning
Output analysis • Goal formulation • Statement of objectives • Development of management by objectives • Plan	Planning and controlling
Feedback mechanisms • Development of feedback processes • Adjustment of inputs and outputs in the light of feedback • Adjustment of internal throughputs	Controlling, communication and resolving conflicts Reviewing planning cycle

2.10 Viewing the Work Organization as a Total System

There is considerable social evidence to support the basic observation that humans form groups: families, clans, neighborhoods, churches, political parties, businesses, fraternities, work groups and professional associations. The study of these groups as social organizations is the proper domain of the social scientist; their study as formal organizations is the proper focus of administrative analysis.

The successful manager recognizes the impact of the organizational environment of clients, members of the organization and the public at large as well as on the manager's specific

role. An organization does not exist in a static world; rather, it is in a continual state of transaction with its environment. As an open system, the organization receives inputs from its environment, acts on them and produces outputs such as goods and services (and even organizational survival which can be considered an essential output). Consequently, the organizational environment consists of both internal and external components. The specific functions of the manager are modified by the organizational environment (i.e. the specific attributes of the given work setting).

Classical organizational theory provides the manager with concepts to assess the organizational environment. The organizational environment may be assessed by an examination of its characteristics and components through a typology of organizations, a review of the organizational life cycle and an analysis of the purpose and functions of organizations. The use of clientele network and systems models yields further information about the internal and external components of the organizational environment. Managers may anticipate organizational conflict when stated purposes or goals and actual practices become disparate; such an occurrence should alert managers to changes in the organizational environment so that they can develop an anticipatory response rather than a reactive response (Liebler and McConnell, 2012).

2.11 Conclusion

Every unit in a hospital is interrelated and interdependent. Therefore, it is vital to look at a hospital from a systems point of view when implementing a quality improvement programme. By applying the above mentioned systems theory, any hospital can be successfully managed.

References:

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MODULE 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

CHAPTER 03

SESSION PLAN - 03

TOPIC: A POSITIVE ATTITUDE – ITS SIGNIFICANCE AND DEVELOPMENT

Objectives: To provide learning opportunities for participants

- To update their understanding and awareness on the nature, significance and the role of Positive Attitude to improve productivity, quality and safety in healthcare organizations
- To develop strategies, methods and techniques to change attitudes to improve productivity, quality & safety in healthcare organizations

Total Amount of Time: 120 Minutes **Number of Participants:** 35 (Approx.)

Preparation: Refer the Curriculum (Annexure II of Chapter 01)

Materials: Refer the Curriculum (Annexure II of Chapter 01)

LEARNING/TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Greet participants warmly and introduce yourself. Start with a notable quotation on Positive Attitude which is culturally sensitive. For example, for a Sinhalese crowd, start with a saying of Lord Buddha; for Tamil participants, quote a notable saying by Thiruvalluvar and for an English crowd, a popular saying by Aristotle or Winston Churchill which will have an impact on the presentation.

(During the entire session, the lecturer should not criticize any of the participants or a health worker by the name).

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 15 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Say what the Positive Attitude is and its significance.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 80 Minutes

Explain the factors affecting positive attitude, benefits of positive attitudes, consequences of negative attitudes, how to develop positive attitudes; strategies, techniques, methods related to positive attitude and the difference between winners and losers.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 15 Minutes

Clarify any doubts of the participants; check for understanding by asking how the participants will motivate their workers towards positive thinking. Suggest further reading material for participants to update their knowledge.

Closing Comments: Acknowledge, motivate and inspire **Time:** 05 Minutes

Acknowledge the participants for listening. Wish the participants for their future endeavours related to quality & safety in healthcare.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: A positive Attitude – Its Significance and Development **Date:** _____

Attendees:

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Observations Made by the Trainer:

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CHAPTER 03: A POSITIVE ATTITUDE – ITS SIGNIFICANCE AND DEVELOPMENT

3.1 Introduction

Attitude reflects a persistent tendency to think (cognitive), feel (affective) and act (behave) towards somebody or something. Hence, attitude is an established mindset which could be either positive or negative. For example, when someone says he/she likes teaching, it means a positive attitude towards work.

Absence of disease does not mean that a person is healthy. Likewise, absence of negative attitudes does not imply that he/she has a positive attitude. People with positive attitudes have special characteristics and can be easily identified. They are usually kind, confident, patient and humble. They will usually have lots of expectations from themselves and also from others.

3.2 Significance of a Positive Attitude

The saying "Knowledge and skills aren't enough; it's your positive attitude which makes the difference" reflects the significance of a positive attitude. Having a positive attitude is very essential for personality development and growth.

Procrastination until conditions are perfect to start a project is another major obstacle to development. This was noted by Lord Buddha who said that ***not starting and not finishing are two fatal errors that keep great projects from coming to life***. One can think and talk about a project for a long time, but only action will manifest it. If you wait until you're ready, you'll never get anything done. Don't wait until all the conditions are perfect for you to begin. An attitude of beginning makes the conditions perfect (Cohen, 2007).

Attitude is a mind-set. It is the way you look at things mentally. How you behave communicates your attitude to others. When you are optimistic and anticipate successful encounters, you transmit a positive attitude and people usually respond favorably. When you are pessimistic and expect the worst, your attitude is often negative and people tend to avoid you. Negative thinking can become a destructive habit. Watch your thoughts more closely, and aim to turn off your negative attitudes. Your attitude towards anything in life

will affect the outcome. If a person has a consistent negative attitude in life, i.e. no hope, no real goal or purpose, then that person will go exactly in that direction. A positive attitude is one that gives hope and purpose. It's a willing heart and joyful spirit no matter the situation that will win the day.

Attitude is also closely linked to employment success. A Harvard University research found that if someone applies for a job, his attitudes contribute 85%, and his knowledge and personality contribute 15% for him to get the job. Despite this observation, the astonishing factor is that almost all the money spent on education is on developing knowledge (Shiv Khera, 2002).

Benefits of positive attitude are numerous and can easily be recognized. Some of the benefits from an individual perspective are the development of an energetic pleasing personality who enjoys life and inspires others. Benefits from a society perspective include development of capability for fostering team work, problem solving and increasing productivity, relationships and loyalty.

3.3 Factors Affecting Development of Attitudes

Are we born with our attitudes? Or are they made with the exposure to the environment as we grow older? The answer is that, attitudes are mainly made or acquired through direct experience or indirect social learning with very little contribution from inheritance or genes.

Hence, the major contributors to attitudinal development are direct experiences and indirect education gained by the environment in which we operate.

Environmental factors affecting attitude consist of cultural influences from home, school (influence exerted by friends and peers), workplace, media (television, newspapers, journals, radio and cinema), society, religion and politics.

Direct experiences in life by interacting with others also contribute significantly to attitudinal development. If we have a good experience with a person, we will have a positive attitude towards him. On the contrast, if we have a bad experience with a person, it will create a negative attitude towards him.

Education both formal and informal also contributes to attitude development. A teacher can play a vital and key role in building the right attitudes of students. If the teacher portrays a negative influence, it can significantly affect the student to follow the wrong steps. Hence, teachers have to act as role models and whatever they preach must be first practiced by them before they ask the students to follow. The contribution made by a teacher, therefore, is one of the key factors for building the attitude of the future generations. The education system should not only teach the student how to make a living but also teach how to live.

3.4 Developing a Positive Attitude

Even though attitudes are developed relatively early in life and are resistant to change in adulthood, they can be improved for the betterment. This is further exemplified by a statement made by Professor William James of the Harvard University, who said "The greatest discovery of my generation is that human beings can alter their lives by altering their attitudes of mind".

Developing positive attitude particularly later in life requires considerable commitment, which in turn will determine the success. A few tips to building a positive attitude are explained below.

Be willing to change your perception: We see the world through our own glasses. We see the good and the bad; the beautiful and the ugly. What we see (reality) is not always what actually exists (real). We see what we feel from within and what we want to see. Our perceptions reflect what we are from within. Our attitudes and beliefs force us to look for consistencies in the outside world. Our attention becomes selective and we do not see the real in totality but only in segments, the reality. Such information is not only harmful to ourselves but to others also with whom we interact. We have to learn to view the situation in totality and then only weigh the pros and cons before we form opinions. In short, we have to change our focus of attention and how we perceive. Look at the better side of things and people. We all have our weaknesses but it is our strengths that are of importance. We have to identify and tap our potentials and those of others for effective living.

Count your blessings and name them one by one: Count your blessings and name them one by one and it will surprise you what has been done by others for you. Mostly we have a tendency to think and list things that others have not done for us. We surely have expectations from others to fulfill our needs, but it is not possible for them to fulfill each and every need of ours. We have to place ourselves in their shoes and then think if it was possible. Children often make unnecessary demands from parents, but parents do not always do the needful. It is not that parents do not love their children but they use their discretion, as well as act within their limitations. In the same way, when our demands are not met we should not have a grudge. In fact, we should be grateful and thankful for what has been done for us so far and will be done in the near future. Thus, we have to develop an attitude of gratitude.

Enhance moral education and strengthen the superego: Are you literate? Are you educated? These two questions may seem the same to you, but they are not. There is a vast difference between literacy and education. We may be literate but not educated, as an educated individual is one who has received moral training.

We have to enhance our moral values. Our society does not accept the immoral. We have to educate ourselves with what is morally right. We have to strengthen our superego – which is the internal representative of traditional values and norms of society and which makes us aware of the good and the bad and the right and wrong.

Develop positive feelings about yourself: In psychological terms, feelings about oneself are referred to as self-esteem. High self-esteem – a feeling of self-worth - pays dividends. People who feel good about themselves have fewer ulcers and fewer sleepless nights, succumb less easily to pressure, are less likely to use drugs, are more persistent at difficult tasks and are happier. People with low self-esteem do not necessarily see themselves as worthless or wicked, but they lack good things to say about themselves. Such low self-esteem has its own costs. More often than not, unhappiness and despair coexist with low self-esteem. People who feel they are falling short of their hopes are vulnerable to depression. Those whose self-image falls short of what they think they ought to be, are

vulnerable to anxiety. Thus, it is important for us to appreciate our good points, accept our weaknesses and work towards improving them.

Be focused and set your direction: We all have been blessed with the ability to act purposefully, to think rationally and to deal effectively with our environment. We should have a definite purpose and direction in life. Activities, which are misleading but appearing attractive, may tempt us into changing our tracks. However, remember that you have a mission to fulfill and a goal to achieve in life. The temptation to deviate may be attractive, but you have promises to keep and miles to go before you achieve your goal. You have to think rationally. Reasoning and understanding are very essential for the development of a positive attitude. We have to efficiently manipulate our environment to achieve our goals. We have to use our discretion to judge good and bad. We have to go with the good and try to curb the bad on the way.

Be passionate about your work: We all have assigned work to be done. Work will result in layoffs temporarily but it has to be eventually done. If we have a negative attitude towards our work, we will find it difficult to do. Hence, try to generate an interest in your work and be passionate about it. Try a different approach and it will not only contribute to your performance but also will enhance your creativity. A good strategy to do work that does not interest you much is to do first what is essential, then what is possible and finally you will realize that you are doing the impossible. It is the attitude with which you look at things that act as a force to achieve your goals. Think positive, do positive.

A good start is half the battle won: What do you say when you get up n the morning? Oh, God! It is morning or Thank God, it is morning! The first statement is a pessimistic outlook for the day and the second is an optimistic one. The way you begin your day is important. Think of the entire objective that you have to achieve in a day. Every day look back at the things you did yesterday and then try to improve on them. You have to move ahead with your own frame of reference that is healthy for you as well as for others. It is just a matter of time and effort. You will surely achieve near perfection**.**

Keep going! You have it in you: Though there is an alpha, there is no omega for developing positive attitudes. An end means that it is over. Perfection does not end and it always begins afresh. No individual is perfect. We try, we achieve but we fail too – no matter how

hard we try, we all are humans. But those who stop, lose and retry achieve goals which were impossible before. Achieving perfection is a cyclic process that does not have an end. So keep trying; do not quit. You have it in you (Abraham, 2007).

Stay away from negative influences: Today children as well as adults learn a lot from the environment. Some develop certain negative habits due to peer pressure. Most do not have courage to say 'No' to such negative influences displaying low self-esteem. Some of these negative influences include: smoking, drugs and alcohol; pornographic pictures and movies.

Be a winner not a loser: Some people win in their endeavors, while others lose. Therefore, it is absolutely important to differentiate between winners with a positive attitude and losers with a negative attitude.

- The winner is part of the answer; the loser is part of the problem.
- The winner has a program; the loser has an excuse.
- The winner says, “Let me do it for you”; the loser says, “That is not my job.”
- The winner sees an answer for every problem; the loser sees a problem in every answer.
- The winner says, “It may be difficult but it is possible”; the loser says, “It may be possible but it is too difficult.”
- When a winner makes a mistake, he says, “I was wrong”; when a loser makes a mistake, he says, “It wasn’t my fault.”
- Winners make commitments; losers make promises.
- Winners have dreams; losers have schemes.
- Winners say, “I must do something”; losers say, “Something must be done.”
- Winners are a part of the team; losers are apart from the team.
- Winners see the gain; losers see the pain.
- Winners see possibilities; losers see problems.
- Winners believe in win- win; losers believe in win-lose.
- Winners see the potential; losers see the past.
- Winners are like a thermostat; losers are like thermometers.
- Winners choose what they say; losers say what they choose.
- Winners use hard arguments but soft words; losers use soft arguments but hard words.
- Winners stand firm on values but compromise on petty things; losers stand firm on petty things but compromise on values.
- Winners follow the philosophy of empathy” “Don’t do to others what you would not want them to do to you”; losers follow the philosophy, “Do it to others before they do it to you.”
- Winners make it happen; Losers let it happen.

3.5 Conclusion

We all like to be winners in personal, family, work and social lives. To be a winner, one needs a positive attitude. The basic steps we must always follow to be winners are mentioned below.

- Check focus, look for the positive
- Make it a habit of doing things now
- Develop an attitude of gratitude
- Get into a continuous education programme
- Develop self-esteem for yourself
- Be away from negative influences
- Start liking the essential things you have to do
- Always start your day with a positive note

Let us follow these steps and make ourselves and our country winners.

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- Cohen Alan, 365 Recipes that will make you Think Positive, Putak – Mahal, 2nd Indian Edition, 2007
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MODULE 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

CHAPTER 04

SESSION PLAN - 04

TOPIC: RESPONSIVENESS – A VITAL ASPECT OF HEALTH SYSTEMS

Objective: To understand and apply the concept of responsiveness in healthcare settings

Total Amount of Time: 60 Minutes **Number of Participants:** 35 (Approx.)

Preparation: The trainer must be knowledgeable about the WHO systems model and the concepts of responsiveness. Also refer the Curriculum (Annexure II of Chapter 01)

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Greet participants and inquire whether they are comfortable with the lecture hall. Tell the students to assume that he/she is a patient seeking care from a hospital. Then ask , “What do you expect from a hospital?”

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 05 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Introduce the WHO system model and the place of responsiveness in the WHO model.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 45 Minutes

Introduction to Responsiveness, Elements of Responsiveness and recommended ways to improve the responsiveness in the health system

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 03 Minutes

If the participant's answer is wrong, do not criticize. Help them to understand the concept.

Closing Comments: Acknowledge, motivate and inspire **Time:** 02 Minutes

Inspire the participants to deliver a responsive healthcare service.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Responsiveness – A Vital Aspect of Health Systems **Date:** _____

Attendees:

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Observations Made by the Trainer:

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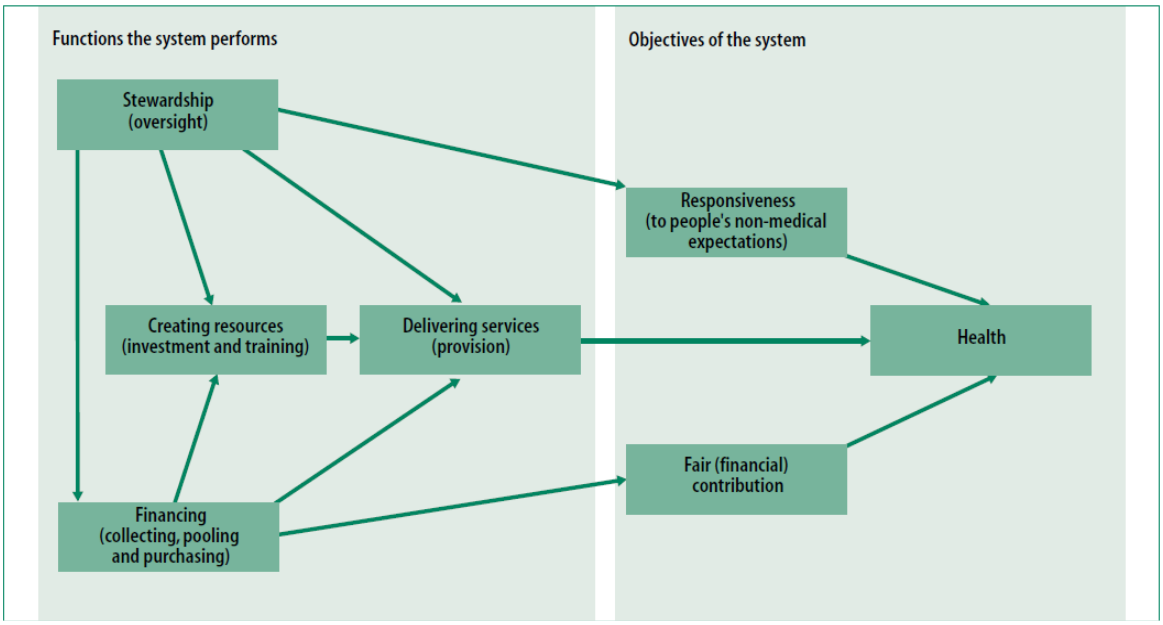
CHAPTER 04: RESPONSIVENESS – A VITAL ASPECT OF HEALTH SYSTEMS

4.1 Background

All over the world, people expect the health systems to treat them humanely, with dignity, and to be accommodated with comforts and conveniences within reason and to the extent possible (responsiveness). Hence, responsiveness was identified as a key goal of health systems in the 2000 World Health Report (WHO, 2000). The relationship between functions and the objectives of a health system can be illustrated as follows:

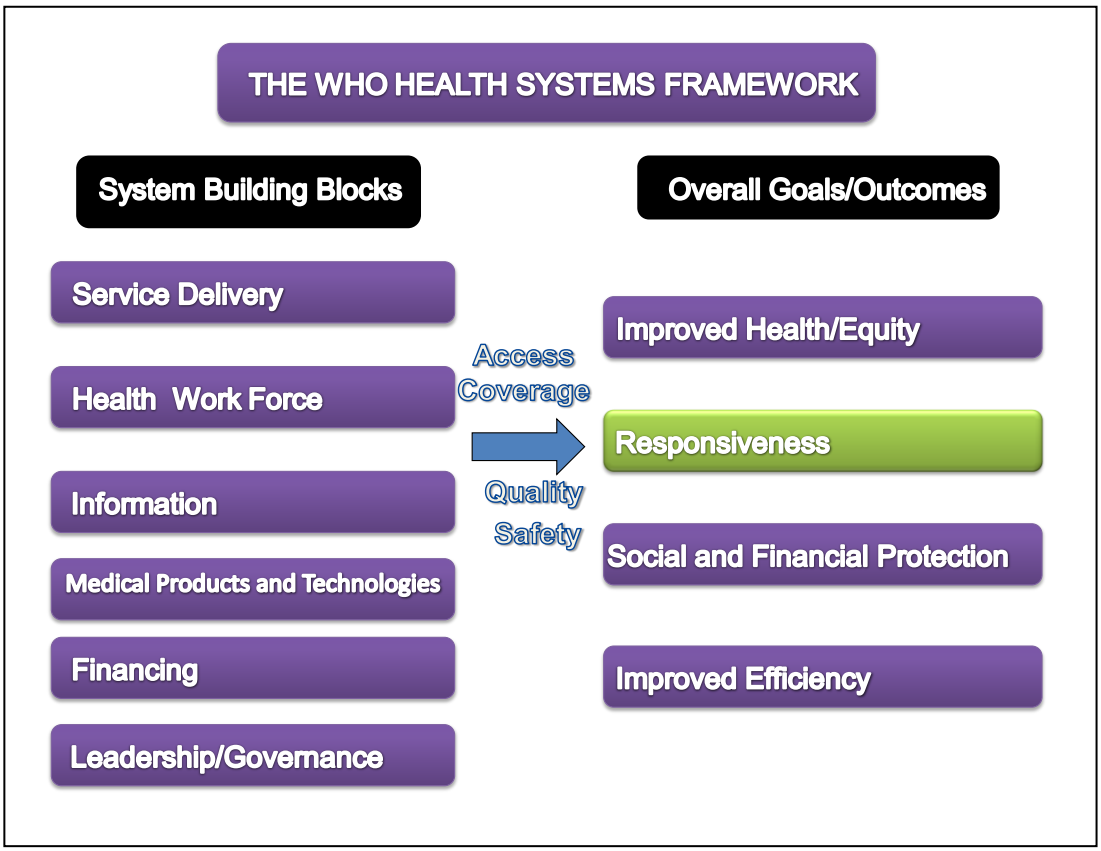
Figure 4.1: Relationships between Functions and Objectives of a Health System



Source: The World Health Report 2000

World Health Organization described 3 intrinsic goals to be considered as indicators of the performance of health systems in the World Health Report of 2000. They are Health, Fair financing and Responsiveness.

Figure 4.2: The WHO Health System Framework



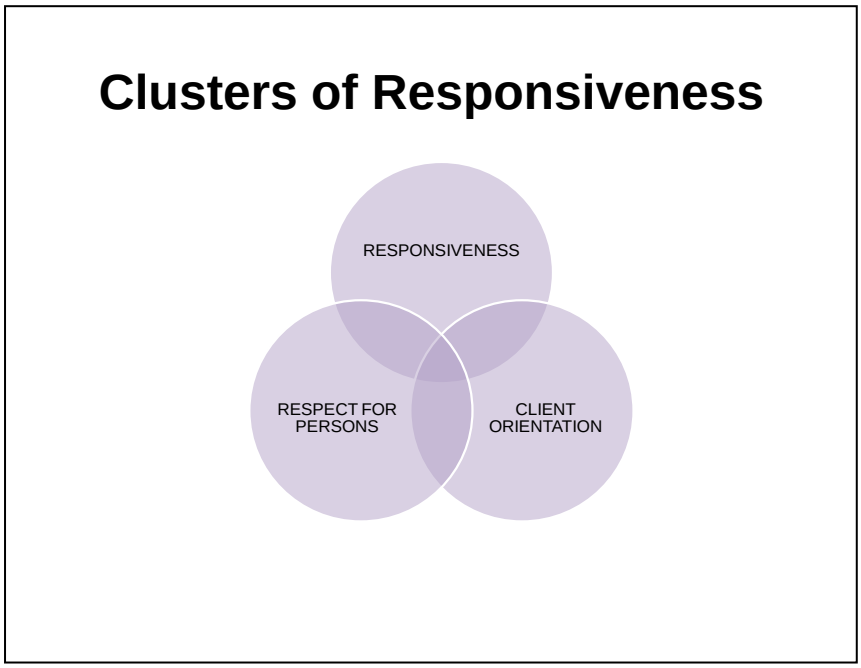
Health: This means making the health status of the entire population as good as possible throughout their lifecycles. Health is defined by the WHO as a state of complete physical, mental, spiritual and social well-being and not merely the absence of disease or infirmity.

Fair financing: A fair financing system ensures financial protection for everyone (e.g. free health system as in Sri Lanka).

Responsiveness is not a measure of how the system responds to health needs of the population which is shown up in health outcomes, but how the system performs in relation to **non-health aspects** of the population, meeting or not meeting their expectations of treatment as a whole. Recognizing responsiveness as an intrinsic goal of health systems establishes an assurance that these systems are to serve people, and involves more than an assessment of people's satisfaction in relation to the medical care they receive.

Responsiveness refers to how the health system meets the legitimate expectations of the population for non-health, enhancing aspects of the system (World Health Organization, 2000).

Figure 4.3: Clusters of Responsiveness



This concept of responsiveness is clustered into two:

1. Respect for persons
2. Client orientation

In 2000 – 2001, WHO Multi-country Survey Study on Health and Health System's Responsiveness (MCSS) found that the responsiveness is largely a subjective element; and is influenced by a number of system features and respondent's features. It covers a set of non-clinical and non-financial dimensions of quality of care that reflect respect for human dignity and interpersonal aspects of the care process (Valentine N.B., 2009). Human rights include concepts such as respecting patient autonomy and dignity, while interpersonal

aspects of care or client orientation, are focused on concepts that are commonly expressed in relation to the quality of basic amenities (for example, hotel facilities).

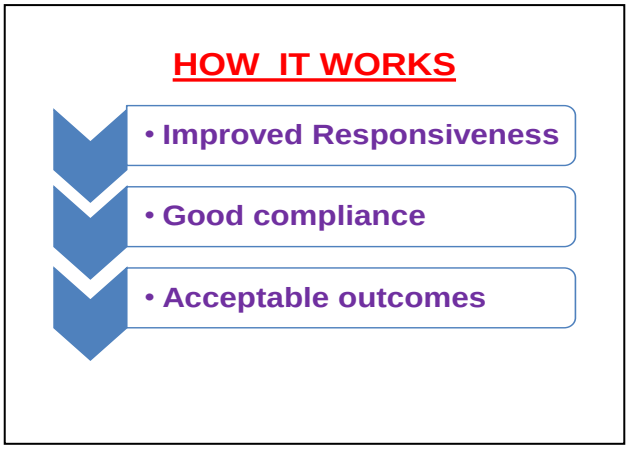
Over the years, Sri Lanka has achieved a commendable level in health by achieving several health goals and reasonable improvements in the health status of its people. The country's health indicators show a steady improvement over the recent decades, particularly in maternal and infant mortality rates and life expectancy which are quantitative in their nature. Health achievements have been remarkable in comparison to the country's Gross National Product (GNP). This was mainly due to the social policies adopted by the successive governments (Mahinda Chinthana, 2010). However, when delivering good healthcare services, there is also a qualitative aspect to be considered that goes beyond improving the health outcome of the patient alone. Unfortunately, the following significant deficiencies still prevail in the services provided by the public hospitals in Sri Lanka.

- The services provided by some hospitals are not focused on the expectations of patients.
- The services provided by the hospitals are not attractively packaged or presented to the people.

Many of the hospitals ignore the non-health expectations of the people such as the availability of basic human needs, maintenance of dignity, kindness and compassion, proper communication with the patients and their relatives, and prompt attention to emergencies. There is growing consumer dissatisfaction with the services rendered by most of the state-owned health care facilities. The issues that need particular concern include overcrowding of large hospitals, long waiting times, poor surroundings and the unsatisfactory attitudes of some health care workers.

Responsiveness is one of the service quality dimensions too (Parasuraman, 1985).

4.2 Responsiveness



Respect for persons comprises of the following:

- Maintenance and respect the dignity of the person - this means not humiliating or demeaning patients.
- Maintenance of confidentiality or offering the right to determine who has the access to one's personal health information.
- Provision of autonomy to participate in choices about one's own health. This includes helping them to choose what treatment to receive or not to receive.
- Communication: Clarity of communication (Parasuraman, 1985).

Client orientation includes:

- Prompt attention: Immediate attention in emergencies, and reasonable waiting times for non-emergencies.
- Basic amenities: Amenities of adequate quality such as cleanliness, space, and hospital food.
- Access to social support network: Ability to access family and friends- for people receiving care.

- Choice of provider: Freedom to select which individual or organization delivers one's care.

4.2.1 Respect for Persons

Dignity

♦ Individuals should be treated with respect: welcomed at the health care unit, addressed respectfully at all times, not shouted at or abused.

♦ Individuals should be treated with concern

♦ Individuals should be examined and treated in a manner that respects their privacy.

♦The rights of Individuals with communicable diseases such as HIV+ and leprosy as well as any other type of disease should be safeguarded and not violated

Confidentiality *(of information)*

Consultations with patients should be carried out in a manner that protects their privacy.

♦ Health care providers should maintain the confidentiality of any information that is provided by the patient (except if the information is needed for treatment by other healthcare providers*).*

♦ Health care providers should keep information in medical records of patients confidential (except where such information is needed to be given to another health care provider).

Autonomy

Individuals should be told about alternative treatment options.

♦ Individuals should be allowed to make decisions regarding the type of treatment after discussions with the health care provider

♦ Individuals should be encouraged to clear their doubts

♦ Patients of sound mind should have the right to refuse treatment.

Communication

Health care providers should listen to patients carefully.

♦ Health care providers should explain things simply and clearly so that patients can understand.

♦Patients should be given a chance to ask questions and clarify any doubts.

4.2.2 Client Orientation

Prompt Attention

♦ Health care facilities should be geographically accessible – taking account of distance, transport and the road network

♦ Patients should be able to get care fast in emergencies.

♦Waiting times for consultation and treatment should be short.

♦ Waiting lists for consultation and treatment should be short.

♦Waiting times for appointments should be reasonable

Basic Amenities

Environment in which healthcare is provided should include*:*

♦Clean surroundings

♦Adequate furniture

♦ Healthy and edible food

♦Sufficient ventilation

♦ Clean Water

♦Clean toilets

♦Clean linen

♦**Regular procedures for cleaning** and maintaining hospital buildings and premises

Provision of Social Needs

Procedures within in-patient health care units should allow

♦ Visits by relatives and friends

♦ Provision of food and other consumables by relatives and friends, if not provided by the hospital

♦ Religious practices that do not prove to be a hindrance to hospital activities or hurt the sensibilities of other individuals

♦ Access to radios, newspapers or some reading materials

♦Some type of support for patients suffering from ongoing illness or illnesses from which they will die

♦ Post-hospital support

Choice of Provider Doctor/Nurse/Care Provider or Facility

♦ Patients should be able to reach health services of choice without much difficulty

♦Within a health care unit, individuals should be able to choose their health care provider

♦ Individuals should be able to get a second opinion in case of severe or chronic illness or surgery

♦ Individuals should be able to get general and specialist care as appropriate

4.3 Recommended Ways to Improve the Responsiveness in the Health System

a. Addressing the key determinants to improve its service quality and responsiveness
b. Develop a cultural change at the hospital, which concerns more and assesses patient's views first.
c. Executing educational and training programs (to make patient centered culture).
d. Conduct staff and customer surveys, clinical and management meetings over time
e. Publish Quarterly Statistical Bulletin and Annual Reports.
f. Empower the community by improving public awareness of their rights, responsibilities and options for care.
g. Implement monitoring mechanisms
h. Start with costless elements of responsiveness, e.g. practice of good communication.
i. Get the darner support for the hospital to maintain hotel qualities.
j. Comparative studies and survey research, including private hospitals in Sri Lanka, should also be carried out.
k. Standards should be set for the measurement of responsiveness as in quality standards according to the particular setup.
l. Practice good examples from private sector business promotion activities; e.g., treat the customer as the "KING".

Responsiveness

"Is not a measure of how the system responds to health needs which shows up in health outcomes

But, of how the system performs relative to non-health aspects meeting or not meeting a population's expectations

References

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MODULE 01: INTRODUCTION TO HEALTHCARE QUALITY & SAFETY

CHAPTER 05

SESSION PLAN - 05

TOPIC: PATIENT SAFETY

Objective: To make the participants understand and recognize the basic concepts of Patient Safety which should operate in a patient safety culture.

Total Amount of Time: 90 Minutes **Number of Participants:** 35 (Approx.)

Preparation: Refer Curriculum (Annexure II of Introduction Chapter). The trainer must get ready to explain contents of the topic using photographs. If possible, he/she can invite a sectional head to share his/her experience.

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Show participants paper reports and photos on hospital adverse events

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 10 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Explain what patient safety is, its present context globally and in Sri Lanka.

TRAINING MIDDLE

Explain the Topic: Explain the classification of hospital incidents, describe the evolution of patient safety culture, explain the elements of patient safety culture and discuss the types of medical errors.

Time: 60 Minutes

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 10 Minutes

Ask core questions on patient safety culture in the organization to assess the current status of patient safety culture and how to institutionalize it.

Closing Comments: Acknowledge, motivate and inspire

Time : 05 Minutes

Reinforce the importance of the topic, confirm that the time was well spent and thank participants; reinforce group respect and rapport.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Patient Safety **Date:** _____

Attendees:

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Observations Made by the Trainer:

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CHAPTER 05: AN INTRODUCTION TO BASIC CONCEPTS OF PATIENT SAFETY

5.1 Introduction

Patient safety is a major concern for all healthcare providers. It appears perverse that patients can suffer harm when they are being treated and cared for. However, healthcare is complex and its outcome is influenced by many factors. It is inevitable that within any healthcare system, patients may be harmed and in every encounter, there is the potential for harm to occur. This has been recognized since the time of the physicians of Ancient Greece and Rome – 'First, do no harm.'

Safest place for patients is a Hospital. Are hospitals as safe as we think they are? A vast number of misconducts, negligence and adverse events are recorded from these patient care institutions. 'Patients are harmed from their health care either resulting in permanent injury, increased Length of Stay (LOS) in hospitals and even death. Adverse events occur not because bad people intentionally hurt patients but rather that the system of health care today is so complex and consequently, the successful treatment and outcome for each patient depends on a range of factors, not just on the competence of an individual health-care provider' (What is Patient Safety – WHO, 2009). There is no institution that can provide total patient safety. Risk that patients have to face is not homogeneous. It differs according to how sick the patient is and the number of interventions he /she has to go through and the duration of the stay. Unless substantial changes in the system are made, the vulnerable have to carry the burden of errors (Weingart*, et al*, 2000).

In Sri Lanka, the numbers of adverse events related to patient safety seem to be rising. There are many reported as well as unreported cases related to patient safety. Moreover, there are allegations made that hospitals are covering up these incidents. Necessity of initiating patient safety culture in a health care system and a compensation mechanism has been raised (Ruwanpura, 2009). It was found that medical staff lacks proper awareness on patient safety and its importance. Blame and shame leads to underreporting. In turn, the organization lacks the opportunity to learn from its errors and prevent / mitigate future adverse events (Amarapathy, 2012).

Patient safety is a new concept introduced to Sri Lankan health care system. "To Err is Human; Building a Safer Health System" was an eye opener which highlighted patient safety and patient safety culture. Health sector has learnt safety culture from other highly reliable organizations such as aviation, nuclear power industry etc. Similar to those organizations, the highly reliable health care providers have an inbuilt patient safety culture (Katharine *et al,* 2008).

'Patient safety can be defined as the prevention or reduction of adverse outcomes' (Alahmadi, 2009).

It can make healthcare institutions safer, reliable and trust worthy by learning from mistakes, preventing adverse events and mitigating possible adverse outcomes. Patient safety is not only for the benefits of the patient but it is also for the healthcare providers. Institutions will have reliable patient safety mechanisms, reliable services, patient satisfaction and credibility. Health institutions in the world have developed various systems and indicators to introduce and sustain safety practices. Indicators will monitor complications and adverse events following all procedures. The Patient Safety Indicators (PSIs) can be used to help hospitals identify potential adverse events that might need further study; provide the opportunity to assess the incidence of adverse events using administrative data (AHRQ, *www.quality**indicators)***. Patient safety is identified as a part of health care quality; in turn, it is a significant criterion in hospital accreditation. 'The accreditation process is a way of identifying conditions of unsafe practice and supporting health care organizations to promote safe care. In particular, it is a means of reducing risk and fostering attention to continuous quality improvement. The Canadian accreditation has six goals in patient safety. They are:

a. Culture - Create a culture of safety within the organization
b. Communication - Improve the effectiveness and coordination of communication among care/service providers and with the recipients of care/service across the continuum
c. Medication Use - Ensure the safe use of high risk medications

d. Work life /Workforce - Create a work life and physical environment that supports the safe delivery of care/service
e. Infection Control - Reduce the risk of health service organization-acquired infections and their impact across the continuum of care/service
f. Risk Assessment - The organization identifies safety risks inherent to its client population'

(Patient safety accreditation Canada -www.accreditation.canada)

One of the key methods to develop and strengthen patient safety is to build up a patient safety culture within the health institution.

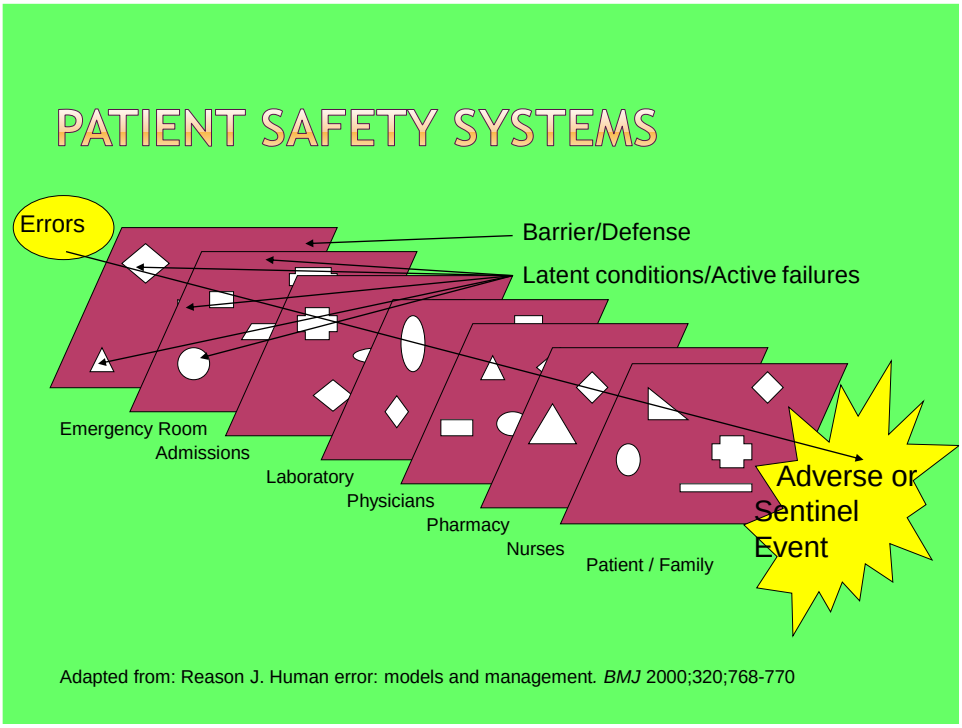
5.2 Patient Safety Culture

Patient safety culture is defined as status made of values, beliefs and assumptions within the members of an organization towards patient safety. Patient safety culture emphasizes the reporting, analysis and prevention of errors that lead to adverse health care events (Alahmadi, 2009).

Patient safety culture is an important discipline in health care. To improve patient safety culture, we have to improve the attitudes, values and beliefs of the health staff. Introducing patient safety thinking patterns to health care system, we can create a patient safety culture within the system. One of the important theories is *system thinking* where the providers take the health care service as a single system but not as different units; e.g., the whole hospital works as a health team but not as different wards or departments. This promotes unity, teamwork, high productivity, teaching and learning from errors; identification of new methods, reliable preventive methods and most of all, creation of a sustainable patient safety culture. However much the system is prepared, there will always be unpredictable situations. Higher the reliability, more resilient is the organization for these unpredictable situations. When improving safety in a health care system, the level of safety leaps from one level to another (Emanuel, *et al*, n.d).

British psychologist James Reason's '*Swiss Cheese Model*' of organizational accidents has been widely embraced as a model for system safety (Reason 1997). This model, drawn from innumerable accident investigations in fields such as commercial aviation and nuclear plants, emphasizes that in complex organizations, a single "sharp-end" (the Senior House Officer applying lower forceps for delivery, the surgeon making the incision) error is rarely enough to cause harm. Instead, such errors must penetrate multiple incomplete layers of protection ("layers of Swiss cheese") to cause a devastating result. Reason's model highlights the need to focus less on the (futile) goal of trying to perfect human behavior and more on aiming to shrink the holes in the Swiss cheese (sometimes referred to as *latent errors*) and create multiple overlapping layers of protection to decrease the probability that the holes will ever align and let an error slip through (Watcher, 2012).

Figure 5.1: The Swiss Cheese Model of Accident Causation



Here the diagram shows that the hazards that are unseen or not mitigated reach the sharp end whereas the successfully defended hazards do not reach the sharp end.

The Swiss cheese model emphasizes that analyses of medical errors need to focus on their "root causes" – not just the smoking gun, sharp –end error but all the underlying conditions (that made an error possible in some situations, inevitable). A number of investigators have developed schema for categorizing the root causes of errors; the most widely used, by

Charles Vincent, is shown in the table below. The schema explicitly forces the error reviewer to ask whether there should have been a checklist or read back, whether the Medical Officer was too fatigued to think clearly, or whether the young nurse was too intimidated to speak up when she suspected an error.

Table 5.1: Framework of Factors Influencing Clinical Practice and Contributing to Adverse Events

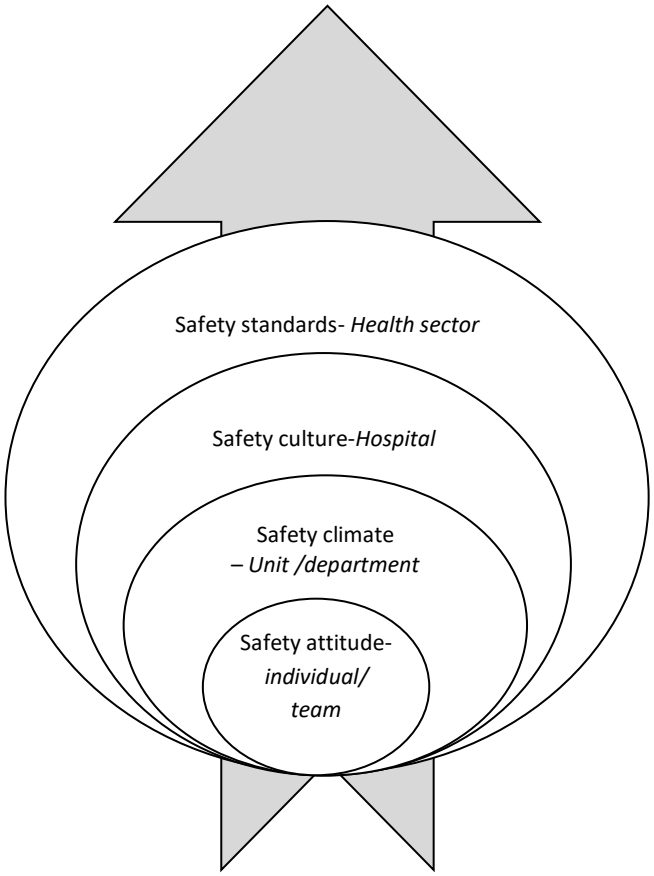
Framework	**Contributory Factors**	**Examples of Problems that Contribute to Errors**
Institutional	Regulatory Context Medico-legal environment	Insufficient priority given by regulators to safety issues; legal pressures against open discussion, preventing the opportunity to learn from adverse events
Organization and management	Financial resources and constraints Policy standards and goals Safety culture and priorities	Lack of awareness of safety issues on the part of senior management; policies leading to inadequate staffing levels
Work environment	Staffing levels and mix of skills Patterns in workload and shifts Design, availability, and maintenance of equipment Administrative and managerial support	Heavy workloads, leading to fatigue; limited access to essential equipment; inadequate administrative support, leading to reduced time patients

Team	Verbal communication Written communication Supervision and willingness to seek help Team leadership	Poor supervision of junior staff; poor communication among different professions; unwillingness of junior staff to seek assistance
Individual staff member	Knowledge and skills Motivation and attitude Physical and mental health	Lack of knowledge or experience; Long-term fatigue and stress
Task	Availability and use of protocols Availability and accuracy of test results	Unavailability of test results or delay in obtaining them; lack of clear protocols and guidelines
Patient	Complexity and seriousness of condition Language and communication Personality and social factors	Distress; language barriers between patients and caregivers

(Source: Vincent C, 2003)

Hierarchy of Safety Culture starts with *safety attitude*, which is the perception of safety at personal or unit levels. A collection of safety attitudes builds the *safety climate*. It is the group level perception of safety or the shared perception regarding the events, practices and procedures as well as kind of behaviour that gets rewarded, supported and expected in a particular organizational setting. This is the measurable aspect of patient safety culture. These terms can be interchanged with each other when necessary.

Figure 5.2: Safety Hierarchy of Patient Safety Culture



Adapted from Advances in Health Care Management

Safety attitude and climate leads to organization culture. It should never be underestimated. It may not be visible. Alahmadi (2010) defined it as the shared values and tacit assumptions of members within an organization. Safety culture is a part of the organizational culture. It is the overall perception of safety in the organization. Safety culture is found in every individual's attitude and values (Vincent, 2010).

5.3 Importance of Patient Safety

Millions of patients receive healthcare of high quality every year. Unfortunately, preventable medical errors occur and they occur fairly often. For example, a surgeon in a hospital, Florida, amputated the wrong leg of a patient; in the state of Washington, a heart transplanted patient received a heart with the wrong blood type. In a Boston hospital, one doctor simultaneously was overseeing blood transfusions for two patients undergoing operations and switched the different blood types. In another instance, an anaesthesiologist forgot to turn the anaesthesia on after paralyzing the patient during an orthopaedic operation; although the patient tried to signal the surgeon, he was unable to do it as she was paralyzed. She subsequently sued the anaesthesiologists (Pauley, 2012).

In another hospital, a female patient was about to undergo a routine surgical procedure. The anesthesiologist had difficulty in administering the anaesthetic and decided to intubate the patient. He was not able to do so at first but continued to try even though the patient's condition was deteriorating. He ignored suggestions from one nurse to say that the 'trachy machine' was available. He also ignored the suggestion of another nurse that there was a bed available at the intensive care unit. Finally, he gave up and decided to revive the patient. They were unsuccessful and finally rushed her to the intensive care unit. The patient remained in a coma and died 13 days later without ever regaining her consciousness (*ibid et al, 2012*).

According to a report issued by the Institute of Medicine (IOM) which quotes estimates from two major studies, between 44 000 and 98 000 preventable medical deaths occur in healthcare facilities in the United States each year (IOM, 2000). A study carried out by *Health Grades* in March 2011 found that from year 2007 to 2009, a number of 52 127 Medicare inpatients developed hospital-acquired infections and 8,114 of them did not survive their hospitalization. The study also reported that during the same period, there were 79 670 deaths among patients who experienced one or more patent events (Heath Grades, 2011). According to a report by World Health Organization, one in 10 individuals receiving medical care will suffer preventable harm (Donaldson, 2004). A study by the IOM found that 1.5 million Americans are injured by a medication error every year (IOM, 2010). According to the Centers for Disease Control, there are 2 million hospital-acquired infections

in the United States every year. It is estimated that medical errors cost between $17 billion and $29 billion annually. Clearly, this is not acceptable and has to be improved (Scott, 2009).

In a recent article published in the *New England Journal of Medicine,* researchers reported that there had been no significant improvement in patient safety for the 10 years since the IOM published its report *To Err Is Human*. The researchers studied 10 hospitals in North Carolina from year 2002 - 2007 and found that medical harms remain common, with little evidence of widespread improvement. They also found that there was no significant improvement in patient safety from year to year. They concluded saying, "Further efforts are needed to translate effective safety interventions into routine practice and to monitor healthcare safety over time" (Landrigan *et al*, 2010).

Although the number of patients who die contributes to a relatively small percentage of the millions of patients who are treated successfully every year, the objective is to reduce the number of errors taking place to as close to zero as possible. The question is how to reduce the number of these errors and improve patient safety and satisfaction.

By using checklists & quality tools and by collecting data on various processes in healthcare facilities, healthcare providers can improve the systems to reduce errors. For example, at a Suburban Hospital in Bethesda - Maryland, a patient had 80% blockage in two coronary arteries. A doctor used the femoral artery to access the arteries in order to place stents to keep the arteries open. After the operation, a nurse in the catheter lab briefed the patient on what he needed to do to keep from rupturing the artery, including the need to avoid straining when he went to the bathroom. The patient followed her instructions faithfully and was looking forward to a complete recovery. Two days later the patient was taking a soft drink from a plastic carton when the plug loosened and fell over the femoral artery and ruptured. The patient was readmitted to the hospital. The next morning the nurse from the cath lab visited the patient to debrief him on what happened to cause the rupture. After the patient was explained what happened, the nurse said she would include that in her briefing from then onwards so that other patients could benefit from his experience. The patient was impressed and told the nurse so. She replied that she used the quality tool PDSA (Plan, Do, Study, Act) every day to improve patient safety at the hospital. She added

that the hospital was committed to continuous improvement in developing a culture of patient safety (Pauley 2012).

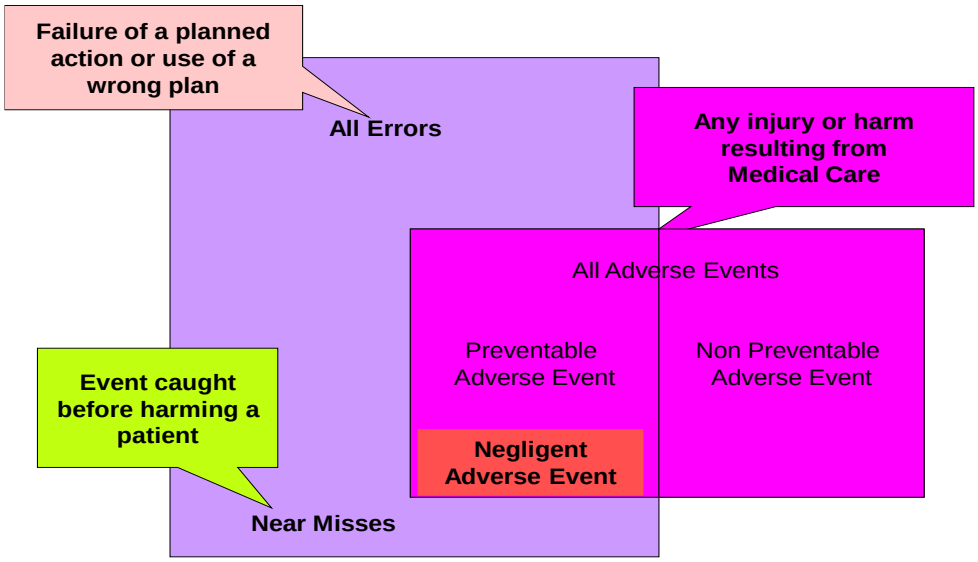
At Inova Mount Vernon Hospital in Mount Vernon - Virginia, patients were spending too much time in the emergency department because of the inefficiency of the processes. To eliminate dissatisfaction among patients and the community, the hospital used quality tools to strengthen the processes of the emergency department and to reduce patients' length of stay by nearly two hours. According to the article 'On the Clock', the time that had elapsed from a patient being entered the emergency department to the time the patient was discharged was two hours longer than that of the best emergency departments in United States (Robert, 2011).

Impacts of adverse events on patients include suffering due to pain, disability, psychological trauma and failure of treatment & betrayal of trust. Staff suffers from shame, guilt, depression, litigations and complaints (Vincent, 2010). Economic cost or loss from adverse events per annum includes lost bed days consequent to prolonged stay. Lost working time and expenditure for disability benefits should be added to this cost. So must lost income, lost household production (Vincent, 2010, Watcher, 2008). Studies which were carried out in various countries have shown that dealing with adverse events is expensive. Some countries such as USA and UK spend a huge sum of money on them. Moreover, the insurance companies quote a high price for medical provider coverage. This has resulted in narrowing down the range of treatment offered to patients by providers (Obama, 2006).

Instilling patient safety culture in health care system is one of the best methods to overcome these grievances and economical burdens. Having a reliable system to overcome unpredictable adverse events makes institutions trustworthy for patients and gives pleasure to the working staff.

Patients may experience adverse events from their medical care even in the absence of any errors (i.e., due to accepted complications of a surgery or side effects of medications). The patient safety literature separates preventable adverse events from those that are non-preventable. The following figure shows a Venn diagram depicting these various terms.

Figure 5.3: Venn diagram – Patient Safety Terminology



(Source: Wachter, 2012)

Now, where do errors or mistakes fit in? The safety literature commonly defines an error as "an act of commission (doing something wrong) or omission (failing to do the right thing) leading to an undesirable outcome" (www.ahrq.gov, 14th May 2013). It should be noted that many errors do not result in adverse events (refer figure). Generally most serious ones are characterized as "near misses" or "close calls". Some errors involve care that falls below professional standards where this is called negligence and may create legal liability or a duty to compensate for the patient in some systems. Although most preventable adverse events involve errors, not all of them do.

5.4 Classification of Hospital Accidents

In a healthcare system there are adverse events, errors and failures. Some of them are preventable. The approach of patient safety is to prevent the preventable events.

Adverse events are injuries or harm resulting from medical care. Adverse events are either preventable or non preventable. Recent studies have shown that the percentage of adverse

events taking place in health systems accounts for 8-12% of total events. About half of them are preventable (Vincent, 2010).

Adverse events are of two types:

a. Adverse events occurring due to the consequences of lack of care received by the patients
b. Harm that a patient may undergo due to accepted maximum care in the absence of any errors such as accepted side effects of a surgery (Wachter & Robert, 2008).

Errors are of two types. They are:

- Normative errors – knowingly conducted errors or those of negligence.
- Technical errors -- errors that take place due to technical incapacity

Near misses and preventable adverse events come under technical errors. Errors could be medical errors, surgical errors or diagnostic errors.

Approximately, 5% of in-patients experience medical errors due to Adverse Drug Events (ADE). Adverse Drug Events include harm caused by the medication itself, its side effects or consequences and 5% -10% of patients face potential Adverse Drug Events which are near misses. Patients on medications at home experience ADE more than in-patients. Some of them are very serious events. Medical errors could be prescription errors such as prescribing the wrong drug, wrong dose, in illegible writing or errors related to failures in recognizing allergies and the possibilities of drug reactions (drug-drug/drug-diet). Errors related to administration of drugs include administering by the wrong route, to the wrong site, in wrong frequency, to the wrong patient or ultimately the wrong drug itself. Patients also contribute to these ADE. Strategies for safe drug administration have been developed, for example, in 2003, the Joint Commission prohibited the providers to use “high risk abbreviations”, so that the dispenser as well as the administrator clearly understands the prescription; double check all the important procedures, so that two people should check individually (Emanuel, *et al*, n.d).

Surgical errors are adverse events faced by patients who undergo surgical procedures. These could take place as a result of negligence. There are "Never Events" which should never take place, i.e. doing the wrong surgery on the wrong site or in the wrong patient. To overcome this, the Joint Commission has introduced Universal protocols (Emunuel, *et al, n.d.*).

Diagnostic errors are cognitive and judgmental. These are mainly "slips" and "mistakes". Slips are "unconscious lapses of some automatic tasks". Mistakes are due to distraction, lack of experience, lack of information or applying wrong decisions (Wachter & Robert, 2008; Vincent & Charles, 2010).

Failures were found while analyzing the root causes for breakdown of organizational patient safety. They are:

- Active failures - Failures that occur due to failures of 'front line' workers while delivering services; e.g.; between patients and nurses
- Latent failures - Failures that take place due to gaps in the higher levels e.g. managerial level.

Examples of Medical Errors:

System Errors (Latent)

- Heavy workload/fatigue
- Incomplete or unwritten policies
- Inadequate training or supervision
- Inadequate maintenance of equipment/buildings /communication

Human Mistakes (Active)

- Action slips or failures (e.g. picking up the wrong syringe)
- Cognitive failures (e.g. memory lapses, mistakes through misreading a situation)
- Violations (i.e. deviation from standard procedures; e.g. work-around)

Post-accident investigations have shown that the local trigger factors are active failures in the system. Majority of the active failures occur due to the latent failure; i.e. weaknesses in the organizational system and managerial deficiencies. Latent failure accounts for 85% of the failures in an organization. Therefore, Patient Safety Culture of an organization plays an important role in reducing errors and mistakes (Reason, 1990).

5.5 Evolution of Patient Safety Culture

In 1982, ABC television network broadcast "Deep Sleep" which awakened the health providers as well as the purchasers. They stated that 6000 Americans die or suffer brain damage by anaesthetic accidents (Tomline, 1982). As a result, worlds' first 'Anaesthesia Patient Safety Foundation' was formed by the American Society of Anaesthesiologists. This was where the word 'Patient safety' was born. In 1989, Australian Patient safety Foundation was formed (Anaesthesia Patient Safety Foundation). The first conference on patient safety and system errors was held at Annenberg Center for Health sciences, California in 1996. In 2003, the Joint Commission began to promote Patient safety. Australia and the UK followed the pathway by forming Safety and Quality in Health Care's Priority Programs and National Patient Safety Agency (NPSA) respectively. In the year 2003, Taiwan appointed a Patient Safety Committee; in year 2002, WHO globalised patient safety by launching the World Alliance Resolution. The resolution stated that, to tackle patient safety globally a comprehensive and multifaceted approach is needed (Lian, 2004; Wachter & Robert, 2008; Emanuel, *et al*, n.d; Wung, 2011).

In 2004, the Patient Safety Committee of Experts on patient safety developed annual patient safety goals, strategies, principles and reference procedures. There were five goals at that time and by year 2007 it was increased up to eight. The committee also developed details for implementation. The goals were:

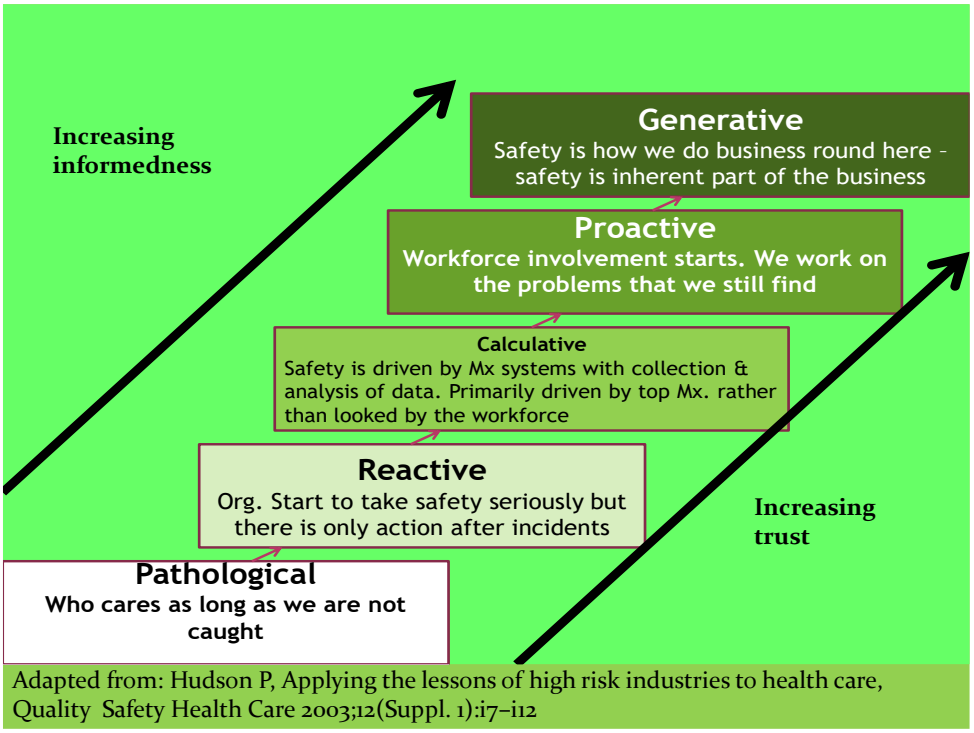
- improving the safety of using medication;
- reducing health care-associated infection;

- eliminating wrong site, wrong patient;
- eliminating wrong-procedure surgery;
- improving the accuracy of patient identification;
- prevention of patient falls;
- encouragement of staff to report any incident to improve communication and safety during patient transfer; and
- Increase patient and customer involvement (Hughes, 2008).

University of California, Evidence –Based Practice Center began its work by defining patient safety practice as "a type of process or structure whose application reduces the probability of adverse events resulting from exposure to the health care system across a range of diseases and procedures" (Markowitz, *et al*, 2001). Following the development and implementation of patient safety culture goals and procedures, the necessity for evaluation of patient safety arose. USA Joint Commission initiated an accreditation process. 'The Joint commission for Accreditation of Health care Organizations' (JCAHO) conducts an annual assessment (Pronovost, *et al*, 2010). This is very expensive. Therefore, some countries like Thailand, Taiwan, India developed self-evaluation questionnaires to evaluate the achievements of the goals.

Westrum in 1991 developed a cultural maturity model to explain the evolution of culture. According to him, there are five stages of maturity. It is arranged in a step ladder manner as shown below.

Figure 5.4: The Stages of Patient Safety Evolution



In **pathological culture** where staff is not worried about any adverse events as long as they are not caught, events keep taking place. Next phase is the **reactive stage**, at which the staff starts working on whenever an adverse event takes place. Third phase is the **calculative stage** where the management is aware of the importance and necessity of patient safety. They act on it, but the lower levels of staff are not yet a part of the process. **Proactive stage** is where everybody takes part in the process but, unexpected safety issues still arise. The desired stage of safety is the **Generative stage** where safety is in-built in the health care system where there is active participation at all levels. Adverse events are analyzed and actions are planned well ahead to prevent them. This is a retrospective action. When patient safety replaces blame culture, safety depends on the system created. Here, the system anticipates errors and either prevents or detects them before harm (Wachter & Robert, 2008; Hudson, 2003). According to a study carried out in Sri Lanka, it was found that patient safety culture in hospitals was in a reactive stage. 'Staff has a fear of reporting incidents. In turn, the learning opportunities are less. This can lead to errors not being identified and thus, no contingency plans being made. There is a chance of repeating errors

and new errors may take place. Action is taken retrospectively to rectify the errors' (Amarapathy, 2013).

5.6 Creating Patient Safety Culture

Although *culture of safety* has no universally accepted clear definition, perhaps the best description is this one: "A safety culture exists within an organization [when] each individual employee, regardless of his/ her position, assumes an active role in error prevention and that role is supported by the organization". Likewise, there are no clear pathways how this patient safety culture can be created in a healthcare organization. Anyhow, the first step is to practice ***No Blame Culture,*** i.e. not to find fault with someone or try to find who is wrong. If an adverse event occurs, the organization must respond to the situation rather than reacting to it. After avoiding blaming anybody, the organization has to practice open culture, just culture, learning culture, informed culture and reporting culture in order to promote patient safety culture. The characteristics of these cultures are explained in the following table:

Table 5.2: Promoting Culture towards Patient Safety

Elements	**Characteristics**
Informed Culture	Those who manage and operate the systems have current knowledge about the factors that determine the safety of the system
Reporting Culture	Prepared to report their errors and near misses • Staff have confidence in the local incident reporting system and use it to notify healthcare managers of incidents that are occurring, including near misses • Barriers to incident reporting have been identified and removed: o staff is not blamed and punished when they report incidents o they receive constructive feedback after submitting an incident report o the reporting process itself is easy
	• Staff, patients and careers are treated fairly, with empathy and

Just Culture	considerations when they have been involved in a patient safety incident or have raised a safety issue • Encouraged and even rewarded for providing safety-related information, but must be clear about what is acceptable and unacceptable behaviour
Learning Culture	• Willingness and know-how to draw the right conclusion from a safety information system and to implement reforms • The organisation: o is committed to learn safety lessons o communicates them to colleagues o remembers them over time
Open culture	• Staffs feel comfortable discussing patient safety incidents and raising safety issues with both colleagues and senior managers. Everyone in the team is given equal opportunity to discuss about the patient safety issues

5.7 Conclusion

Even though several studies and initiatives have been carried out to improve patient safety in healthcare organizations for the last two decades, this discipline is still in its infancy stage. Sri Lankan health sector for the past two decades has shown immense progress in its service, especially in relation to cost–effectiveness and its indicators are comparable with those of the developed countries. Sri Lankan Health infrastructure and health personnel have enormous potential in service delivery. Since the global trend is now towards patient safety, it is vital for us to begin the journey as early as possible and set an example to other developing countries.

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MODULE 02:

QUALITY IMPROVEMENT TECHNIQUES

CHAPTER 6

SESSION PLAN - 06

TOPIC: Application of Japanese 5S Concept in Healthcare Management (the gateway to improve quality of care in healthcare organizations)

Objectives: To explain the application of Japanese management practices - 5S for the Health sector

Total Amount of Time: 150 Minutes **Number of Participants:** 35 (Approx.)

Preparation: The trainer should have a comprehensive understanding on 5S concepts. Trainer must be prepared with suitable live examples for each 5S step related to the healthcare organization. He must be prepared to share experience, if possible, with his own experience too. The trainer should be aware of the technical terms used in the application of 5S and its tools. Also, refer the Curriculum (Annexure II of Introduction Chapter).

Materials: Handouts of the power-point presentations, photos and films relevant to 5S can be used. Refer Curriculum (Annexure II of Chapter Introduction).

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 10 Minutes

Engage participants with common problems faced in the hospitals with suitable examples related to healthcare organizations.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 10 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Introduce 5S as the gateway to quality improvement programmes in hospitals. It

should be specially mentioned that application of 5S is not achieving quality but an entry point to a quality improvement programme.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 110 Minutes

Each step in 5S should be explained with visual-aids such as photos, pictures and also with suitable examples. The implementation of 5S is then explained with practical examples and live stories. The benefits of 5S also are enlightened with suitable examples. Here it is recommended to come up with examples which are culturally related to a healthcare organization and the geographical area of concern. Then, the 5s tools can be detailed. It is recommended to explain each term in 5S tools.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 15 Minutes

Summarize the 5S concept and its importance. Check understanding of 5S by showing some photos to check super 5S.

Closing Comments: Acknowledge, motivate and inspire **Time:** 05 Minutes

Reinforce the importance of the topic; confirm that the time was well spent and thank participants; reinforce group respect and rapport.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Application of Japanese 5S Concept in healthcare Management **Date:** _____

Attendees:

_____

_____

_____

_____

Observations Made by the Trainer:

_____

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_____

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CHAPTER 06: APPLICATION OF JAPANESE 5S CONCEPT IN HEALTHCARE MANAGEMENT

6.1 Introduction

Hospitals are complex systems and many hospitals provide a wide range of services. These services must not only be carried out around the clock, but also must be implemented across the units in the hospital. Further, in a hospital, there are many professional groups working with their own professional cultures. Hence, cooperation among the units and teamwork are essential to run the hospital smoothly. Hence, improving the systems in a healthcare organization is essential.

Sir Donald Berwick, former President and Chief Executive Officer of the Institute for Healthcare Improvement said that **'Quality Fails when Systems Fails'**.

Before thinking about quality in a healthcare organization, it is essential to improve the systems in that organization.

Healthcare facilities are like living organisms, moving and changing in flexible relationships with their environments. In the world of healthcare, patient needs are always being changed; new healthcare technologies are continually being developed; new medicines and medical procedures generation after generation are being introduced. Meanwhile, the pressure to improve quality and reduce the cost of healthcare mounts each passing year. Due to these challenges, healthcare facilities must move beyond old organizational concepts and customs which are no longer applied and must adopt new methods that are appropriate to the times (Jackson, 2009).

6.2 Common Problems in Hospitals

Common problems or complaints encountered in a day-to-day life of a healthcare organization are listed below.

i. **Increased workload** – Staff always feels that they are overburdened with work. Whenever an assignment is given to the staff, they complain that they are unable to comply because they are overburdened with routine work.

ii. **High absenteeism** – The frequent absenteeism of some categories is another major setback faced by the hospital management. If a nurse of an operating theatre is absent for her morning shift, the Nursing Sister-in-charge of that operating theatre will come to know about it around 7.30 a.m. This absence might delay the commencement of the theatre list. The Nursing Sister then will inform the Matron requesting another nurse. Then the Matron has to pick a nurse from another unit or request a nurse who is in the nurses' quarters to act for the nurse who is absent. This arrangement will take another one hour. Eventually, the theatre list will be started not at 8.00 a.m. but around 8.45 a.m. with couple of surgeries being postponed.

iii. **High turnover** – If the hospital settings are not conducive to work, then the employees might not stay long. They will be requesting for transfers. High turnover is a disadvantage to any organization because that organization is losing well trained employees.

iv. **Employee demotivation** – Another common problem faced in healthcare organizations is the demotivation of employees. The reason for demotivation is the poor Quality of Work Life (QWL). Another vital aspect of demotivation is not appreciating the employees for their good work. On the other hand, the worst is the appreciation of the wrong people.

v. **Disorganized / cluttered environment** – It is a well known experience that wards and clinics are disorganized. The drugs and equipments which are needed are sometimes not easily accessible during an emergency.

vi. **Mistakes / Errors -** Dispensing a drug to the wrong patient or giving a wrong drug to a patient is a common mistake made in hospital settings. Wrong site surgeries also are experienced in the health sector worldwide.

vii. **Accidents** – Patient falls is another major problem encountered in hospitals. Likewise, staff accidents are another setback to the smooth functioning of hospitals. One of the major reasons for such accidents is an unorganized environment.

viii. **Dissatisfied patients (patient complaints)** – It should be noted that even though the health sector contributes immensely to the public, patients are sometimes not satisfied with the services given. This is due to reasons such as rudeness of the staff to patients, not listening to patients, long waiting time and the unavailability of essential drugs etc.

ix. **Stress and strain** – Hospital staffs work under stressful conditions. This is mainly due to the fact that the necessary instruments and equipments are not arranged in an organized manner. Lots of time is consumed for searching these essential items.

x. **Staff conflicts –** It is not unusual for employees of different categories of staff to quarrel with each other. Most of the time, the reason for these conflicts are some minor problems which can be sorted out at the unit level. Anyhow, these conflicts sometimes escalate to trade union actions.

One of proven solutions for these problems is the application of 5S which is found to be one of the entry points to a Quality Improvement

6.3 Overview of 5S

5S is considered a workplace housekeeping technique. It is much more than that. It is about creating an efficient workplace, which forms the basis for all other improvements in any given organization.

It is a Japanese technique, which has been successfully used by them in creating an organizational environment for continuous improvements. It is a technique not only used for improving the shop floor areas, but also in equal importance, for the creation of an efficient workplace.

The application of 5S to an organization fixes a determination to organize the workplace; to keep it neat and clean; to maintain standardized conditions and the discipline that is needed to do a good job. The name '5S' comes from the first letters of five Japanese words which form the five simple steps needed to create a well-organized workplace. These five

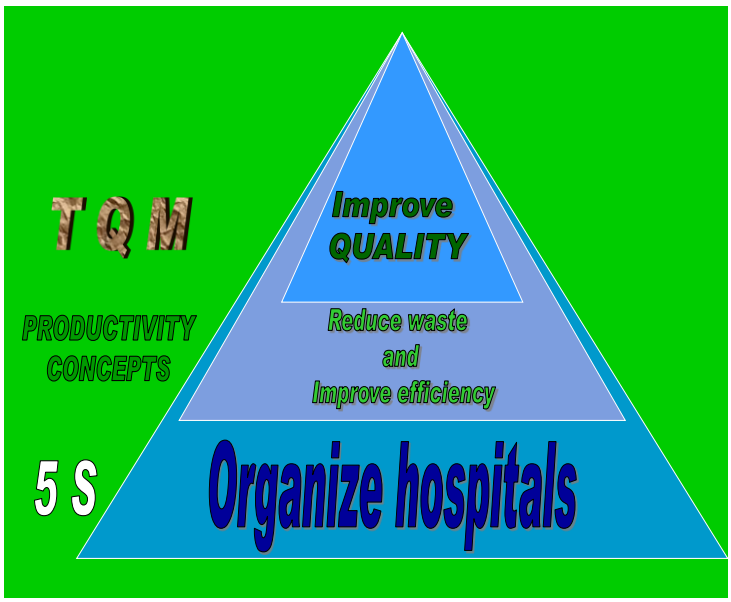
Japanese steps are as follows:

1. ***Seiri***
2. ***Seiton***
3. ***Seiso***
4. ***Seiketsu***
5. ***Shitsuke***

Since it is going to be a little difficult to understand and remember these 5 Japanese words, it is necessary to translate them into English.

Japanese Word	**English Translation**	**Meaning**
Seiri	Sort	Organization
Seiton	Set	Orderliness / Systemize
Seiso	Shine	Cleaning with meaning and beautifying
Seiketsu	Standardize	Standardization
Shitsuke	Sustain	Training and self discipline

Figure 6.1: Steps for Implementation of Quality Improvement



5S has been the starting / entry point of the Sri Lankan Quality Assurance programme; 5S is the foundation for a Quality Improvement Programme.

5S:

- creates quality culture among employees
- organizes the hospital
- is a gateway to quality improvement programme
- is the foundation for quality improvement programme

6.4 SEIRI – S1 (Organize/Sort & Clear)

SEIRI means sorting. This is the first step of implementing 5S.

'SEIRI means distinguishing between the necessary and the un-necessary and getting rid of what you do not need'.

S 1 focuses on eliminating unnecessary items from the workplace that are not needed for current processes in the hospital. SEIRI can be done in the following way.

- Look around you. Are there things, which you do not need?
- Look at spaces, furniture, devices, documents and materials
- Segregate items which are not needed and send them to condemning stores
- Identify housekeeping problems and deal with the causes (to prevent, reduce or remove dirt and grime).

It helps a unit by:

- Clearing the clutter
- Creating more space
- Solving housekeeping problems

Practical Guidelines on S – 1:

What is meant by 'unnecessary items'?

i. **Unserviceable items -** Usually known as condemning items such as broken equipments, broken furniture etc.

ii. **Excessive items** – This means having more than what is required. For example, in year 2002, a hospital had 5000 sets of maternal mortality forms where only 12 – 15 maternal deaths island wide were reported in a year those days. For these 5000 sets

of forms to be used up, another 360 years ahead were needed. Then it was understood that having that much of maternal mortality forms was ridiculous. Hence, after storing 100 sets of maternal mortality forms, other 4900 sets of forms were returned to the Family Health Bureau. By removing such excessive items, that office was able to get rid of 5 steel cupboards which were then redistributed to other units in the hospital with no cupboards. The office then became more spacious.

iii. **Non-relevant items -** whatever available in a unit must be relevant to that unit. Keeping a 'Cusco's speculum' in a paediatric ward is not relevant.

iv. **Unnecessary structures –** There are structures found in and around an organization which may not have been utilized for years. For example, after constructing a staff toilet inside the ward, the toilet which was previously located in the backyard of a hospital may be neglected (See photo below). Such type of structures should be removed.

Figure 6.2: Unnecessary Structure

v. **Unnecessary trees -** It has been noticed that in some hospitals the sewerage system is blocked by the roots of some trees. Sometimes the branches of the tree may grow above the roof of the hospital building. In such situations, those branches must be trimmed. By doing this, falling of leaves on the roof can be prevented, which in turn

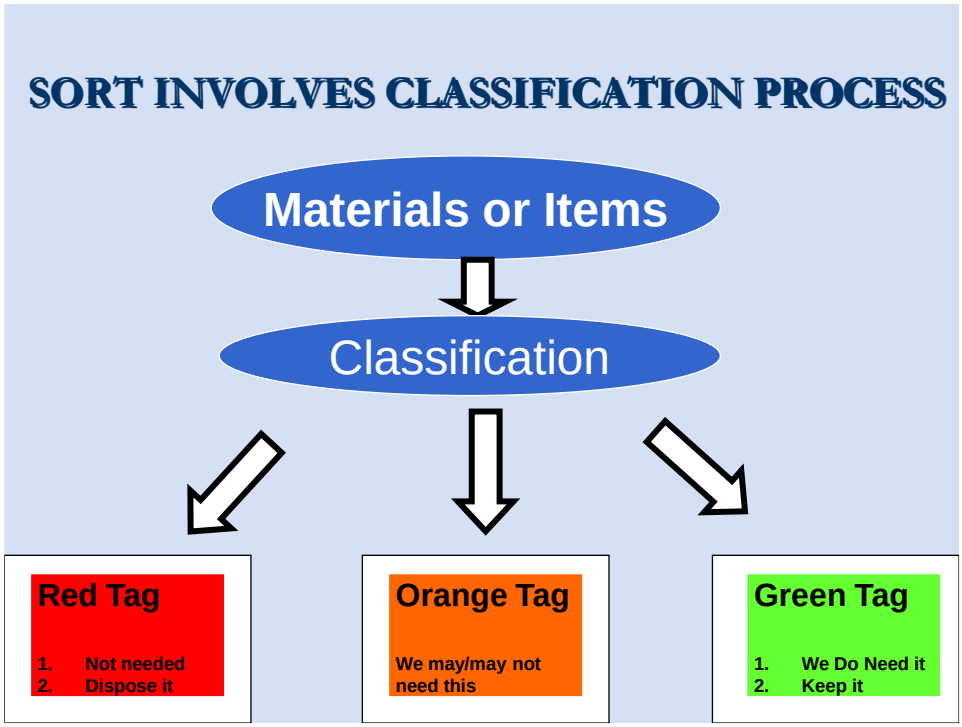
prevents the blockage of the gutters of the roof which are good breeding places for mosquitoes that transmit dengue fever. Similarly, the branches that go above the electricity wires, telephone lines should also be trimmed.

vi. **Unnecessary covers and locks –** There are instances at which some cupboards in a unit carrying emergency drugs or instruments used during an emergency are kept closed making these items unavailable during an emergency.

Implementation of SORT

It is not easy to identify unneeded equipments, medications and supplies in a busy healthcare facility. Providers seldom know how to separate items needed for healthcare processes and procedures from unnecessary items. Healthcare managers and providers often look directly at waste without recognizing it. The red-tag strategy is a simple method used for identifying potentially unneeded items in the healthcare facility, evaluating their usefulness and dealing with them appropriately. The process is explained in the following diagram

Figure 6.3: Classification process of Materials/Items



In a unit, the unwanted items will have red tags. The needed items will have green tags. Sometimes it is not possible to decide whether a particular unit needs a particular item or not. Then, an orange tag will be placed and a team will be appointed to decide whether the orange tagged item is needed or not. If the team decides that the item is needed, it will be replaced by a green tag and if it is not needed, with a red tag.

In 5S, the items which may or may not be needed, a yellow tag is applied; but in a healthcare setting, yellow indicates infection; hence, orange colour is selected.

For implementing SEIRI (S1), take the following actions:

i. Identify ***red tag holding area(s)*** in the organization. This is an area set aside for storing the unwanted (red tagged) items. The red tag holding areas could be of the following two types:

- **Local red tagged area**: This is the area near the respective unit/ward. The unwanted items in a unit/ward may be temporarily stored here until they are taken to the central condemning stores.

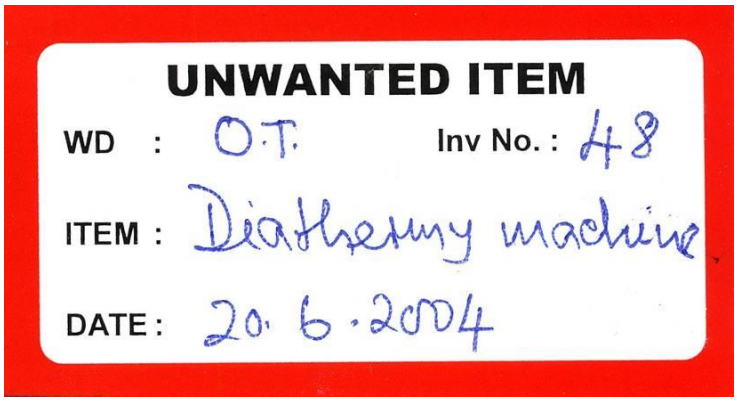
- **Central red tagged area (General Central Condemning Stores for General items/materials and Surgical Central Condemning Stores for instruments and equipments) -** A Health Management Assistant (HMA) will be the in-charge of the General Central Condemning Stores and a pharmacist for medical equipment.

ii. Decide the use of a red tag for the unwanted items. Decide on the following:

- Contents of the red tag;
- Criteria for the use of the red tag;
- The frequency for red tagging of items; and
- Members of the review committee for red tagged items.

A sample of a red tag is shown below:

Figure 6.4: Red Tag



iii. Take a before S1 (SEIRI) photographs of key areas from fixed points duly marked.

iv. Initiate the removal of unwanted items using red tags

v. Take after S1 (SEIRI) photographs from the same fixed points as earlier and put them on display for everyone to see and compare.

vi. When the red tagged items are sent to the Central Condemning Stores, evaluate the red tagged items; if they are usable,

a) Relocate to another units, which require them
b) If the institution does not require it, relocate to another institution in the region or province, or any other healthcare institution in the country which requires it after completing official processes.

If the red tagged items are not usable,

a) Find out whether minor repairs can be done; if so, use petty cash for minor repairs
b) If major repairs are needed, then follow the appropriate procedures

If major repairs also cannot be done, continue with the condemning process.

The success of the implementation of S1 shall be assessed by the size of the area freed up. The objective of this exercise is to save space and recover space.

6.5 SEITON – S2 (Orderliness/Systemization)

SEITON means 'setting in order' or arranging things systematically.

'SEITON means establishing a neat layout so that you can always get just as much as, of what you need and when you need'.

Once you have eliminated all the unneeded items, then it is your turn to deal with the leftover items. Then the next question will be, 'how much of what should be put aside and where?' This is NEATNESS (SEITON). Examples of neatness are:

- Efficiently parked trolleys and wheel chairs
- Systematically arranged records in a ward
- Orderly lay out plan in a clinic
- Layout of tools in a maintenance unit
- Systematically arranged drugs in an indoor pharmacy

- Visual control of septic and aseptic areas

There are 3 steps in implementing SEITON:

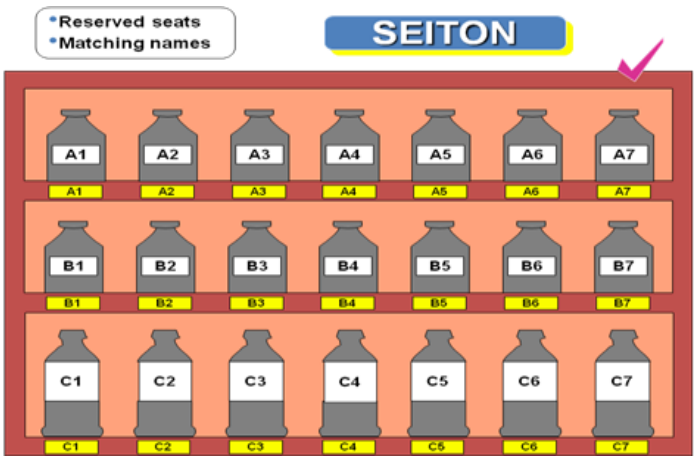
a. Deciding where things should belong to (deciding locations)
    - Locate frequently required items nearer and vice versa
    - Location should result in economical body motions
    - Plant (site) layout to reduce travel time an wasteful activities

b. Deciding how things should be put away (identifying locations and deciding storage conditions)
    - Reinforce item 'names', 'locations' and 'quantities' by marking; e.g. labeling, outlining, placement marking, etc.
    - Decide appropriate storage conditions based on the type of item; e.g. use of stands, shelves, special containers, bins, trays etc.

c. Obeying the put-away rules
    - Always put things where they belong to.

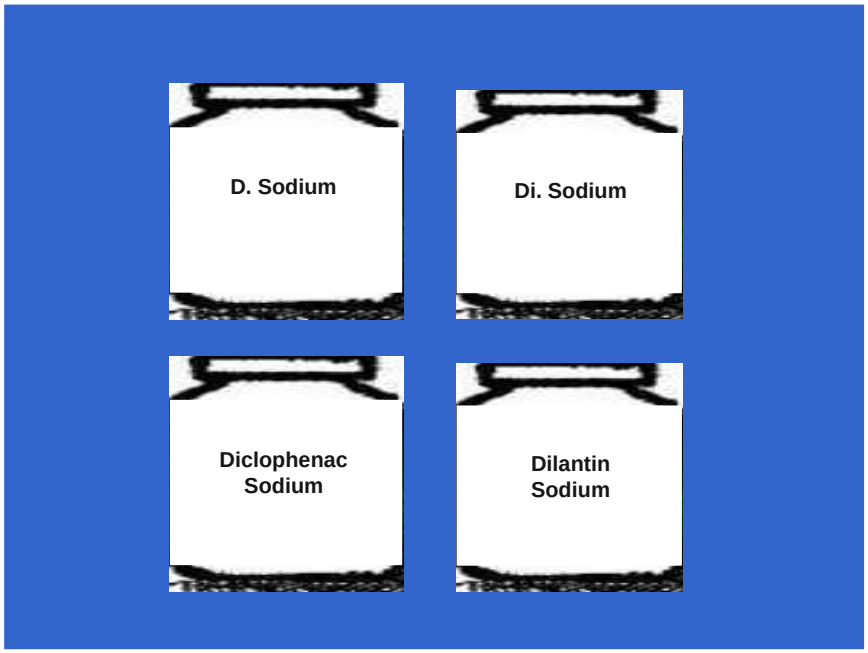
Some of the SEITON activities are visually shown below.

Figure 6.5: Arrangement of Drugs



When drugs are being arranged, make sure that they are arranged left to right according to the alphabetic order. This is because our eyes are trained to read from left to right; hence, it will be easy for a nurse to search for a drug. Anyhow, we might encounter a problem of arranging similarly named drugs together which is shown below.

Figure 6.6: Arrangement of Drugs – Alphabetic Order



In an emergency situation, a nurse might read the first few and the last few letters of a drug and take it out from the store. Due to this, there is a possibility for an error to occur. To avoid this, the concept of visual control can be applied; i.e. displaying common letters of similar named drugs in black colour and different letters of such drugs in red colour (Red indicates danger, attention). By doing so, the chances of taking out of a wrong drug can be minimized. This is shown in the following figure.

Figure 6.7: Arrangement of Drugs – Using Visual Control

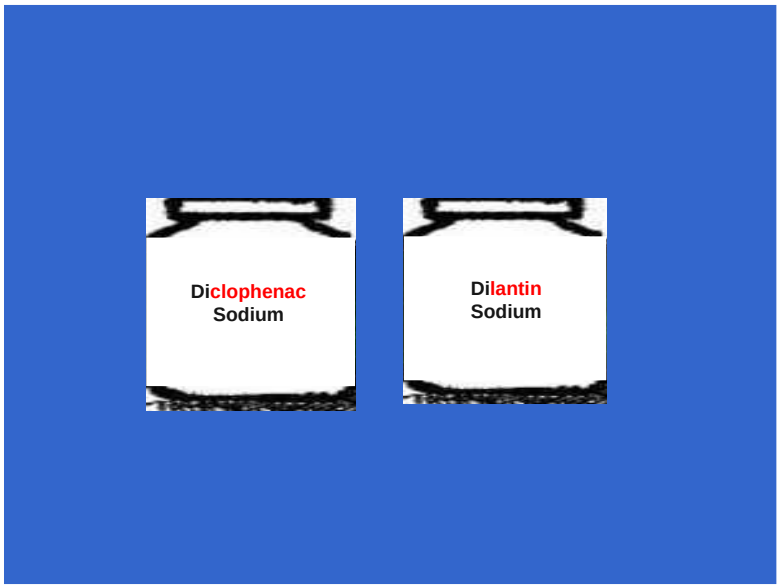


Figure 6.8: Stock Level Indicators

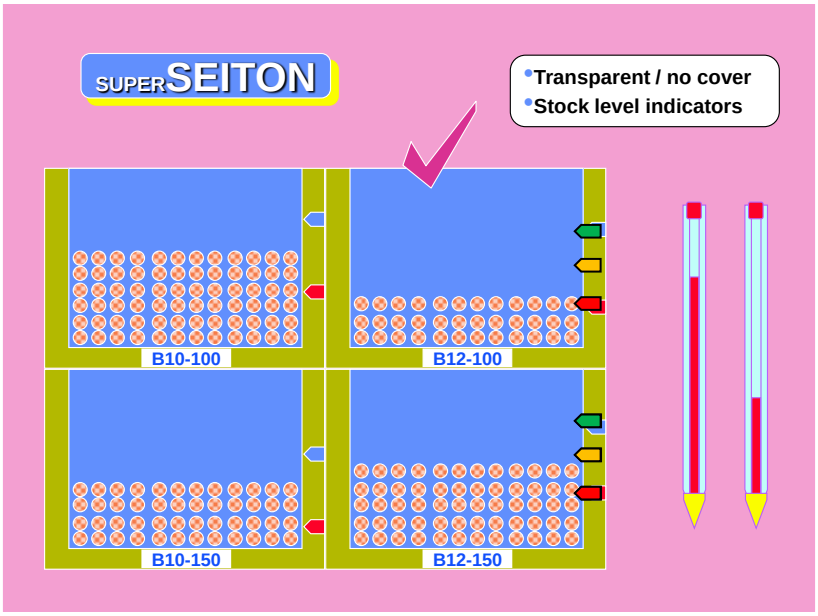
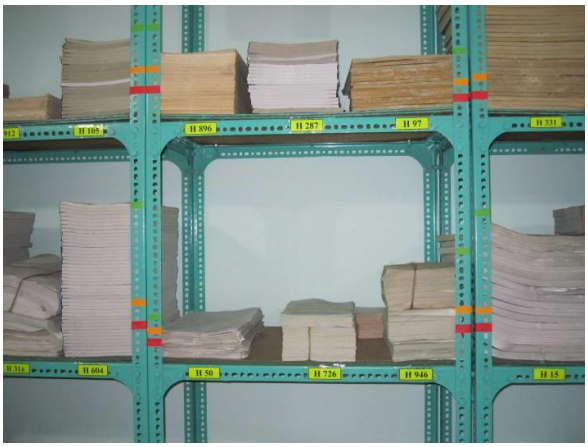


Figure 6.9: stock Levels of Stationery in an Office



In the above diagram, green indicates the maximum level; orange indicates the replacement level and the red indicates the level close to stock out stage.

Figure 6.10: File Arrangement

Figure 6.11: Arrangement of Keys

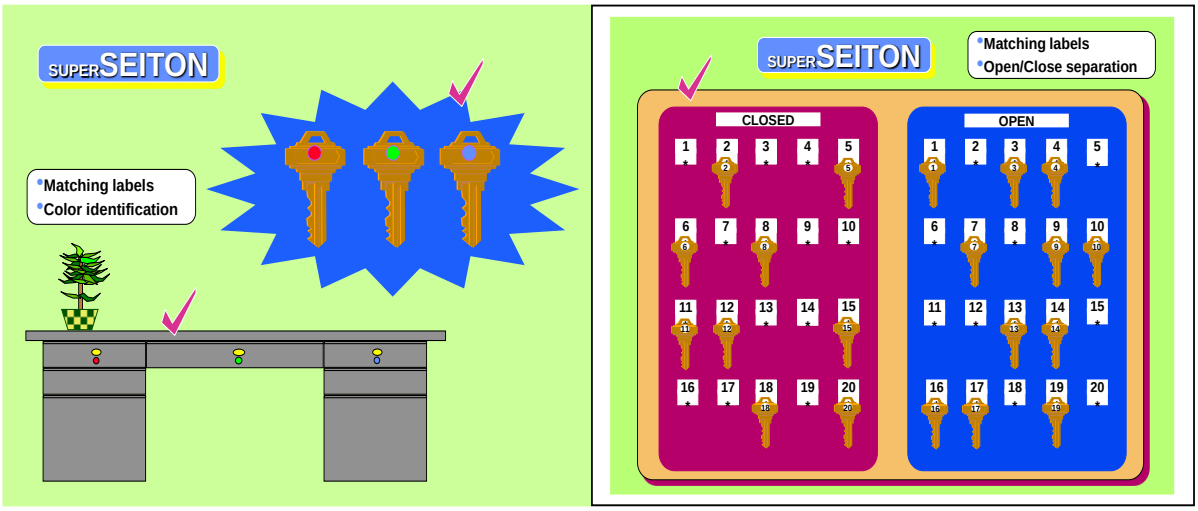


Figure 6.12: Placing Items Straight and at Right Angles

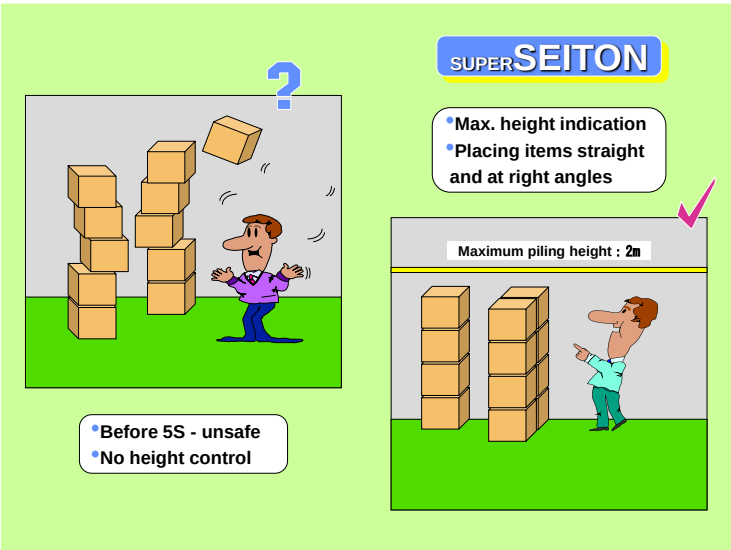


Figure 6.13: Colour Identification and Clear Ground Surfaces

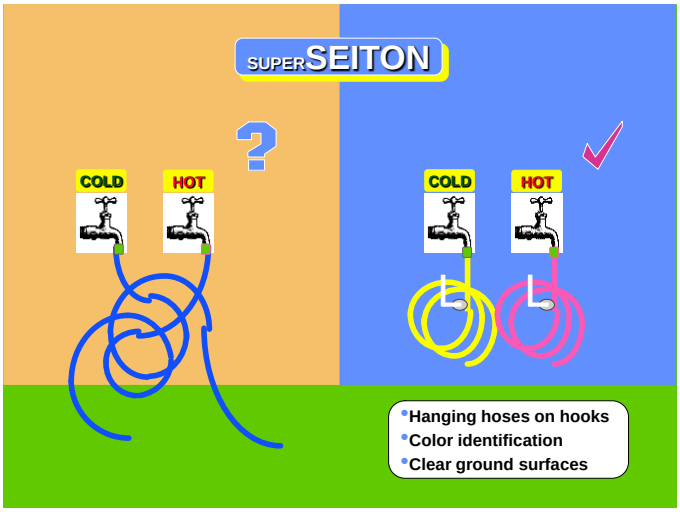


Figure 6.14: Arrangement of Tools

Importance of SEITON – S2

- It creates neatness for
  - Efficiency (e.g. quick retrieval of items)
  - Quality (e.g. protection of materials)
  - Safety (e.g. protection against falls and slips)
- It eliminates the need for searching

6.6 SEISO – S3 (Shine – Cleaning with Meaning and Beautifying)

SEISO means cleaning up one's workplace completely, so that there is no dust on floors, machines or equipment. 'It means eliminating trash and foreign matter for creating a cleaner work place. It also means using cleaning as a form of inspection and correcting the defects'.

Cleaning means more than just keeping things clean. It is more a state of mind and a commitment to be responsible for all aspects of the things you use and to ensure that they are kept in a tidy condition.

Cleaning is to be seen as a form of inspection. As you clean an item, it is likely that the defects of the item will become visible, e.g. when you clean a machine with a leakage of oil, you may notice the place from where the leakage is occurring. Similarly, when you clean a tool, the places where it has been cracked will become visible. Apart from this, you will also notice which housekeeping problems are causing quality defects in the services provided to the patients.

Implementation of SEISO – S3

Conduct thorough cleaning of everything using the following approach.

- Assign Individual cleaning responsibilities – The responsibility of cleaning of each and every item in a unit/ward is assigned to a particular person. This responsibility can be interchanged once in three months; for example, cleaning of trolleys, wheelchairs, drug cupboards, toilets etc. It means that the responsible person coordinates or sees whether the cleaning is carried out successfully.

Figure 7.15: Cleaning Checklist and Assigning Responsibility

August 2013

Item	Responsible Person	Time	I	II	III	IV
Wheel chair	Fernando	Sat. 3.00pm	x			
Trolley	Perera	Sun 10.00am		x		

Figure 6.16: Display of a Cleaning Checklist

- Make cleaning and inspection easier – Use of cleaning checklists makes the cleaning and inspection much easier.
- Clean the places where most of the people do not notice – Cleanliness is the first step towards 'Total Quality Management'. Hence, the backyard should be given the same importance as the entrance of the hospital.

Figure 6.17: Cleaning Map

Figure 6.18: Cleanliness is the First Step towards Total Quality Management

Figure 6.19: Clean where People do not Notice

Figure 6.20: Healing Environment

- Cleaning inspections and correcting minor problems – During the cleaning process, minor problems of instruments, wheel chairs, trolleys etc., can be identified and corrected. For example, when cleaning the trolleys and wheelchairs, grease can be applied to the wheels which will favor a longer life for the wheels. This will also help to reduce the noise arising from those wheels.

Figure 6.21: Correction of Minor Problems as a Team

- Regular sparkling cleaning campaigns – It should be remembered that regular sparkling cleaning campaigns with the participation of the entire team in the unit/ward are essential to maintain the cleanliness of that unit/ward.

The success of implementing S3 (SEISO) can be assessed through the measurement of the degree of cleanliness. A healthcare organization can develop a formula for measuring this depending upon the type of the unit. For example, Operating Theatre, Intensive Care Units (ICUs), Labour Rooms and Special Care Baby Units (SCBU) etc, should be given the top priority with regard to cleanliness. The aim should be to achieve zero grime or zero dirt, etc.

Another way of measuring is through internal auditing and allocating a rating on the audit observations. 'After-S3 (SEISO) photographs can further motivate people towards 5S movement and in sustaining the gains.

6.7 SEIKETSU – S4 (Standardization)

'SEIKETSU' means 'Standardization'. 'It means maintaining the workplace organized, neat and clean as a continuous activity'.

S4 (SEIKETSU) revolves around two important concepts. They are the following:

- Always think that today is better than yesterday and tomorrow will be better than today';
- Always implement S1, S2 and S3 in the same manner throughout the organization. For example, in hospitals, drugs are sorted out as accountable, non-accountable and extra/special and drugs are stored left to right according to the alphabetical order of the name of the drug. This is important because if a nurse from a paediatric ward is asked to cover up another nurse's duty in a medical ward, then this nurse needs not to waste time searching for drugs, because drugs are arranged in the same way throughout the hospital. S4 (SEIKETSU) is done with the objective of maintaining the workplace looking well organized, neat and clean. However, if the things are not maintained at this level, the workplace is likely to get back to its original undesirable condition. To prevent it from happening, we need to carry out the fourth S, SEIKETSU, (i.e. Standardization) as a continuous process.

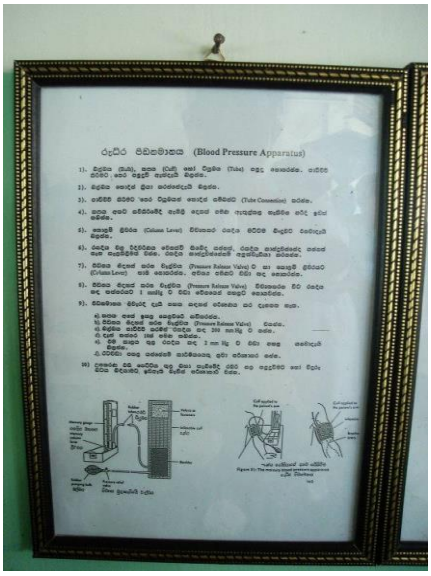
The implementation of S4 (SEIKETSU) is based on the premise that standardizing work practices, making things obvious and preventing misplacements will help an organization to maintain its required workplace conditions.

Implementation of S4 – Standardization

- Generate a maintenance system for the first three of 5S – QIT/WIT must make sure that S1, S2 and S3 are maintained uniformly throughout the organization.

- Develop procedures, schedules, practices and work instructions. This is to make sure that all the activities are performed in the same way. Operating instructions of all equipments must be displayed near the relevant equipment.

Figure 7.22: Work Instructions of a Blood Pressure Apparatus



- Continue to assess the need and the disposal of unusable items
- Regularly audit using checklists and measures of housekeeping – For this sorting (red tagging) frequency or schedules should be maintained and sorting must be performed strictly according to the schedule.
- Real challenge is to keep it clean – When the 5S programme is started, the real crisis arises with regard to the maintenance of cleanliness throughout the day.
- Transparency (e.g. glass covers for see through) – Transparency makes disorderliness apparent. Make the lockers, shelves and covers etc transparent or provide inspection windows in metal panels. By doing this, the possibilities of keeping things under the carpet can be avoided. People are motivated to maintain the orderliness them properly otherwise, the eyesores will be visible to everyone.

Figure 6.23: Transparency in Hospital Stores

- Straight line & right angle arrangements – when placing notices, arranging the furniture etc., follow X-Y axis principle. Nothing should be arranged in an oblique manner.

Figure 6.24: Straight Line & Right Angle Arrangement

- Visual and colour standardization – For keeping the workplace in the right condition all the time, we need to be reminded as and when there is an abnormality. One such system is colour standardization. The different colour codes of tags / labels can thus be used to bring out their status clearly to everyone. The colour codes which are applicable to a healthcare organization are shown below.

Figure 6.25: Colour Standardization

- 'Danger' warning marks and safety signs should placed in the relevant places.

Figure 6.26: Danger Warning Marks and Safety Signs

- Fire extinguisher and 'Exit' signs and safety devices should be placed in relevant places with appropriate symbols. Errors that can lead to accidents or product defects can be highlighted in front of the operator with help of caution / danger signs; e.g. safety alert for moving machinery parts, etc.

Figure 6.26: Fire Extinguisher and Safety Sign

- Electrical switches should be labeled with the warning to keep switched off when not required – This enables the use of electricity more efficiently.

Figure 6.27: Switch Labels

S4 – SEIKETSU helps the healthcare organization to:

- Maintain a good workplace as a continuous activity
- Detect abnormalities early and take early action
- Make the workplace look pleasant

6.8: SHITSUKE S5 (Training and Self-Discipline – Sustain)

S5 - SHITSUKE is training people to follow good work habits and the strict observation of workplace rules. It means creating self-discipline for 5S by inculcating good habits and standardization.

People by their very nature have a tendency to slack-off – the promises are generally forgotten or overlooked with passing time. At the same time, people fall into an automated routine, forgetting why and what they are doing, just going through the motions. That is why we need rules.

After you have practiced the first four Ss, you may notice after some time that things again start accumulating at the workplace; neatness is replaced by scattered things and the place once again tends to become dirty. To avoid this situation and for the continuous maintenance of all the 4Ss, you need to create discipline amongst people so that these conditions are maintained as a matter of routine.

S5 – SHITSUKE can be implemented by the following way.

- Periodic Training – This includes planned in-service training programmes for continuous professional development, orientation programmes for the new employees and guest lectures
- Poster Display – There should be a separate notice board for the staff to display about news related to 5S and quality related activities. For example, if there is a

newspaper article on 5S, productivity or quality, it can be displayed in the notice board.

- 5S Competitions – Organize unit-wise 5S competitions, leagues and tournaments where different teams compete with each other for 5S results. A panel of judges may evaluate the areas on pre-determined criteria on 5S and declare winners. Essay, quiz and poster competitions can also be arranged among the staff.
- On the Job Training – Another effective way of training is on the job. Invite a resource person to guide the staff for further improvement.
- Library – Self-learning is the best way of learning. Having a library for quality related activities provides an opportunity for employees to gain knowledge on 5S, productivity and quality concepts. If there is a library, a portion can be allocated for 5S, productivity and quality- related materials.

5S - SHITSUKE (Sustain / Self -Discipline) contributes to an organization in the following way.

- Inoculates courtesy & good habits
- Driving force behind all 5S
- Make it a way of life
- Part of health and safety
- Involve the whole workforce
- Develop and keep good habits

Although the application of 5S appears to be very simple, it may turn out to be difficult to implement because it requires continuous discipline & commitment of the people involved.

5S is a very simple thing to understand but requires a lot of determination to implement. The best way is to develop a structure and methodology for implementation that is best suited to your organization and then stick to this methodology. The top management's support and participation is essential in bringing everyone into the 5S fold.

6.9 Implementation of 5S Programme in an Organization

5S is an organization-wide participatory program involving everyone in the organization. It is not a programme of the Head of the Institution/unit. Managers, supervisors, operators and all employees have to identify their roles in the 5S process and implement them in totality. Only one level of people cannot do it alone.

It is recommended to start implementing 5S in a well chosen pilot unit or pilot process and spread to the others step by step. From change management, we know when any change is introduced to an organization, only a few (around 10% of staff) will support it. Likewise, when 5S is introduced too, only a few will respond favourably. Therefore, it is essential to identify those staff with positive attitudes and implement 5s in their units as a pilot. Attitude has to be changed from correction to prevention. 'Correction' is putting things right when problems arise (or when results are bad), whereas, 'prevention' means looking at causes, controlling the processes, so that all the results are right.

5S programme is within the reach of organizations of any size: small, medium or large and can be implemented in any type of organization such as those in the manufacturing sector or the service sector; e.g. in a hospital or an office.

It is a well known that after implementing 5S, results are visible to everyone - insiders (employees) and outsiders (Clients/customers/patients), within a short period of time. Therefore, other employees who have been reluctant to implement 5S too will join this programme. When the results are visible, the organization will get more and more support form well wishers. These visible results enhance the generation of more and new ideas among the staff. It should be remembered that 5S is a tool which promotes creativity among employees and sky is the limit for creativity.

Four key factors to observe for successful 5S are:

1. Continued commitment and support by top management
2. 5S starts with education and training
3. There are no observers in 5S, everyone participates
4. Repeat the 5S cycle in order to achieve a higher standard

An organization which is implementing 5S successfully is always:

1. **High in Productivity** – Healthcare facilities and offices are store houses or waste. Implementation of 5S can help eliminate following types of waste:
    - Excessive amounts of in-process supplies and supplies held on central store rooms
    - Space waste for excessive storage
    - Time waste searching for medication or equipments that are hard to find
    - Motion waste, in side stepping poorly located equipments and supplies

2. **Consistent in Quality** – Clinical defects result from many causes, including using the wrong medication and treating the wrong patient. Sort and Set in Order prevent these types of errors. Furthermore, keeping equipments and the work environment clean, reduces the amount of 'walk time' spent searching for missing supplies. These and other effects of 5S implementation increase hours at the bedside and contribute to fewer clinical defects.

3. **Cost-effective** – S3 – Healthcare organizations cannot make or save money without providing quality care or having the trust of patients. The 5S provide a strong base upon which quality and patient trust and, in turn, loyalty is built. Therefore, healthcare facilities with a solid 5S foundation are more likely to become financially stable.

4. **Accurate in Delivery** – In healthcare facilities which lack thorough implementation of 5S, deadlines whiz by and patients wait while the staff is busy engaged in various activities such as, trying to remember what they did to the last patient, searching for equipment and supplies, waiting for doctors to make rounds, waiting for laboratory results…etc, the list goes on. It is difficult to keep patients from waiting in the face of problems related to wasteful motion, too many errors and clinical/administrative defects. When these problems are eliminated, processes become more reliable and patients can be treated with less or no delay.

5. **Safe for people to work in** – Injuries to patients or staff can be expected when equipment, medications and supplies are left in hallways and when supplies are piled high in storage areas, or when work surfaces and equipment are covered with dust and other contaminants.

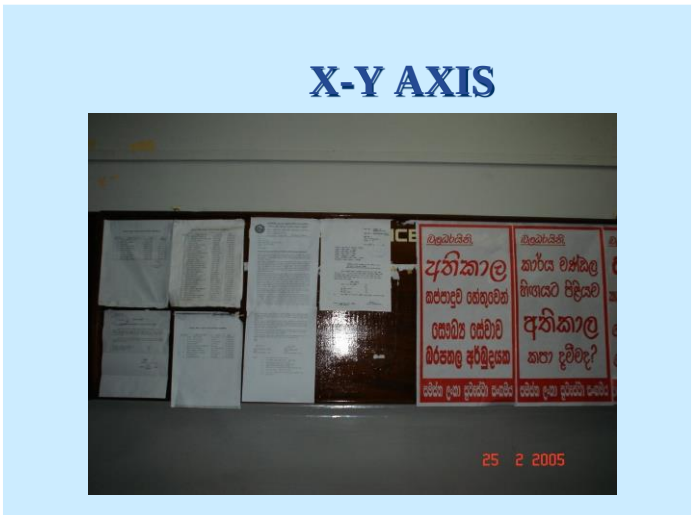
6. **High in Morale** – 5S can significantly improve employee morale. Studies have shown that healthcare providers who are more satisfied with their work environment are less likely to seek employment elsewhere. Considering the cost, this can give a very significant financial benefit (Jackson, 2009).

6.10 5S Tools

The tools of 5S shown below will give a good insight to implementing 5S.

1

2



3

NUMBERING

4

ZONES

5

ISLES

6


VISUAL CONTROL

7


SAFETY SIGNS
DANGER
පහත පඩපෙළ අසල ලිස්සන
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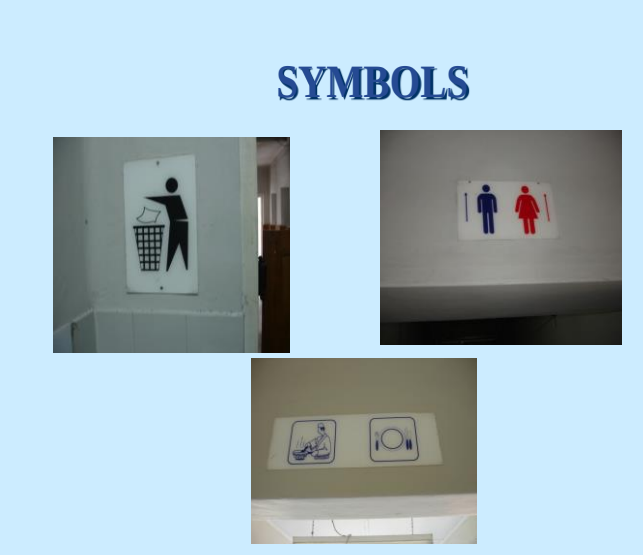

SYMBOLS

9

Labeling

10

Taping

11

SIGN BOARDS

SITE MAP

DIRECTION BOARD

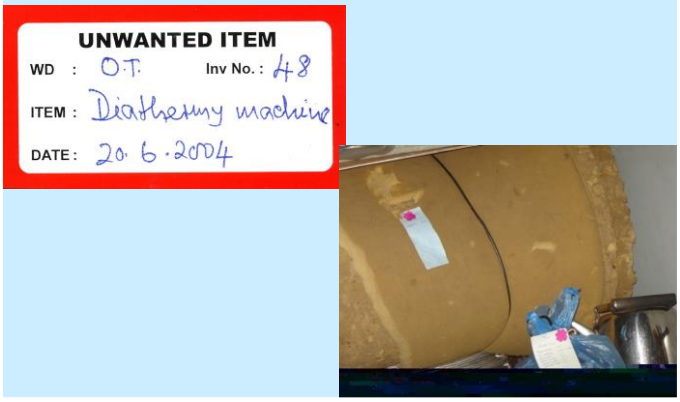
SIGN BOARD

12

STREET LINE ARRANGEMENT

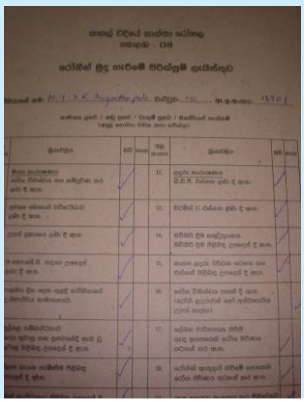
13

RED TAG



14

CHECK LISTS



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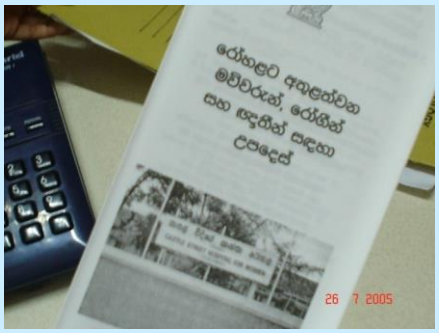
INSTRUCTION SHEETS



To implement 5S, what we need is

little knowledge,

little hard work,

little dedication, and

A very big positive attitude!

References

Jackson L Thomas, 5S for Healthcare, CRC Press, 2009

MODULE 02:

QUALITY IMPROVEMENT TECHNIQUES

CHAPTER 07

SESSION PLAN - 07

TOPIC: KAIZEN IN HOSPITAL MANAGEMENT

Objective: To describe the concepts of Kaizen and Gemba Kaizen in healthcare management

Total Amount of Time: 120 Minutes **Number of Participants:** 35 (Approx.)

Preparation: the trainer must be adequately prepared him/herself with suitable examples. He must get ready to explain kaizen using photographs. If possible, he can invite a sectional head to share his/her experience. Also refer the Curriculum (Annexure II of Introduction Chapter)

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Engage participants by asking few questions on 5S lectures, especially on S4.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 10 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Define Kaizen with healthcare based examples. Give a brief on the importance of Kaizen in healthcare management.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 80 Minutes

Describe the elements of kaizen. Explain Gemba Kaizen. List out the different types with suitable examples related to health sector. Also, the benefits of kaizen should be addressed. Rules of implementing kaizen with a kaizen chart needs to be explained. Introduce the concept and the application of PDCA cycle.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 20 Minutes

Check the understanding by showing photos. Ask questions.

Closing Comments: Acknowledge, motivate and inspire Time: 05 Minutes

Reinforce the importance of the topic; confirm that the time was well spent and thank participants. Reinforce group respect and rapport.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Kaizen in Hospital Management **Date:** _____

Attendees:

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Observations Made by the Trainer:

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CHAPTER 07: KAIZEN IN HOSPITAL MANAGEMENT

7.1 Introduction

This chapter aims at convincing participants that any organization that wishes to improve quality continuously should use *kaizen* as the most suitable management technique.

The approach to 5S described in the previous chapter relies more on the simple and effective rules implemented for the maintenance of tidiness and housekeeping. 5S deployment is the first step in continuous quality improvement process that merges into Kaizen and progresses towards Total Quality Management (TQM) in an organization.

In Japanese, *kaizen* means continuous improvement. The word implies improvement that involves everyone – both managers and workers – and entails relatively little expense. The *kaizen* philosophy assumes that our way of life – be it our working life, social life or home life – should be focused on continuous improvement efforts. *Kaizen* has contributed a lot to Japan's competitive success

Although improvements under *kaizen* are small and incremental, the *kaizen* process brings about dramatic results over time. The *kaizen* concept explains why western companies cannot remain static for long in Japan. Western management, meanwhile, worships innovation attributed to the latest management concepts or production/service techniques. Innovation is dramatic, a real attention getter. *Kaizen,* on the other hand is often subtle and undramatic. However, innovation is one-shot and its results are often problematic while the kaizen process, based on common sense and low-cost approaches, assures incremental progress that pays off in the long run. *Kaizen* is also a low-risk approach. Managers can always go back to the old way without incurring large costs.

Most "uniquely Japanese" management practices such as, total quality control or companywide quality control, quality circles, and styles of labour relations can be reduced to one word: *KAIZEN*. Using the term 'kaizen' in place of such buzzwords as Productivity, Total Quality Control (TQC), Zero Defects (ZD), Just-In-Time (JIT) and the suggestion systems

paints a clearer picture of what has been going on in continuously quality improving industries. *Kaizen* is an umbrella concept for all these practices (Imai, 2001).

7.2 Elements of Kaizen

The following are described as elements of KAIZEN:

- Appreciate the process, not the result (always appreciate "human effort");
- Encourage 'Team Work' for problem solving and decision making (WIT – work improvement teams);
- Go search for the problem; do not let it come to you;
- Identify and eliminate waste;
- Deliver the best service possible. Make the workers aware of productivity and quality; maintain a clean, orderly and safe working environment.

7.3 Kaizen and Suggestion Management

Kaizen allows us to build upon our routine work. Kaizen is meant to be a daily process where many small improvements are implemented in an ongoing basis. Kaizen should not be a bureaucratic process where ideas are generated only by managers or administrators. It should be a process that engages employees in improvement cycles, allowing them to take ownership of improving their processes. Employees should be encouraged to bring suggestions directly to their co-workers or supervisors in a face-to-face manner as often as possible.

Wherever an improvement idea comes from, it should be treated as a suggestion for an experiment. Not every new idea will work out in practice, so a trial must take place in a limited place (one unit or one room, rather than the whole hospital) and over a limited time frame. During and after the trial period, all participants need to evaluate if the change really has improved the system. If so, the change can be accepted as a new process. If not, the team can go back to the old methods or continue looking for a new one.

Since the scientific method and the change process allow for a hypothesis ("this change will improve the system") to be proven incorrect, leaders must create an environment where

quick experimentation is encouraged. Rather than pondering over the problem forever and trying to come up with the perfect solution on the first attempt, it is better to try something, in a limited way to see if it works. Part of the approach is that the employees must not be ashamed of making a suggestion that does not work as expected. It is something to be learned from. The team can try different ideas, starting with rethinking about the problem statement and going through the rest of the improvement cycle. On the other hand, this environment of rapid experiment should not be considered as an excuse to try ideas that are not well thought out but implemented just for the sake of trying something new.

General agreement on this approach often leads to specific questions about how we actually implement kaizen:

- How do we manage suggestions?
- How do we evaluate ideas?
- How do we keep continuous improvement from being uncontrolled or chaotic?
- How do we get inputs from everybody and keep everybody informed, without being too bureaucratic?
- What if people change things they should not have changed? (Graban, 2009)

7.4 Kaizen Activity Chart

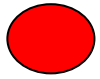
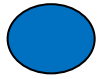
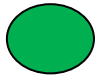
Kaizen activity chart is a tool used to implement suggestions by the employees of a unit. This chart consists of the activities, the responsible person for each activity and also indicates the progress of the activity. Each month the suggested activities are evaluated and entered in the chart according to the pre-defined colour code as mentioned below:

- Red – The activity is not started yet
- Orange – The activity is in the early stage
- Blue – 50 % of the activity has been completed
- Green – The activity has been completed

At the bottom of the chart, the progress in each month is mentioned. A sample chart is shown below

Figure 7.1: Kaizen Activity Chart

Serial Number	Activity	Responsible Person	Indicator of the progress (Draw Circles with Relevant Colours)				
1	Preparing a clinical dashboard to identify the critically ill patients						
	Date		21/05/2013	21/06/2013	21/07/2013	21/08/2013	
2	Preparing the Emergency Drug tray with check list						
	Date		21/05/2013	21/06/2013	21/07/2013	21/08/2013	
3	Arranging the boxes for different sizes of surgical gloves with stock levels						
	Date			21/06/2013	21/07/2013	21/08/2013	
6							
	Date						

Monthly Progress						
Month	**No. of Activities Suggested**	**No. of non initiated activities**	**No. of activities in early stage**	**No. of activities where the progress is more than 50%**	**No of activities completed**	**Remarks**
						
April 2013						
May 2013						
June 2013						
July 2013						

7.5 The Role of Supervisors in kaizen

Supervisors and managers should be appreciative of employees coming forward with complaints or problems. Exposing and embracing problems instead of covering them up or avoiding them is a positive step forward. When a complaint is brought to their attention, such as "We are too busy between 8 am and 10 a.m.," supervisors should challenge the employees to come up with a solution or a suggestion. A simple, yet an effective question to ask is, "What would you do to fix that?" The question should be asked in an open, honest tone rather than in an accusatory tone that suggests there is no solution to be found. Asking employees of what they think might catch some people by surprise, given common pre-lean environments. Some supervisors find it threatening to not be the ones coming up with answers all of the time. Supervisors and managers are not to be excluded from the problem-solving process, but they are not the ones who must come up with all of the answers. The front-line employees doing the actual work are more likely to have effective, practical solutions.

In some cases, employees do not have the authority required to solve problems themselves. For example, if a laboratory employee brings a complaint or a problem forward, saying nurses in the Emergency Department (ED) are not properly labeling specimens, that is the problem outside the employee's control. In situations such as these, leaders must step forward to take action on behalf of and in support of their employees. Leaders should play the dual role of encouraging and empowering employees by challenging them to develop their own solutions and also by stepping in to help them when needed, particularly with value stream problems that cross department boundaries.

The surest way to stop the flow of ideas by employees is to respond negatively to them. How many times is our initial reaction to an idea or suggestion one of the following?

- 'That's a dumb idea'
- 'That won't work'
- 'We can't do that'
- 'We tried that before'

Supervisors have to go out of their way to be positive when suggestions or ideas are presented. Even if the idea seems like a dumb one, supervisors should respond by asking questions. Ask the employee to step back and state the problem. Do anything other than saying 'NO'. Since employees are not required to give suggestions, in a formal sense, supervisors must treat suggestions like a gift. When presented with a seemingly inappropriate suggestion, a manager should try to understand why the employee thinks that it is a valuable suggestion and then use it as a developmental opportunity.

7.6 Gemba Kaizen

Gemba is a Japanese word meaning "real place" – now adapted in management terminology to mean the "workplace" – or that place where value is added. In the manufacturing set up, it usually refers to the shop floor.

Gembutsu the tangible objects found at Gemba such as work pieces, rejects, jigs, tools, and machines.

Go to *Gemba* is the first principle of *Gemba kaizen*. This is a reminder that whenever an abnormality occurs or whenever a manager wishes to know the current state of operations, he or she should go to *Gemba* right away, since *Gemba* is the source of all information.

In many service sectors, *Gemba* is where the customers come into contact with the services offered. In the hospital sector, for instance, Gemba is everywhere: in OPD, ward, dispensary, operating theatre, laboratory etc. In the field of hotel management, it is in the lobby, the dining room, guest rooms, the reception desk, the check-in counters, and the concierge station. Most departments in these service companies have internal customers with whom they have inter-departmental activity, which also represents Gemba.

MUDA, MURA and MURI

To start *kaizen* in *Gemba*, *Muda* offers a handy checklist and *Mura* and *Muri* offer a handy reminder for this purpose.

MUDA (Waste)

MUDA is a Japanese word meaning "waste" which, when applied to management of the workplace, refers to a wide range of non-value –adding activities. But this word carries a much deeper connotation. Work is a series of processes or steps, starting with raw material and ending in a final product or service. At each process, value is added to each activity and then, sent on to the next process. The resources at each process – people and machines – either do add value or do not add value. *Muda* refers to any activity that does not add value. *Muda* in *Gemba* has seven deadly wastes.

Seven Deadly Wastes

Waste is so often in front of us that we do not always see it.

"The greatest waste is the waste we do not see"

Shingo

1. **Overproduction**: for example, the number of handouts photocopied for a training programme is more than the number of participants
2. **Transportation**: for example, moving patients for laboratory/radiological tests unnecessarily; sending two or more ambulances to the same clinic due to lack of planning in the hospital.
3. **Excessive Processing**: for example, asking a patient the same information multiple times; Nurses attending to drug charts, observation charts rather than spending time on patient care.
4. **Waiting:** In-patients waiting in X-Ray rooms, ECG rooms etc for investigations, especially during emergencies.
5. **Inventories:** Keeping items which are unnecessary for the unit; items to be condemned, irrelevant and those in excess.
6. **Movement:** Looking for missing charts or equipment, searching for an item for more than 30 seconds, unnecessary movements to find an item or perform work.
7. **Defects:** Medication errors, unplanned returns to Theaters during same admission, unplanned & unexpected readmission to hospital within 28 days of discharge.

Currently two more wastes are widely discussed. They are:

- **Unused resources –** In a hospital, there are many employees with talents other than their professional qualifications. Those talents are not being utilized for the improvement of the hospital and patient care.
- **Misused resources** – In some hospitals certain resources including human resources are misused. For example, an ICU-trained nurse is deployed in the OPD injection room

MURA (Irregularity)

Whenever a smooth flow of work is interrupted in an operator's work station or in the flow of parts and machines or in the production schedule, there is *Mura.* For example, during an emergency, in the labour room (post partum hemorrhage), from the VOG – MOO - Nursing Officers to the labour room attendant may be performing with their maximum capacity for the recovery of the patient. But, the one who goes to the blood bank may take his/her own time to return to the labour room without any consideration of the emergency. Thus, everybody's work in the labour room may have to be adjusted to meet the pace of the slowest person. Looking for such irregularities becomes an easy way to start *Gemba Kaizen.*

MURI (Strenuous work)

Muri means the presence of strenuous conditions for workers and machines as well as for work processes. For instance, if a newly-appointed nurse is assigned to assist a veteran surgeon without sufficient training, the job will be strenuous for her and the chances are that she will be slower and may make many mistakes, creating Muda. To avoid this, the managers should follow the LUCK principle; i.e., Labour Under Correct Knowledge. Muri can occur when operating a machine. For instance, if a trolley is not properly maintained in the hospital, a minor staff person may find it difficult to push it when taking a patient. This causes strain on him.

Golden Rules of *Gemba* Management

- When a problem (abnormality) arises, go to Gemba first;
- Check the *Gembutsu* (relevant objects);
- Take temporary countermeasures on the spot;
- Find the root cause; and
- Standardize to prevent recurrence

Ten Basic Rules for Practicing *Kaizen* in *Gemba*

1. Discard conventional rigid thinking about production/service;
2. Think *how to do it* and not why it cannot be done;
3. Do not make excuses; start by questioning current practices;
4. Do not seek perfection; do it right even if for only 50% of target;
5. Correct mistakes at once;
6. Do not spend money for kaizen;
7. Wisdom is brought out when faced with hardship;
8. Ask 'Why?' five times and seek the root cause;
9. Seek the wisdom of ten people rather the knowledge of one; and
10. Remember that opportunities for *Kaizen* are infinite.

The difference between Kaizen and other events is the difference of Timing. Kaizen by definition is making small changes for the betterment.

7.7 What is PDCA Cycle?

Kaizen is a methodology which has the ability to speed up a change process and more importantly, to establish the solutions to problems into standardized processes. The implementation of PDCA cycle will help to achieve this. It is a continuous improvement methodology that is crucial for the implementation of CQI in a hospital.

Dr. Walter A Shewhart and Dr. W Edward Deming advocated PDCA concept for productivity management and continuous quality improvement of processes and products. PDCA is the "golden cycle for improvement". It is a methodical approach for problem solving and continuous improvement. PDCA wheel should be considered a never-ending cycle for improvement towards an ideal condition.

Plan is to establish objectives and process or countermeasures with expected outcome based on the past performances or future forecasting of work.

Do is to implement the processes or countermeasures planned.

Check is to measure the effectiveness or the degree of achievement of processes or countermeasures planned, in relation to the actual results and expected results, to ascertain any differences.

Act is to analyze the differences in order to identify the causes of "Gap" and take necessary actions to improve changes.

In improving situations or solving problems with KAIZEN process, it is fundamental to get everyone's participation.

Figure 7.1: PDCA Cycle

7.7.1 PDCA Cycle and Kaizen

PDCA cycle is the concept behind the KAIZEN approach. Look at how the PDCA cycle is used in the KAIZEN approach. PDCA is rotated like the way described in the diagram.

During planning, there is 5W-1H which is needed to be clarified against the theme or the topic as shown below:

Why are we undertaking the project?

What are we going to do? What data is required?

Who is responsible for each task? Who should be involved?

Where can we find relevant data and facts from?

When must a task be completed? When do we need to give feedback?

How must it be accomplished? How do we review?

Then, implement the plan and see the effectiveness and efficiency of those activities that are performed. Then, activities that show good result should be standardized and adopted by the routine practice. The activities that do not resolve problems should be discontinued and it is necessary to plan for better activities for the improvement of the situation.

This matches exactly with the KAIZEN Process that will be explained in the next section. However, PDCA cycle consists of four steps only and the cycle may be stopped at the step, 'Act' often. Kaizen aims to raise the standards of our workplace, productivity, quality and safety in a continuous upward spiral through rotating PDCA cycle, reflecting on achievements of KAIZEN and taking action to improve the way for next KAIZEN.

Plan - preparing how to implement KAIZEN - Clarifies the objectives and decides on the control characteristics (control items) - Set measurable target - Decide on the methods to be used to achieve the target.

Do - Implementing KAIZEN activities - Study and train in the method to be used - Utilize the method - Collect the measurable data set up on the plan for decision-making.

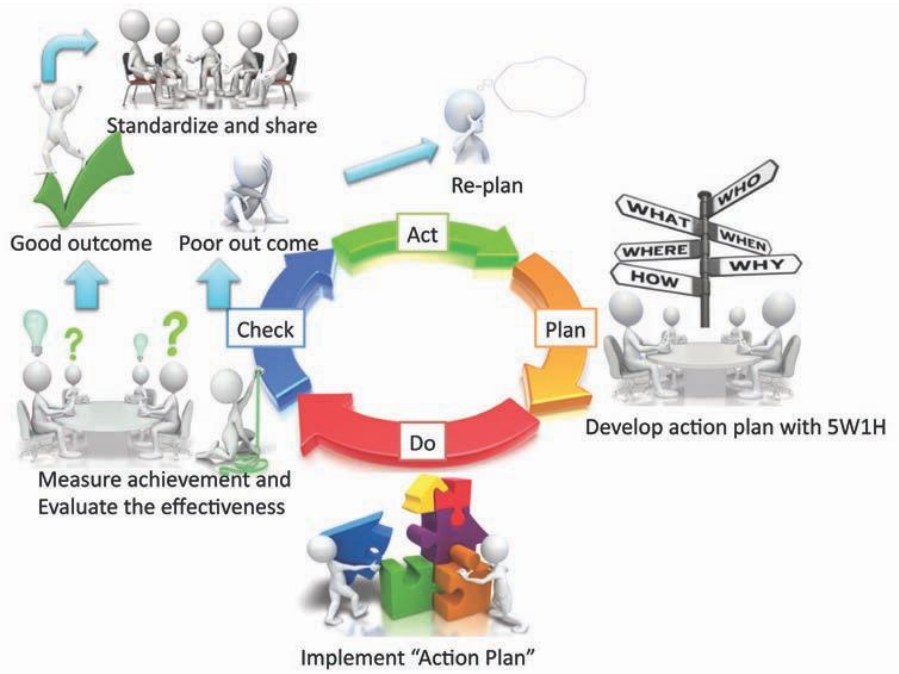
Check - Reviewing the result of KAIZEN activities and achievements - Check whether the

results of implementation has been performed according to the plan or standard - Check whether the various measured values and test results meet the plan or standard - Check whether the results of implementation match the target values.

Act - taking countermeasures based on the review in "Check" - If the results of implementation deviate from the plan or the standard, take action to correct this - If an abnormal result has been obtained, investigate the reason for it and take action to prevent it recurring - Improve working system and methods. The diagram below explains which KAIZEN process matches with the PDCA cycle.

It is often misunderstood that KAIZEN is the Japanese name used for PDCA cycle. This must be clarified that PDCA cycle is used as the backbone of KAIZEN process and it is not exactly the same as the original concept of PDCA. We can say that KAIZEN process is the improved concept and practical approach derived from the PDCA cycle.

Figure 7.3: PDCA cycle and KAIZEN Process



Original PDCA cycle is often illustrated as a "closed cycle". Since PDCA cycle consists of four steps only, the cycle maybe stopped at "ACT" often. However, "PDCA" used in KAIZEN is not a "closed cycle". It is an "open quality spiral".

Figure 7.4: "Open Quality Spiral" for Continuous Quality Improvement (CQI)

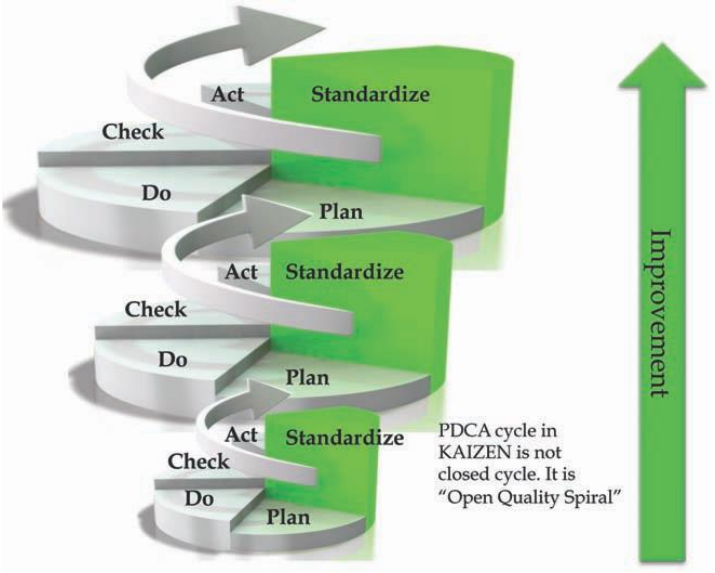
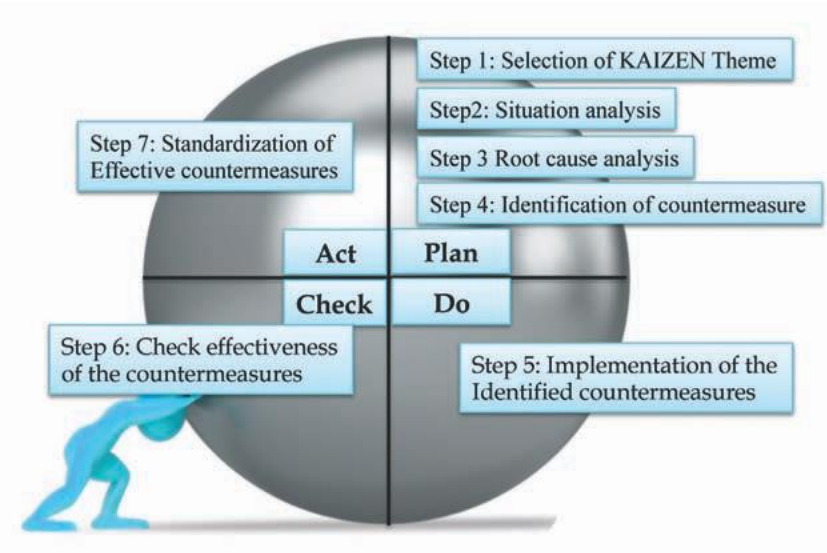


Figure 7.4: PDCA cycle and KAIZEN Process



In order to implement the above, a practical approach is to follow the following steps:

- Define the problem (step 1)

- Document the current situation (step 2)
- Visualize the ideal situation by identifying the causes (step 3)
- Define measurement targets (step 4)
- Brainstorm solutions to the problem (step 5)
- Develop Kaizen plan (step 6)
- Implement the plan (step 7)
- Measure, record and compare results to targets (step 8)
- Prepare summary documents (step 9)
- Create short term action plan, on-going standards and a sustaining plan (step 10)

The above should be undertaken on a routine basis by WITs in hospitals and supervised by QMUs (Implementation Guidelines for 5S-KAIZEN-TQM Approaches in Tanzania, 2013).

7.8 Conclusion

For any organization that wishes to improve quality continuously, *kaizen* is the most suitable management technique to apply. The manager should visit the Gemba, the real work place, to find waste and eliminate *Muda, Mura* and *Muri* to gain dramatic results over time using PDCA cycle. This has been proven in many manufacturing and service sectors.

References:

- Graban Mark, *Lean Hospitals*, CRC Press, 2009
- Imai Masaaki, Gemba Kaizen, A commonsense, low-cost approach to management, 2001, Mc-Graw – Hill International Edition
- Implementation Guidelines for 5S-KAIZEN-TQM Approaches in Tanzania, "Foundation of all Quality Improvement Programs", Ministry of Health and Social Welfare, Tanzania, Health Quality Assurance Division, March 2013, ISBN No. 978-9987-737-04-8

MODULE 02:

QUALITY IMPROVEMENT TECHNIQUES

CHAPTER 08

SESSION PLAN - 08

TOPIC: WORK IMPROVEMENT TEAMS (WIT)

Objective: To provide learning opportunities for participants to:

- Improve their understanding of the nature, objectives and the role of WIT s;
- Understand the role of WIT members, leaders, facilitators, monitoring and steering teams and how these operate to improve quality of services

Total Amount of Time: 90 Minutes **Number of Participants:** 35 (Approx.)

Preparation: The trainer must be adequately prepared himself with suitable examples. If possible he can invite a sectional head to share his/her WIT experience and show the minutes of WITs meetings. Also, refer the Curriculum (Annexure II of Introduction Chapter).

Materials: Refer Curriculum (Annexure II of Introduction Chapter).

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Engage participants by discussing the importance of team work.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 10 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Explain what a WIT is and its importance.

TRAINING MIDDLE

Explain the Topic: Explain the purpose, role and operations of WIT s. The functions of the members of WIT s, of the leaders and facilitators of the WIT s, monitoring team and steering team should be explained.

Time: 60 Minutes

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions. Allow participants to ask questions of WIT s.

Time: 10 Minutes

Closing Comments: Acknowledge, motivate and inspire **Time**: 05 Minutes

Acknowledge the participants and underline the importance of WIT s.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Work Improvement Teams **Date:** _____

Attendees:

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Observations Made by the Trainer:

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CHAPTER 08: WORK IMPROVEMENT TEAMS

8.1 Introduction

A Kaizen strategy includes small-group activities – informal, voluntary groups intra-organizational, organized to carry out specific tasks in a unit environment. The most popular type of small-group activity is Work Improvement Teams (WITs). The term 'Work Improvement' is a synonym of Quality Circles. In a healthcare setting, the word WIT is commonly used. WIT is designed to address not only quality issues but also such issues as cost, safety and productivity; and may be regarded as a collection of group-oriented Kaizen activities. WITs have played an important part in improving service quality and productivity in Japan. Management plays a leading role in realizing quality – in ways that include building quality assurance systems, providing employee training, establishing and deploying policies and building up cross-functional systems for quality, cost, and delivery. Successful WIT activities indicate that management plays an invisible but vital role in supporting such activities.

Dos and Don'ts for WIT:

Some themes that may be studied by WIT are Housekeeping, Accident & Sickness prevention/Safety, Cost reduction/minimization, Service quality improvement, Work simplification/Method improvement, Energy Conservation, Preventive maintenance, Customer Relations and Teambuilding. Themes that are outside of their purview and should not be undertaken for study include, Ministry rules of employment, collective labour agreements with the union, personal grievances, budget planning and allocation and financial matters.

Work Improvement Teams (WITs) are essentially made for employee-based small group activities. A WIT comprises a group of between 3-15 members belonging to the same work unit (e.g. the OPD members) who meet regularly to identify, analyze and solve problems and improve outputs of their work unit. They also take the initiative to introduce / implement improvement measures or recommend them to management.

8.2 Objectives of Work Improvement Teams (WIT)

The objectives of Work Improvement Teams are:

- **Improving Performance**
    - Improving quality of service
    - Improving productivity

- **Motivation**
    - Making work more meaningful, thus increasing job satisfaction of the workers
    - Providing challenges to enhance creativity among staff
    - Having open and effective communication by providing each member of the WIT the opportunity to speak and contribute their suggestions openly.
    - Developing more positive attitudes by continuous training and reminding the objectives of the organization are important factors which contribute towards positive thinking of employees.

- **Improving the Quality of Work Life (QWL)**
    - Job satisfaction – Participation in WIT has an influence on job satisfaction of employees.
    - Working environment – WIT meetings provide an opportunity to understand the problems faced by the other employees especially, minor staff. Thus, WIT becomes a platform to improve the work environment of staff and thus improving their QWL.
    - Teamwork and human relations – WIT is a foundation in a unit to create teamwork among the members of the unit. Also, it must be understood that hospital is an organization where all the units and health personnel are inter

related and inter dependent. Therefore, developing human relations is a vital component to improve quality of healthcare. WIT provides an environment to develop human relations.

8.3 Quality Improvement Areas

Work Improvement Teams (WIT) seek to effect quality improvements in the following areas:

- Service to the customer/public - In a hospital setting, Medical Officers, Nurses and Minor Staff are those who have direct contacts and are closely associated with patients. Therefore, their inputs regarding patient-needs and expectations are important. By providing an opportunity for these front line staff to actively participate in WITs, the management will be able to recognize the patients' needs and expectations.

- Inputs, outputs - WIT meetings will provide opportunities to use minimum inputs more efficiently to obtain maximum useful outputs. Hence, WIT is important to reduce cost.

- Use of resources - Efficient use of resources including human and physical can be practically discussed in WIT meetings.

- Procedures, workflow, systems and methods – Another vital aspect of quality improvement is improving procedures, workflow, systems and methods. The inputs from those who are involved directly in each and every activity will provide useful suggestions to improve the procedures, workflow, systems and methods.

- Workload management – Another important area addressed by the WIT is workload management. If all the staff can openly discuss their workload, the WIT can find solutions for those who have increased workload. This can be done by sharing of work.

- Coordination – Since all the activities in a hospital setting are inter-related and inter dependent, better coordination among these activities is important. WIT will be a platform for this better coordination.

- Safety – Teamwork is essential to patient safety. Patient safety is discussed in detail in another chapter.

- Efficiency and effectiveness - Efficiency basically deals with reducing the waste and effectiveness with goal attainment. To achieve both of these, teamwork is essential which is crafted by the WIT.

- Skills and knowledge – WIT is a means to identify the hidden talents of the staff. This is important for creative thinking and creative work in the organizations. These hidden talents of employees can be utilized to reduce the cost and achievement of objectives of that particular unit.

8.4 Role of the Leader of WIT

The success of a WIT depends on the leader of that WIT. The leader:

- Gets subordinates to join WIT activities – A leader of a WIT must encourage his/her staff to participate in WIT meetings. Since participating in WIT is voluntary, the leader should not execute any force to join or participate in WIT. If they are forcefully joined, the true contribution cannot be expected.

- Leads the WIT and involves team members in solving problems or bringing about improvements to the team's work.

- Works closely with the facilitator in projects undertaken by WIT – Usually the officer-in-charge of Quality Management Unit (QMU) will be the facilitator for the quality related activities. Hence, the leader of the WIT should work closely with that Officer.

8.5 Role of Members of WITs

- Attend meetings regularly – It is expected that the members of WIT should attend meetings regularly. The WIT meeting in each unit should be scheduled in advance, so that most of the members can attend the meeting. For example, in a ward, the WIT meeting can be arranged at 12.30 pm, so that the nurses who are off at 1.00 pm and also those who are coming for the 1.00 pm shift can attend by coming a little early. It will also be convenient for the consultants and Medical Officers who can by then complete their patient care activities and join the meeting. The minor staff too without any hindrance joins the meeting. Since it is visiting hours, it gives a positive feedback on teamwork by the ward staff to the patients and their visitors.

- Share and contribute ideas, efforts and time to help and improve the team's effectiveness – Everybody should contribute in the WIT meeting. A small suggestion can have a big impact on the improvement of a ward activity.

- Cooperate with and help the team leader and others – It is necessary to cooperate with and help the leader and other members of the WIT; the members can in return benefit.

- Participate in problem-solving activities of the group – It is essential to participate in problem-solving activities by using problem solving tools such as why-why diagram, fish-bone diagram which is explained elsewhere in this book.

- Effect improvements arising from projects carried out by the team – The WIT can carry out several projects. A WIT member may not be a member of that particular project. Still, if that WIT member thinks that there can be improvements made in a particular project, he should communicate his suggestions to the project team.

8.6 Role of the Quality Improvement Team (QIT)

Quality Improvement Team is the steering committee for the quality improvement programme of an organization. It consists of 7 to 9 members of all main categories of staff such as Medical Officer, Nurse and Professions Supplementary to Medicine, Paramedics and Overseer. The QIT is established to make sure that the quality improvement programme is not dependent on one person. If the quality programme is dependent on one person, when that person leaves the organization, the entire quality programme suffers. To overcome this, the QIT has to function as a steering committee for the quality improvement programme. QIT reports to the Head of the Institution on a regular basis and works under the instructions of the Head of the Institution.

The Quality Improvement Team:

- Sets overall goals and objectives for WITs – Goals and objectives of each unit/WIT should be set in such a way to achieve the vision of the organization. There cannot be more than one vision in an organization. Therefore, QIT should assist to set goals and objectives to each and every WIT.

- Sets policies and procedures for WITs operations – The functions of WITs in a healthcare organization should be standardized. It assures that all the WITs in an organization function in a similar way throughout. It promotes WITs activities – QIT plays an important role by promoting WITs activities. A QIT must appreciate those WITs which are performing well rather than blaming the WITs those are not performing well.

- Selects and appoints facilitators for WITs– Each and every WIT should have a facilitator who will be the coordinator acting with the QIT and Quality Management Unit of the healthcare organization. This facilitator has to be appointed by the QIT. Usually the leader of the WIT will function as the facilitator.

- Evaluates and rewards WITs activities – Another vital function of the QIT is evaluating the functions of WITs. When selecting the best unit of a healthcare organization, the functions of the WIT also can be considered. Competitions among the WITs can be organized and the best performing WITs can be awarded. It should

be remembered that the criteria for selecting the best WIT should be communicated to all WITs well in advance.

- Allocates resources for WITs operation – To perform certain suggestion of WIT, they need resources. QIT should negotiate with the Head of the institution and the Accountant to allocate funds.

- Manages WITs programmes and takes corrective action wherever necessary – Whenever a WIT deviates from its set norm, the QIT has to intercept and take corrective action.

8.7 Role of the Facilitator

The Officer who is in-charge of Quality Management Unit (QMU) will function as the facilitator of the quality improvement programme. His/her role with regard to WIT is listed below.

- Energizes and catalyses the formation of WITs by creating an environment for the formation of WITs. Usually when a quality improvement programme is initiated, all the units will not form WITs at once. The facilitator should support and provide environment to form the WITs by all units.

- Trains WIT leaders – Leadership and conducting meetings in a professional way is a vital component of a successful WIT. Therefore, the facilitator should take necessary steps to train the leaders of WITs. Training Need Analysis (TNA) will be useful for this purpose.

- Coaches and advices the leaders and members; e.g., remind the WIT to take into account organizational and customer needs and helps the WIT to accept feedback positively.

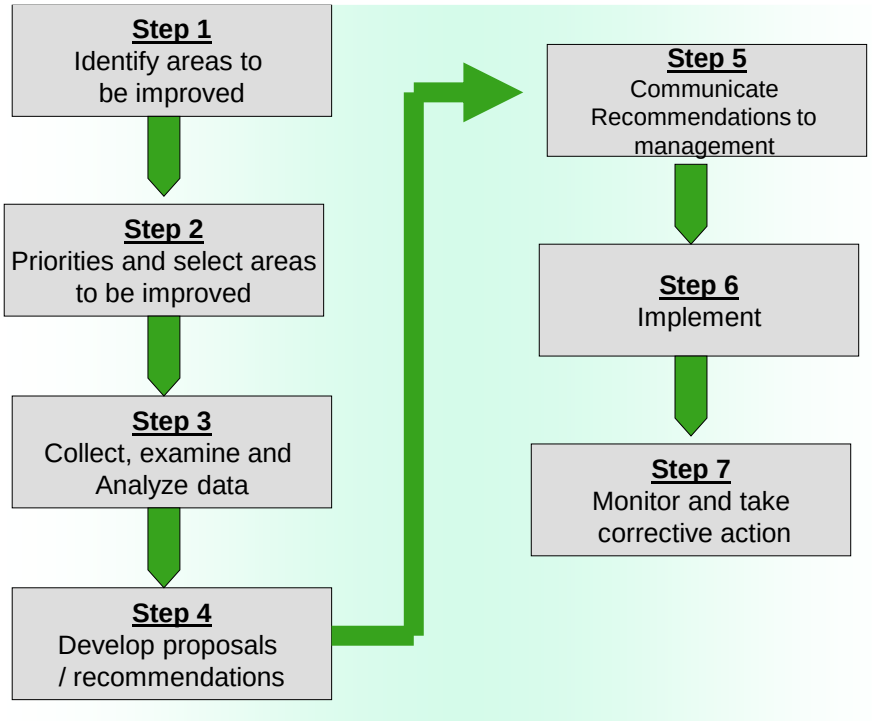
- Acts as a link between the WITs and the Steering Committee – provides feedback to both and coordinates with the management.

- Registers WITs, monitors and reports activities of WITs to the Steering committee. The facilitator should attend the WIT meetings if time permits. The facilitator should go through the minutes of the WIT meetings to ensure that the facilitator is aware of the functioning of the minutes and their needs.

8.8 Operation of the Work Improvement Team (WIT)

The basic operation of the Work Improvement Teams (WITs) is explained in the following figure.

Figure 8.1: Operations of the Work Improvement Team (WIT)



Step 1: Problem identification may be from the WIT members, management, staff or technical experts. Typically, several problems are identified in a WIT meeting. Problem analysis is performed by the WIT with assistance, if needed, by the appropriate technical experts.

Step 2: After analyzing the problems, the identified problems should be prioritized using a brainstorming session with the WIT members. Accordingly, the areas to be improved have to be identified with a time frame.

Step 3: The, collect necessary information regarding the problem; analyze the information using problem solving tools such as Fish-bone diagram, Pareto analysis or Why-Why diagram

Step 4: After identifying the root causes of the problem, develop proposals and recommendations. These proposals must be approved by the WIT members to make sure that the WIT members support the proposals.

Step 5: When the proposal is ready, it should be presented to the top management through the facilitator and QIT. This ensures that the proposals do not deviate from the strategic plans of the organization. To implement the proposed activities, it is necessary to obtain the blessings from the top management.

Step 6: After getting the approval from the top management, the proposals should be implemented.

Step 7: During the implementation, the progress of the activity should be monitored using KAIZEN activity chart (this is mentioned in chapter 'Kaizen in Hospital Management). Any deviation must be immediately corrected, if necessary, with the relevant technical staff.

Case Study

Quality Circle in Toyota

Quality circles are a vital part of Kaizen at Toyota. The American quality movement in 1980's briefly tried out Quality Circles which were regarded as a tool for participative management. The results were dismal. Hourly workers devoted much of the meeting to creature comforts; for example, moving the drinking fountain. There were some projects that improved quality and these widely publicized the company but they were few and far between. Eventually, this "management fad" died out. It was one more good idea gone badly. What was missing? Basically, all of the fundamentals of the Toyota way were

missing. Well-trained employees, the team leader role, well-trained group leaders guiding the initiative, a culture of continuous improvement and tools of lean such as standardized work were missing.

Management was taking a top –down culture with poorly trained employees, giving them "micro-waved "problem –solving training and suddenly expecting miraculous projects selected by the workers.

Quality Circles have never been a fad at Toyota. They have been an essential, ongoing management tool for productivity and quality improvement for decades and are still considered a sign of a highly evolved Toyota sites and are still developing.

Participation in Quality Circles is voluntary, but many people at Toyota choose to participate because they want to take part in improving the work area. Quality Circles are a good method to improve quality and make other improvements; and are also an excellent activity to promote teamwork and develop the capabilities of individuals. Each member of the circle is responsible for fulfilling each role on the team, such as taking minutes, keeping the meeting on time or facilitating the meeting. A team leader usually leads the circle and looks upon it as a development opportunity. The leader is responsible for establishing desired outcomes with management, planning each meeting, clearly setting expectations for the team and coordinating activities with others, such as engineering and maintenance.

The circle is responsible for setting goals and meeting schedules but the group leader acts in an advisory capacity. The primary role of the group leader is to ensure that the circle is addressing a meaningful issue (one that will improve the team or group) and the time is spent wisely and productively. He or she will check in with the facilitator weekly for an update and to provide any necessary support or guidance. The team is allotted one paid hour (overtime pay) per week (each person) for meeting and any assignment activity. The team may elect to meet before or after work; or in some cases, during a working lunch. Most circles deal with issues in the work area; so many meetings are conducted at the actual work site (Gemba).

At the completion of an activity, the circle group prepares a short presentation for management, explaining the activity and the results. This presentation is primarily a

congratulatory opportunity for management to express gratitude to the team for their efforts and work to improve the operation. Any suggestions implemented by the circle also quality for a payment award in the suggestion system program (see below). In this case, the members are paid for their time during the meetings and for the improvement ideas. Each year, the best quality circle projects are selected for bronze, silver, gold and platinum awards and make formal presentations to vice presidents of Toyota. The American Toyota plants each select a platinum award winner to be present in Japan at Toyota's International Quality Circle Conference. At Georgetown in 2004, there were about 22 percent of employees in voluntary circles, compared to a target in the 40 to 50 percent range. Participation of over 80 percent is not uncommon in Japan. This is a good opportunity to develop and use abilities and to be rewarded for the effort; not a bad deal at all.

Case Example - Work Activities Help People Gain Grater Personal Ability and Satisfaction

An employee at the Toyota plant in the Georgetown was very shy and did not like to speak in front of others as is common in the culture. They had discussions daily, reported on issues in the work area and often presented the results of Quality Circles and continuous improvement teams to members of management. Being too afraid to speak in public, this women preferred to stay away from these activities (most were voluntary). She was interested in promotion potential but could not get past her fear.

She was finally persuaded to join a Quality Circle and when the time came for presentation, she was terrified. Even though she had her notes, she went entirely blank but still managed to make it through. With a little encouragement, she tried again and improved her presentation skills over the years. She moved to another job and when we finally met again she told us that she'd joined the Lions club and become the special events coordinator - a position that required her to make a report of activities at each meeting! She was proud that she'd been able to overcome her fear and participate in activities that interested her outside of work (Liker & Meier, 2006).

Case Example – Work Improvement Team (WIT)

A feature of Kaizen activities observed at Inoue hospital – Japan is active WITs, which were begun in 1983. This table shows how the number of WITs at the hospital has grown over the years.

Year	Number of WITs	Number of Staff Involved
1983	10	127
1985	18	132
1990	23	282
1995	41	429

The main subject areas addressed by WITs, in the order of the number of projects are: quality, efficiency, safety and cost. A total of 189 projects have been completed since the first quality circle was organized.

Other topics addressed by the WITs of the hospital included the following:

- Improvement of clinical diagnosis forms
- Improvements of fail-safe switch for blood pump to catch abnormalities in dialysis apparatus
- Elimination of dosage mistakes
- Reduction of waiting time for dialysis
- Elimination of switching in the air-detection apparatus
- Optimum inventory of drugs
- Reduction of mistakes in serving special dietary meals

In order to evaluate the hospital's effectiveness, management always works hard to collect information from the following sources:

- Patients' claims
- Patients' remarks at the time of leaving hospital
- Review by a third party
- Countermeasures against an accident

- Cases in which death was involved
- Specific patients' symptoms
- "Hot mail" from patients to the hospital director

The hospital encourages its staff to experience medical treatment from the patient's perspective. In 1994, 16 nurses underwent haemodialysis; one administrative staff member used a wheelchair; two secretaries tried laxatives and one clerk underwent an examination by stomachic camera. The following remarks are from employees who underwent such experiences in 1995:

- **Nurse A:** "I underwent the experience of getting haemodialysis as a patient. I was expecting the pain of having the needle in the vein but when I had to stretch my arm for three and a half hours, the muscles around my shoulder and elbow ached badly and this was the hardest part. As I couldn't use my right arm, it was not easy to have a cup of tea and lunch lying on the bed".

- **Nurse B:** "I am right –handed and as the needle was attached to my right hand, I had to eat with my left hand. I was unable to eat the Chinese food and could only eat rice dumplings and I was very hungry. I was anxious to know who would be attending me as my nurse and hoped that it would be someone good at injecting the needle painlessly. Normally, when I am acting as a nurse and I hear the patient say something like that, I feel upset as I am always trying to do my best".

- **Nurse C:** "When I was lying down on the bed, I felt very uneasy. I suppose the patient feels the same way. I was very relieved when the nurse came to me and said, "Are you OK"? When you take off your white uniform and lie down on the bed, you feel very feeble. From the bed, people standing by you look very tall and the doctor looks really great! It's a different feeling from what you get as a nurse. Everyone looks great from the bed. So, I think we shouldn't talk to them as if we are looking down upon the patients".

- **Nurse D:** "It seems that some patients hesitate to call a nurse even if they know the nurse well enough. It will be better if we can anticipate such needs and go to patients' beds without being called. I feel that they should not hesitate to call us but think we should take the initiative of calling them".

- **Administrative Staff Member:** "I have experienced sitting in the wheelchair. I found that the button on the side of the elevator was too high and inconvenient to push. We never had such complaints from patients but when unattended, the patient will have to ask someone else to help".

In addition to gaining firsthand experience as patients, staff members are encouraged to experience working in areas outside their usual jobs. This helps them to better understand how business is conducted in other departments and assists them in building cross – functional teamwork (Masaaki, 2001).

St. Francis of Assisi, one of the most venerated religious figures in history, said that:

"Start with what is important; then do what is possible; suddenly you realize that you will be doing what you thought was impossible".

In the quality improvement programme we say that:

"Start with what is possible; then do what is important; suddenly you realize that you will be doing what you thought was impossible".

This is because it is important to start with what is possible and be successful in the undertaken projects. By being successful in a taken project, the confidence of the WIT as well as other staff grows up. This encourages other non-members of WIT to join WIT. Also, this motivates WIT members to perform well than earlier.

References:

- Liker Jeffrey K, Meier David, The Toyota Way – Field Book, Tata McGraw-Hill Edition, 2006

- Masaaki Imai, Gemba Kaizen, McGraw Hill International Edition, 2001

MODULE 02:

QUALITY IMPROVEMENT TECHNIQUES

CHAPTER 09

SESSION PLAN - 09

TOPIC: QUALITY IMPROVEMENT TOOLS

Objective: To develop knowledge and skills in using five (5) selected Quality Improvement Tools

Total Amount of Time: 150 Minutes **Number of Participants:** 35 (Approx.)

Preparation: The lecturer must develop few examples related to healthcare settings, to explain each quality improvement tool. Also, refer the Curriculum (Annexure II of Introduction Chapter)

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Relate the quality improvement tools to a cricket match. Ask participants, anyone who is interested in playing cricket to come forward. Make a ball using a half sheet and throw it to him. He may be able to catch it or else will drop it. If he catches, throw the same ball to him so that he may drop the ball on the second instance. Then ask if a cricketer drops the ball during a match, what the coach's analysis will be. It was expected that the fielder must catch the ball. Then tell participants that the coach would be analyzing the event using various techniques to find out why the fielder dropped the ball. Similarly, when a problem occurs in a healthcare institution, the management needs to analyze it using the quality improvement tools and see what the root causes for the problem will be.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 10 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Define Quality Improvement Tools and emphasize the importance of using those tools in the improvement of the services.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 50 Minutes

Explain Fish-Bone diagram, Histogram, Pareto chart, Why – Why diagram and the Problem Tree with examples.

Group Work

Time: 45 Minutes

Form 4-5 groups. Ask each group to select one of the above tools and analyze a selected problem. Make sure that each one of the above-mentioned tools has been taken up by at least one group. It is desirable if the lecturer/facilitator allows the group to decide on the tool in which they are going to work.

This exercise is carried out in order to make participants understand the Quality Improvement Tools and not to solve problems in their institutions. Hence, they have the liberty to select any problem they are willing to attend to. It may be a problem related to their ward or may be one of their personal problems such as one of the participants being unable to pass his exam or a common problem such as increase in Road Traffic Accidents (RTA) in a particular area.

Presentation of the group work **Time:** 30 Minutes

Each group will be given eight minutes to present their work for discussion.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 05 Minutes

The lecturer should summarize the tools that have been discussed in the session.

Closing Comments: **Time:** 05 Minutes

Acknowledge, motivate and inspire participants to introduce Quality Improvement Tools to their respective institutions.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Quality Improvement Tools **Date:** _____

Attendees:

_____

_____

_____

_____

Observations Made by the Trainer:

_____

_____

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CHAPTER 09: QUALITY IMPROVEMENT TOOLS

9.1 Introduction

Health care providers deliver variety of services for their customers and get the feedback for continuous quality improvement. In this context, the establishment of a sustainable, organization-wide quality programme with the participation of all stakeholders is a major concern. At the incipient stage, health managers have to assess the current situation of health care provision and then, it is important to plan the desired improvements. This gap may envisage different problematic situations and the tools described in this chapter will help to identify the solutions which are more practical and applicable. Eventually, they will find out how much the previous situation has been improved after the application of Quality Improvement Tools. This is the basis of an evidence-based quality improvement programme.

In order to prioritize and solve problems in any organization, several quality tools can be used. It is necessary to educate and train the staff of the way to apply these tools in the appropriate context.

There are several Quality Improvement tools used for evidence-based quality improvement. Out of those tools, it is necessary to know about Basic seven (7) Quality Improvement Tools and New Seven (7) Quality Improvement Tools that can be utilized for KAIZEN Process. Those tools are as follows:

	Basic 7 Quality Improvement Tools		**New 7 Quality Improvement Tools**
1	Cause-and-effect (fishbone diagram)	1	Affinity Diagram
2	Check Sheet	2	Inter-relationship Diagram
3	Control charts**:**	3	Tree Diagram
4	Histogram	4	Prioritization Matrix
5	Pareto Chart	5	Matrix Diagram
6	Scatter diagram:	6	Process Decision Program Chart

7	Why-Why Diagram	7	Activity Network Diagram

In this Chapter, tools that are often used during KAIZEN process are explained in details. The selected tools are Pareto Chart, Fish Bone Diagram, Histogram, Problem Tree and Why-Why technique.

9.2 Pareto Chart

This is based on the Pareto principle which is also known as 80 – 20 rule. It highlights the importance of vital few causes of any given problem. It means that anything few (20%) is vital and many (80%) are trivial.

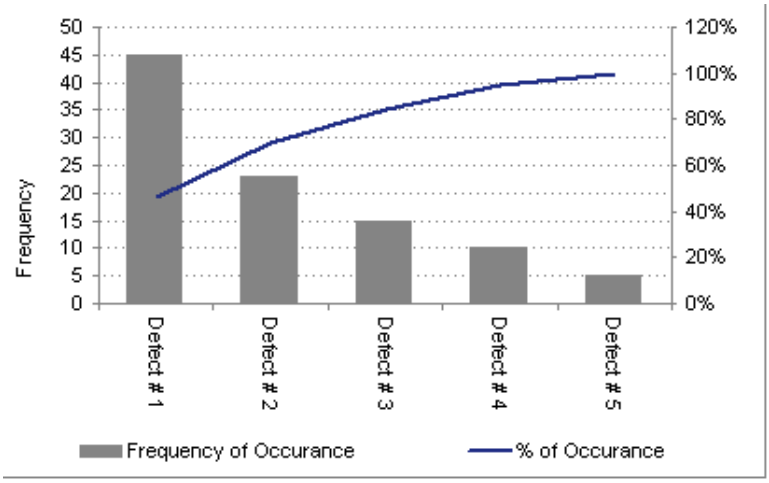
This principle was formally observed in 1906 by an Italian economist Vilfredo Pareto who investigated on the pattern of distribution of wealth in his country and found that 20% of people owned 80% of the total wealth of the country.

A Pareto chart is a type of chart that contains both bars and a line graph, where individual values are represented in descending order by bars, and the line represents the cumulative total.

The left vertical axis is the frequency of occurrence but it can alternatively represent cost or another important unit of measure. The right vertical axis is the cumulative percentage of the total number of occurrences - total cost or total of the particular unit of measure. Because the reasons are in decreasing order, the cumulative function is indicated in a concave line.

The purpose of the Pareto chart is to highlight the most important among a (typically large) set of factors. In quality control, it often represents the most common sources of defects, the highest occurring type of defect or the most frequent reasons for customer complaints, and so on.

Figure 9.1: Pareto Chart



Example: If you explain the cost of local purchase of drugs in a hospital and the consumption pattern of each ward, you will find that 20% of vital items are accountable for 80% of the cost. Similarly, when you analyze the feedback obtained from suggestion boxes in your hospitals, you will find out the vital few areas of public concern which result in greater dissatisfaction. Having identified these factors, you could take steps to eliminate these shortcomings to improve the situation.

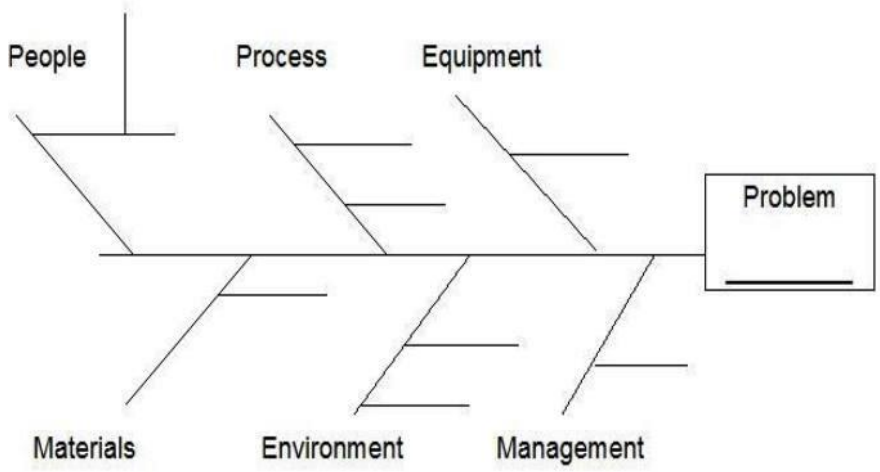
9.3 Fish Bone Diagram (Cause and Effect Diagram)

This diagram helps to identify the causes of a given problem. This is also known as Ishikawa diagram (1960).

The cause and effect diagram is used to explore all the potentials or real causes (or inputs) that result in a single effect (or output). Causes are arranged according to their levels of importance or detail, resulting in a depiction of relationships and hierarchy of events. This can help you search for root causes, identify areas where there may be problems and compare the relative importance of different causes.

Causes in a Cause & Effect diagram are frequently arranged into four major categories. While these categories can be of anything, you will often see: manpower, methods, materials, and machinery (recommended for manufacturing), equipment, policies, procedures and people (recommended for administration and services).

Figure 9.2: Fish-Bone Diagram



Example: You may encounter a management problem in your organization which has several underlying causes. Such problems cannot be solved instantly and you may need to explore the problems with the relevant stakeholders. They usually have better understanding about the problem than you do and able to give you a broader opinion about the problem and its causes.

Following steps must be taken in order to find out the root causes of a given problem;

1. Identify the problem clearly with the help of the relevant stake holders
2. Explore the problem using a chip chart or piece of paper
3. Brainstorm the factors that may affect the problem with the stakeholders
4. Identify the primary causes , secondary causes and illustrate these causes in your cause and effect diagram
5. Analyze the diagram, generate solutions and implement these solutions on continuous improvement

Example: Consider a situation of a hospital where the wards are unclean and toilet conditions are not satisfactory. You want to find out the root causes of the problem. You call upon relevant stakeholders (Administrative officer, Matron, two sisters-in-charge of relevant wards, infection control nurse, overseer, cleaning supervisor, PHI, two cleaning attendants etc.) for a brainstorming session. Your MO/Planning will have to supply clip chart and piece of paper and other logistics and facilitate the session. For example, ideas generated can mimic the following:

Core Problem: Lack of cleanliness of ward toilets

Causes:

- *Management related issues*: Wrong selection of the contractor (Cleaning service), Extension of the period of the contractual services irrespective of repeated complaints
- *Equipment related issues*: Floor Cutters/Washers are not functional
- *Process related issues*: Detergents have not been issued by the store/Sister has not maintained supervisory check list for cleaning of toilet
- *Environment related issues*: Pigeons habitat on the top of the toilets/water is leaking from the adjacent toilet in the above floor
- *People related issues:* Cleaning staff is demotivated as their wages were not paid; higher absenteeism
- *Material related issues*: Poor quality detergents, brushes are not available etc.

Benefits:

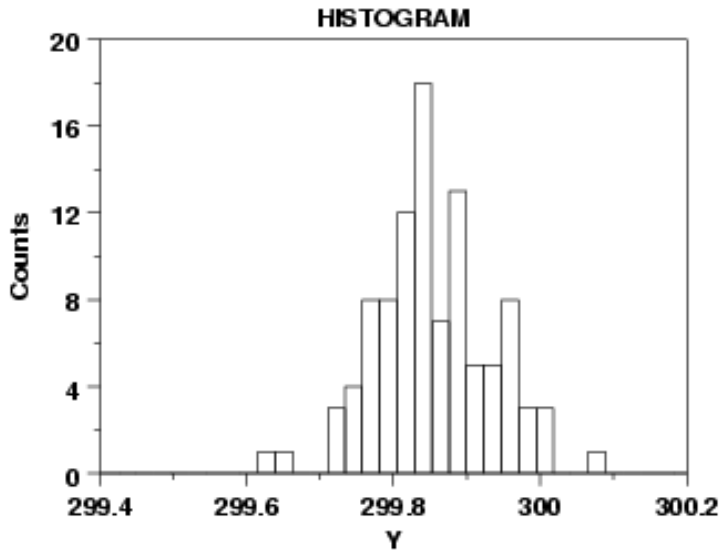
- Even though the problem has multiple causes and is more complex, you can determine the root causes of the problem with the help of your stake holders.
- It's simple and easy to learn and apply.

9.4 Histogram

It was introduced by Karl Pearson (1895) and used to assess the probability distribution of a given variable by depicting the frequency of observations occurring during a given period of time.

Histogram is a graphical display of tabular frequencies and density of the data similar to bar chart. Each bar is erected over an interval, with an area equal to the frequency of the interval. The height of a bar is also equal to the frequency density of the interval. The total area of the histogram is equal to the number of data. The histogram visualizes the trend of the data such as average, median, mode and out-layers.

Figure 9.3: Histogram



Example: MO/ NCD (Non-Communicable Diseases) conducted a screening program in a hospital for the staff. The staff between 35-40 years of age was the target group. He measured the Body Mass Index (BMI) of the relevant staff and tabulated the data in a paper. Data was produced to the Director and he said "Fine. Tell me the mean". As there were fifty in the target group, he could not calculate at once. However, MO / Quality Management has a better idea of depicting data in a more attractive way using bar chart, Histogram Etc.

He advised to enter these data in an 'Excel Sheet' and analyzed it. In order to give this information to the hospital Director in a more attractive way, he visualized it using a Histogram. The Director said, "Brilliant!"

9.5 Problem Tree

Being in-charge of a healthcare organization, you may face a wide range of problems and most of these problems are brought to your desk by your subordinates. Former British Prime Minister, M Thatcher once said, "Don't bring me problems; bring me solutions". But you cannot ask your staff to bring solutions unless they have been taught the way of exploring a problem. The approach to a Problem Tree is a simple way of illustrating a problem with the help of your staff in order to arrive at a sound practical solution.

Problem Tree is a tool which can be used for the analysis of a situation which needs improvement. As Problem Tree is defined as "a gap between existing situation and the expected situation", you have to identify the problem clearly. A problem might have multiple underlying causes. Hence, a thorough explanation of the problem is needed with a view to finding out all the underlying causes as an ultimate aim to get a comprehensive solution for the problem.

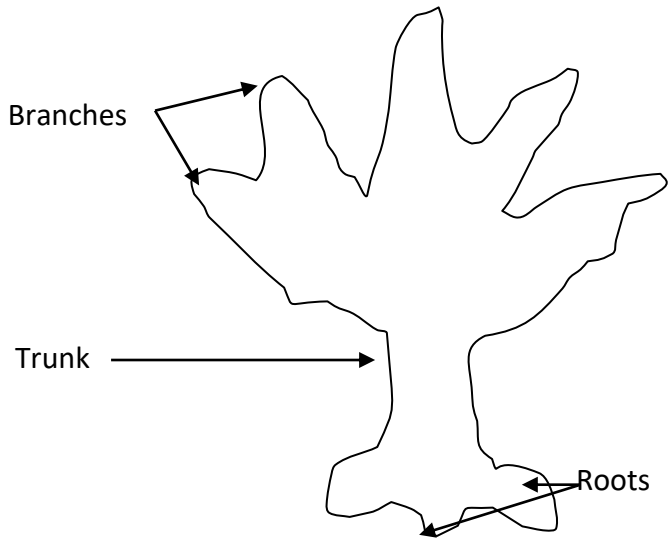
At the beginning, you have to call upon your staff that brought the problem to your desk or else, you may call the other parties concerned who have been affected by the problem. Don't forget to call the people around you who are having a genuine interest about solving the problem. Generally, they have a sound knowledge about the problem and the context within which the problem revolves around; hence, they are known as stakeholders of the problem. Now you have a team comprising of 8-10 members who can explore the problem.

The first step is to discuss and agree on the problem to be analyzed. Problem Tree analysis is best carried out using flip chart papers. The problem is written at the centre of the flip chart and it becomes the 'trunk' of the tree. This is the focal problem.

Then you have to draw the Problem Tree and it will break down the problem. Next, the group identifies the causes of the focal problem- these form the roots – and then, identifies

the consequences, which form the branches of the Problem tree. As the tree is completed now, it visualizes the Cause and Effect logic.

Figure 9.4: Problem Tree



Harvesting exercise is the discussion. Question samples for the discussion might include the following:

- Does this represent the reality? Are the economic, political and socio-cultural dimensions related to the problem considered?
- Which causes and consequences are relevant in improving the situation or resolving the problem?
- What are the most serious consequences? Which are of most concerned? What criteria are important to us in thinking about a way forward?

Such dialogues generate more causes and consequences and the tree has to be re-arranged, often forming sub-dividing roots and branches. Take time to allow people to explain their feelings and reasoning and record related ideas that come up in order to arrive at a consensus.

Now you have mapped out the multiple causes of a problem and the effects around it. Having understood the different facets of the problem, you can convert this into an Objective Tree. The Problem Tree can be converted into an Objective Tree by rephrasing

each of the problems into a positive desirable outcome – as if the problem had already been treated. In this way, root causes and consequences are turned out to be root solutions and the key project or the influencing entry points are quickly established.

Example: There was a river in district A and the people there made several complaints to the Medical Officer of Health, saying that the quality of the water in the river is deteriorating. As a part of designing a Water-Quality-Improvement project, a team was appointed by the RDHS. The team leader was the regional epidemiologist and he needed to have a deeper understanding of various issues and constraints related to the problem. He visited the area and had a discussion with the MOH/PHI etc.

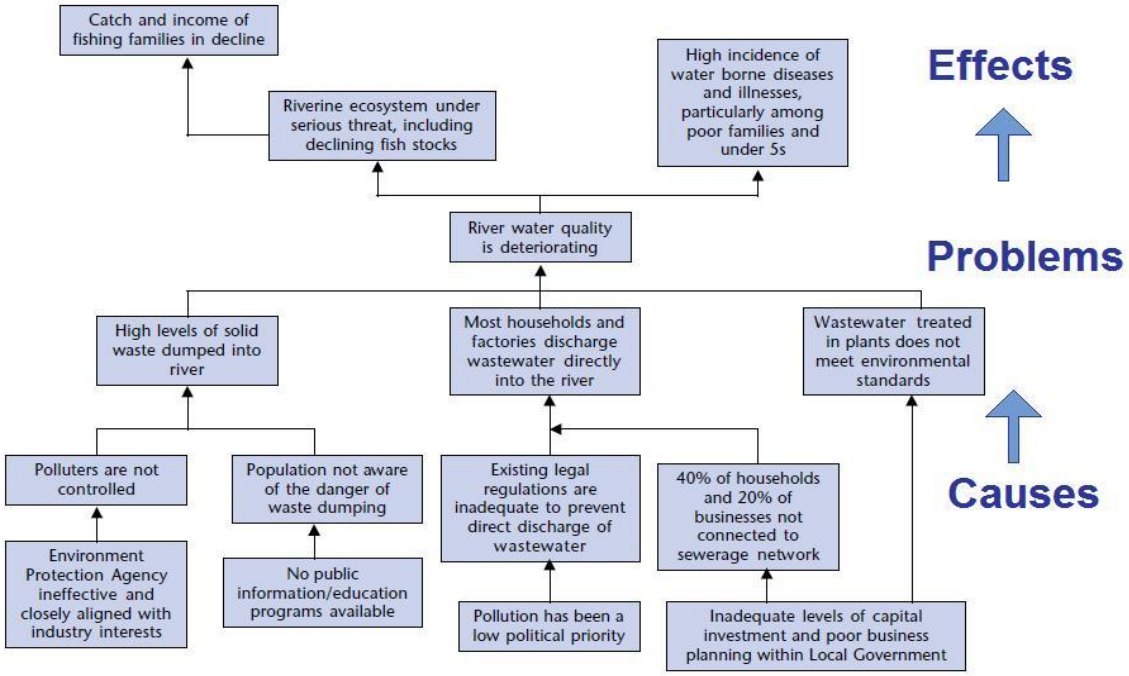
Before moving into an action plan, the team decided to conduct focus group interviews with potential target groups and service providers. They visited the riverside and met the 'Gramasevaka" and the affected villagers. Through inquiries made through the focus groups, the team gained a much deeper understanding of poor water quality-related problems, constraints and opportunities. At the same time, participants in the group learned much about the common problems they themselves were facing and their possible solutions.

Through discussions, they were able to exchange ideas about the way to improve the existing situation. Some had a policy-oriented focus and helped to understand the opportunities at which, changes in the government practice and legislations could be of help. These issues were then brought to the RDHS' notice and were raised at the District Development Committee Meeting where the solutions were integrated into the district plan through an activity output, dealing with a wider involvement of respective authorities.

Benefits:

- In addition to the finding out the causes of the problem, you may visualize the consequences of it.
- The Objective Tree can be formulated easily.

Figure 9.5: Analysis of River Water-Quality using a Problem Tree



Problem Tree analysis brings several advantages:

- The problem can be broken down into manageable and definable areas.
- There is more understanding of the problem; this is often the first step in finding out win-win solutions.
- This enables a clearer prioritization of factors and helps to focus objectives.
- It identifies the constituent issues, arguments and barriers.
- It can help to find out whether further information, evidence or resources are needed to make a strong case or build up a convincing solution.
- Inconspicuous issues are dealt with and identified.
- The process of analysis often helps build a shared sense of understanding and pave the way for collective action.

9.6 WHY-WHY Diagram

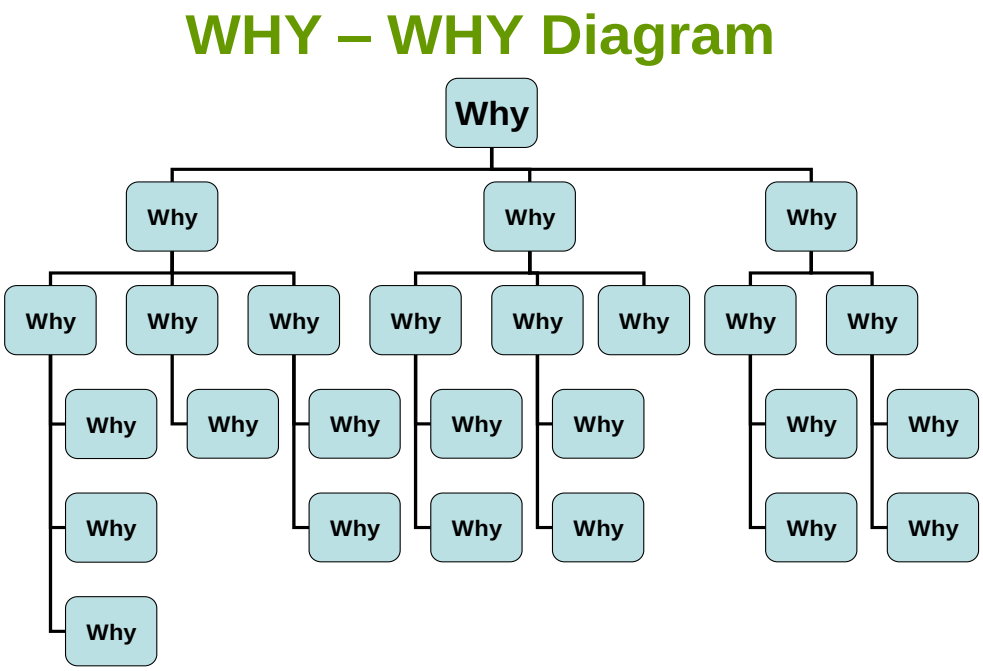
The commonest question we ask in our childhood is “why”. The buzz word of all inventors, scientists, entrepreneurs is “Why”. If someone wishes to challenge the status quo “Why” is a sina quo non. The question begins with “Why”, the simple way of reasoning about anything which you are interested in. If someone wishes to explore and extend that reasoning, he or she can keep on asking Why and Why? So on and so forth. This was the basis of the origin of WHY- WHY technique.

The application of 5 ‘Why’s is a simple problem-solving technique that helps you to get to the root of a problem quickly. It was made popular in the 1970s by the Toyota Production System, the Five Whys strategy involves looking at any problem and asking: "Why?" and "What caused this problem?" Very often, the answer to the first "why" will lead to another "why" and the answer to the second "why" will lead to another and so on; hence, this technique has been named as the 5 Whys strategy.

How to Use the Tool:

When you are looking forward to solve a problem, start at the end result and work backward (toward the root cause), continually asking: "Why?" You'll need to repeat this over and over again, until the root cause of the problem becomes apparent.

Figure 9.6: WHY-WHY Diagram



Example: Ms X is working as a Public Health Midwife in a rural village. She attended MOH conferences regularly until last April. MOH noticed that her performance was not satisfactory in May and advised her to improve her work. She did not attend the monthly conference in July and the matter has been forwarded to the MO/MCH. The midwife was summoned by the MO/MCH to his office and asked her to sit comfortably. He built up a good rapport with her and appreciated her good work in the past. Gradually, he asked about her work-related facts. First, he wanted to find out "Why she did not attend the monthly conference in July". The answer was, "My documents were not updated". Next question was "Why did not you update your documents"? The answer was, "My mother who has been followed up in a rural clinic has been sick since last April". The next question was, "Why the mother has been sick?" The answer was, "Mother has refused to attend regular clinic since last March". Then MO/MCH asked, "Why did she refuse to attend the rural clinic?" The Answer revealed that the non-availability of Metformin in the clinic made her uneasy; thus, the treatment was defaulted. This fact was informed to the divisional pharmacist who has taken necessary steps to supply the necessary drugs to the clinic.

Benefits:

- It helps you to quickly determine the root cause of a problem.
- It's simple; easy to learn and apply.
- But bear in mind that if the problem has multiple facets and is more complex, you may deviate from the core problem as the respondent can lead you down a false trail. If it doesn't quickly give you an answer which is obviously right, then you may need to use another problem solving technique such as Cause and Effect Analysis.

9.7 Conclusion

Identifying the root causes of any problem is vital for a quality improvement programme. Quality tools mentioned in this chapter are the basic tools which can be applied in any healthcare organizations without much effort.

MODULE 03:

IMPLEMENTATION OF QUALITY IMPROVEMENT PROGRAMME

CHAPTER 10

SESSION PLAN - 10

TOPIC: DIMENSIONS OF QUALITY

Objective: To provide learning opportunities for participants to:

- Improve their understanding on Dimensions of Quality
- Enhance skills to apply the dimensions of service quality to meet the customer expectations

Total Amount of Time: 45 Minutes **Number of Participants:** 35 (Approx.)

Preparation: The trainer must be aware of the Dimensions of Quality which is described in this manual. As the differences between each of these dimensions are marginal, the trainer must be able to recognize the differences. In addition, suitable examples, related to healthcare organizations must be prepared in advance for each of these dimensions. Also, refer the Curriculum (Annexure II of Introduction Chapter).

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Start with asking the definition of Quality and different concepts of Quality.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 05 Minutes

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 30 Minutes

Explain each dimension of quality with relevant examples.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 03 Minutes

Summarize stating the importance of Dimensions of Quality in initiating and implementing a quality improvement programme.

Closing Comments: Acknowledge, motivate and inspire **Time:** 02 Minutes

Acknowledge the participants and wish them for a successful quality programme.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Dimensions of Quality **Date:** _____

Attendees:

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Observations Made by the Trainer:

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CHAPTER 10: DIMENSIONS OF QUALITY

10.1 Introduction

The definition of quality is often a hotly debated topic. While it may seem intuitive, when we get right down to it, "quality" is a difficult concept to define with any precision. The most fundamental definition of a quality service is one that meets the expectations of the customer. However, even this definition may be too simple to be considered adequate. The services provided by the hospitals should be based on quality dimensions. The dimensions of quality should be given due respect when standards and indicators for performance are developed.

Quality in healthcare is a kind of an elephant with different structures and continuously moving parts of assessment, measurement and performance changing over time; further complicating the issue. Like the six blind men who commented on the appearance of an elephant, different stakeholders reach out to touch and define quality from their perspectives but no single stakeholder actually describes the whole. The complexity of defining quality in healthcare becomes readily apparent when the variability of stakeholders extending from administrators, clinicians, nurses, regulators, private hospital owners, attorneys, the media and lastly, to the patients is concerned. Different stakeholders describe aspects of quality that are considered to be important in their perceptions but the entire shape of the elephant remains elusive.

Rather than struggling to define the indefinable, another approach may be to simply describe the perspectives of quality and leave the portrayal of the whole to the philosophers. Some elements for defining quality in healthcare have been presented in the Institute of Medicine's (IOM's) seminal report crossing the Quality Chasm (2001). The IOM defined quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge". Furthermore, the IOM viewed quality as a whole which consists of six sentinel attributes: safe, timely, effective, patient-centered, efficient and equitable. (Cohen, 2012)

10.2 Dimensions of Quality

To initiate and implement a quality improvement programme in a healthcare organization, the health personnel should have a clear knowledge of the dimensions of quality. All these dimensions cannot be addressed at the beginning of a quality improvement programme but can be addressed in a phased manner. Healthcare Quality and Safety programme in Sri Lanka addresses fourteen dimensions of quality.

i. **Availability** (amount and type of service) - Availability is used to describe the amount and type of service available from healthcare organization as prescribed by the Department of Health. For example, there are circulars on the essential drugs that should be available in a Divisional Hospital.

ii. **Awareness (**knowledge of the users of the services) – Healthcare users should be knowledgeable about the services available in healthcare institutions. Patients should be informed about the treatment options available, the investigations to be carried out and why they are carried out.

iii. **Accessibility** (open to all those who need services) - Accessibility is assessed according to the degree of ease, with regard to the location of the institution, opening hours, availability of physicians, waiting times for appointments as well as the availability of services for emergency and urgent needs, with which patients could access healthcare services provided by an organization (Pineault and Daveluy 1986). Accessibility is not only limited to geographical accessibility but also for financial, linguistic and cultural accessibilities.

iv. **Acceptability** (convenient, satisfactory, good environment with customer satisfaction) - The services provided by a healthcare organization should be of certain standards that are acceptable by the patients. For example, the food, drinking water and toilets should be clean. Further, health personnel should improve their soft skills such as saying ‘Good Morning’, ‘Please’ and ‘Excuse’ etc. Presently, these soft skills are lacking among some of the hospital employees.

v. **Appropriateness** (fitting to the service demanded by the population based on scientific evidence) - The demand for an evidence-based health service generates an increase in the competence among health service providers. It motivates decision-makers to use scientific methods (Gray & Muir 2009). An appropriate service is one that is expected to do more good than harm for a patient with a given indication or set of indications. An inappropriate service is one that is not expected to benefit the patient or, in the more extreme case, may harm the patient.

vi. **Coverage** (how many clients are covered with a particular activity) – If a hospital starts a new service it should not be limited to a particular segment of the population but should cover every one in that geographical area.

vii. **Concentration** (the number of activities of a given service provided for a set of clients) – For example, if a hospital starts a Diabetic Clinic, the management should make sure that all services related to diabetic care are available at the clinic. After commissioning the clinic, it is unreasonable to ask patients to get investigations done from a private laboratory.

viii. **Continuity** (un-interrupted and well coordinated service) - There are three types of continuity of care: They are:

- *Relational continuity* - the existence of a continuing relationship between a patient and a physician or a primary care organization
- *Informational continuity* – continuous flow/transfer of information collected during visits to other physicians on referral
- *Management continuity* - continuous role played by the patient's usual source of care on requests made for consultations with medical specialists (Reid et al. 2002).

If a hospital starts a new service, the management must make sure that the new service is continuous. It has been noticed that some clinics, such as Diabetic clinics are being started due to the interest of some clinicians and

when the relevant clinician is transferred, that diabetic clinic gets suspended. Such sudden termination of a service creates doubts among patients and ultimately they lose confidence on the services of that hospital.

ix. **Equity** (absence of socially unjust or unfair health disparities) – Equity means social justice or fairness; it is an ethical concept, grounded in principles of distributive justice. Equity in health can be—and has widely been—defined as the absence of socially unjust or unfair health disparities (Braveman & Gruskin, 2003). Equity can be of two types:

Horizontal equity – equal healthcare to those who have same need

Vertical equity – treating differently those who have different needs

x. **Efficiency** (value for money, good use of resources) - Institute of Medicine (2001) defines efficiency as avoiding waste including waste of equipment, supplies, ideas and energy (AHRQ, 2008). Efficiency measures whether healthcare resources are being used to get the best value for money. Health care can be seen as an intermediate product, in the sense of being a means to the end of improved health. Efficiency is concerned with the relationships between resource inputs [costs - in the form of labour, capital or equipment] and either intermediate outputs [numbers treated, waiting time, etc] or final health outcomes [lives saved, life years gained, Quality Adjusted Life Years (QALYs). Although many evaluations use intermediate outputs as a measure of effectiveness, this can lead to suboptimal recommendations. Ideally, economic evaluations should focus on final health outcomes.

Adopting the criterion of economic efficiency implies that society makes choices which maximize the health outcomes gained from the resources allocated to healthcare.

Technical Efficiency refers to the physical relationship between resources (capital and labour) and health outcome. A technically efficient position is achieved when the maximum possible improvement in outcome is obtained from a set of resource inputs. An intervention is technically inefficient if the same (or greater)

outcome could be achieved with less of one type of input. Consider treatment of Osteoporosis using Alendronate. A recent randomized trial showed that a 10 mg daily dose was as effective as the 20 mg dose. The lower dose is technically more efficient.

Productive Efficiency **-** Technical efficiency cannot, however, directly compare alternative interventions where one intervention produces the same (or better) health outcome with less (or more) of one resource than another. Consider, for example, a policy of changing from maternal age screening to biochemical screening for probable screening for Down's syndrome. Biochemical screening uses amniocenteses and also requires the use of another resource—biochemical tests. Since different combinations of inputs are being used, the choice between interventions is based on the relative costs of these different inputs. The concept of *productive efficiency* refers to the maximization of health outcome for a given cost, or the minimization of cost for a given outcome. If the sum of the costs of the new biochemical screening programme is smaller than or the same as the maternal age screening and outcomes are equal or better, then the biochemical screening is productively efficient in relation to the maternal age screening. In health care, productive efficiency enables the assessment of the relative value for money of interventions with directly comparable outcomes. It cannot address the impact of reallocating resources at a broader level—for example, from geriatric care to mental illness—because the health outcomes are not comparable.

Allocative Efficiency — To inform resource allocation decisions on a broader context, a global measure of efficiency is required. The concept of allocative efficiency takes account not only of the productive efficiency with which healthcare resources are used to produce health outcomes but also the efficiency with which these outcomes are distributed among the community. Such a societal perspective is rooted in welfare economics and has implications for the definition of opportunity costs. In theory, the efficient pattern of resource use is such that any alternative pattern makes at least one person worse off. In practice, strict adherence to this criterion has proved impossible.

Further, this criterion would eliminate as inefficient changes that resulted in many people becoming much better off at the expense of a few being made slightly worse off. Consequently, the following decision rule has been adapted: allocative efficiency is achieved when resources are allocated so as to maximize the welfare of the community.

Thus, technical efficiency addresses the issue of using given resources to maximum advantage; productive efficiency of choosing different combinations of resources to achieve the maximum health benefit for a given cost; and allocative efficiency of achieving the right mixture of healthcare programmes to maximize the health of society. Although productive efficiency implies technical efficiency and allocative efficiency implies productive efficiency, none of the converse implications necessarily hold. Faced with limited resources, the concept of productive efficiency will eliminate as "inefficient" some technically efficient resource input combinations, and the concept of allocative efficiency will eliminate some productively efficient resource allocations (Palmer & Torgerson, 1999).

xi. **Effectiveness** (results achieved as expected and free of complications) - Effectiveness is the extent to which planned outcomes, goals or objectives are achieved as a result of an activity, strategy, intervention or initiative intended to achieve the desired effect, under ordinary circumstances. Example: A vaccine is effective when it is capable to produce the desired effect (protection against disease) in the population, under ordinary circumstances.

xii. **Extensiveness** (quantity of service relative to the problem) – The services provided to the patients should be comprehensive. A patient with hemi paresis will be treated in a hospital during the acute stage. When the patient is discharged from the hospital, health services should have a mechanism to continuously care for the patient.

xiii. **Responsiveness** (willingness of staff to help customers and provide prompt service) - Responsiveness is not a measure of how the system responds to health needs which is shown up in health outcomes *but,* of how the system performs relative to non-health aspects, meeting or not meeting a populations' expectations of how it should be treated by providers of prevention, curative or non personal services (WHO Report, 2000).

Responsiveness basically addresses the following:

- Reduction of the damage to one's dignity and autonomy and the fear and shame that sickness often brings with it
- Treating the people with individual dignity
- Prompt attention to the needs of patients in order to minimise long delays in waiting for diagnosis and treatment
- Respect the value of peoples time and reduce their anxiety
- Ensure confidentiality
- Allow choices
- Ensure there is no errors, delays, rudeness, hostility and indifference by the health worker
- Protect them against financial cost of illness

Responsiveness is described in detail in another chapter.

xiv. **Safety** (health care that does not harm patients) - Patient safety is the prevention of errors and adverse effects to patients associated with health care.

A definition for patient safety has emerged from the health care quality movement that is equally abstract, with various approaches to the more concrete essential components. Patient safety was defined by the IOM as "the prevention of harm to patients". Emphasis is placed on the system of care delivery that (1) prevents errors; (2) learns from the errors that do occur; and (3)

is built on a culture of safety that involves health care professionals, organizations, and patients (Mitchell, 2008).

Unexpected and unwanted events can take place in any setting where healthcare is delivered (primary, secondary and tertiary care, community care, social and private care, acute and chronic care). Every 10th patient in Europe experiences preventable harm or adverse events in hospital, causing suffering and loss for the patient, their families and health care providers, and taking a high financial toll on health care systems. Safety is part of the quality agenda and therefore, a dimension of the quality culture, requiring broad commitment from both the organization and the community. Patient safety is described in detail in another chapter.

10.3 Conclusion

These dimensions are somewhat independent. Therefore, a service can be excellent in one dimension and average or poor in another. Rarely, very few services excel in all dimensions.

Therefore, to begin with, quality services can be determined by using a few of the dimensions of quality.

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MODULE 03:

IMPLEMENTATION OF QUALITY IMPROVEMENT PROGRAMME

CHAPTER 11

SESSION PLAN - 11

TOPIC: MONITORING OF HEALTHCARE PRODUCTIVITY AND QUALITY ASSURANCE PROGRAMME

Objective: To explain the importance of monitoring Quality Assurance programme, the indicators and standards and suggest a mechanism for establishing monitoring.

Total Amount of Time: 60 Minutes **Number of Participants:** 35 (Approx.)

Preparation: The lecturer must select few examples for standards and indicators. A set of standards and indicators are shown in the Annexure. Also refer the curriculum (Annexure: II of Introduction Chapter)

Materials: Refer Curriculum (Annexure II of Introduction Chapter)

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 05 Minutes

Introduce yourself. Explain the importance of monitoring Quality & Safety in a healthcare organization.

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 05 Minutes

Motivate participants, show them why the topic is important and share objectives and the agenda. Introduce to standards and indicators.

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic. Introduce the tools of monitoring.

Time: 40 Minutes

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 08 Minutes

Summarize learning; ask for questions and look back at objectives. Discuss questions in full group; ask for participant responses to questions. Display the first power-point slide showing the main areas that were covered. Possible obstacles that they may face should be discussed.

Closing Comments: Acknowledge, motivate and inspire **Time**: 02 Minutes

Motivate participants to use standards and indicators for monitoring purpose regularly.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Monitoring of Healthcare Productivity & Quality Assurance Programme

Date: _____

Attendees:

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Observations Made by the Trainer:

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CHAPTER 11: MONITORING OF HEALTHCARE PRODUCTIVITY AND QUALITY ASSURANCE PROGRAMME

11.1 Introduction

Monitoring is central to the concept of quality improvement; it provides a means to define what hospitals and other healthcare institutions actually do, and to compare that with the original targets and with other similar institutions in order to identify opportunities for improvement.

It is essential to differentiate the meaning of monitoring and evaluation. Monitoring is defined as the routine collection and use of data to assess progress in achieving program objectives. These data are generally derived from program records. Evaluation involves collecting special data on a periodic or "as needed" basis to address issues that cannot be examined using routinely collected data, like a project's cost- effectiveness or overall impact.

11.2 Tools of Monitoring

a. Quality Standard

A standard is an expectation of that is explicit (written) or implicit (understood). "Implicit" healthcare standards are derived from the expertise of professionals who work in a specific environment. For example, professionals who work in the pediatric ward may know the treatment that a dehydrated child needs but differ on ideas about the most appropriate way to provide the treatment (e.g., dosage, duration, and frequency). Converting implicit standards to explicit standards provides uniformity in the way to provide quality care and allows a baseline measure for monitoring quality.

"Explicit" healthcare standards appear in a variety of forms, such as specifications, procedures, or protocols. These standards may be developed by the Ministry of Health, professional colleges, international organizations (e.g. World Health Organization) or by a hospital itself.

Applied standards should be most up-to-date and should be:

- Realistic: The standard can be followed or achieved with existing resources
- Reliable: Following the standards for a specific intervention should result in the same outcome (all factors being equal)
- Valid: The standard is based on scientific evidence or other acceptable experience
- Clear: The standard is understood in the same way by everyone concerned and is not subjected to distortion or misinterpretation
- Measurable: The standard is amenable to assessment and quantification

b. Quality Indicator

An indicator of quality is a measure that is used to determine the degree of adherence to a standard. Indicators translate a qualitative statement (as expressed by a standard) into a quantitative one. For example, "the proportion of healthcare providers who greet their patients by name" measures the extent to which the standard for a quality reception is being met. Indicators can be expressed as a number (a count), an average or a ratio (a proportion or rate). An indicator presented as a ratio consists of a numerator (the number of times an event occurs) and a denominator (the total number of times the event should have occurred). An example of a ratio is the proportion of post-surgical patients whose temperature was taken by the healthcare worker according to protocol.

It is useful to select indicators that measure inputs, processes and outcomes. The basis for selecting an indicator is its importance or potential impact on the quality of care. Be aware that outcome indicators measure the level of achievement of the intervention and therefore, can serve as indirect measures of the quality of care and services. However, a good outcome does not necessarily means that the process has been managed correctly and vise versa. Therefore, the measurement of input, process and outcome indicators is warranted. Some quality experts believe that organizations should strive for zero defects. They suggest that setting a level of expected quality limits the highest level of quality that might otherwise be achieved. The belief is that once the quality level—e.g., targeted

infection control rates—is attained; the staff will be satisfied with this level rather than continuing to strive to decrease infection control rates to zero infections. Keeping this view in mind, establishing indicators remains an established means of setting the bar at a reasonable level of achievement and the bar can (and should be) raised/lowered as the targets are being achieved.

11.3 Principal Methods of Measuring Hospital Performance

The methods used for monitoring of Healthcare Productivity and Quality Assurance Programs have not been rigorously evaluated. The evidence to support these strategies is mostly based on individual descriptive studies carried out at several hospitals in Sri Lanka.

Monitoring strategies can be divided in to two basic types, namely:

1. Internal and
2. External.

Internal monitoring involves the strategies implemented by the hospital itself and the external monitoring includes external or third party monitoring.

Internal Monitoring

For the purpose of internal monitoring, the establishment of quality teams and the appointment of a quality coordinator are almost mandatory tasks. As soon as a quality coordinator is selected and a quality team is established, the team can begin the monitoring process. Monitoring one or two of the indicators is a good way to begin.

The most effective means of monitoring is direct patient observation. But this is not feasible all the time. When direct observation is not feasible, the monitoring team can examine records. It is essential to develop data collection tool.

External Monitoring

There are four basic types of external monitoring:

I. Regulatory Inspection
II. Surveys of Consumers' Experiences
III. Third-Party Assessments

IV. Statistical Indicators

i. Regulatory Inspections

Most developed countries have statutory inspectorates to monitor compliance of hospitals with published licensing regulations. Examples include inspectorates to monitor infection control and blood transfusions. When the assessment is managed by a designated agent, there is a national consistency. Examples are the Joint Commission in the United States and the Commission for Health Improvement (CHI).

ii. Surveys of Patients' Experiences

Standardized surveys of experiences of patients and relatives can reliably measure hospital performance against explicit standards. Surveys range from local pencil-and-paper surveys outside a clinic to national stratified sample surveys. Advantages of this method are that it identifies what is valued by patients and the general public, and standardized surveys can be tailored to measure specific domains of experience and satisfaction. However, traditional satisfaction surveys have been methodologically weak and focused on the agenda of clinicians and managers rather than on patients.

iii. Third-party Assessments

Third-Party assessments are identified as systematic approaches linking national or international standards to local practices of private or public hospitals.

ISO Standards

International Organization for Standardization (ISO) certification measures hospital performance in terms of compliance with international standards for quality systems. ISO developed a series of standards (ISO 9000) originally for the manufacturing industries (medicines, medical devices) that have been used to assess quality systems in specific aspects of health services, hospitals and clinics. The theoretical advantage is that ISO certification is internationally recognized in many other services and manufacturing areas,

but ISO 9000 standards relate more to administrative procedures rather than to hospital performance.

Peer Review

Peer review is a closed system for professional self-assessment and development. Reciprocal visiting is driven by professional organizations / colleges and has a long tradition as a form of peer review.

Accreditation

Accreditation programs measure hospital performance in terms of compliance with published standards of organizational – and, increasingly, clinical – processes and results. They are mostly independent and aimed at organizational development more than regulation but could contribute reliable data to national performance measurement systems. They are independent, voluntary programmes developed from a focus on training into multi-disciplinary assessments of health care functions, organizations and networks. Their standards of assessment have been developed specifically for health care.

iv. Statistical Indicators

Statistical indicators such as Bed Occupancy Rate can suggest issues for performance management and quality improvement. They provide relative rather than absolute messages. There is a need for these indicators to be interpreted with caution which are inversely proportional to the quality of the underlying data and of the definitions used. Indicators are tools for assessing hospital performance either internally or externally. They should be designed to measure the achievement of predetermined objectives, but in practice, they are often selected on the basis of whatever the data are routinely available. Standardization is essential for measurements within hospitals and critical for measurements between hospitals.

References:

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Annexure

Ministry of Health
Directorate / Healthcare Quality & Safety

MONITORING INDICATORS

Key Performance Area	Indicator	Standard	Score	Results	Remarks
1. Organization to implement the Quality Management Programme	Quality Management Units	1. Availability of a room	10		
		2. Basic furniture: (Table, chairs, cupboard)	20		
		3. Office equipment computer and a printer Photocopier	20		
		4. Staff • Medical Officer • Nursing Officer • Development Assistant • Management Assistant	50		
	Record keeping of the Quality Management Programme	1. File folders and files are opened according to given guidelines	20		
		2. Files are updated	50		
		3. Organization results are displayed	30		
Sub Total for KPA			**200**		
2. Customer focused organization	Customer care	1. Display of service instructions at the entrance of the hospital	10		
		2. Reception counter with a working receptionist	10		
		3. Public complains are documented and investigated	30		
		4. Suggestion boxes are placed in the Out Patient Dept.	10		
		5. Customer satisfaction surveys are conducted once a year	20		
		6. Health Education sessions are	20		

		conducted recorded and updated.			
Sub Total for KPA			**100**		
3. Quality of Work Environment	Organization Orderliness	1. Visible name board in all three languages.	10		
		2. 10 selected items in wards/units are kept in order following 5S principles	20		
		3. Directions boards are displayed in Sinhala and Tamil languages	10		
		4. Files are kept in order quick for retrieval	20		
		5. Drugs stores is arranged in systems/Alphabetically order.	20		
		6. General stores is arranged in order following 5S principles	20		
	Organization Development	1. Vision and Mission is displayed in all languages at the Entrance	10		
		2. Quality Management Action Plan is available	20		
		3. Quality convention/Rewarding function was conducted during the previous year	20		
		4. Quality Management Team (Steering committee) is formed and active	20		
		5. 100% of Work Improvement Teams are functioning	30		
Sub Total for KPA			**200**		
4.Basic Human Needs	Responsiveness	1. Patients are examined in covered environment	10		
		2. Waiting areas are clean, adequate ventilation and lighting	20		
		3. Seating facilities in OPD areas are available for 1/4th of the daily attendance	20		
		4. Patients are provided fresh bed	10		

		sheet on admission			
		5. Patients eating area is available and provided with safe drinking water	10		
		6. Toilets to be cleaned at least three times a day	10		
		7. Health Education is done and records are updated.	20		
Sub Total for KPA			**100**		
5. Productive Maintenance of Equipment	Material Management	1. Files are opened for major equipment	20		
		2. Availability of a functioning Maintenance Unit for repair of furniture	10		
		3. Availability of a functioning Maintenance Unit	20		
		4. Records are maintained and updated on repairs and maintenance.	20		
		5. Monthly/Quarterly progress reports on maintenance are prepared	10		
		6. Availability of Unwanted Items store for General and Surgical items	10		
		7. Record keeping of Unwanted items disposal is updated.	10		
	Supplier Quality	1. Annual Procurement Plan is available	30		
		2. Supplier and support services information bulletin is prepared and updated.	30		
		3. Purchasing guidelines are available and updated.	20		
		4. Equipment maintenance guidelines are displayed in selected five items.	20		
Sub Total for KPA			**200**		

6. Record keeping and Information Analysis	Medical Records	1. BHT is numbered and kept in order	20		
		2. Entry of date and time of examination in BHT	10		
		3. Vital signs; general condition, pulse, BP, FHS entered at the time of admission to wards.	20		
		4. Discharge notes written in BHT	20		
		5. Diagnosis is entered in BHT	10		
		6. Discharge check list is available	20		
	Record keeping	1. Handing over/taking over of records are documented	10		
		2. Records are stored according to year and admission order.	50		
		3. Medico Legal Records are kept in safe custody and arranged in order.	20		
		4. All BHTT are sent to the record room 72 hours upon discharge	20		
	Information Analysis	1. Inward Morbidity & Mortality register is updated up to 3 days prior to inspection	20		
		2. Monthly/Quarterly Statistics bulletin is prepared and distributed to the wards/units	20		
		3. Annual statistics bulletin is published for the previous year	40		
		4. Patient Movement statistics are displayed at the office of the head of institution in graphical form for the previous two years.	20		
Sub Total for KPA			**300**		
7. Human Resource Management	Staff Training	1. Annual Action Plan for staff training is available	20		
		2. Coordinator for staff training is assigned	20		
		3. Availability of staff training records during the last two years	40		

		4. Minimum of one staff awareness survey on Productivity and Quality concepts is conducted during a year	20		
	Deployment of Staff	1. Cadre register is maintained and updated.	20		
		2. Staff distribution is recorded and displayed in Medical, Nursing and Attendants	30		
		3. Presence of updated 'On call' display of Medical Officers.	20		
		4. Job description (duty list) is available for selected10 categories of staff.	30		
Sub Total for KPA			**200**		
8. Infection free Environment	Waste Management	1. Five types of waste general infected, sharps, plastics and glass are segregated in three selected wards	30		
		2. Waste Management colour charts are displayed in three selected wards.	10		
		3. Waste segregation is organized at the disposal area	30		
		4. Availability of a functioning Incinerator	30		
	Infection Control	1. A separate unit is established for Infection control with a Nursing Officer in-charge	10		
		2. Infection Control sub-committee is conducted once in 3 months and records maintained	20		
		3. Cleaning checklists are displayed and updated in selected wards	20		
		4. Notification register is available and updated.	20		
		5. Infection Identification registers is maintained and updated.	30		
Sub Total for KPA			**200**		

9. Patient Care	Out Patients Care	1. Availability of basic examination instruments in OPD consultation Rooms 1.1 B.P. Apparatus 1.2. Tongue depressor 1.3 Torch	15		
		2. Availability of referral clinics chart information at the consultation room	10		
		3. OPD prescription consists of following particulars 1. Date 2. Patient name 3. Age 4. Sex 5. Date 6. Probable Diagnosis 7. Treatment dose; frequency and duration 8. Signature of Examining officer	30		
		4. Drugs are dispensed in envelops with required instructions	15		
		5. Sterile packets are used for wound dressings	15		
		6. Emergency drugs tray with drugs and consumables as in the check list	15		
	Emergency Care	1. Availability of a 24 hrs functioning ETU	20		
		2. Emergency equipment is kept orderly in accessible place and in working order a. Suction Apparatus b. O_2 regulators c. Nebulizer	15		

		3. Emergency care guidelines are prepared and displayed	20		
		4. Disaster Management Plan is updated	20		
		5. 10 essential medical items are available in the Emergency tray.	25		
	Patient safety	1. Safety signs are displayed in accident prone areas	10		
		2. Adverse incidents are reported and recorded in a format	20		
		3. Transfusion reactions are reported and recorded	20		
		4. Observations of post operative patients are recorded and updated.	30		
		5. Death reviews are conducted in selected deaths and recorded.	20		
KPA Sub Total			**300**		
10. Work Performance	Performance Reviews	1 Management Committee is held once a month and records are maintained	30		
		2. Peri-natal Mortality Review is held once a month and records are maintained	20		
		3. Drugs Review committee is held once in three months and records are maintained	20		
		4. Supervision Inspections are done and records are maintained by the Administrative Officer, Special Grade Nursing Officer and Chief Pharmacist	30		
		5. Institutional Quality Management system is monitored through a pre-designed check list/indicators	100		
Sub Total for KPA			**200**		
GRAND TOTAL FOR KPA			**2000**		

MODULE 03:

IMPLEMENTATION OF QUALITY IMPROVEMENT PROGRAMME

CHAPTER 12

SESSION PLAN - 12

TOPIC: THE PROCESS OF CONDUCTING A STUDY VISIT TO AN INSTITUTION PRACTICING TOTAL QUALITY MANAGEMENT

Objectives:

- To receive on-site experience on the implementation of 5S-CQI-TQM programme
- To gain experiences in the implementation of 5S-CQI-TQM programme
- To provide feedback to the visiting institution on their practices
- To reflect on the practices of visitors and identify measures for improvement of their institution

Total Amount of Time: 180 Minutes (Approximately, but may vary according to the size of the institution)

Number of Participants: 35 (Approximately, divided into 4-5 subgroups)

Preparation:

i. Identify a suitable site and confirm the date and time for the study visit
ii. Identify clear learning objectives that should be achieved by the end of the study visit
iii. Ensure a resource person from the receiving institution is arranged
iv. Identify participants for the study visit and allocate into groups; identify a group leader
v. Collaborate with group members and the receiving institution to ensure areas that will be visited are identified and a route map prepared
vi. Arrange transport and meals if necessary
vii. Prepare materials to be given to participants

Materials: Route map and a documentary introduction to the institution; handouts on learning objectives, other handouts field note books and files

TRAINING OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 10 Minutes

- Introduce the resource persons from receiving institution and participants
- Activity: Ask participants on their expectations of the study visit

Introduce the Topic: One power-point slide showing the main areas that will be covered

Time: 10 Minutes

- The receiving institution to provide an overview of their Quality Improvement Programme using a lecture or a video presentation
- Introduce the activities which enhance the participant engagement; e.g., a participant maintains a checklist of observations

TRAINING MIDDLE

Explain the Topic: Explain the topic in detail; demonstrate and discuss the concept, practice and application of the topic

Time: 120 Minutes

Conduct the Study Visit. It is important to show frontline services and other areas that have been identified. Group activities, observation checklists etc. can be used to ensure that the participants are actively engaged during the study visit.

TRAINING WRAP-UP AND CLOSING

Summarize the Topic: Reconnect with the objectives; check for understanding and discuss questions

Time: 30 Minutes

- Discuss the highlights observed during the study visit
- Provide constructive feedback to the receiving institution
- Question and answer sessions to clarify any remaining doubts
- Reflect and identify practice gap in your own institution and discuss probable remedial measures

Closing Comments: Acknowledge, motivate and inspire **Time:** 10 Minutes

Encourage participants to initiate and implement the Quality Improvement Programme and wish them all success.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: The Process of Conducting a Study Visit to an Institution Practicing Total Quality Management

Date: _____

Attendees:

_____

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Observations Made by the Trainer:

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CHAPTER 12: THE PROCESS OF CONDUCTING A STUDY VISIT TO AN INSTITUTION PRACTICING TOTAL QUALITY MANAGEMENT

12.1 Introduction

In a health care setting, adverse events arising from treatments rather than from diseases themselves can lead to serious harm, complications, patient suffering and death. Clinical risk management is an approach to improve the quality of care and to ensure safe delivery of healthcare by placing special emphasis on identifying circumstances that put patients at risk or harm and to take necessary actions to prevent or minimize those risks.

As there are still no rules or guidelines established to prevent those risky situations, individual events are managed as and when they occur to the best of the ability of those involved. A Study visit to a hospital practicing Total Quality Management (which will be indicated as 'hospital A' in further writing) will help to improve the knowledge of the study group of the visiting hospital (which will be indicated as 'hospital **B'** in further writing). By visiting to hospital A, the visitors from hospital B get the opportunity to observe directly and share knowledge.

12.2 How to Organize the Visit by Hospital B

1. Following things should be considered:
    - Number of participants for the visit
      The number may vary according to the size of the hospital B; e.g., larger number from a Teaching Hospital and may be smaller number from a District Hospital
    - Whether the whole hospital B or a given section or unit from hospital B is going to apply total quality principles.
      E.g., in a Teaching Hospital, members of the given section only may participate. However, for maximum benefit, the number should not exceed 35 at a time.

- Number of visits planned

  This again depends on the size of the hospital B. If the hospital B is a larger one, several visits may be necessary. This will depend on the financial allocation for the project as well as the willingness of the hospital A to accommodate participants from hospital B

- Selection of participants for the visit

  Ideally the group should consists of

  - Members of the top management level
  - Middle level managers
  - Leaders of Work Improvement Teams (WITs)
  - If the number permits, a few staff members who are interested in quality management process may be allowed to join.

- Obtaining permission

  Heads of both hospitals (A & B) should discuss and dates should be fixed according to the convenience of both institutions. Two study groups from two different hospitals preferably should not visit on the same day. The visit should not cause any disturbance to the routine work of the hospital A or its staff. Written permission should be obtained by the Head of hospital B at least ten days prior to the fixed date. Once the written permission has been received, the Head of the hospital B should inform the participants through the group leader.

2. Making necessary arrangements for the visit

   - Transport

     Depending on the number of participants and the financial situation, a vehicle can be arranged

   - Arrangement of duty and the grant of duty leave

     Cover-up arrangements should be made so as not to disturb the routine work carried out in hospital B on the day of the visit.

- Meals

  Group leader should contact the Quality Management Unit (QMU) of Hospital A and make arrangements for the tea and meals if it's a full day visit.

- Awareness of the visit

  Group leader should call a meeting for the participants of the study visit three to four days prior to the visit to discuss the objectives and things to be observed during the visit; for example:

  - application of 5S and how it has been applied to make the working environment pleasant
  - application of colour code in different locations for easy identification
  - procedures carried out at different places to simplify the work
  - staff arrangements
  - Central Sterile Supplies Department (CSSD) and Central Linen Supplies Department (CLSD)
  - waste management area
  - arrangement of stores and distribution of goods
  - arrangement of the record room
  - emergency arrangements
  - staff discipline
  - pictures and photos
  - results achieved after applying TQM
  - awards received
  - patient satisfaction surveys carried out and suggestion schemes

3. Allocating responsibilities among visiting group

- Group leader should nominate members of the group to take photographs, to take notes and to discuss with relevant unit heads to get necessary information on their practical experiences.

- Confirmation of the date

Two days prior to the visit, the group leader should contact the QMU of hospital A and should confirm the visit by telephone, fax, or e-mail.

- Request for power point presentations

  It is always better to have an overview about the hospital A before the visit. Therefore, group leader should request a brief overview of hospital A.

12.3 Preparation by Hospital A

- When the request from hospital B is received, the Head of the Institution of hospital A should contact the Medical Officer/QMU and the date of the visit should be fixed.

- Making the staff aware two days prior to the visit
  - All middle level managers and in-charges of the relevant units should be informed through the Director, in order to facilitate the visit.
  - If they hope to visit a labour room, a special unit or a ward, the Medical Officer/QMU should inform the relevant consultant and their permission should be obtained. Time must be arranged in such a way not to disturb the clinical work of hospital A. The main gate and the inquiries desk should be informed by the Medical Officer/QMU the day prior to the visit and the request must be made so as to direct the visiting group to the meeting hall.

- Staff of the QMU should arrange seating facilities and keep the necessary equipment ready for the presentation.
- Planning the visit
  - If the group from hospital B is large, then the MO/QMU can divide the group into smaller sub-groups of eight to ten for better interaction and observation.
  - MO/QMU must inform the leaders of Work Improvement Teams (according to the number of sub groups) to be ready to accompany the sub groups.

- When the visiting group reaches the hospital A, group leader should meet the Head of the Institution and the group should be directed to the meeting hall.
- After the welcome, Deputy Director or MO/QMU can make a brief presentation about the hospital A.

  It should include

  •Past situation of the hospital (can show some photographs)

  •Present situation

  •Challenges and barriers encountered/faced during the introduction and implementation of Quality Improvement Programme.

  •Measures taken to change the staff attitude

  •Results achieved after applying TQM principles

After the presentation MO/QMU can divide the group into three or four sub groups.

MO/QMU of hospital A should draw a roadmap which specifies the time to be spent in each unit to avoid two groups meeting concurrently at the same place. This roadmap should be circulated among the relevant units of Hospital A, so that those units will also be prepared to welcome the visiting team. This makes sure that in each unit, a capable person is kept ready to explain the matters related to quality improvement in the particular unit. Each subgroup from hospital B should be given a copy of the road map prepared. The visiting team should strictly adhere to the road map given by hospital A.

The whole group can be directed to spacious places like the waste disposal area at the same time to make the demonstrations more convenient.

At the end of the study visit, the group should gather at the meeting hall and discuss what they have observed with the QMU staff and the Deputy Director.

Time should be allocated for any clarifications and an opportunity can be given for the visiting group to point out any deficiencies identified and share the knowledge gained.

Deputy Director of hospital A can show awards received by the hospital to motivate the visiting group.

The group leader can obtain any photographs, charts, stickers etc. from QMU if available with the permission of the Director.

It will be beneficial for hospital B to get the contact numbers of any relevant personnel at the QMU for further clarifications.

MO / QMU must enter the details of the visiting group in the relevant record book kept at the QMU.

MODULE 03:
IMPLEMENTATION OF QUALITY IMPROVEMENT PROGRAMME

CHAPTER 14

SESSION PLAN - 13

TOPIC: GROUP WORK

Objective: To prepare an Action Plan for the Quality Improvement Programme of the healthcare institution

Total Amount of Time: 150 Minutes

Number of Participants: 35 (Approx.) in 4-5 groups

Preparation: First, set up five groups consisting of 07 members. The topic for the group work must be selected by the coordinator well in advance. If possible, the title for the group work should be communicated to the participants on the first day of the programme. Also, invite few resource persons such as the PDHS, RDHS, Director, Deputy Director, Matron, Administrative Officer, Accountant, Medical Officer/District Healthcare Quality & Safety Unit etc. for the presentation.

Materials: Half Sheets, Pens, Flip Charts, Platinum Pens. Refer Curriculum (Annexure II of Introduction Chapter)

GROUP WORK OPENING

Engage Participants: (Ice-breaker/warm-up activity related to the topic)

Time: 10 Minutes

Depending on the participants, you may ask to carry out a group work on the following areas.

- Preparation of an Action Plan for the Continuous Quality Improvement (CQI) Programme (ideally for top and middle level managers).

- Identify the barriers and challenges come across in the implementation of CQI programme and ways and means to overcome these barriers (ideally for operational level staff).

GROUP WORK

Time: 60 Minutes

Each group should select a leader, note taker, time keeper and a presenter. The coordinator should facilitate the group work and he/she should not provide his/her ideas to the group. The group can make notes in half sheets. The final presentation must be written in flip charts. If resources are available, the presentation can be done in Power-Point.

PRESENTATION

Time: 75 Minutes

Each group should be given 10 minutes for the presentation. The presentation should be done by the presenter of the group, in the presence of the group leader. After the presentation, other participants should be allowed to comment or ask questions which the leader of the relevant group or the presenter should answer. Then the resource personnel should comment on the presentation or ask for any clarifications from the presenting group.

GROUP WORK WRAP-UP AND CLOSING

Time: 05 Minutes

Thank all participants for involving in the group work. Ask participants to apply what they have done during the work group.

QUICK CHECK FOR FACILITATOR/TRAINER (To be filled after every session)

Reflects on how the training went on to develop training skills, to plan on future training topics and to note potential next steps

Topic: Group Work **Date:** _____

Attendees:

_____

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Observations Made by the Trainer:

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CHAPTER 13: GROUP WORK

13.1 Introduction

Research has shown that an important factor in improving trainees' learning, motivation and behaviour at training programmes is the opportunity given to them to work in groups. Given that we retain 90% of what we do when we work in a group whereas, we retain much less by studying individually; it would seem fitting that the group work promotes collaborative learning. Collaborative learning has also shown to promote a deeper understanding, improve learners' self-esteem and enhance generic skills such as communication and leadership.

However, successful group work demands a lot of skill on the part of teachers, many of whom may often feel reluctant to use it because of lack of confidence, experience and insufficient training, or because they do not wish to undermine their control, particularly in challenging situations.

Using co-operative teaching and learning processes in the classroom can have many benefits for both teachers and students (Kagan, 1992). Trainers should:

- Organize classes into small groups with a common goal
- Ensure that trainees within a group work collaboratively until they have completed the task
- Ensure that trainees engage in peer teaching, learning and assessment
- Reward collaborative efforts with trainees.

13.2 Setting up Groups/Teams

Important considerations in setting up collaborative learning groups include the group size, group composition, role allocation, group rules and modes of communication. The ideal group size is 6-8 members, for maximum engagement and individual accountability of group members. The group composition may be based on the aims of the training programme. In developing skills in Healthcare Quality and Safety for which all health professions are

responsible, it may be useful to have multi professional groups. However, facilitators need to be aware of issues such as hierarchy and inter professional conflicts within the group members and actively promote teamwork even within such groups. Setting up of ground rules, promoting shared mental models of group goals and tasks, understanding the stages of group development and facilitating progression through each stage, promoting effective modes of communication during and after group discussions and establishing systems for self/peer/facilitator feedback on group process, accountability, and performance are important in promoting collaborative learning.

When setting up collaborative learning activities, it is important for the trainer to use his/her professional judgment to decide on the best option whether to assign roles for the trainees or to let them decide roles for themselves within their groups. The educational maturity of the trainees, their place of work (trainees of the same institution can be grouped together), their familiarity with group work and the available time for the collaborative activity can also be key determining factors. However, letting trainees decide for themselves can sometimes incur the risk of them repeatedly playing the safe and choosing the role they feel most comfortable with, as opposed to stepping outside their comfort zone and choosing another position which, while daunting, might equally encourage them to develop other skills. To help overcome such situations, the trainer might opt for *role rotation* to ensure that all trainees experience several roles. Other factors to bear in mind when assigning groups might be to mix high and low contributors (as evidenced from previous activities), considering gender, age and cultural background. It is important that every trainee understands his/her role within the group.

Each group should select its leader, note taker, time keeper and the presenter.

The group leader makes sure everyone knows what to do to complete the task. The Group Leader needs to:

- Keep the group on the task
- Ensure that everyone has a chance to participate
- Encourage everyone to listen and consider other's views

- Summarize the outcome for the group

It is the note taker's job to make notes for the group. The Note Taker will need to:

- Listen carefully
- Write clearly
- Summarize main points
- Check the accuracy of notes with the group

It is the timekeeper's job to ensure that the task is completed in time. The Timekeeper will need to:

- Give regular time checks
- Encourage the group to keep to time
- Indicate when a task is about to end (2 minute warning)

It is the presenter's job to report on the group's ideas. The Presenter will need to:

- Record information clearly and accurately
- Summarize the main ideas
- Structure feedback clearly
- Report back to trainer/plenary

13.3 Strategies to Enhance Effective Group Work

In addition to carefully managing the allocation of roles within groups, trainers should also make themselves available to their trainee groups, if or when needed, and:

- Discourage trainee anonymity by limiting the size of the group;
- Allow sufficient time for trainees to plan and discuss within their groups;
- Foster creativity through encouraging trainees to engage in debate as part of their group discussions;
- Promote fruitful collaborative talk;
- Give trainees both open-ended tasks (e.g. a wide theme to talk about) and enjoyable activities;

- Design formative assessment of both the work itself and the group work;
- Encourage presentations which engage the audience.

13.4 Conducting Group Work

Depending on the participants, you may ask to carry out a group work on the following areas:

- Preparing an Action Plan for the Continuous Quality Improvement (CQI) programme
- Identify the barriers and challenges come across in the implementation of the CQI programme and means and ways of overcome those barriers.

Preparation of an Action Plan

Preparing an Action Plan may be for the organization as a whole or the participant's relevant units. The preparation of the action plan should be done where the decision makers, heads of institutions or unit heads participate. It should be follow the following format.

FOR TOTAL QUALITY MANAGEMENT FOR BETTER HOSPITAL SERVICES

ACTION PLAN

Phase	Activity	Approximate Cost	Responsibility	Time Frames																					
				2014						2015													2016		
				Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Preparatory Phase																								
Introductory Phase																								

Implementation Phase																								
Expanding Phase																								

Sustaining Phase																									

Identify the Barriers and Challenges

Another important area which the group can work on is the identification of the barriers and challenges come across in implementing a CQI programme and ways and means to overcome those barriers. This will be an interesting area. Group work on identifying barriers and challenges should be done by the operating level participants. The format for the group work is given below.

	Challenges and barriers come across in implementing a Continuous Quality Improvement (CQI) Programme	**Ways and means to overcome those challenges and barriers**
1		
2		
3		
4		
5		
6		
7		

Each group must identify at least ten such barriers and challenges and also explain the measures to overcome those.

It is recommended to invite the respective heads of institutions during the group presentations. During the group presentations, encourage other participants to express their views and experiences in similar areas of such barriers and challenges.

13.5 Conclusion

The group work sessions should give ownership and create enthusiasm among participants. The discussions during the presentation must be objective and not criticize individuals. During the group work, the trainer should also verify the knowledge gained by the participants.