





Improving the quality of maternal and newborn care: key concepts, international experience and current global initiatives

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Why quality is important

- Substandard or poor quality of care is an important contributor to avoidable maternal and neonatal mortality and morbidity in all countries, and particularly in countries with high coverage of skilled care at birth
- Access to care without quality is a cost for the health system and for the households and poor quality care can be harmful to mothers and newborn babies
- Differences in quality (by social status, by gender, by ethnicity) in the quality of care delivered are an important contributor to inequity in health outcomes
- Poor and unrespectful care is not complying with the Universal Declaration of Human Rights

Dimensions of quality

Health care needs to be:

- Safe = cause no harm
- Effective = capable to produce the desired effect
- Efficient = at the lowest possible cost
- Accessible = to all, minimizing financial and logistical and cultural barriers
- Patient centered = respectful of all patients' rights
- Equitable = same standard for all patients
- (WHO 2006)
- It is also very important to ensure continuity and consistency of follow-up and information across all services, units, and levels of the system

(Tamburlini, Quality of care, WHO MCH meeting, Malta 2007)

Woman and child-centered care

- Adequate information
- Availability to empathyc communication
- Psychological support when needed
- Privacy and confidentiality
- Pain avoidance and relief
- Respect and cultural sensitivity
- Education and play for admitted children

WHO Regional Office for Europe, 2008

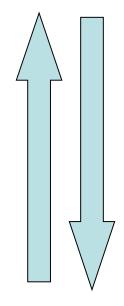
Quality care for women and children: a working definition

"Quality care for women and babies is the delivery of safe, effective and culturally appropriate interventions to all women and babies, in a way that their rights to respectful care are guaranteed and continuity of care across units and services is ensured"

Tamburlini, UNICEF and European School for MNCAH, Introduction to quality of care, Trieste, 2013

Where quality resides: levels and interaction





- Team level (organization, protocols, collaborative attitude)
- Health facility level (vision, leadership, management organization, etc.)
- District level (planning, communication, continuity, collaboration, etc.)
- National level (strategy, legislation, training, etc...)

Global experience and current initiatives Regional WHO-led experience

Every Mother Every Newborn: a global action plan (leading agencies: WHO and UNICEF)

- Focus on **Access** to and **quality** of health services around child birth (i.e. labour, childbirth and the first days of life) are two key objectives within the plan.
- Built on lessons learned from Baby Friendly Hospital Initiative: failure to scale up and sustain the BFHI partly attributable to vertical approach, mono-focus on breastfeeding, failure of institutionalization within national systems and reliance on expensive external audits.
- Strategy for linking community care with health facilities.
- In collaboration with global experts, Ministries of Health, Professional Associations, Civil Society Organizations (CSOs), particularly women's/patient's and parent's association

EMEN will also provide

- Targeted support to low performing facilities to improve health worker skills and capacities to provide quality care, strengthen logistic management of essential commodities and supplies and organization of work
- Capacity strengthening of District Health Managers to provide oversight and support
- Systems for external assessments and confirmation of certification
- Champions and excellence in leading health institutions
- International comparability
- Community participation and accountability

EMEN

- Accreditation and Certification will be used to motivate providers to improve quality, maintain standards, ensure accountability and reward performance.
- The initiative will be conceived in a way that is sustainable and not solely dependent on new or external funding.
- It will catalyse a new way of thinking about quality of care as a human right and be supported by nation-wide institutional mechanisms to facilitate and enforce quality implementation.
- EMEN was endorsed at the 67th WHA and has been launched at the Partners' Forum in South Africa on 30 June.

EMEN EmOC indicators*

<u>appropriate</u>

- i) administration of parenteral antibiotics;
- ii) administration of oxytocic drugs;
- iii) administration of anticonvulsants;
- iv) manual removal of placenta;
- v) removal of retained products;
- vi) assisted vaginal delivery;
- vii) CS
- viii) blood transfusion

*under discussion

EMEN: general indicators*

- basic amenities existing and functioning
- respectful care ensured along the continuum
- no discrimination on whatever ground, including fees
- adequate data available for monitoring and evaluation

Open issues about quality indicators

- Need to be able to describe key aspects of care along the continuum mother-baby
- Need to be easily collectable as routine data
- Need to capture change

 In most instances not all requisites can be met, particularly the second requisite may require skilled professionals to observe case management

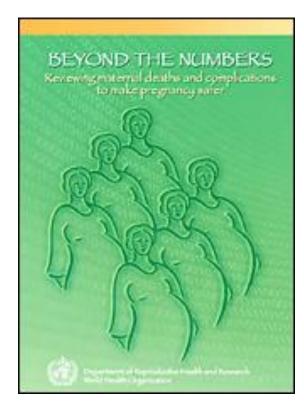
"Beyond the numbers" in WHO European region

Introduced since 2004

Two approaches used in European Region:

- 1) confidential enquiries into maternal deaths at national level
- 2) near miss case review at facility level

These two approaches provide complementary inputs towards improving quality of care with synergic actions from different levels of care



Country experience: Latvia, Moldova, Kazakhstan, Tajikistan, Kyrgyzstan, Russian Federation, Ukraine, Uzbekistan

"Beyond the Numbers": principles

- Each maternal death or case of life-threatening complication has a story to tell and can provide indications on practical ways of addressing the problem.
- Purpose of the case reviews is to save lives and not to blame
- Ensure confidential, non-threatening environment
- Participating in reviews is, in and of itself, a health care intervention
- Learning lessons and acting on the results is the whole purpose of using these approaches

"Beyond the Numbers": methods

- All BTN approaches will result in recommendations for change
- A commitment to act upon the findings of these reviews is a key prerequisite for success
- Recommendations should be simple, evidence-based, affordable, and effective
- Recommendations should be widely disseminated
- Monitor how the recommendations are implemented

Confidential enquiries into maternal deaths: **definition**

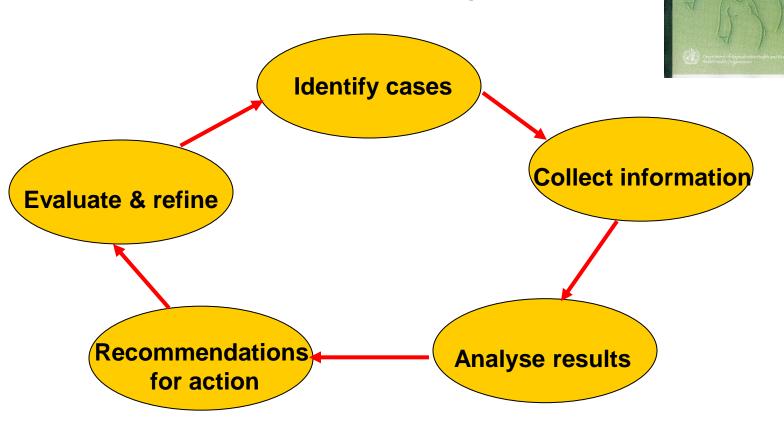
A systematic multi-disciplinary anonymous investigation of all - or a representative sample - of maternal deaths occurring at an area, regional (state) or at national level, which identifies the numbers, causes and avoidable or remediable factors associated with them WHO 2008

Confidential enquires into maternal deaths: **methods**



Multi-disciplinary national committee
Reviewing anonymously patients' records

The maternal mortality review or audit cycle



Beyond the Numbers: outputs

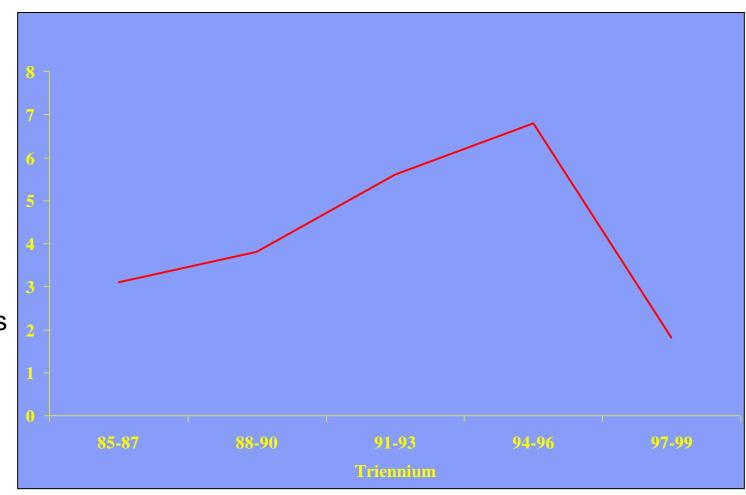
Results using BTN included:

- 1) Improvement of emergency care
- 2) Better use of updated clinical guidelines and facility based

protocols

- 3) Better team work around childbirth
- 4) Enhanced roles of midwifes
- 5) Consideration of women opinions

Deaths from pulmonary embolism after caesarean section: 1985-99

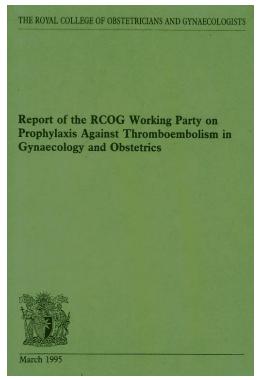


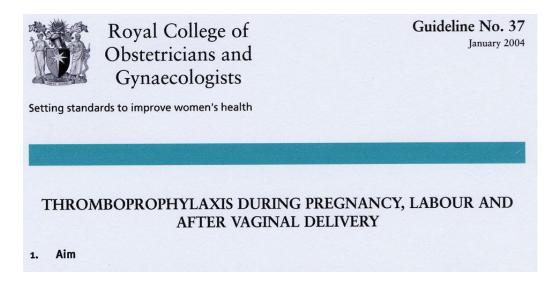
Rate per million maternities

RCOG guidelines



1995 2004





"Thromboprophylaxis during pregnancy, labour and after vaginal delivery"

www.rcog.org.uk

"Near-miss case": definition

"Any pregnant or recently delivered woman in whom immediate survival is threatened and who survives by chance or because of the hospital care she receives."

WHO 2004

"Near miss": methods

- Regular (e.g. monthly) staff meetings to discuss the management of individual cases, comparing actual management with evidence based guidelines
- Based on respect, confidentiality, avoidance of blame and punishment.
- Views of women are included.
- Low cost; typically focuses on improvements with **available** resources.
- Enable maternity staff to **develop specific recommendations** at facility level and **monitor their implementation**.

WHO Quality Assessment Tools

- 1) Hospital care for mothers and newborn babies: Quality
 Assessment and Improvement tool
- 2) Assessment Tool For The Quality Of Outpatient Antepartum And Postpartum Care For Women And Newborns







Sexual and Reproductive

These tools allow for a standard based systematic assessments of quality of care with the aim of improving QoC

Country experiences: Albania, Kazakhstan, Georgia, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Uzbekistan.

ASSESSMENT TOOL FOR THE QUALITY OF OUTPATIENT ANTEPARTUM AND POSTPARTUM CARE FOR WOMEN AND NEWBORNS

2013

WHO Quality Assessment Tools: Main features

- Based on standards: evidence- based international guidelines and recommendations
- Participatory: involve local managers and health professionals
- Based on peer-review model
- Action oriented: identify the areas most in need for improvement and guide the implementation of an action plan
- Suitable for use at facility level but also for country-wide assessments

WHO Assessment Tools: **Guiding principles**

- 1. Coverage needs to be complemented by quality of care to achieve the desired health outcome.
- 2. Checking availability of basic equipment and supplies is necessary but not sufficient to evaluate quality of care; appropriate use of resources and case management should be assessed.
- 3. Focusing on single key interventions is not enough; quality perinatal care requires systematic attention to all main components that can guarantee a continuum of care.
- 4. The evaluation of the QoC provided to woman and to babies should not be separated.
- 5. Quality care includes holistic and culturally appropriate care, and respects of all patients' rights. In order to evaluate this, it is essential to collect users' view together with health staff views.
- 6. A participatory approach is needed for raising awareness of problems
- 7. A blaming or punitive attitude should always be avoided
- 8. Assessment should be combined with the definition of specific actions for quality improvement.
- 9. The assessment should be an occasion to build local commitment and to develop capacities.
- 10. Health system factors need to be considered when planning quality improvement interventions.

SECTION 1 HOSPITAL SUPPORT SERVICES

- 1.1 Physical structures, staffing, and basic services
- 1.2 Statistics, health management information systems and medical records
- 1.3 Pharmacy management and medicine availability
- 1.4 Equipment and supplies
- 1.5 Laboratory support
- 1.6 Ward infrastructure

SECTION 2 CASE MANAGEMENT

- 2. Care for normal labour and vaginal birth
- 3. Care for caesarean section
- 4. Management of maternal complications
- 5. Newborn infant care
- 6. Sick newborn care
- 7. Advanced newborn care
- 8. Monitoring and follow-up

SECTION 3 POLICIES AND ORGANISATION OF SERVICES

- 9. Infection prevention
- 10. Guidelines, training and audit
- 11. Access to hospital care and continuity of care
- 12. Mother and newborn rights

SECTION 4 INTERVIEWS

- Interview with staff
- Interview with pregnant women and mothers

SECTION 5 FEEDBACK AND A PLAN FOR ACTION

WHO Maternal and Newborn Hospital Care Quality Assessment tool

Systematic Comprehensive

WHO MN Quality Assessment and Improvement tool: main features

Data collection from multiple sources:

- data on health outcomes (perinatal indicators) and patient flow (number of births etc.)
- visit to hospital services
- evaluation of clinical records and clinical cases
- interviews with health professionals and mothers

Products:

- feedback to the local staff
- development of an action plan at facility level
- feedback to MoH (for country-wide assessments- this requires a representative sample of hospitals)

Framework to develop an action plan at facility level

PRIORITY PROBLEMS (consider critical issues, impact, feasibility)	ACTION NEEDED (INCLUDING REMOVAL OF BARRIERS)	RESPONSIBLE PERSON AND TIMETABLE

Framework to develop an action plan at a national level

HEALTH SERVICE FUNCTION	PRIORITY PROBLEMS	ACTIONS NEEDED (INCLUDING REMOVAL OF BARRIERS)	RESPONSIBLE PERSON AND TIMELINES
Stewardship and Governance			
2. Service Delivery			
Infrastructure and Commodities			
4. Human Resources			
5. Financing			
6. Information System			



Quality of Maternal and Neonatal Care in Albania, Turkmenistan and Kazakhstan: A Systematic, Standard-Based, Participatory Assessment

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1 Institute for Maternal and Child Health IRCCS Burlo Garofolo and European School for Maternal Newborn Child and Adolescent Health, Trieste, Italy, 2 International Consultant, Basel, Switzerland, 3 Regional Coordinator, Making Pregnancy Safer, World Health Organization Regional Office for Europe, Copenhagen, Denmark

Table 2. No. of maternity hospitals showing standard care and average scores in the areas covered by the assessment.

Areas	No. of maternity hospitals showing standard care (out of a total of 10) in each main area	Average score (all 10 hospitals)
Infrastructure, equipment and supplies	1	2.0
Maternity and neonatal ward	2	2,1
Care for normal labour and delivery	2	1.5
Routine neonatal care	4	2.0
Caesarean section	2	2.0
Maternal complications	0	1.5
Sick newborn care	1	1.9§
Emergency preparedness	2	2.2
Infection prevention and supportive care	0	1.0
Monitoring and follow-up	0	1.4
Guidelines, auditing and team work	0	1.3
Access to hospital	0	2.0
Mother and baby-centered care	0	1.1

⁶Two maternity hospitals did not have NICUs, so only non-intensive care was assessed. doi:10.1371/journal.pone.0028763.t002

AREA OF CARE	Hospitals									
ANDA OT CARE	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
Care for normal labor and delivery										
Main deficiencies	 Free delivery position not supported Insufficient involvement of midwives in labor and delivery Partogram not used for decision making Poor monitoring of fetal wellbeing in labor Vaginal examinations frequently performed without valid indications Use of treatments without a scientific basis Companionship in labor not sufficiently supported Lack of active management of 3rd stage of labor Inadequate monitoring of both women and babies after birth 									
Routine neonatal care										
Main deficiencies	Insufficient preparedness for newborn resuscitation Warm chain not properly ensured Insufficient support to breastfeeding									
Caesarean section										
Main findings	- Insu - Insu - Roo		fer of region onitoring i fter caesa	onal anes n postope rian secti	thesia erative car on not en:					

Tamburlini et al. PLoSONE, 2011

Main common findings on quality of maternal and neonatal care in CEE/CIS countries 1

- case management of common conditions and complications often non complying with international standards and evidence-based guidelines
- continuity of care between professionals and services (e.g. between prenatal visits and delivery care, between family doctors and hospital) insufficient
- 3. quality particularly poor in the dimensions of information, communication, confidentiality and holistic care of mothers and children

Tamburlini et al. PLoSONE, 2011

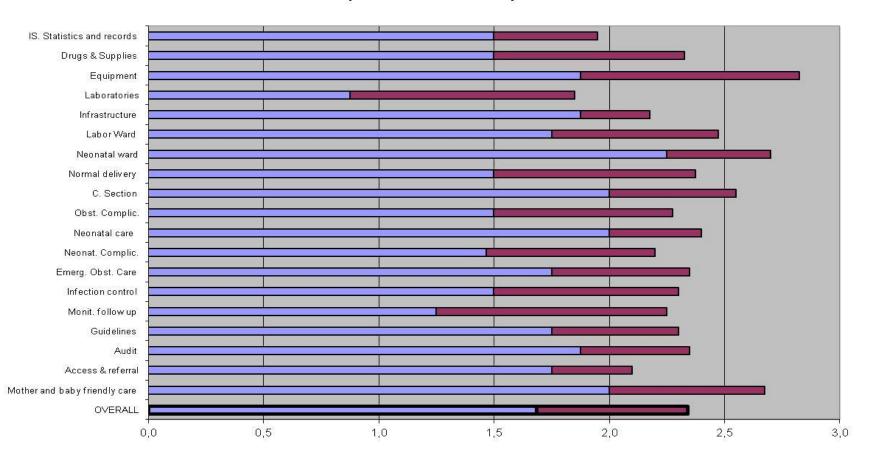
Main common findings on quality of maternal and neonatal care in CEE/CIS countries-2

- 4. integration between levels of care (primary care, hospital care, tertiary referral care) insufficient. Hospitals provide services that should be ensured by other components of the health system
- 5. out-of-pocket payments by patients and caregivers frequent, including buying drugs and supplies which were lacking in hospital
- 6. infrastructure and hygienic facilities, such as running water, hot water, heating etc. sometimes deficient

However, there were, in many countries, examples of good care, often achieved through a combination of internal leadership and external technical support

Quality improvement in 4 perinatal centres in Uzbekistan (10 months after the initial systematic assessment in 2011)

Improvement after action plans



Tamburlini et al. PloS ONE, 2013

Examples of improvement of quality of care and actions implementd to achieve it (Uzbekistan, 2011)

Areas of care	Score at 1° assessment	Score at 2° assessment	Actions implemented to imrpve quality of care
Neonatal complications	2*	2.7*	Improved monitoring of oxygen administration Improved nutrition for VLBW babies with written protocols Improved CPAP use
Infection control	1*	2.5*	Hand washing practice introduced Vaginal examination minimized Antibiotics in Premature Rupture of Membranes intriouced

^{*} Scoring system: 0 to 1 = poor quality with risk for increased mortality and morbidity; 1 to 2 = unsatisfactory to sufficient care care with some increased risk for mortality and morbidity, 2 to 3 = satisfactory to good care

Key messages

- Quality is an essential dimension of health care for mothers and babies
- Quality care includes safety, effectiveness, patient-centered care and continuity
- Quality improvement is a continuous process
- WHO has developed and successfully implemented in the Region a series of quality improvement methods and tools
- Quality assessment and improvement require the active involvement of all health professionals