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 ????)

Multi-country Workshop on Development of Accreditation Standards for Maternity Wards and Neonatal Departments 15 – 16 September 2014, Belgrade
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
Clinical expertise

Research evidence

Patient preferences
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 fill 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
<table>
<thead>
<tr>
<th></th>
<th>2005/2006</th>
<th>2011</th>
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<tbody>
<tr>
<td>Registered births %</td>
<td>96</td>
<td>99,7</td>
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<tr>
<td>Institutional deliveries %</td>
<td>98</td>
<td>98,4</td>
</tr>
<tr>
<td>SC %</td>
<td></td>
<td>24,9 (32,7-2013)</td>
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<tr>
<td>Underweight moderate %</td>
<td>2</td>
<td>1,3</td>
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<tr>
<td>Children ever breastfed %</td>
<td></td>
<td>93,9</td>
</tr>
<tr>
<td>Early initiation of BF %</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>Exclusive BF under 6 months %</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>Predominant under 6 months %</td>
<td></td>
<td>44,1</td>
</tr>
<tr>
<td>Low birth weight newborns %</td>
<td>6</td>
<td>5,5</td>
</tr>
<tr>
<td>Newborns weighted at birth %</td>
<td>93</td>
<td>96,3</td>
</tr>
<tr>
<td>Registered births %</td>
<td>94</td>
<td>99,3</td>
</tr>
<tr>
<td>Infant mortality/1000</td>
<td>16</td>
<td>N/A (Roma 13.1)</td>
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</tbody>
</table>
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
<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Number of live births</td>
<td>22945</td>
<td>23684</td>
<td>24296</td>
<td>22770</td>
<td>23568</td>
<td>23138</td>
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<tr>
<td>Maternal mortality per 100 000 live births</td>
<td>-</td>
<td>4.2</td>
<td>8.2</td>
<td>4.4</td>
<td>4.2</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Perinatal mortality/ 1000 births</td>
<td>14.6</td>
<td>16.4</td>
<td>12.6</td>
<td>12.3</td>
<td>12.8</td>
<td>14.3</td>
<td></td>
</tr>
<tr>
<td>Infant mortality /1000 live births</td>
<td>9.7</td>
<td>11.7</td>
<td>7.6</td>
<td>7.5</td>
<td>9.7</td>
<td>10.2</td>
<td></td>
</tr>
<tr>
<td>Under 5 mortality /1000 live births</td>
<td>10.9</td>
<td>13.3</td>
<td>8.3</td>
<td>8.6</td>
<td>11.0</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td>Live born newborns with BW&lt;2500 g (%)</td>
<td>7.2</td>
<td>8.0</td>
<td>7.8</td>
<td>7.0</td>
<td>7.2</td>
<td>7.4</td>
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</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th>Region</th>
<th>Citizens</th>
<th>Expected number of births (birth rate x number of citizens)</th>
<th>Number of deliveries in maternity hospitals/units 2013</th>
<th>Births %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skopje</td>
<td>609 140</td>
<td>6944</td>
<td>9975</td>
<td>143,6%</td>
</tr>
<tr>
<td>Polog</td>
<td>317 003</td>
<td>3163</td>
<td>3299</td>
<td>104,3%</td>
</tr>
<tr>
<td>Pelagonia</td>
<td>232 959</td>
<td>2655</td>
<td>2397</td>
<td>84,3%</td>
</tr>
<tr>
<td>East</td>
<td>178 814</td>
<td>2038</td>
<td>1458</td>
<td>71,5%</td>
</tr>
<tr>
<td>Southeast</td>
<td>173 187</td>
<td>1974</td>
<td>1522</td>
<td>77,1%</td>
</tr>
<tr>
<td>Northeast</td>
<td>175 442</td>
<td>2000</td>
<td>1629</td>
<td>81,4%</td>
</tr>
<tr>
<td>Southwest</td>
<td>220 840</td>
<td>2517</td>
<td>1724</td>
<td>68,5%</td>
</tr>
<tr>
<td>Vardar</td>
<td>153 659</td>
<td>1751</td>
<td>1289</td>
<td>73,6%</td>
</tr>
<tr>
<td>Macedonia</td>
<td>2062294</td>
<td>23510</td>
<td>23135</td>
<td>98,4%</td>
</tr>
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</table>
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
Come on!!
The suspense is 'killin' me!
Which one's ours?
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 well-being 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
<table>
<thead>
<tr>
<th>Regions</th>
<th>Number of live born children</th>
<th>Patronage nurses</th>
<th>Maternity wards</th>
<th>Centers for social work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelagonija</td>
<td>2309</td>
<td>34</td>
<td>2+1</td>
<td>5</td>
</tr>
<tr>
<td>Vardar</td>
<td>1550</td>
<td>30</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Skopje</td>
<td>7813</td>
<td>76</td>
<td>2+3</td>
<td>1</td>
</tr>
<tr>
<td>North-eastern</td>
<td>1941</td>
<td>33</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Eastern</td>
<td>1567</td>
<td>23</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>South-eastern</td>
<td>1805</td>
<td>32</td>
<td>2</td>
<td>4</td>
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<td>Polog</td>
<td>3599</td>
<td>57</td>
<td>2</td>
<td>2</td>
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<tr>
<td>South-western</td>
<td>2186</td>
<td>48</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>22770</td>
<td>338</td>
<td>17+4</td>
<td>30</td>
</tr>
</tbody>
</table>

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?