



Total Quality Management Initiative for Maternal and Newborn Health: Experience from 11 Public Health Referral Facilities in Bangladesh

Presenter:

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Outline

- Background
- Objective
- Interventions
- Evaluation
- Conclusions and Recommendations



BACKGROUND

***“THE QUALITY OF CARE
AT FACILITIES IS ONE OF
THE ABSOLUTE PIECE
TO SAVING MOTHERS
AND NEWBORNS_____”***

MELINDA GATES



Quality of care for maternal and newborn health: the neglected agenda

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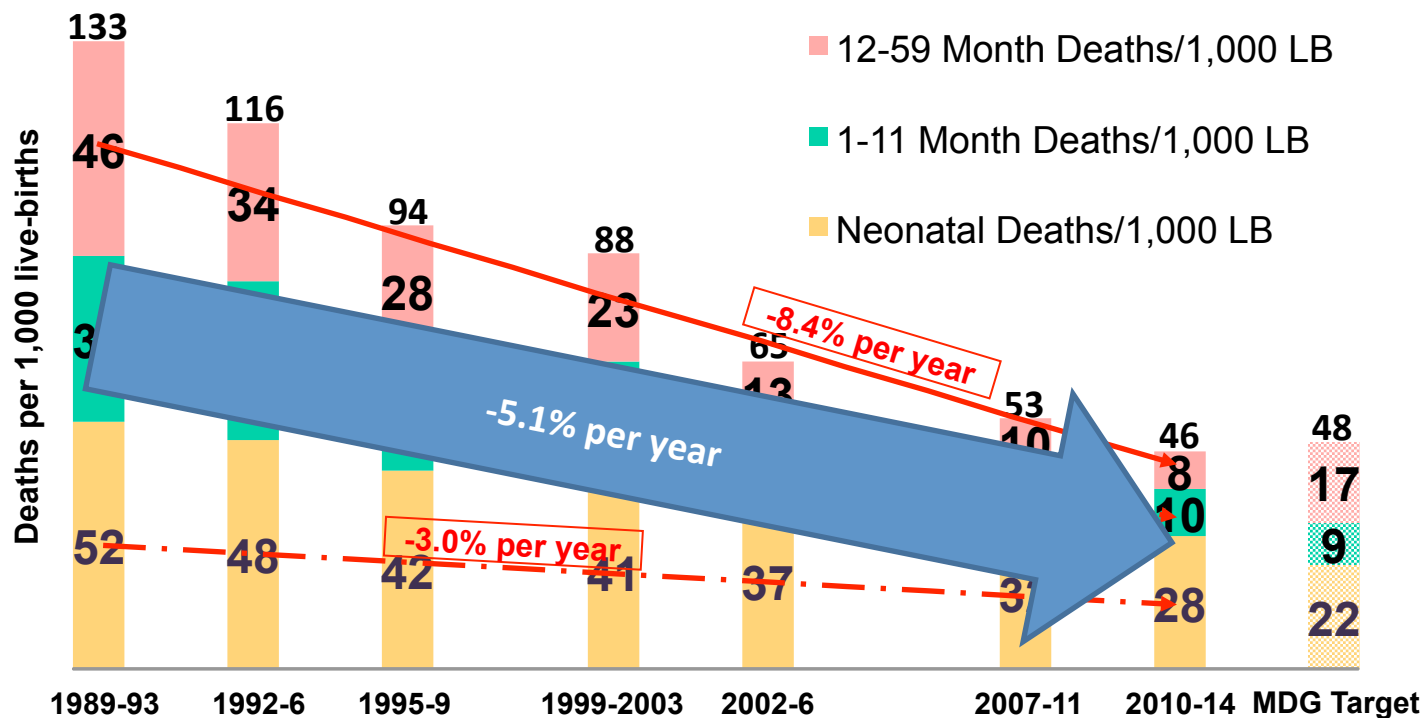
Accepted 13 July 2009.

The quality of care received by mothers and babies in developing countries is often reported as poor. Yet efforts to address this contributory factor to maternal and newborn mortality have

at the core of all strategies for accelerating progress towards MDG4 &5. Interventions to measure and improve quality need themselves to be evidence-based. Two promising approaches

“Quality of care” it is widely acknowledged to embrace multiple levels –from patient to health system, and multiple dimensions, including safety as well as efficiency.

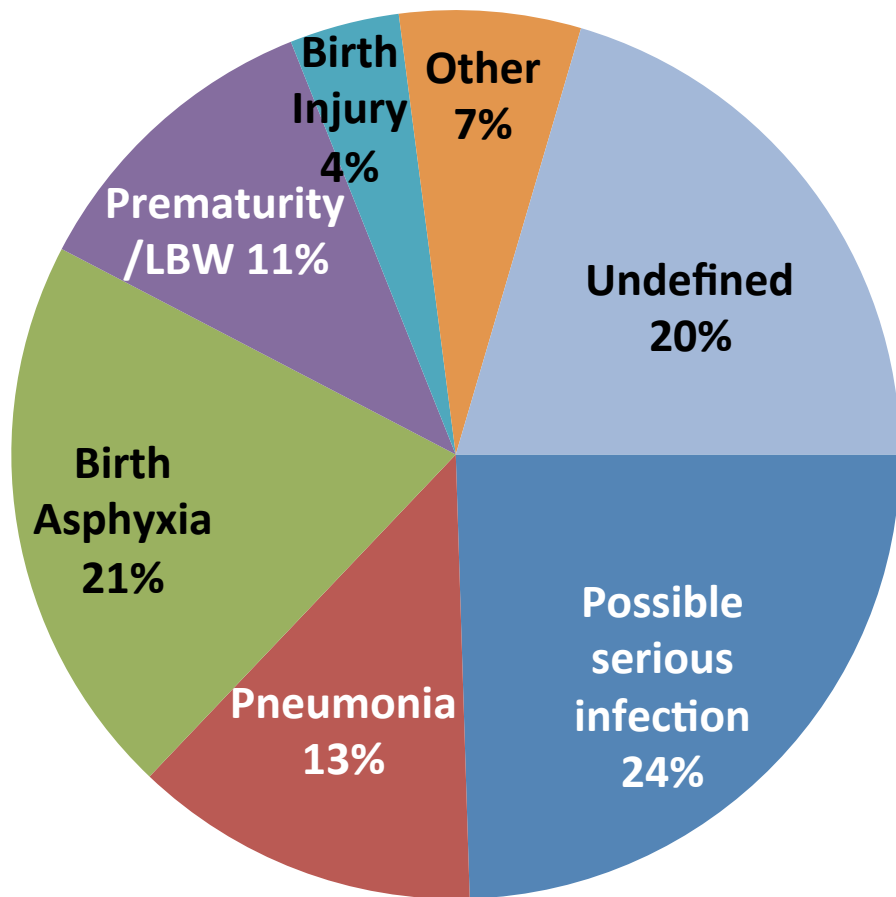
Bangladesh has achieved the primary MDG 4 target well before 2015



Source: Bangladesh Demographic and Health Surveys, 1993-4, 1996-7, 1999-2000, 2004, 2007, 2011, 2014

Reducing neonatal mortality is key to future progress

Neonatal Deaths



Annual number of deaths

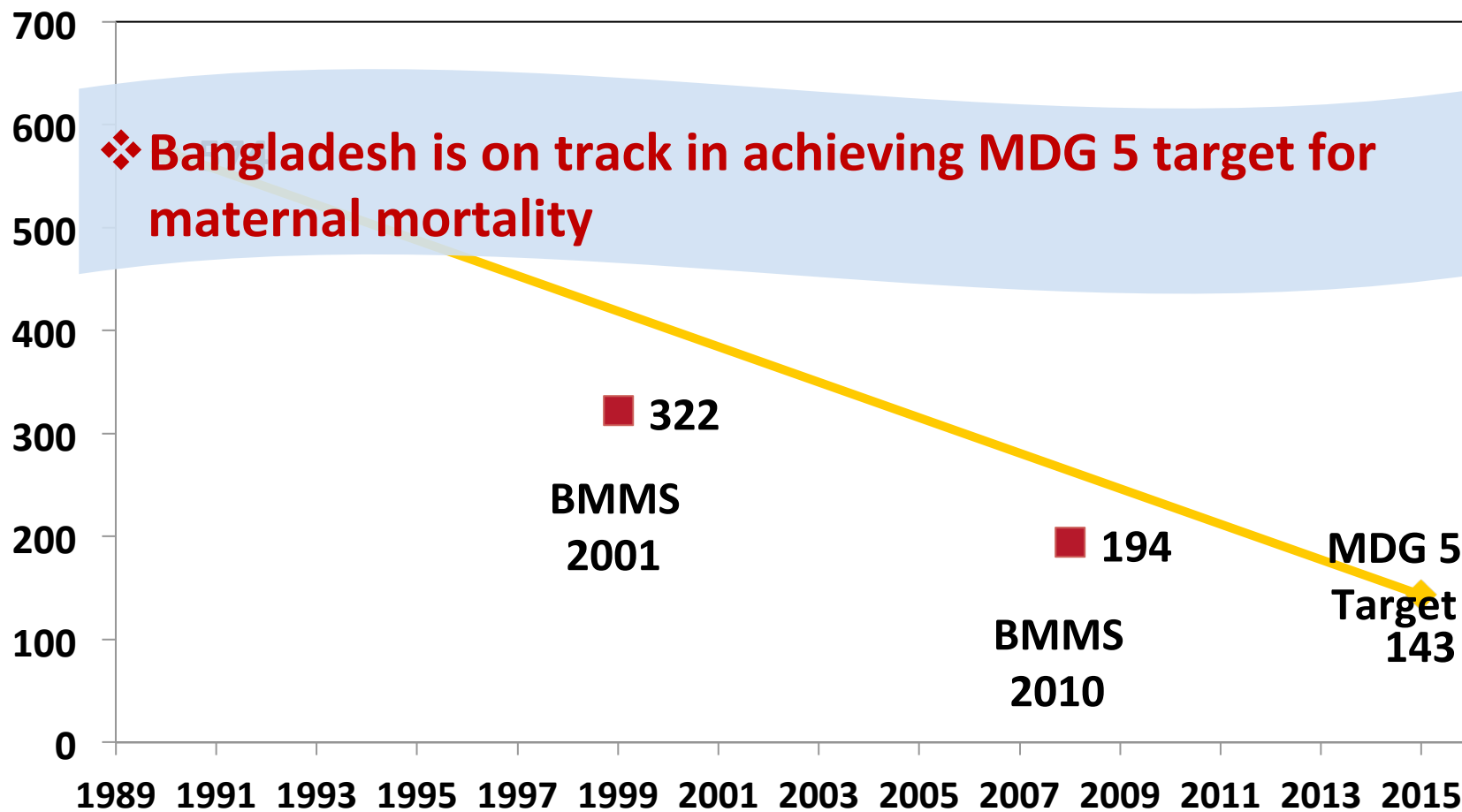
Preterm birth (12,000 deaths):

Birth Asphyxia (21,500 deaths):

Neonatal Infections and
Pneumonia (38,000 deaths):

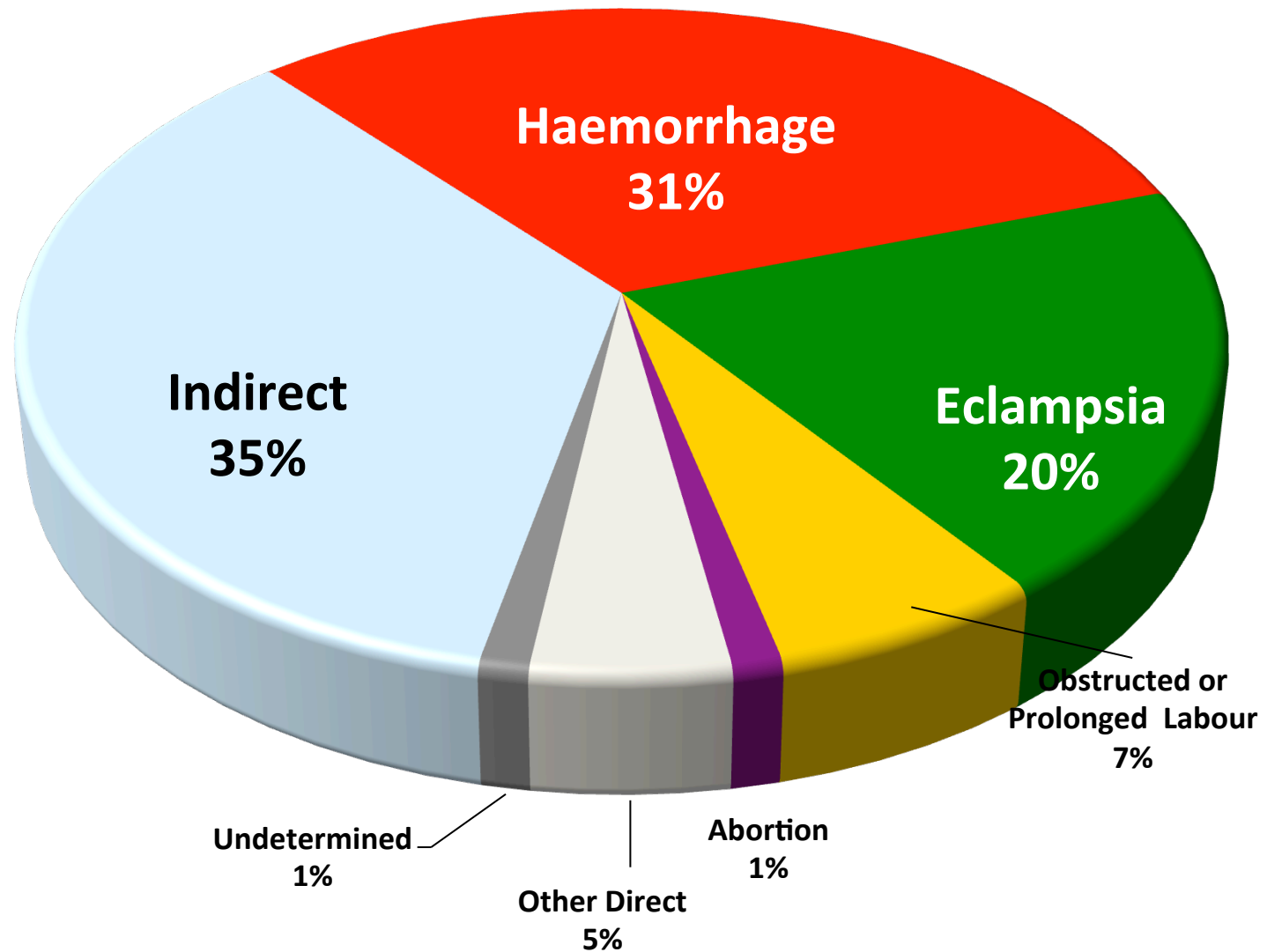
Bangladesh Demographic and Health Survey 2011

Bangladesh: Progress Towards MDG-5



Bangladesh Maternal Mortality Surveys (2001 and 2010)

Distribution of Maternal Deaths by Cause, 2010



Future Goals

- **Sustainable Development Goal:**
 - **Ending preventable maternal and neonatal deaths**
- **Every Newborn Action Plan (ENAP):**
 - <12 NMR per 1000 LB by 2030**
- **Ending Preventable Maternal Mortality (EPMM):**
 - <70 MMR per 100,000 LB by 2030**

Achieving the SDG, ENAP and EPMM targets: A simple recipe

- **Increase coverage of facility based delivery**
- **Universal access to MNH care and management of MNH complications**
- **Improve QUALITY of care at the facilities**



An assessment of the quality of care for children in eighteen randomly selected district and sub-district hospitals in Bangladesh

Dewan ME Hoque^{1*}, Muntasirur Rahman¹, Saikat Sum Billah¹, Michael Savic², ACM Rezaul Karim¹, Enayet K Chowdhury¹, Altaf Hossain², SAJ Md Masud³, Harish Kumar³, Suchansh Malhotra³, Ziaul Martin⁶, Neena Raina⁴, Martin W Weber⁵ and Shams El Arifeen¹

Quality: Where do we stand in Bangladesh

Poor quality of care in public health facilities of Bangladesh.

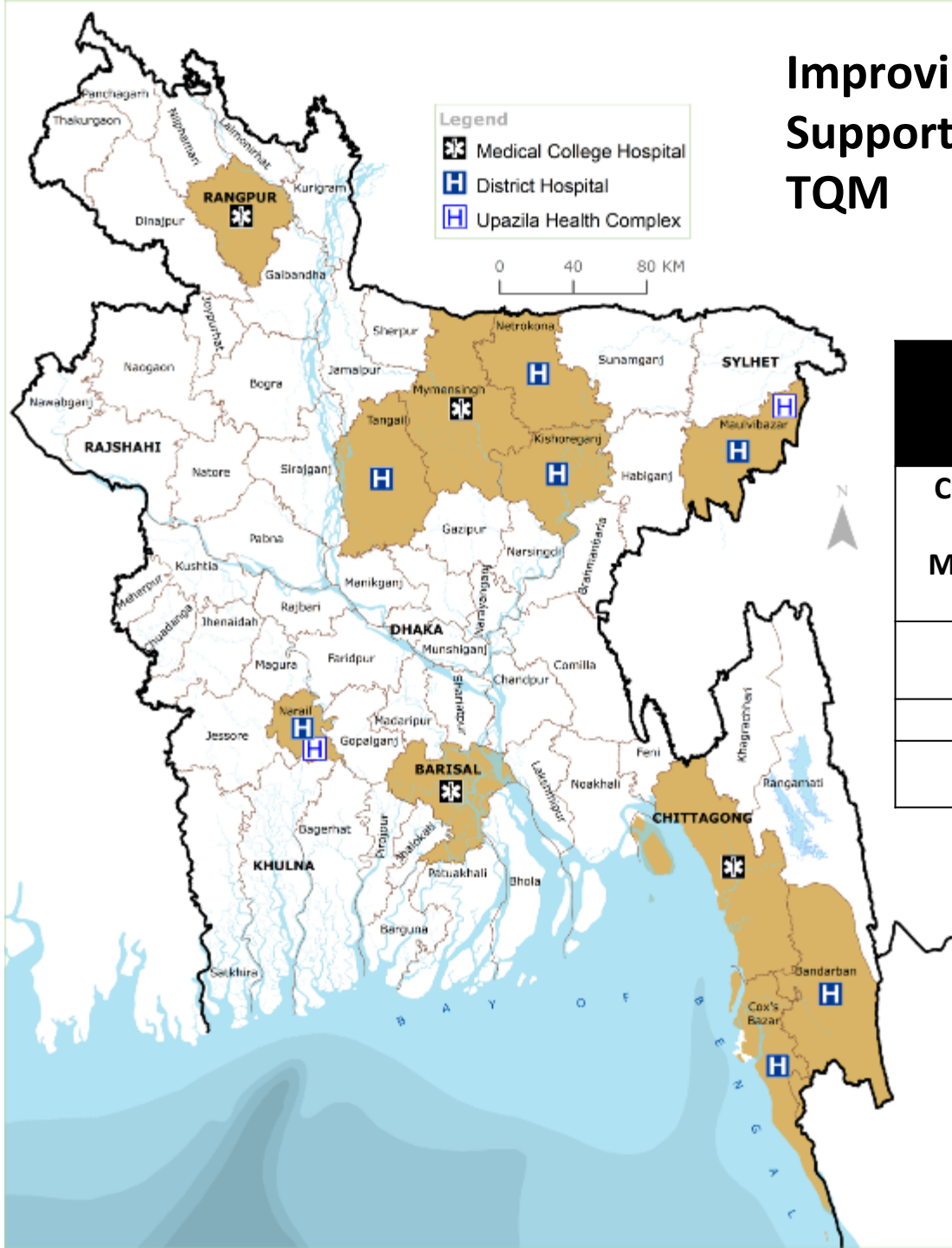
- A study conducted in 18 first and second referral facilities in Bangladesh reported-
 - knowledge regarding common childhood illness was poor,
 - triage in the emergency departments was absent inappropriately functioning,
 - infection prevention practice was poor,
 - use of oxygen was inappropriate and
 - administration of appropriate antibiotic for syndromic sepsis was inadequate.

OBJECTIVE

- **The Government of Bangladesh with support from UNICEF has implemented the TQM initiative (5S-CQI-TQM) in 11 Public Hospitals with specific attention to selective MNH services**
- **We are sharing the intervention model and important programme learnings from this initiative**

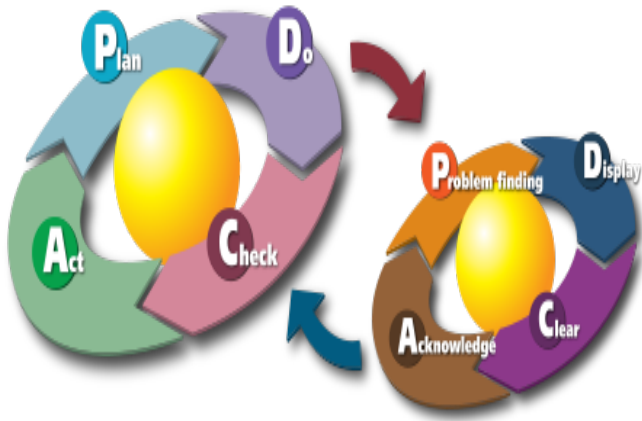
INTERVENTION

Improving Newborn Care in UNICEF Supported 11 Hospitals with 5S-CQI-TQM



| Medical College Hospital | District Hospital | Upazila Health complex |
|--------------------------|--|------------------------|
| Chittagong and Mymensing | Bandarban, Cox'sbazar, Kishorganj, Netrokona | |
| | Moulavibazar, Narail | Kalia, Barolekha |
| | Tangail | |
| 2 | 7 | 2 |

TQM Approach



TQM

Quality in all hospital process

Both clinical and management oriented

CQI

Work/Services Improvement

Client oriented

5S

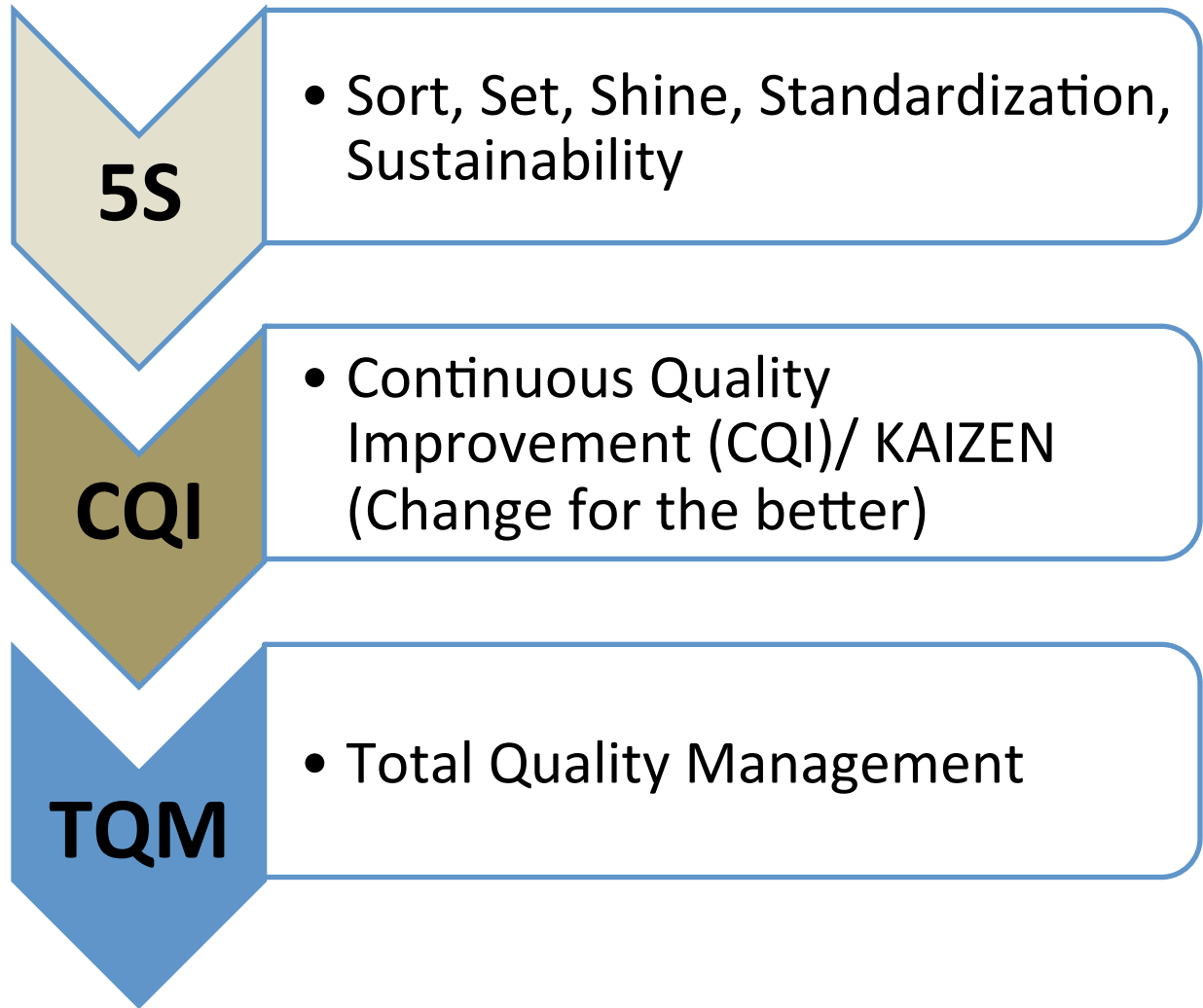
Working Environment Improvement

Service provider oriented

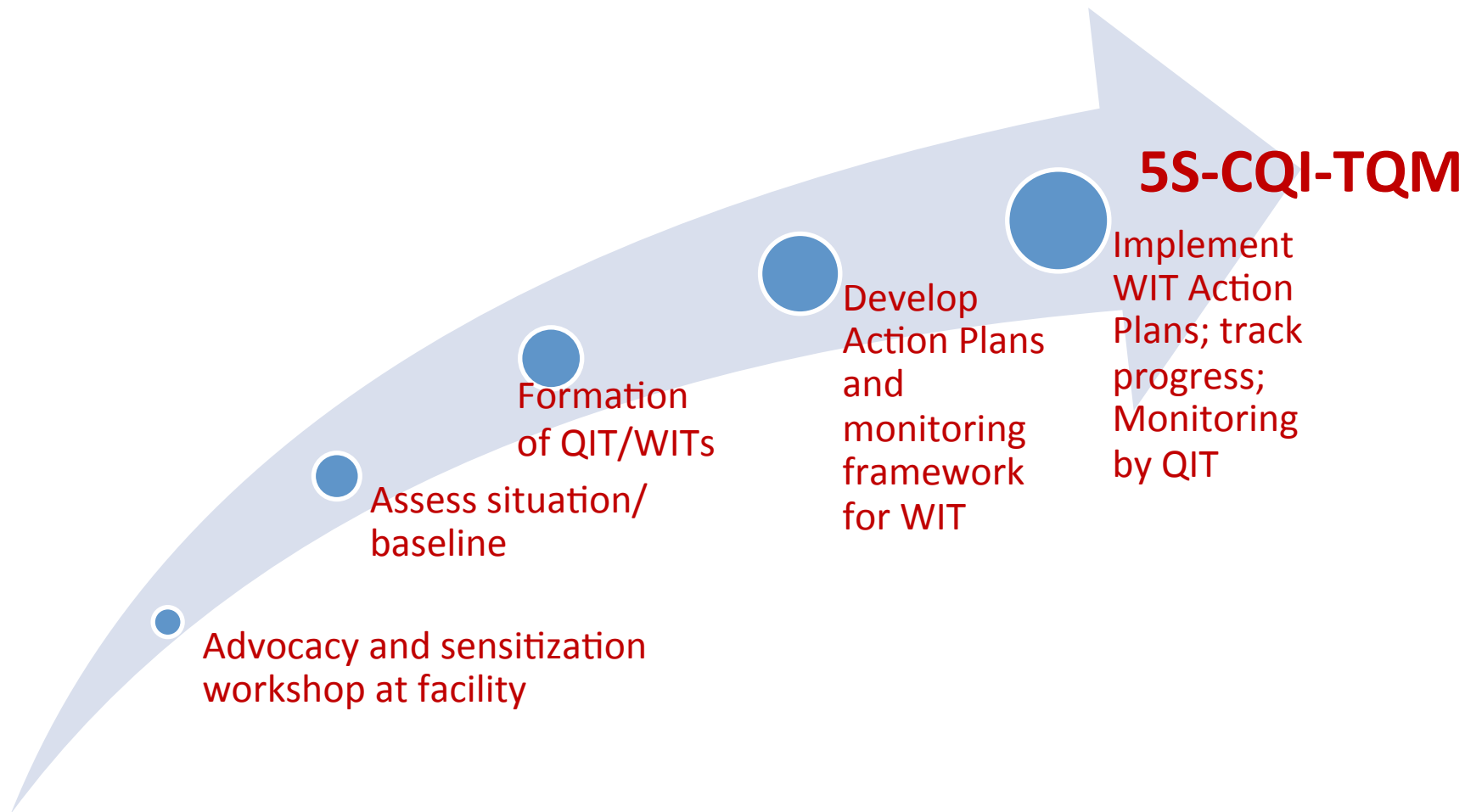
Intervention

5S-CQI-TQM approach:

Originated in Japanese manufacturing sector



Implementation Steps of 5S-CQI-TQM



| Phases | Activities | Inputs |
|----------------|--|--|
| Preparatory | Meeting among stakeholders (GoB, Unicef & icddr,b) | <ul style="list-style-type: none"> • Discussion regarding intervention, study sites, tools and projected impact |
| | Development of tools | <ul style="list-style-type: none"> • Adapted from the tools available, OR • Developed by icddr,b team |
| | Baseline assessment | <ul style="list-style-type: none"> • Baseline tools were utilized in 11 facilities |
| Implementation | Capacity building | <ul style="list-style-type: none"> • Training of health care providers, facility managers & office staffs |
| | Development of QIT & WIT | <ul style="list-style-type: none"> • WIT and QIT were developed in each facility during the inception workshop |
| | Development of action plan | <ul style="list-style-type: none"> • Each WIT developed their own Action Plans with timeline |
| M & E | Bi-monthly monitoring | <ul style="list-style-type: none"> • Utilized 5 S and TQM checklist • Supportive supervision in QIT, WIT meeting and in development of action plan |
| | Observation of Quality of care | <ul style="list-style-type: none"> • Observed newborn emergency management |
| | MIS strengthening | <ul style="list-style-type: none"> • Active support for back log data entry • Capacity building for HMIS reporting |
| Concluding | Endline assessment | <ul style="list-style-type: none"> • Same baseline tools were utilized for assessment |
| | Process documentation | <ul style="list-style-type: none"> • Qualitative design was employed • Pictorial analyses were also done |

5S Activities (SORT) in Cox's Bazar District Hospital



5S Activities (SET) activities

Nurse's station in Newborn Care Unit

BEFORE 2011



AFTER 2014



3S: Shining



4S: Standardize



5S: Sustain



KAIZEN in SCANU

Before



After



KAIZEN – Bandarban District Hospital

Problem identification: Poor waste management without segregation

Before



After



KAIZEN In HMIS of Newborn Care

2011

Handwritten notes on lined paper showing patient names and birth dates in Hindi. The text includes:

- श्री - 2
- श्री - 100
- श्री Pto name
- 2) श्री
- 21 B10 बेशरी
- 31 B10 बेशरी
- 41 B10 बेशरी
- 51 बेशरी
- 6 बेशरी
- 7 श्री
- 8 श्री
- 91 B10 बेशरी
- 91 B10 बेशरी
- 81 बेशरी

2012

REGISTER FOR

Date: _____

Responsible for record: _____

| ID | | General Information | | |
|-----|-----------|---------------------|--------------------------|--|
| Slr | Reg. Code | Name/Mothers Name | Fathers name and address | |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

Remarks

H: Home, In: Own facility, O: Any other government facilities, P: Any other private facilities

M: Not feeding well, L: Low body temperature (<35.5°C or 95.9°F), F: Fever (>37.5°C or 99.5°F), R: Fast breathing (≥60/min or above), D: Severe chest in distress present, A: Movement only when stimulated or no movement at all, H: History of convulsion, U: Umbilical redness extending to skin

--- I: Isomental newborn care, R: Resuscitation, K: Kangaroo Mother Care, T: Thermal care with radiant warmer, T-C: Thermal care with closed incubator, P: Photo therapy, A: Antibiotics, F: Tube feeding, G: others

--- D: Discharged, R: Referred, M: Death

2013

2013

MIS HEALTH, D

PERSON

- Find/Add Person
- Lost to follow-up

DATA ENTRY

- Multiple Individual Records
- Single Event With Registration
- Single Event Without Registration

REPORTS

- Program Summary
- Tabular Report
- Program Statistics

Dashboard for Nurses, Managers

Single event without registration management

Registering unit: Coir's Bazar District Hospital, Coir's Bazar

Program: Indoor Patient Hospital

From: _____ To: _____

Total number of results: 492

| Slr | Service/Admission date | In Registration no | In Ward In Patient Name | In Sex | In Date of birth | In outcome | In Main Diagnosis |
|-----|------------------------|--------------------|-------------------------|--------|------------------|-------------------------------|--|
| 1 | 2014-04-29 | 2222 | babu | Male | 2014-04-29 | Discharge on risk bond (DOFB) | P21 Birth asphyxia |
| 2 | 2014-04-18 | 882142 | Mukul Akari | Male | 2014-04-14 | Improved & discharge | P92 Neonatal ja |
| 3 | 2014-04-18 | 856720 | Babu | Male | 2014-04-18 | Referred/Transferred | P210 Severe birth |
| 4 | 2014-04-18 | 2222 | babu | Male | 2014-04-29 | | |
| 5 | 2014-04-17 | 85433 | M/Nayer | Male | 2014-03-31 | Improved & discharge | P90 Convulsions of newborn |
| 6 | 2014-04-16 | 850703 | Mishnam | Male | 2014-03-24 | Improved & discharge | P930 Sepsis of newborn due to streptococcus, group B |

Support the work practices around tracking persons within a health program that have not shown up for a scheduled visit.

Multiple Individual Records
Enter data for multiple program stages and persons for a program. The entry screen gives an overview of the stage status.

Single Event With Registration
Capture information about single events linked to identified persons.

Quick discharge

No further reporting

ICD-10 used

EVALUATION

Methodology

Quantitative

Baseline and endline assessment

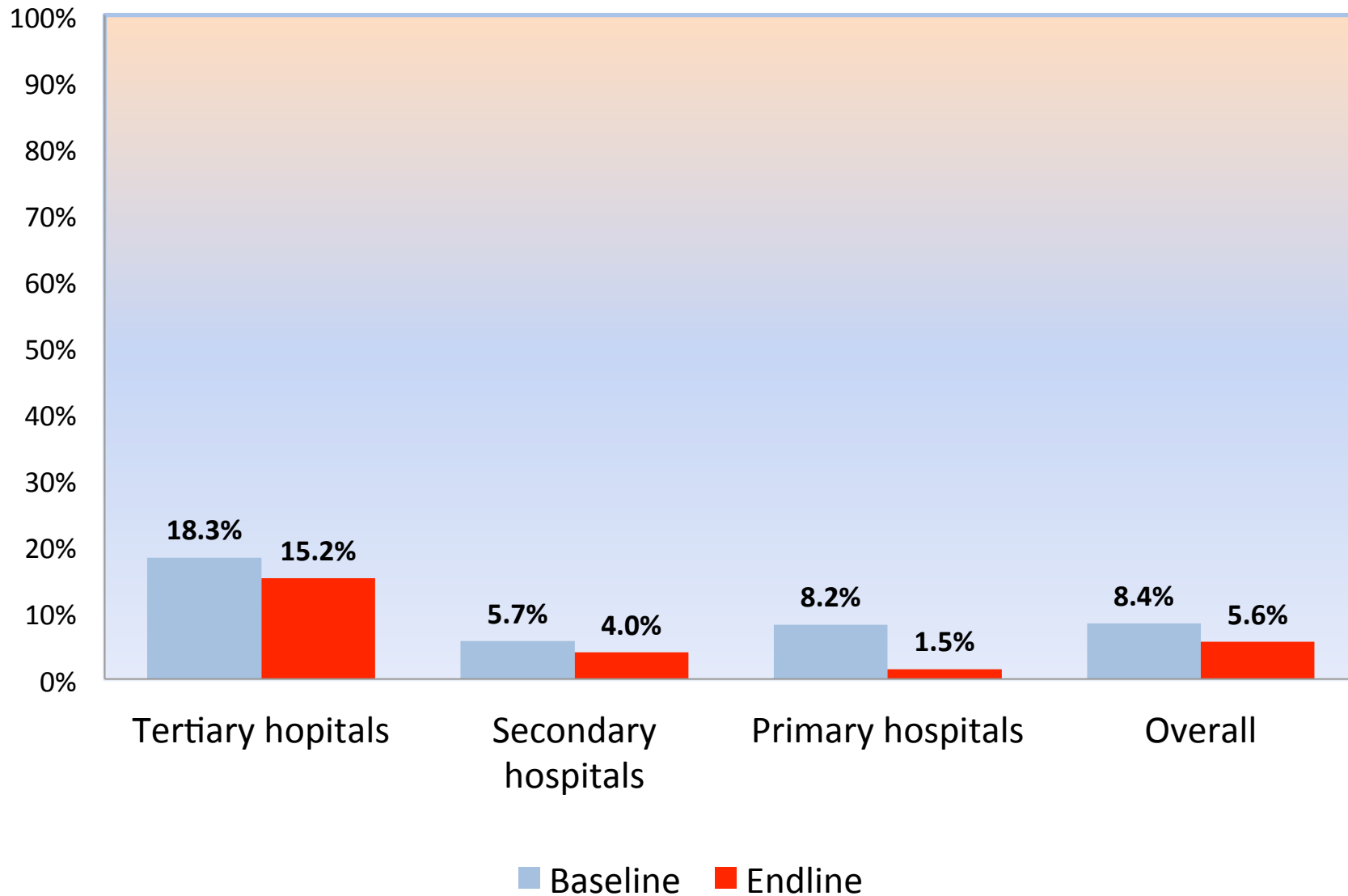
- Observation checklist [Facility Assessment]
- Observation checklist [Health care providers]
- Structured questionnaire [Health care providers, Care seekers, and facility managers]

Qualitative

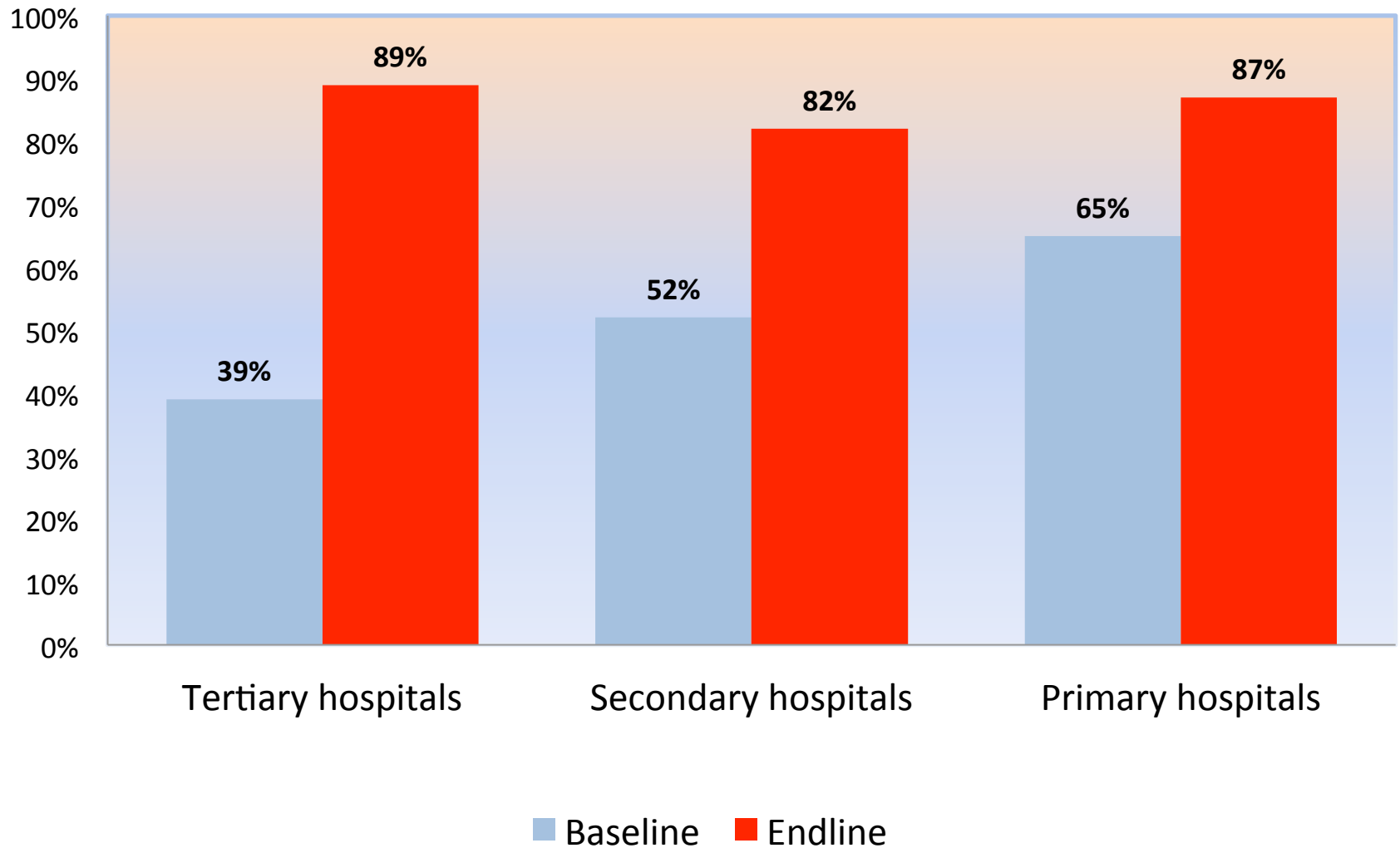
- In depth interviews
 - Facility managers
 - WIT members
 - QIT members

KEY FINDINGS

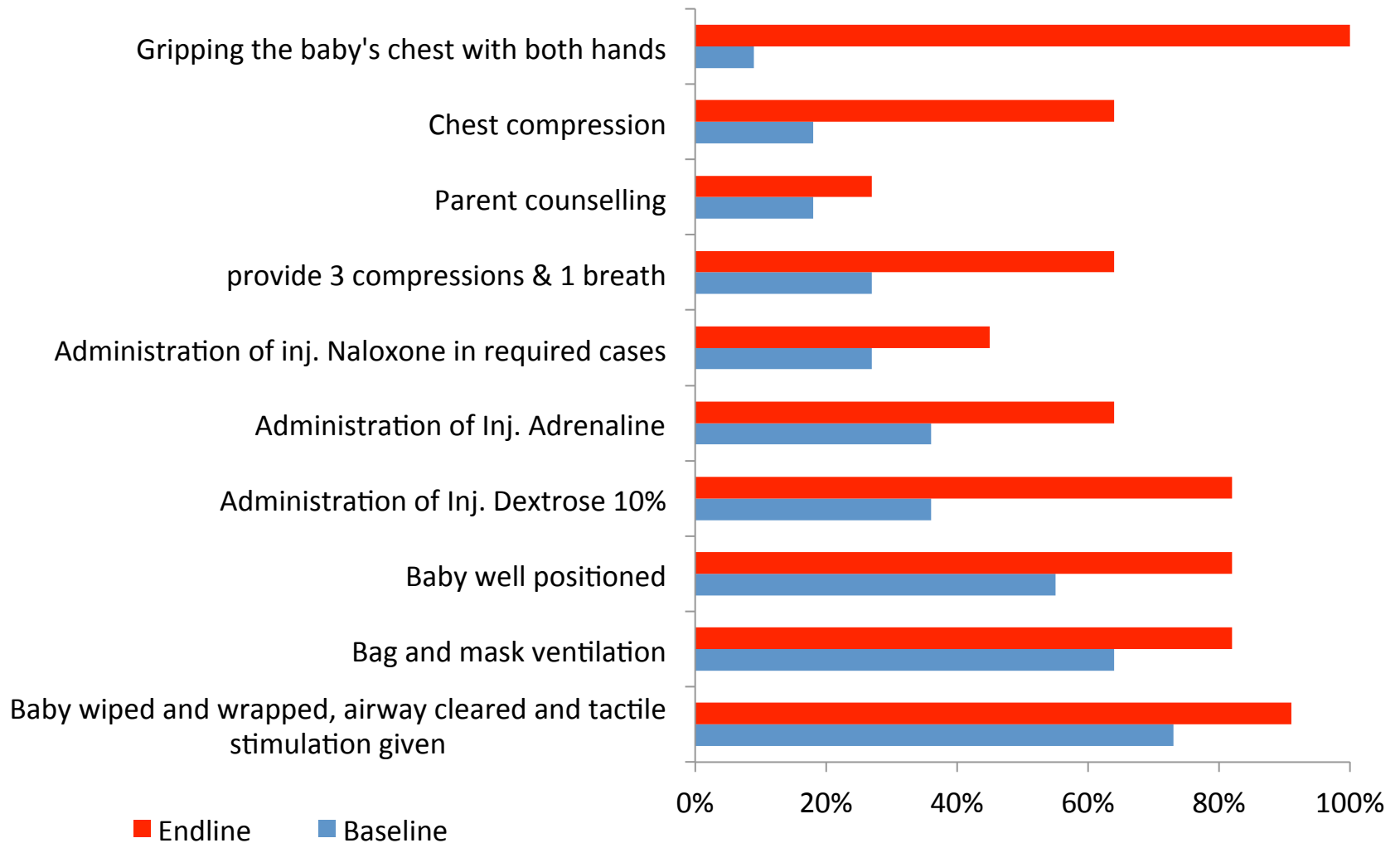
In-Hospital Neonatal Mortality Rate



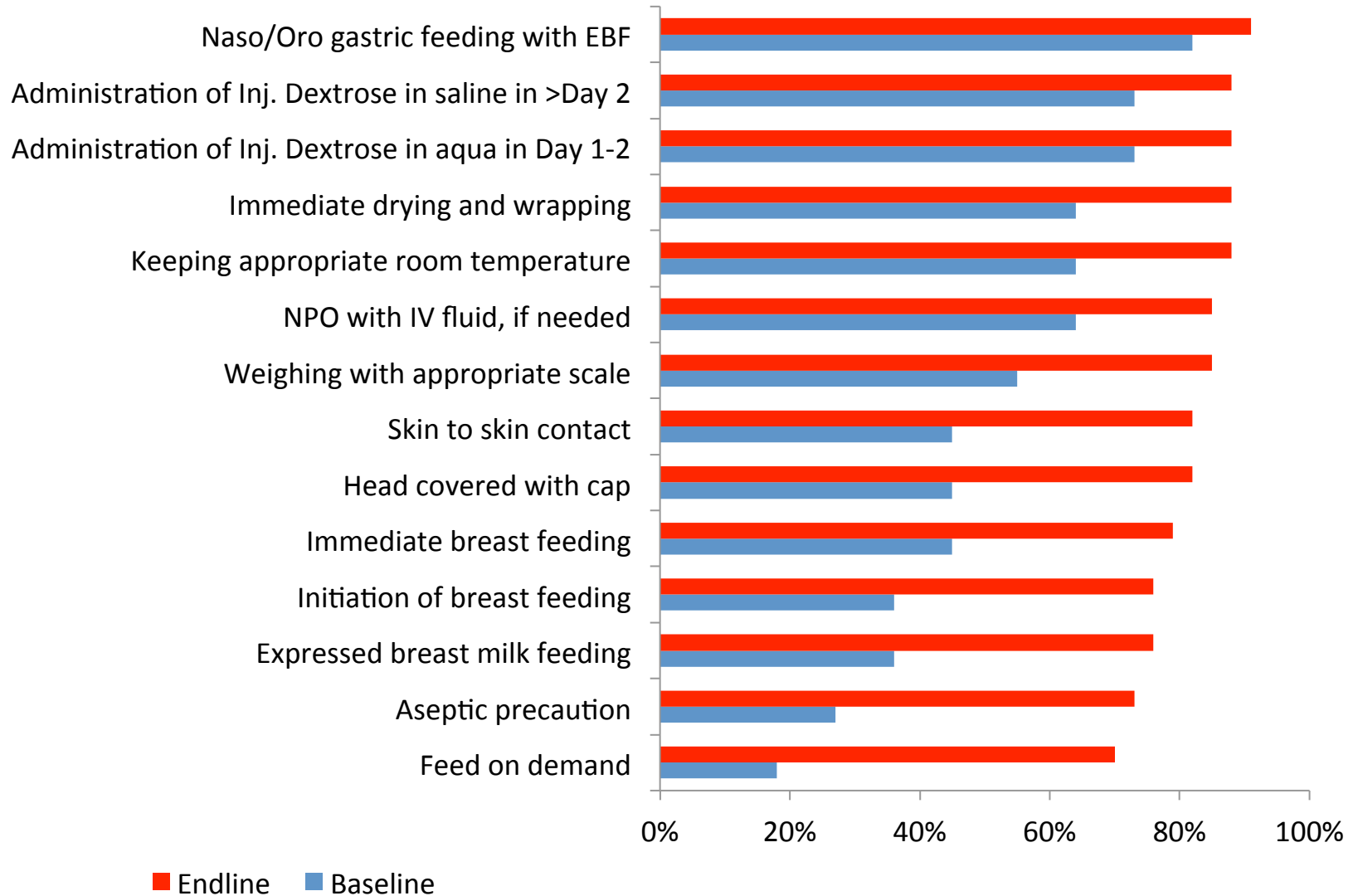
Quality of care for Neonatal Asphyxia, Low Birth Weight babies, and Neonatal sepsis



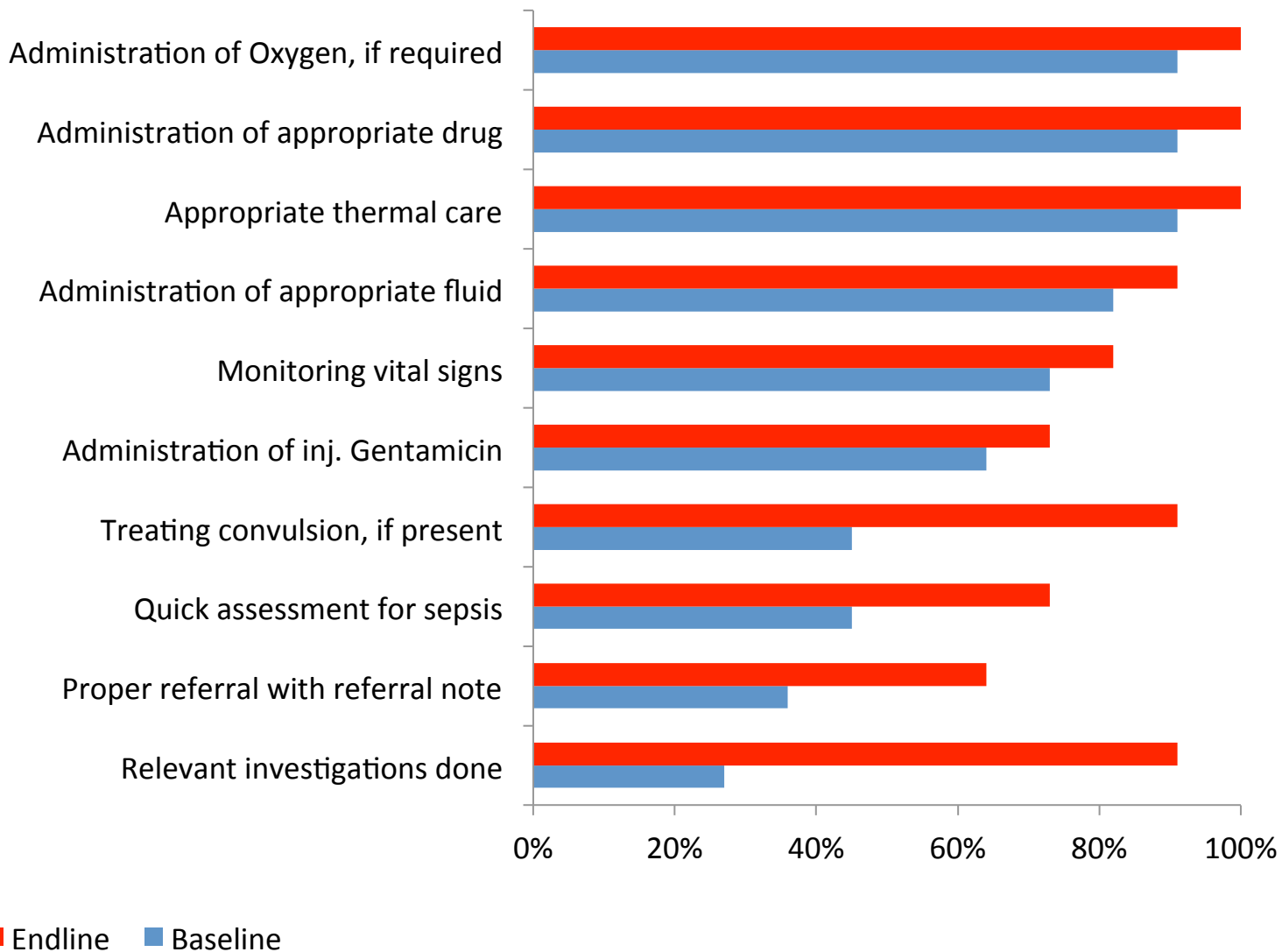
Proportion of facilities where different components of birth asphyxia management were satisfactorily practiced



Proportion of facilities where different components of low birth weight neonate management were satisfactorily practiced



Proportion of facilities where different components of neonatal sepsis management were satisfactorily practiced



Qualitative study: Key findings

Challenges

- Shortage of HR
- Extra workload
- Poor record keeping
- Lack of awareness of the staffs
- Slow internet connection

Recommendations

- Arrange more workshops
- Ensure regular QIT and WIT meetings
- Increase HR
- Initiatives for motivation of staff

Lessons Learned

- 5S-CQI-TQM has demonstrated evidence of positive changes in the facilities.
- TQM is a continuous process and need time to bring changes in every sphere of a facility.
- Leadership and supervision by hospital managers played pivotal role in implementation.
- External facilitation can expedite the quality improvement process
- Provided useful learning for the policy makers and programme managers to scale up a feasible and cost effective QI approach in Bangladesh.

Recommendations

- QI interventions should be customised according to the level, type of services and facility context
- Proper implementation of TQM requires:
 - Initial ASSESSMENT, mapping and PLANNING
 - LEADERSHIP and OWNERSHIP at all levels
 - SKILL BUILDING-consider TASK SHIFTING
 - SUPPORT facility as per needs
 - MOTIVATION : consider incentives or other non-incentive mechanism
 - QI STRUCTURES for QI system strengthening
 - ACCOUNTABILITY at all levels: strengthen supervision/clinical monitoring/assessment
 - Strengthen MIS for QI: Incorporate QI indicators

THANK YOU