







What should be the model for improvement of maternal and neonatal health care?

Republic of Macedonia

WHO

 Basic maternal and newborn care is based on the premise that provision of quality based care to women experiencing normal pregnancies, births, and postpartum periods, as well as their healthy term newborns, not only improves the health of mother and baby, but also can help save lives.

 Basic maternal and newborn care includes the healthcare services that all childbearing women and newborn should receive. (standard ???)

 Basic care provision also emphasizes the importance of providing health care messages and counseling to women and their families to empower them to become active participants in their own healthcare. (standard???)

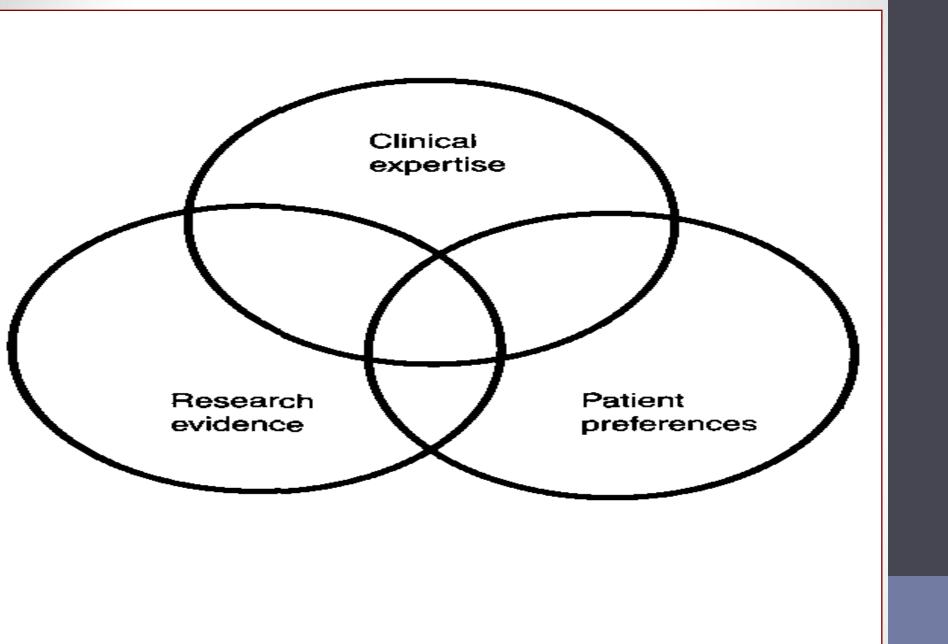
But, what does it mean Basic?

The core components of Basic maternal and newborn care are:

- Clinical decision making
- Interpersonal skills
- Infection prevention (not make harm!)
- Record keeping

The steps of clinical decision making (global standard)

- Gathering information
- Interpreting information
- Developing the care plan
- Implementing the care plan
- Evaluating the care plan



National (country) approach

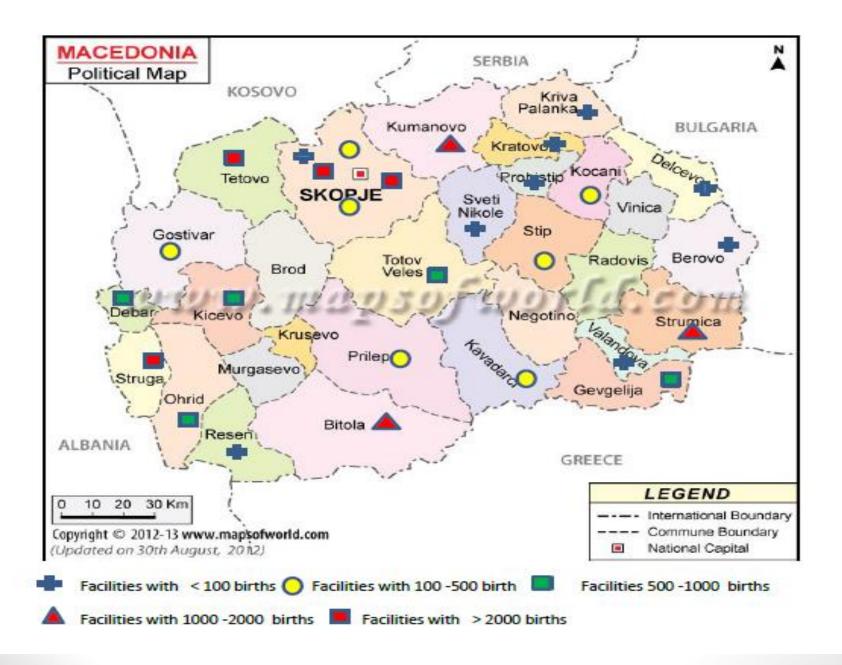
- -Maternal and newborn health-top priority in any policy, program, law...
- -Continually assessing existing services in order to:
- Build on strengths
- Identify gaps
- Work on practical solutions to fil gaps

And, using all available and appropriate means, in order to:

- Protect and promote the health/survival of the woman and newborn
- Detect complications/conditions
- Manage at/or refer/transfer for complications

 Providing care that is in accordance with national policies and standards, clinical care guidelines, and local resources





Evaluation, monitoring, audit...

- MICS (UNICEF)
- Institute for health protection of mothers and children (IHPMC)
- Evaluation of EmONC (UNFPA)
- Professional audit in hospitals, including maternities
- Safe Motherhood Committee (MoH)
- Establishment of the State Center for Reproductive Health (MoH)
- Case by case audit

Current situation in Macedonia

Indicators of perinatal HC (vital)

- Number of live births
- Prematurity rate
- Number of stillbirths
- Maternal mortality
- Early neonatal mortality
- Perinatal mortality
- Antenatal coverage

Important indicators of effective perinatal and infant health care

- Early initiation of breastfeeding
- Exclusive breastfeeding up to 6 months
- Any breastfeeding
- Timely introduction of complementary food
- Underweight children
- Early detection of neonatal risks and timely scheduled follow up visit
- Inter-sectoral collaboration in children with risk of disabilities

Baby friendly initiative

- Started 1995-training for external assessors
- Another group trained in 1997 (total 10 assessors)
- In 2000=2002 31 maternity hospitals and wards certified as BFH
- Reassessment in 2004-2006
- Attempts in 2009 to reinforce the BFHI
- Workshops held for acquiring the new tool (revised)
- Reassessment not performed. Why???
- Current status?????
- NEW OPPORTUNITY-Agency for quality and accreditation of HC facilities (idea?)
- AZUS and AKAZ??? The workshop-experience shared

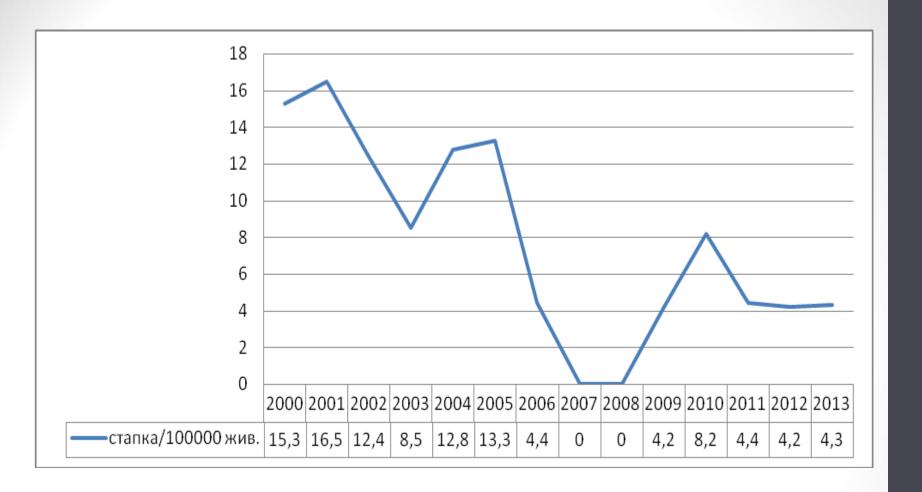
MICS comparison 2005/6 vs 2011

	2005/2006	2011
Registered births %	96	99,7
Institutional deliveries %	98	98,4
SC %		24,9 (32,7-2013)
Underweight moderate %	2	1,3
Children ever breastfed %		93,9
Early initiation of BF %	27	21
Exclusive BF under 6 months %	16	23
Predominant under 6 months %		44,1
Low birth weight newborns %	6	5,5
Newborns weighted at birth %	93	96,3
Registered births %	94	99,3
Infant mortality/1000	16	N/A (Roma 13.1)

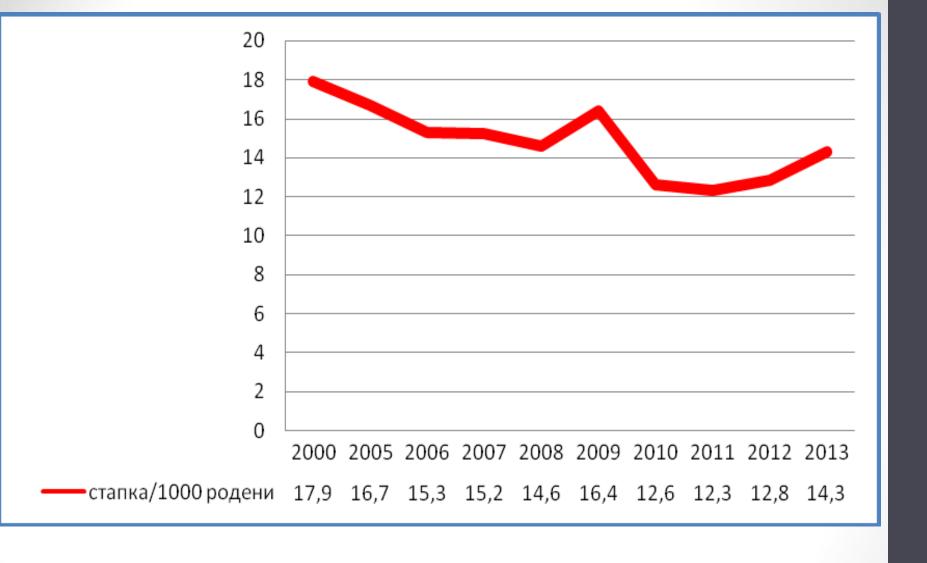
Institute for health protection of mothers and children (IHPMC)



Number of live births 2000-2013

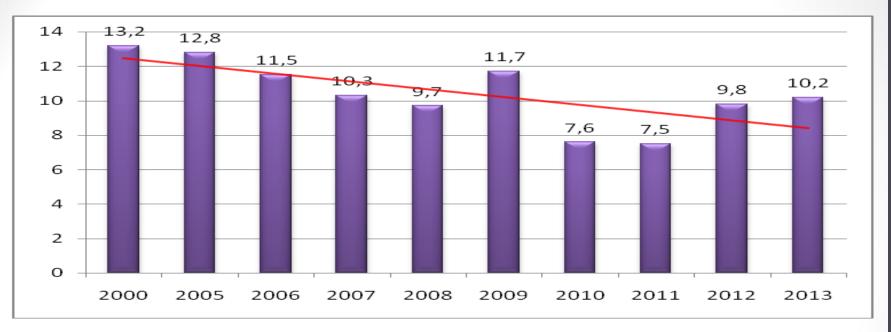


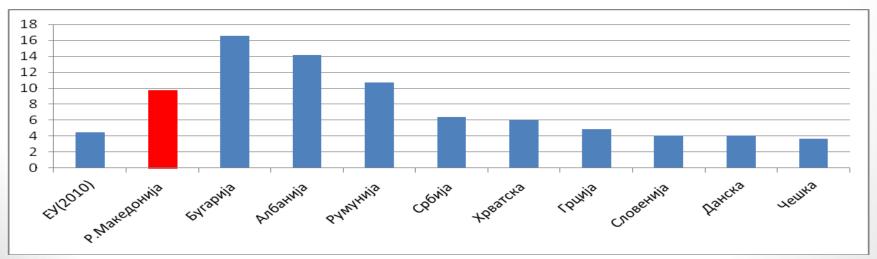
Maternal mortality per 100 000 live births (period 2000-2013)



Perinatal mortality per 1000 births (period 2000-2013)

Infant mortality /1000 live births





Source: Eurostat, 2012

Indicator	2008	2009	2010	2011	2012	2013	Разлика 2012/2013	
Number of live births	22945	23684	24296	22770	23568	23138		
Maternal mortality per 100 000 live births	-	4,2	8,2	4.4	4.2	4.3		
Perinatal mortality/ 1000 births	14,6	16,4	12,6	12.3	12.8	14.3	1	
Infant mortality /1000 live births	9,7	11,7	7,6	7.5	9,7	10.2	1	
Under 5 mortality /1000 live births	10,9	13,3	8,3	8.6	11.0	11.3	1	
Live born newborns with BW<2500 g (%)	7,2	8	7,8	7.0	7,2	7.4	1	•

Evaluation of the EmONC

- Evaluation throughout all maternity hospitals and Health centers where deliveries occur
- 31 facilities evaluated, 27 state and 4 private
- Validated WHO tool for evaluation of EmONC
 - 9 signal functions
- Period evaluated: 2013

Region	Citizens	expected number of births (birth rate x number of citizens	maternity	Births %
Skopje	609 140	6944	9975	143,6%
Polog	317 003	3163	3299	104,3%
Pelagonia	232 959	2655	2397	84,3%
East	178 814	2038	1458	71,5%
Southeast	173 187	1974	1522	77,1%
Northeast	175 442	2000	1629	81,4%
Southwest	220 840	2517	1724	68,5%
Vardar	153 659	1751	1289	73,6%
Macedonia	2062294	23510	23135	98,4%

Quality of maternal and neonatal care

Integration of the quality into everyday practice in maternities and neonatal units

Existing resources

- Laws, Policies, Guidelines, Protocols
- Human (workforce)
- Technical (equipment)

Childbirth Care (labour, delivery, and immediate postpartum) *Essential:*

- Monitoring progress of labour, maternal and fetal well-being with partograph
- Providing supportive care and pain relief
- Detection of problems and complications (malpresentations, prolonged and/or obstructed labour, hypertension, bleeding, and infection)
- Delivery and immediate care of the newborn baby, initiation of breastfeeding
- Newborn resuscitation
- Active management of third stage of labour
- Immediate postnatal care of mother
- Monitoring and assessment of maternal well being, prevention and detection of complications (hypertension, infections, bleeding, anemia)
- Treatment of moderate post-haemorrhagic anaemia
- Information and counselling on home self care, nutrition, safe sex, breast care and family planning
- Postnatal care planning, advice on danger signs and emergency preparedness
- Recording and reporting

Newborn care (birth and immediate postnatal) *Essential*

- warm chain
- Promotion, protection and support for BF
- Monitoring and assessment of wellbeing, detection of complications (breathing, infections, prematurity, low birth weight, injury, malformation)
- Infection prevention and control, rooming-in
- Eye care
- Information and counselling on home care, breastfeeding, hygiene
- Postnatal care planning, advice on danger signs and emergency preparedness
- Immunization according to the national guidelines





Intensive Care Unit

- Still, restricted access to the parents to visit their own baby
- Cold environment
- Plenty of machines
- Lack of staff
- Improvement going slowly (becoming family friendly)



ICU=Intensive Crying Unit



Postnatal maternal care (up to 6 weeks-out of maternities)

Essential

- Assessment of maternal wellbeing
- Prevention and detection of complications (e.g. infections, bleeding, anemia)
- Anemia prevention and control (iron and folic acid supplementation)
- Information and counselling on nutrition, safe sex, family planning and provision of some contraceptive methods
- Postnatal care planning, advice on danger signs and emergency preparedness
- Provision of contraceptive methods

- **Postnatal newborn care** (visit from/at home) *Essential* (strengthening capacities for patronage services)
- Assessment of infant's wellbeing and breastfeeding (2,5 visits/newborn)
- Detection of complications and responding to maternal concerns
- Information and counselling on home care
- Additional follow-up visits for high risk babies (e.g. preterm, after severe problems, on replacement feeding)
- Establishment of continuum of care

System measures urgently needed

 National Clinical Guideline for referral, in respect to the regionalization, and establishment of national referral system

Establishment of National Information
System for perinatal health care including continuum of care

Focused trainings included in CME

Are we doing anything in respect of mother/baby/family oriented health care?

Woman and newborn friendly care -family centered care-

- Within this concept, the woman's and newborn's health care and survival, basic human rights and comfort are given high priority.
- Individualization of care
- Preference, tradition, beliefs, and attitudes have to be incorporated in the evidence based health care



ICU=Intensive Crying Unit



What is the difference?





What is the difference?





Weaknesses

- Lack of staff, especially nursing
- Lack of sufficient implementation of the Guidelines
- Use of labor practices without recognized level of evidence
- Insufficient record keeping, need for unifying documentation and registration
- Increasing rate of Caesarean section (32,7%)
- Inefficient communication on vertical level

Strengths and opportunities -where is the optimism?-

- Top priority in National legislative, policies...
- Interest for many UN (UNICEF, UNFPA, WHO)
- Existence of appropriate Guidelines based on evidence for supportive measures
- Possibility for breast milk expression (mother for her own child) and policy for more liberate communication between parents and their child
- Awareness about the importance of the maternal and neonatal health within the family frame
- Possibility to incorporate the needs of the mother/baby/family in standard for perinatal care

Available potential for home care

Regions	Number of live born children	Patronage nurses	Maternity wards	Centers for social work
Pelagonija	2309	34	2+1	5
Vardar	1550	30	2	4
Skopje	7813	76	2+3	1
North-eastern	1941	33	1	3
Eastern	1567	23	2	6
South-eastern	1805	32	2	4
Polog	3599	57	2	2
South-western	2186	48	4	5
	22770	338	17+4	30

Systematic check-ups at 3, 6 and 9 months, an at 2 and 4 years, preventive screening - 4.2 per infant Patronage visits per newborn - 2.5 . per infant- 4,5 visits, Data for 2011

Steps forward

- Development/adoption/adaptation of other Clinical Guidelines in perinatal health care (MOH)
- Further development of Clinical pathways
- Strengthening capacities for improving patronage services (UNICEF)
- Restarting the State Center for Reproductive Health (for perinatal statistics) MoH
- Establishment of the Agency for Quality and accreditation of the Healthcare Facilities
- Efforts of the Government and MoH for supply of equipment according to the level of care
- Intensive trainings in the country and abroad (incorporated in Law for Health Protection)

What should be our standard?

