CORE TRAINING SERIES

Quality Improvement in Healthcare

Instructor Manual

January 2002

**Quality Improvement Core Curriculum
At-a-Glance Course Guide**

Module	Module Title and Objectives	Time (in hours)

Note:
Overheads for all modules are located at the end of the Participant Manual

1   **Welcome and Introductions**   **2.0**

At the end of the module, participants will be able to:
◆ Describe the course agenda
◆ Relate information about the Quality Assurance Project (QAP)
◆ Explain the course objectives
◆ Explain the use of the course materials
◆ Relate information about the instructor and other seminar attendees
◆ Discuss participants' expectations for the course
◆ Differentiate between the terms "quality improvement" and "quality assurance"

2   **Quality Improvement Success Stories**   **2.0**

At the end of this module, participants will be able to:
◆ Recognize that quality improvement initiatives can be simple or complex
◆ Recognize that quality improvement relies on the use of data collection
◆ Explain how quality improvement has been achieved in other health care settings
◆ Recognize that the perspectives of patients may be different than those of health care workers and to improve quality, patient perspectives must be known
◆ Recognize that individual health care workers can have an impact on the quality of health care
◆ Recognize that some quality improvement initiatives require a team effort
◆ Recognize that the solution to problems is not always more money or other resources

3   The Dimensions of Quality   **1.25**

At the end of this module, participants will be able to:
◆ Explain the concept of "dimensions of quality"
◆ Name and briefly describe several of the dimension categories
◆ Provide examples of quality from each dimension
◆ Explain the concept of doing "right things right"

4   The Four Steps of Quality Improvement   **1.5**

At the end of this module, participants will be able to:
◆ Identify the four basic steps of quality improvement
◆ Explain (at a high level) what is involved in each step
◆ State questions that can be asked to help develop a problem statement
◆ Discuss the benefits of creating a problem statement
◆ Discuss Shewhart's PDSA Cycle
◆ Explain the relationship between Shewhart's PDSA Cycle and Step 4 of quality improvement.
◆ Identify what activities occurred during the different QI steps of the QI Success Stories (Module 2).

5   Introduction to Quality Improvement Concepts   **1.25**

At the end of this module, participants will be able to:
◆ Name the four basic approaches to quality improvement
◆ Explain that different situations require the use of different approaches
◆ Name several of the quality tools that are used in quality improvement initiatives
◆ Determine the appropriateness of different tools for different steps in a quality improvement initiative
◆ Name the four principles of quality improvement
◆ Identify examples of the four principles of quality improvement from the QI Success Stories (Module 2)

6   **The Red Bead Game**   **2.0**

At the end of this module, participants will be able to:
- ◆ Recognize management practices that are not conductive to improving quality
- ◆ Develop and discuss your own ideas about the role of management in quality improvement
- ◆ Explain some of the lessons learned through the Red Bead Experiment
- ◆ Become familiar with Deming's 14 Points

7   **Focus on Systems and Processes**   **1.5**

At the end of this module, participants will be able to:
- ◆ Explain that a focus on systems and processes is one of the four principles of quality improvement
- ◆ Explain the meaning of the term "process"
- ◆ Explain the meaning of the term "system"
- ◆ Differentiate between a process and a system
- ◆ Identify dependencies and decision points within a process
- ◆ Depict a process by creating a basic flowchart

8   **Focus on Measurement: Part I**   **2.0**

At the end of this module, participants will be able to:
- ◆ Explain why it is important to use data to analyze processes, identify problems and test interventions
- ◆ Determine how to measure various quality improvement goals
- ◆ Explain the difference between quantitative and qualitative data
- ◆ Explain why there is variation in all measures
- ◆ Explain the difference between common cause and special cause variation

9   Using QI Tools to Focus on Measurement   2.0

At the end of this module, participants will be able to:

◆ Explain why it is important to be familiar with various tools for quality improvement

◆ Name three important rules for brainstorming

◆ Identify (through brainstorming) a number of different things that can be measured in a health facility

◆ Discuss strengths and weaknesses of alternative brainstorming techniques

◆ Determine the most appropriate quality improvement tools (presented in the appendix) for various situations

10   The New Zin Obilisk   2.0

At the end of this module, participants will be able to:

◆ Recognize behaviors that are conducive to team performance

◆ Recognize behaviors that hinder team performance

◆ Suggest ways to improve team problem solving in their own facility

◆ Discuss important leadership behaviors that emerged during the game

◆ Explain some of the lessons learned by participating in The New Zin Obelisk

11   Focus on Teamwork   2.0

At the end of this module, participants will be able to:

◆ State that a focus on teamwork is one of the four principles of quality improvement

◆ Explain why teams are important to quality improvement efforts

◆ Explain what one might expect to happen during the different stages of team development

◆ Discuss best practices for creating teams that are high performing

◆ Discuss best practices for running a team meeting.

- Recognize phenomena that often occur in team decision-making
- Identify several ways to overcome team decision-making phenomena
- Talk about what it means to be a good team member

12   Exercises for High Performing Teams   1.5

Participants will be able to:
- Participate in an experience that creates a sense of teamwork among group members
- Participate in an experience that encourages creative thinking and fun
- Reflect upon concepts that have been discussed thus far in class
- Identify the important elements of a team-building exercise

13   Focus on the Client   1.0

At the end of this module, participants will be able to:
- State that a client focus is one of the four principles of quality assurance
- Explain why it is important to understand clients' needs
- Explain the difference between external and internal clients
- Identify several individuals or departments that are one's internal clients
- Identify several individuals or departments of whom one is an internal client

14   Gaining Client Feedback   2.0

At the end of this module, participants will be able to:
- Explain the value of feedback from clients (and their families) in relation to meeting their needs and expectations
- Identify possible methods for gathering feedback of clients and explain the strengths and limitations of each

- Explain important points to keep in mind when using a written questionnaire or survey
- Discuss important points to take into consideration when using interviews to solicit feedback and information from clients
- Explain the difference between open-ended and forced choice questions and the value of each

15   Focus on Measurement: Part II   1.0

At the end of this module, participants will be able to:
- Explain the difference between common cause and special cause variation
- Explain the purpose of a run chart
- Explain procedures to determine the type of variation
- Identify potential sources of variation and change

16   QI Success Stories: A Final Look   1.0

At the end of this module, participants will be able to:
- Analytically review quality improvement success stories identify aspects of them that were critical to their success
- Begin to assess their own facility for factors that will help them be successful in a QI endeavor

17   Team Energizers   Varied

These energizers will help participants:
- Relax during a needed break
- Challenge their problem solving abilities
- Be creative
- Learn about their classmates
- Enjoy a change of pace

18   Understanding the QI Environment   **2.5**

At the end of this module, participants will be able to:
- Identify potential QI initiatives that are relevant to their health care facility
- Recognize the value of understanding the environment within which the QI effort will be initiated
- Explain various techniques that can be used to help understand the QI environment

19   Planning the QI Initiative   **3.5**

At the end of this module, participants will be able to:
- Discuss what is entailed in planning
- Identify a quality improvement goal they hope to achieve and create a possible scenario for achieving it
- Explain how a Gantt chart can be used to manage a project
- Create a preliminary Gantt chart for the quality improvement initiative they have in mind

20   Reflection and Graduation   **2.0**

At the end of this module, participants will be able to:
- Discuss important insights and knowledge gained as a result of participating in the class
- Express a sense of confidence that they will be able to facilitate (to some level) a quality improvement initiative

21   Handouts

This module contains all of the handouts the instructor will need for pre and post-course assessment
- Pre-Course Self Assessment
- Post-Course Knowledge Check
- Post-Course Knowledge Check Key

Quality Improvement Core Curriculum
Table of Contents

MODULE 1: WELCOME AND INTRODUCTIONS   *Time: 2 hours*

Objectives: Participants will be able to:

- Describe the course agenda
- Explain the course objectives
- Explain the use of the course materials
- Recognize and restate information about the instructor and other seminar attendees
- Discuss their expectations for the seminar

Materials: Materials required for this module are:

- Participant Manual
- Quality Improvement Tools Appendix (pp 51 – 76 or the Monograph)
- Flipchart, easel, and markers
- Deck of cards for icebreaker
- Overheads (OH) 1-1 thru 1-5
- Computer or overhead projector and projection screen

►►►►►►   INSTRUCTOR INTRODUCTION

OH 1-1

1. **DISPLAY** the course title slide prior to the beginning of class.

2. **WELCOME** participants as they enter the classroom.

3. **INTRODUCE** yourself by providing information about yourself that might be of interest to the participants. Use the following ideas as a guide.

   – Your name
   – General background including education and work experience
   – Experience with quality improvement
   – Number of times visiting the country
   – Any other interesting information you'd

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like to share about yourself

▶▶▶▶▶▶ **COURSE AGENDA**

Flipchart

4. **DISCUSS** course logistics and administration including:

– Daily classroom schedules including beginning and ending times and breaks
– The location of restrooms, telephones, and other important facilities
– Any classroom rules you deem important

Note: Prior to teaching the class, create the agenda for the week based upon the specific needs of the audience and course timeframe.

Note: Write important information on flipcharts so that it can remain visible to participants throughout the course.

▶▶▶▶▶▶ **COURSE GOALS & OBJECTIVES**

OH 1-2
OH 1-3

5. **REVIEW** the objectives for the course. **EXPLAIN** that these are overall objectives and more specific objectives are provided for each module.

– Explain important details of Quality Improvement to other staff members at your facility
– Identify a quality improvement opportunity at your facility
– Develop a plan for beginning a quality improvement initiative that
    – Incorporates the principles of quality assurance
    – Follows the problem solving methodology of quality improvement
    – And uses various quality improvement tools and techniques
– Execute the plan at your facility, asking for assistance when needed

Note: Be certain that participants understand that representatives from QAP are available to assist them on site (if this arrangement has been made).

6. **SHARE** a personal insight about the course and how it has helped participants in the past.

►►►►►► **PARTICIPANT MANUAL ORIENTATION**

7. **REFER** participants to Module 1 in their manuals. **EXPLAIN** that the manual is theirs to keep and that they can use them to take notes and write responses to course exercises.

Note: Encourage participants to look through the manuals and become familiar with them.

8. **REFER** participants to the Quality Improvement Tools Appendix. Also explain that this manual is theirs to keep and that they will use it as a reference several times during the course.

►►►►►► **ICEBREAKER**

Deck of Playing Cards

9. **ASSEMBLE** the class into groups of two by using a deck of playing cards and the following instructions.

- Prior to the start of class, arrange a deck of cards into pairs. E.g., two kings are a pair, two 9's are a pair, and two 3's are a pair.
- Select from the deck of pairs the same number of cards, as there are participants in the class. For example, if there are 18 people in the class, select 9 pairs of cards. If there is an odd number of participants, make one of the pairs a three of a kind, e.g., three kings. Set aside the cards you don't need.
- Shuffle the deck of "pairs" and have each participant select a card.
- Direct students to find their partner by finding the same person or persons in the room with the same card (e.g., other king, other 9, etc.)
- If more than 26 people are in the class, specify same card and color, e.g., red kings are a pair, and black kings are a pair.

Note: This icebreaker uses a deck of cards to arrange participants into pairs.

Note: If you have an odd number of participants, allow one group of three.

OH 1-4   10. **DISPLAY** overhead 1-4

11. **REFER** participants to the icebreaker
    exercise in Module 1 of their manuals.

12. **DIRECT** participants to find their partner
    and learn the following about their partner
    for the purpose of introducing him or her to
    the rest of the class.
    – Name
    – Professional / work experience
    – Place of employment
    – Previous knowledge or experience with
      quality improvement
    – How they like to spend their free time
    – Something they are really good at
    – A saying or motto that is meaningful to
      them

13. **ASK** each participant to introduce his or her
    partner to the course participants by sharing
    what they learned relative to the questions
    in their manuals (and provided above).

14. **CREATE** a seating chart of the participants.
    See Figure 1-1 at the end of the instructor
    manual for Module 1. Write a few important
    or fun facts about each participant next to
    their name.

    OR, if you do not want a permanent seating
    chart, simply list one or two fun facts about
    each participant on a flipchart as they are
    introduced.

15. **EXPLAIN** to learners that a space is
    provided in their guides to copy the seating
    chart.

Note: Provide participants with about 10 minutes to find their partner and learn about them. Recognize that you may need to facilitate the locating of partners.

Note: Modify this exercise as needed to be sensitive to the culture where you are teaching. In some cultures, this exercise may be seen as intrusive.

Note: Try and limit each introduction to 2-3 minutes.

Note: See a graphical representation of a seating chart on the last page of this module.

Note: Keep this chart displayed during the week to help participants get to know one another.

Note: Be sensitive to the culture where you are teaching. Individuals in some cultures might not want information about themselves recorded and displayed in this way.

►►►►►► **PRE-COURSE ASSESSMENT**

16. **DISTRIBUTE** the pre course assessment to participants.

17. **EXPLAIN** that the purpose of the assessment is to help you gauge participants' existing knowledge of quality improvement concepts. Also **EXPLAIN** that during the course, several smaller assessments will be conducted to determine if participants understand key concepts or if they might need to be reviewed again.

Note: If participants are anxious about testing, try to reassure them that it is conducted to make adjustments to the program, not to evaluate them.

►►►►►► **PARTICIPANTS' EXPECTATIONS**

Flipchart

18. **ARRANGE** participants into groups of 4-5. Ask each group to develop five expectations for the course and write them on flip chart paper you provide. Allow about 10-12 minutes for this activity.

Note: To arrange groups quickly, have people seated in close proximity to one another work together.

19. **ASK** each group to share their expectations with the entire class. Allow each group 5 minutes to share their expectations. In the interest of time, ask that they not repeat what another group has said, rather to acknowledge that it is also important to their group.

Note: The purpose of this activity is twofold. 1) It helps participants express what they are hoping to gain from the course, and 2) it allows you to tailor the course to meet participants' needs.

20. **ASK** if anyone has an expectation that has not previously been expressed.

21. **IDENTIFY** those expectations that you will be able to meet during the seminar and those that you will not be able to meet.

Note: If it is apparent that you will not be able to meet a participant expectation, it is better to state it up front, rather than suggest that you will and then not follow through.

22. **ADJUST** your presentation where possible during the entire seminar to meet participants' expectations as well as possible. This may mean devoting additional time to a concept or module than previously planned.

► ► ► ► ► ►   **WHAT IS QUALITY?**

23. **ASK** the following:

    When I say the word "quality," what comes to your mind?

    Possible responses include:

    Excellent, superior, high caliber, best.

24. **STATE** the following:

    The difficulty with the word "quality" is that it's hard to define. When it is defined, it's often defined with other words that are also vague.

    The reality is, that we all have a sense of what quality or excellence is, but it is often hard to explain the concept to someone else. Let's explore this idea further.

25. **REFER** participants to the "What is Quality?" exercise in their manuals.

26. **ASK** participants to reflect upon various times they've stayed at a hotel and identify what about their stay made it a "quality hotel" or a "quality experience"?

Note: Have participants do this exercise individually; allowing about 3-5 minutes.

Flipchart

27. **DEBRIEF** in a large group setting. **ASK** participants to briefly explain their quality experience. Post their responses on a **FLIPCHART**.

Note: If participants have not all had an experience staying at a hotel, select another common experience, e.g., eating a restaurant, shopping at a market.

28. **FACILITATE** a discussion that leads learners to discover that "quality" means different things to different people.

29. **EXPLAIN** that recognition of this basic truth will help them be more successful in their quality improvement work.

► ► ► ► ► ►   **QUALITY IMPROVEMENT VS QUALITY ASSURANCE**

30. **EXPLAIN** that throughout the course they will be introduced to many new terms.

31. **EXPLAIN** that the first few terms you'd like to introduce are the terms quality improvement, quality monitoring, quality design, and quality assurance.

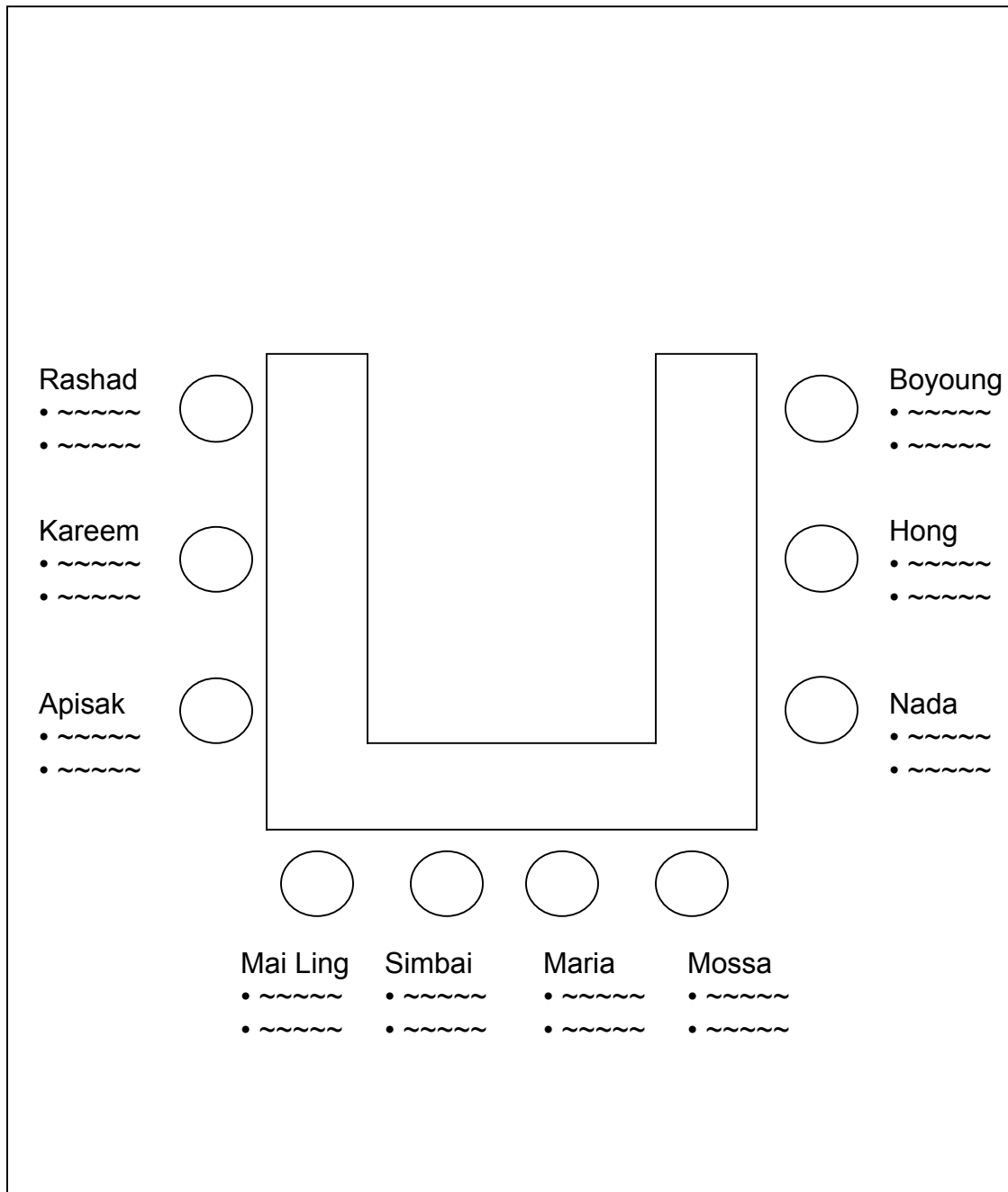32. **DISPLAY** overhead 1-5

OH 1-5   33. **EXPLAIN** each of the terms. **EMPHASIZE** the difference between the terms.

- **Defining Quality** means developing statements regarding the inputs, processes, and outcome standards that the healthcare delivery system must meet in order for its population to achieve optimum health gains.
- **Measuring Quality** requires quantifying the current level of compliance with expected standards.
- **Improving Quality** requires engaging in appropriate methodologies to close the gap between current and expected level of quality. It uses quality management tools and principles to understand and address system deficiencies and improve or redesign efficient and effective healthcare processes.
- All three are elements of Quality Assurance

34. **EXPLAIN** that while this course will focus on quality improvement, some of the concepts are associated with all elements of Quality Assurance and that these will be pointed out later.

35. **ASK** participants if they have any questions before you proceed.

Figure 1-1: Example of a Participants Seating Chart

Rashad
• ~~~~~
• ~~~~~

Kareem
• ~~~~~
• ~~~~~

Apisak
• ~~~~~
• ~~~~~

Boyoung
• ~~~~~
• ~~~~~

Hong
• ~~~~~
• ~~~~~

Nada
• ~~~~~
• ~~~~~

Mai Ling
• ~~~~~
• ~~~~~

Simbai
• ~~~~~
• ~~~~~

Maria
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Mossa
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UNIT 2: QUALITY IMPROVEMENT SUCCESS STORIES

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Time: 2 hours

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Objectives: Learners will be able to:

◆ Recognize that quality improvement initiatives can be simple or complex

◆ Recognize that quality improvement relies on the use of data

◆ Explain how quality improvement has been achieved in other healthcare settings

◆ Recognize that the perspectives of patients may be different than those of healthcare workers and to improve quality, patient perspectives must be known

◆ Recognize that individual healthcare workers can have an impact on the quality of healthcare

◆ Recognize that some quality improvement initiatives require a team effort

◆ Recognize that the solution to problems is not always more money or other resources

Materials: Materials required for this unit are:

◆ Participant Manual

◆ Flipchart, easel, and markers

◆ Overheads (OH) 2-1 thru 2-5

◆ Computer or overhead projector and projection screen

▶ ▶ ▶ ▶ ▶ ▶   **UNIT INTRODUCTION**

OH 2-1   1. **DISPLAY** overhead 2-1.

2. **REFER** participants to Module 2 in their manuals.

3. **STATE** the following:

Before we begin learning about the processes, tools, and concepts associated with quality improvement efforts, let's take a look at what some other healthcare professionals and facilities have done to

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improve quality.

OH 2-2
OH 2-3

4. **DISPLAY** overheads 2-2 and 2-3.

5. **REVIEW** the objectives for the module.

▶ ▶ ▶ ▶ ▶ ▶ **QI SUCCESS STORIES / GUIDED READING**

6. **ARRANGE** participants into groups of 3 to 4 people for silent reading and review of the four success stories.

7. **DIRECT** participants to read the first success story (located in Module 2 of their manuals) individually, and then discuss the success story with their group using the guided reading questions provided in their manuals.

8. **DIRECT** participants to also read success stories two, three, and four provided in their participants manual and to discuss them with their groups using the guided reading questions.

9. **DISCUSS** each of the success stories in a large group setting, using the guided reading questions (see below). Encourage people to remain with their groups and report as teams as you discuss each success story.

Note: Allow groups about 45 minutes to read and discuss the four success stories. Because people read at different speeds, you might want to schedule a break, allowing extra time to those that need it.

▶ ▶ ▶ ▶ ▶ ▶ **SUCCESS STORY 1: LARGE GROUP DISCUSSION**

10. **FACILITATE** a discussion, using the guided reading questions as a guide.

11. Be sure the following important points are **EMPHASIZED** during the discussion.

Note: Allow about 5-10 minutes to discuss Success Story 1 in the large group setting.

- The receptionist was alert to what was going on around her. She took the initiative to make the situation better

- The receptionist initially just fixed the immediate problem by escorting the patient to the right part of the hospital

- However, recognizing that a problem still existed, he or she put together a small team of people to solve the problem of people getting lost

Note: As you begin discussing the success stories, tell participants that you will be exploring them throughout the week, as there are many lessons to be learned from them.

▶▶▶▶▶▶ **SUCCESS STORY 2: LARGE GROUP DISCUSSION**

12. **FACILITATE** a discussion using the reading questions as a guide.

13. Be sure the following important points are **EMPHASIZED** during the discussion.

Note: Allow about 15 minutes to discuss Success Story 2 in the large group setting.

- The improvement initiative began because Dr. Awadella recognized that the duration of phototherapy seemed too long

- A goal of the team was to reduce resistance among the staff. Unless people are involved in initiating change they often resist it

- Because they had no data to work with, the team collected some

- The team performed some analysis and identified a possible solution to the problem

- They then tested their solution to see if it worked

- Once they determined the solution was valid, they implemented it fully

▶▶▶▶▶▶ SUCCESS STORY 3: LARGE GROUP DISCUSSION

14. **FACILITATE** a discussion using the reading questions as a guide.

Note: Allow about 15 minutes to discuss Success Story 3 in the large group setting.

15. Be sure the following important points are **EMPHASIZED** during the discussion.

   – Staff was very uncertain as to what might be the root cause of the problem

   – They used a variety of tools to help them focus in on the problem to solve

   – The quality improvement team was made up of people that had knowledge of the process

   – The quality improvement initiative cost very little to implement, but saved a great deal in the way of money and potentially children's lives

   – Mothers were asked for their input to help determine which foods might be best suited to cut the bad taste of the chloroquine

   – Data collection was able to help them identify the changes that resulted from the intervention

▶▶▶▶▶▶ SUCCESS STORY 4: LARGE GROUP DISCUSSION

16. **FACILITATE** a discussion using the reading questions as a guide.

Note: Allow about 15 minutes to discuss Success Story 4 in the large group setting.

17. Be sure the following important points are **EMPHASIZED** during the discussion.

   – In this success story, the problem was identified because of consistent

monitoring of a critical process in the hospital

– The intervention was based on the needs of the patient (e.g., afternoon appointments and education campaign were both based upon feedback from patient)

– Continual monitoring showed that the problem had not been solved to the degree desired

– A sub-team that might have greater responsibility for the process was identified

– The sub-team monitored the solution of new appointment hours before it decided to implement it as the new regular process

► ► ► ► ► ► **QUESTIONS FOR DISCUSSION**

OH 2-4
OH 2-5

18. **DISPLAY** overheads 2-4 and 2-5 as you facilitate the discussion of the "questions for discussion".

19. Be sure the following important points are **EMPHASIZED** during the discussion.

– The success stories reviewed did not require significant resources to improve quality

– Had the health workers not tried to understand the needs of their clients, the problems might not have been solved

– In Success Story 2 it would have been very easy to suggest that a lack of phototherapy equipment was the problem, when it was not at all the success story

Note: Allow about 15-20 minutes to discuss the "questions for discussion" in a large group setting.

- Teams have a way of pooling the knowledge and experiences of various people to ensure the problem was understood in its entirety

- Individual health workers were able to identify opportunities for improvement, take initial steps, and pull a team of people together

- The success stories differed in their complexity. Some of the success stories took several months while others improved quality in a short amount of time

- Sometimes problems were just noticed because of an observant staff member; other times a process was already in place to monitor a process

- While in some success stories, the improvement might seem small; its effects can be far reaching. The woman that was pleased that the receptionist helped her might be more inclined to revisit the facility and encourage others to do so, too

20. **EMPHASIZE** that this course will prepare them to have an impact on their communities, just as the individuals represented in the four success stories were able to improve quality in their settings.