

Session 7
Improvement Objectives, Change Package and Measurement Strategy

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Improvement Objectives, Change Package and Measurement Strategy

Learning Objective

Participants will

- Discuss how the improvement objectives, “change package”, and measurement strategy are developed
- Discuss common challenges in data collection

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Integrating objectives, change package and monitoring

A collaborative management team must define specific improvement objectives that are in turn linked to:

- a specific change package to guide teams on the ground
- a monitoring plan to allow measurement of results.

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Improvement Objectives

An improvement objective is one objective (among several) for achieving the collaborative aim and is often related to an evidence-based best practice:

Examples of specific Improvement Objectives from QAP Collaboratives:

- **Essential Obstetric Care Collaboratives:**
Improve quality of Active Management of Third Stage of Labor
- **Pediatric Hospital Improvement Collaborative:**
Improve quality of malaria case management

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Relationship of Objectives, Change Package, Measurement

- Objectives translate into a concrete change package
- Indicators measure the progress toward achieving improvement objectives
- Data are collected according to specified indicators (measurement)

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Change Package - Definition

- A collection of changes essential for achieving an improvement objective and desired results
- Typically a change package consists of either evidence-based best practices or operational changes necessary to achieve these best practices
- However, not all collaboratives use this term, have a common definition of change package, or even have a change package !

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Development of Change Package

- Usually expert group (TAG) develops change package based on in-depth knowledge of obstacles in local setting
- Change package provides basic menu to guide teams' work at the local level
- Teams then test specific innovative changes in their local setting for implementation of change package

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Measurement of Results

Monitoring is a key function in all collaboratives and must include:

- Identified common indicators to measure progress toward meeting improvement objectives
- Strategy for data collection (who collects data; from what source; with what tools; organization of collective collaborative data)
- Strategy for data analysis and continuous QI based on data analysis (whole point of data collection!)

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Kinds of Indicators

Typically three kinds of indicators, which reflect the systems-level focus of QA:

- Input (eg. essential meds; proportion of providers trained)
- Process (eg. compliance with standards)
- Outcome (eg. case fatality rate)

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Common Problems in Monitoring

Collaborative Management Level:

- Too many indicators (burdens teams)
- Lack of unified common indicators (prohibits optimum sharing)
- Indicators overly complex (eg. very detailed process indicators)
- Indicators have nothing to do with national health information systems in place

Structural (local):

- Quality of local data often very rudimentary
- Desired data cannot be collected from established national health information systems (especially for new evidence-based standards)
- Data collection and Quality: often teams do not have skills for quality data collection or analysis

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Example of Improvement Objective, associated Change Package and Measurement strategy

Collaborative: Pediatric Hospital Improvement Collaborative

General Aim: To improve quality of care of children with serious illness or malnutrition according to adapted WHO first-referral care IMCI standards

Example of single PHI Improvement Objective:

- To improve quality of malaria diagnosis and case management

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Example of Change Package for Improving Quality of Malaria case management at site level

Standards: Improving Compliance with WHO evidence based standards for diagnosis and management of Malaria

Change Package:

- Ensuring prompt identification of sick child--effective triage and patient flow
- Ensuring training, job aids, supervision for improving provider compliance with diagnosis/treatment standards
- Ensuring stock of essential inputs--laboratory diagnostic and up to date anti-malarial drugs
- Ensuring skilled provider is always available (staff scheduling/call schedule)
- Ensuring regular monitoring of sick child if hospitalized
- Ensuring discharge plan including appropriate referral

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Example of Monitoring Plan for assessing progress toward PHI Malaria Improvement Objective

Sample Indicators:

Input: Anti-malarial medication and diagnostic materials in stock by quarterly check

Process: Compliance with malaria case management standards (eg: correct evaluation; correct drug; correct dose; correct in-hospital monitoring of sick child)

Outcome: Malaria case fatality rate (proportion of children deceased among all children treated for malaria)

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Malaria Monitoring Plan (continued)

Who collects Data? Lead nurse on team

How often? Monthly

From what source? Hospital register and individual patient records

How many records are reviewed? 10 randomly selected individual records per month

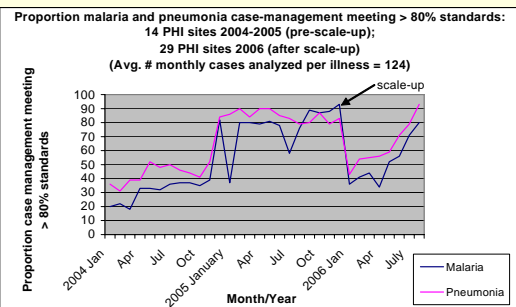
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How Data gets Processed

- Head nurse records data on common collaborative tool and sends to collaborative data manager (may be MOH official)
- QI team reviews data on monthly basis and analyzes data to guide continuous QI at local level (assisted by coaches)
- QI team (with technical assistance) compiles data on quarterly basis for presentation at Learning Sessions (run charts, etc. per common indicators)
- Collaborative data manager incorporates collaborative-wide data

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Example of Malaria Indicator: Niger PHI collaborative



Group Exercise

Design a change package and monitoring plan for a single Improvement Objective from a QAP Essential Obstetric Care Collaborative

Setting: Francophone West Africa with very high maternal mortality rate, mostly due to post-partum hemorrhage

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Sample Improvement Objective from EOC collaborative

Overall Collaborative Aim: To improve Quality of Essential Obstetric Care

Specific EOC Improvement Objective:

- Improve (or introduce) Active Management of Third Stage of Labor (AMTSL) to reduce post-partum hemorrhage

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AMTSL: Background information:

Package of interventions demonstrated to reduce post-partum hemorrhage, leading cause of maternal mortality, by over 50%:

- Administration of IM Oxytocin within one minute of delivery
- Controlled delivery of placenta via controlled cord traction and uterine counter-pressure
- Uterine massage after delivery

All of these steps reduce uterine atony, the leading cause of hemorrhage

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Creating Change Package and monitoring plan for implementing AMTSL

You are the expert group and you know...

- Many of your facilities do not have oxytocin or regular electricity (*oxytocin needs to be stored in cold*)
- Often there is no skilled provider (nurse, midwife, doctor, etc.) on weekends/night hours in your facilities
- Many of your providers have never heard of "AMTSL"
- Many of your facilities rarely receive MOH supervision visits
- There is no place on birth record ("partogram") to see if oxytocin has been given after delivery
- There are very frequent stock-outs of partogram in your facilities
- Often the partogram is not filled out after a delivery

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1. Your AMTSL Change Package

- *Record change package elements on flipchart....*

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Example of real AMTSL Change Package in Niger EOC Collaborative

- Post AMTSL Job Aid in every delivery room
- Create provider schedule/on-call schedule to ensure skilled birth attendant (SBA) present 24/7
- Coordinate with regional MOH authority to ensure regular stock of oxytocin/partograms and system for preventing stock-out with assigned staff roles
- Place "cooler" in every delivery room to store oxytocin at required temperature; assign staff roles to oversee oxytocin management in facility (fridge → cooler)
- Plan regular training/supervision of provider staff to ensure compliance with AMTSL standards (with TA from MOH/Collaborative management team)

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2. Your AMTSL Monitoring Plan

- What indicators will you use? Input, process, outcome
- Who will collect data?
- From what source?
- How many birth records will you record each month in each site?
- How will you select which records to review?
- How will you teach your collaborative teams to construct run-charts to share at learning sessions
- How will you try to control the quality of the data?

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Your Monitoring Plan

- *Record key monitoring elements (indicators, data collection system) on flipchart....*

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Example of AMTSL Indicators: Benin/Niger EOC Collaboratives

Indicators:

- Input: Oxytocin in stock by quarterly check
- Process: Compliance with AMTSL elements (Oxytocin, controlled cord traction, uterine massage) post-partum surveillance for hemorrhage)
- Coverage: % of births receiving AMTSL
- Outcome: Post-partum hemorrhage rate (number of cases of post-partum hemorrhage/divided by total number of births)

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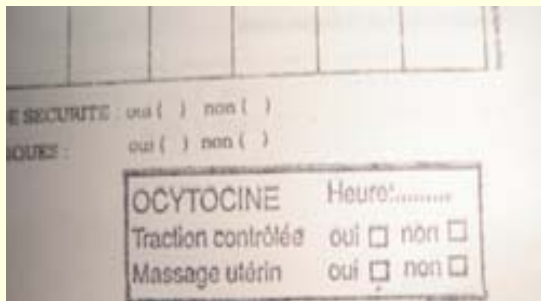
AMTSL Monitoring (cont'd)

Data Source: Partograms and facility birth register

- 5 partograms reviewed per month (randomly selected) for compliance with standards
- *Because national partogram does not record AMTSL data, rubber stamp introduced to record data*

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Picture of AMTSL “stamp”



A closer look at calculating 3 AMTSL Indicators...

**** See Handouts:**

- A. National Niger Partogram with “AMTSL” stamp inserted
- B. 3 Monitoring tools: standards summary tool, chart-review tool, site monthly collaborative reporting tool

1. AMTSL Process Indicator: Compliance with AMTSL elements (Oxytocin, controlled cord traction, uterine massage, post-partum surveillance) as recorded in chart

Numerator = Number of AMTSL elements respected in chart (oxytocin correct time/dose, CCT, uterine massage, and post-partum surveillance x 4 hours)

Denominator = Number of total AMTSL elements applicable

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A closer look at 4 AMTSL Indicators...

See Monthly reporting Tool (Handout):

2. Coverage Indicator: Percent births covered by AMTSL

Numerator: # of births in which AMTSL applied in X month

Denominator: Total number of births in facility in X month

3. Outcome: Post-partum hemorrhage rate

Numerator: number of cases of post-partum hemorrhage in X month (by review of all partograms)

Denominator: Total number of births in facility in X month

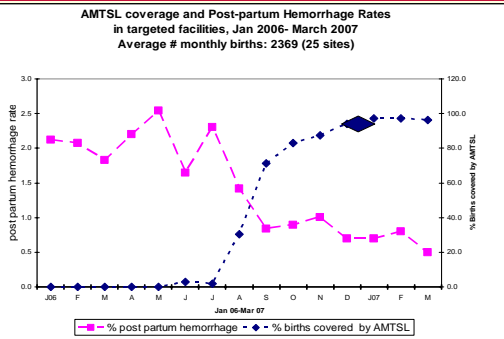
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AMTSL Monitoring (cont'd)

- Who collects Data: QI teams with assistance of specially trained “internal coach” member of team
- Controlling quality of data: This is tough, without actually observing care. However, coaches do check primary data source (partograms/birth record) and compare against reported data
- Using Data effectively: As part of monthly coaching visits, coaches teach teams to construct run-charts and to analyze data for continuous quality improvement

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AMTSL coverage and Post-Partum Hemorrhage Rates in Niger EOC Collaborative: Jan 06-March 07



Summary

- Designing a *simple, integrated* improvement objective, change package and monitoring strategy is essential for effective and efficient collaborative management at all levels

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