Maternal and neonatal health care
integrating baby and mother friendly standards in Serbia

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Institute of Mother and Child Health Care of Serbia

Multi-country Workshop on
Development of Accreditation Standards for Maternity Wards and Neonatal Departments
15 – 16 September 2014, Belgrade
<table>
<thead>
<tr>
<th>Demography, census</th>
<th>2002</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of inhabitants</td>
<td>7,498,001</td>
<td>7,199,077</td>
</tr>
<tr>
<td>% women of fertile age</td>
<td>24</td>
<td>22.9</td>
</tr>
<tr>
<td>% children up to 19 years</td>
<td>22.3</td>
<td>20.9 (20.7)</td>
</tr>
<tr>
<td>Average age of woman at first childbirth</td>
<td></td>
<td>27.7</td>
</tr>
<tr>
<td>Fertility rate</td>
<td></td>
<td>1.4</td>
</tr>
<tr>
<td>Average age</td>
<td>40.6</td>
<td>41.2</td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td></td>
<td>74.8</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Republic of Serbia
Neonatal, perinatal, infant and children up to 5 years mortality rates (per 1,000 livebirths, 1999-2009.) and MDG for 2015

Source: Statistical Office of the Republic of Serbia
Stillbirth, and neonatal, perinatal mortality rates

Source: Statistical Office of the Republic of Serbia
## Selected health care indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2012</th>
<th>MDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perinatal mortality rate</td>
<td>8.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Neonatal mortality rate</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>Maternal mortality rate</td>
<td>14.9</td>
<td></td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>6.2</td>
<td>4.5</td>
</tr>
<tr>
<td>0-5 years mortality rate</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

**Source:** Statistical Office of the Republic of Serbia
The reasons for the revitalization of BF

- EXTERNAL EVALUATION PROGRAM BFHI, September-October 2009

"EVALUATION OF THE INITIATIVE FOR BABY FRIENDLY HOSPITAL IN SERBIA FROM 1995 TO 2008"
- Dr Genevieve Becker
- Dr Elizabeth Zisovska

84% of maternity facilities (49 facilities) were certified as BF global criteria, 2005

However, Baby-friendly awards expire.

Second BFHI criteria (to have over 80% trained staff)- no evidence from 2003
Revitalization support of BF


2. PROFESSIONAL- METHODOLOGICAL INSTRUCTIONS FOR THE IMPLEMENTATION ON THE NATIONAL PROGRAMME ON HEALTH OF WOMEN, CHILDREN AND YOUTH IN THE REPUBLIC OF SERBIA, 2011.
Formed bodies for making BF +

MoH, Institute of Public Health of Serbia "Dr Milan Jovanovic Batut" and the UNICEF Office and MCHC, 2009
Special working group to develop a methodology for institutionalizing and action plan for the implementation of "Baby friendly plus" program in 2009

The National Coordination Team, 2011
BABY FRIENDLY PLUS PROGRAM

• Action plan for the implementation of standards for health care tailored to the needs of mother and child

• Health care services that are tailored to the needs of the mother and child, 2011 - Adopted 2012

• National Coordination Body has proposed the establishment of the National Committee for breastfeeding and the appointment of the National Coordinator
National Standards of health care adjusted to mother and child needs (2)

- **Based on the objectives and recommendations of:**
  - Evaluation of WHO initiative and UNICEF BFH initiative, 2009
  - National program for health care of women, children and adolescent (2009)
  - National MDG
  - Decrease of % exclusive breast feeding children
- **Adopted in 2012.** – Committee of the Ministry of Health for women, children and youth health care
Objectives of National Standards adjusted to the health care needs of the mother and child

General objective:

Preserving and improving the health of mother and children through the promotion of breastfeeding

Specific objectives:

- All mothers were informed about the benefits of breastfeeding, the support and training for nursing is being given

- At least 80% of infants are exclusively sucking during the first 6 months and then continue breastfeeding with complementary foods until at least the end of the first year or longer

- All health care facilities implement a strategy "Ten Steps to Successful Breastfeeding"

- International Code of Marketing the artificial food for infant is being adopted and implemented
National Standards of health care adjusted to mother and child needs (2)

• **BFHI - Baby friendly Hospital Initiative**
  Baby-friendly Hospital Initiative, 10 steps to successful breastfeeding

• **Baby-friendly standards и Mother-friendly standards**
  Health care standards adjusted to the needs of babies and mothers

• **Baby-friendly plus standards**
  Standards adjusted to the needs of mothers and babies (including sick newborn)
Goals of standards

EVERY newborn ENABLE best start in life

• Inform all pregnant women, new mothers and families about the importance of breastfeeding, common room mothers and newborns in maternity, early stimulation

• Train mothers to establish, technique and maintenance of exclusive breastfeeding up to 6 months.

• Educate and motivate health workers to be committed to this mission, to support and guide the natural nutrition in every contact with prospective parents and the maternity

• Ensure consistent compliance with the Code prohibiting advertising of breast milk substitutes
Basic assumptions

- **Standard** is the desired level of performance that can be achieved and that can be compared with the current level of performance.

- **Criterion** presents clear steps, i.e., activities to be undertaken in order to meet the standard. Criterion reflects the description of the optimal value.

- Evidence

- Indicators - for monitoring

- **Standards** are available accessible to all pregnant women, new mothers and newborn children.
**Course: Encouraging natural nutrition**

| Standard 1 - The right of a pregnant woman and her family to complete information about the importance and benefits of breastfeeding and a common room with a newborn. | Step 1: Each health facility which provides health care for mother and child needs to prepare and clearly highlight policy-documents, and inform all staff about the matter.  
Step 2: Educational activities - train all staff with the skills necessary for the implementation of the program. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 2 - The right of mothers to privacy and the right to the presence of people close to childbirth</td>
<td></td>
</tr>
<tr>
<td>Standard 3 - During all births to mothers provide support on breastfeeding and a common room with newborn.</td>
<td>Step 3: Inform all pregnant women about the benefits of breastfeeding and successful way of establishing and maintaining lactation.</td>
</tr>
</tbody>
</table>
### Course: Encouraging natural nutrition

<table>
<thead>
<tr>
<th><strong>Standard 4</strong> - All deliveries are carried out according to current national guidelines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 5</strong> - All mothers are enabled close contact with the newborn in the delivery room</td>
<td>Step 4: Contact &quot;skin to skin&quot;, Help mothers initiate breastfeeding half an hour after the birth of the child, At the latest within two hours, When cesarean section after 6 hours,</td>
</tr>
<tr>
<td><strong>Standard 6</strong> - With every newborn in accordance with the degree of vitality at birth apply all measures and procedures respecting national guides about importance and benefits of breastfeeding and a common room with a newborn.</td>
<td>Step 5: Demonstrate and train mothers how to breastfeed and how to maintain lactation even in cases where the mother and infant is necessary to separate</td>
</tr>
<tr>
<td><strong>Standard 7</strong> – All mothers, including women delivered by Caesarean Section, entitled to be placed in the same room with their newborn children</td>
<td>Step 7 Common room mother And the baby in the same room 24 hours a day</td>
</tr>
</tbody>
</table>
### Course: Encouraging natural nutrition

<table>
<thead>
<tr>
<th>Standard 8 - All newborns are entitled to the breast milk feeding including sick newborns</th>
<th>Step 6  Do not give a newborn baby food or liquid other than breast milk, except where indicated</th>
</tr>
</thead>
</table>
| Standard 9 - All mothers are able to have a visit at the scheduled time and in an appropriate manner (space for visits) in a maternity hospital or institution for treatment of sick children | Step 8 Encourage breastfeeding on demand day and night  
Step 9 To promote breastfeeding without the use of bottles, teats and with the introduction of complementary feeding |
| Standard 10 - Adhered to a International code of marketing of breast milk substitutes in all health facilities | |
| Standard 11 - Every mother after leaving the maternity ward has received support to continue exclusive breastfeeding up to 6 mnts | Step 10: Support for mothers after leaving the hospital and encouraging the establishment of centers for breastfeeding support |
   - General principles of communication among pregnant women, new mothers and their families
   - Normal childbirth
   - General principles of care and treatment in the maternity
5. Guide to primary and specialized care for newborns, 2011
• XIV Seminar of Pediatric school in 2011, the Association of Pediatricians
• Symposium 2012 - Improving nutrition –Applying standards of care tailored to the needs of mother and child
• Project “Co-ordination of the implementation of national standards” "Baby friendly plus“
  - National Paediatric Association, MoH and MCHCI- 2012-2013,
  - 8 courses "Encouraging natural feeding"
•       - 221 participants

  Natural nutrition - 21st century standard- 4 courses with 137 participants
•       Encouraging natural nutrition -National Millennium Development Goal
Why is the promotion of breastfeeding important? (1)

Coverage of children exclusively breastfed from birth to six months in Serbia in 1996, 2005 and 2010 and the Millennium Development Goal 2015th

The situation is better in urban areas and among educated mothers.
Why is the promotion of breastfeeding important? (2)

Breastfeeding initiated within the first hour, in 2005 and 2010, Serbia (%)

<table>
<thead>
<tr>
<th>Region</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Београд</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Војводина</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>Шумадија и западна Србија</td>
<td>20.5</td>
<td>8</td>
</tr>
<tr>
<td>Источна и Јужна Србија</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Урбана насеља</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Рурална насеља</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>Србија укупно</td>
<td>17</td>
<td>8</td>
</tr>
</tbody>
</table>

UNICEF, MICS 2005-2010
Why is the promotion of breastfeeding important? (3)

Breastfeeding initiated within the first day, in 2005 and 2010, Serbia (%)

<table>
<thead>
<tr>
<th>Region</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beograd</td>
<td>56</td>
<td>64</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>65</td>
<td>66</td>
</tr>
<tr>
<td>Shumadija i zapadna Srbija</td>
<td>72</td>
<td>63</td>
</tr>
<tr>
<td>Istochna i Juzna Srbija</td>
<td>69</td>
<td>62</td>
</tr>
<tr>
<td>Urbana nasela</td>
<td>63</td>
<td>60</td>
</tr>
<tr>
<td>Ruralna nasela</td>
<td>71</td>
<td>64</td>
</tr>
<tr>
<td>Srbija u kupno</td>
<td>67</td>
<td>62</td>
</tr>
</tbody>
</table>

UNICEF, MICS 2005-2010
Course: Encouraging natural nutrition

Staff will follow the strategy in 10 steps

Answers from 131 health centers in Serbia, 2011
Course: Encouraging natural nutrition

All staff is introduced with breastfeeding policy

Answers from 131 health centers in Serbia, 2011
Course: Encouraging natural nutrition

Is promotional material for milk formula available to mothers?

Answers from 131 health centers in Serbia, 2011

All institutions have mentioned that they promote breastfeeding
The latest data on breastfeeding in our population (1):

- Infants who had first feeding in the first hour after birth:
  - 50.8%
  - 69.1% in Roma settlements

Source: UNICEF, MICS 2014
Mostly, predominantly breastfed until 6. months

- 47.2% of children (in addition to breast milk were given drinks, and not formula milk)

- in Roma settlements, 60.6% of children predominantly breastfed

-12.8% of children are exclusively breastfed

-24% of mothers continued breastfeeding up to 1 year.

- 8.9 % of mothers continued breastfeeding up to 2 years

Source: UNICEF, MICS 2014
Causes of infant mortality in Serbia, 2011 (ICD - groups)

- Conditions in perinatal period (P00-P96): 66%
  - Congenital anomalies (Q00-Q99): 19%
  - Symptoms, signs and ill-defined conditions (R00-R99): 7%
  - Diseases of respiratory system (J00-J98): 4%
  - Other diseases: 4%
  - Other perinatal conditions

Source: Statistical Office of the Republic of Serbia

P00-P96 – Conditions of mother affecting fetus or infant, Complications of pregnancy affecting fetus and infant, Slow growth of fetus, fatal malnutrition and prematurity, Other perinatal conditions
Standardisation and regionalization of neonatal health care system

Indicators of Perinatal Health Care in Serbia
/results of Study -

Dragana Lozanović, senior consultant, Mr Sc Med
Prof. dr Borisav Janković
Jelena Martic

Institute for Health Protection of Mother and Child in Serbia "Dr Vukan Cupic", Belgrade
Improving The System of Perinatal Health Care

Priority:
The Republic Expert Committee for women, children and youth health care (RSK) and The Working group for perinatal health care

years of maintaining high rates of perinatal and neonatal mortality - still 2-4 times higher than the European average

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GOAL OF THE PROJECT

Overcoming the weaknesses in the standardization of neonatal care in order to increase the capacity of neonatal health care for appropriate care of healthy newborns and optimal treatment of sick newborns

SPECIFIC GOAL

• Defining the standards for three levels of neonatal care

• Identifying the complexity of care at every level
Standards whose application is assessed

- possibility of the presence of the father at birth
- Contact "skin to skin" immediately after birth
- allowing the first feeding
- rooming in mother and healthy newborn
- substitute with milk formula
- rooming in mothers and sick newborns
- visit a sick newborn and infant
Substitute for breast milk, Code

• Milk formula is given without medical indications and documentation, on the grounds that the mother does not have enough milk

• Examine the consistent application of the Code for advertising of breast milk substitutes, especially accepting donations of formula milk, free distribution of mothers, as well as the promotion of the manufacturer
Contact "skin to skin" and first breastfeeding

contact "skin to skin" is being applied not always associated with the first breastfeeding in the delivery room or a few hours after birth

Rooming in mother and healthy newborn

it is common practice in all maternity wards
The presence of a father, partner / other person during labor

• The most common unfulfilled standard
• Achievement of this standard requires certain spatial adjustments and therefore may need more time for its full implementation.

Sick newborn babies

Enabling the benefits of breast milk a sick newborn and found the mother and child at risk or sick child in the same room also faces difficulties in achieving
58 Health care institutions
(Maternity and childrens hospitals)
Results of the survey

Maternity ranked towards the fulfillment of selected standards

- Maternity 2 General Hospital, 1 KBC and a outpatient, meet all relevant standards except for the presence of the father at birth.

- Rank the top 10 is from 73-66%

- Tertiary level for sick newborns MCHC and the Institute for neonatology have limited access to a mother with a sick infant
decision-makers need to implement the conclusions of the National Working Group (coordinator) for the development of effective policies and campaigns to increase breastfeeding rates
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National MDG 2015

Perinatal Mt < 6,5 / 1000 borned
Neonatal Mt < 3,0/1000 liveborn
Reaching desired reduction of child mortality requires most intense:

- Antenatal, Intrapartal, perinatal health care
- Capacity Building
- Continuing monitoring, evaluation and improving quality of care
- Vulnerable group inclusion into the health care system with monitoring their health status
% of maternity according to the number of births and the number of CR (n = 53)

<table>
<thead>
<tr>
<th>Category of maternity hospital</th>
<th>% of maternity</th>
<th>% of birth</th>
<th>% ЦР</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 500</td>
<td>39.6</td>
<td>8.7</td>
<td>9.6</td>
</tr>
<tr>
<td>500-1000</td>
<td>15.1</td>
<td>8.8</td>
<td>8.2</td>
</tr>
<tr>
<td>1000-2000</td>
<td>30.2</td>
<td>34.2</td>
<td>34.5</td>
</tr>
<tr>
<td>2000-3000</td>
<td>7.5</td>
<td>13.4</td>
<td>10.4</td>
</tr>
<tr>
<td>&gt; 3000</td>
<td>7.5</td>
<td>34.9</td>
<td>37.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

![Bar chart showing the distribution of maternity, birth, and CR across different categories of maternity hospitals.](chart.png)
Transport “In utero”

Transport in utero must cover 80% of premature births, the survey shows that 50% patients with high-risk pregnancy, giving birth in tertiary centers.
Međuregionalni perinatalni centri
3A-C nivo

Kongtinuirani (24/7) transport "ka sebi"

Intermedijarni (2B) nivo

Optimalna organizacija neonatalne intenzivne nege u Srbiji

Porodilište pri IZZDO Vojvodine
Novi Sad

Beograd

Kragujevac

Niš

Leskovac

Vranje

Subotica

Užice

Porodilište pri IZZMD "Dr Vukan Čupić"
Zrenjanin

Intermedijarni (2B) nivo

Porodilište pri IZZDO Vojvodine
Novi Pazar

>2000 porođaja
Proposed measures

• Equalize, standardize services and improve quality at all levels, in all the territories

• Referral system (the system switching to a higher level of health care) to enable access to the definition of clear indications for referral
Challenges in the implementation

• Breast milk and breast feeding are highly valued, but they are inconsistently implemented in practice in the health care facilities

• Importance of its implementation for survival, growth and development of the child is not completely adopted by the professionals and, therefore, insufficiently promoted and supported within the facilities

• Recognized in strategies, plans, laws and regulations, but without monitoring system
Possibilities for improving the implementation

• Recognize the importance among professionals – for development and survival of the child (reduction of perinatal and neonatal mortality),
• Incorporate completely the relevant laws and regulations,
• Incorporate the experience from Bosnia and Herzegovina into hospital accreditation standards
• Monitoring and intensification of measures for information and support of maternity wards
• Define the clear procedures – organization of work, which include information and education of mothers
• Exchange of experience between maternity wards – solution for personnel, spatial, organizational and other problems
• Spreading the evidence-based knowledge and practice to health workers and other population
Proposed measures

• Equalize, standardize services and improve quality at all levels, in all the territories

• Referral system (the system switching to a higher level of health care) to enable access to the definition of clear indications for referral
Conclusion

It is necessary to change the behavior and attitude of the society towards health, life and family!
Supporting mothers to breastfeed - gold medal
Suggestions of health workers in training courses for improving breastfeeding support in Serbia

Suggestions for improvement
1. Organize a school of parenting and psychophysical preparation for childbirth in health centers
2. Empower advisory work with pregnant women
3. Introduce the topic of promoting breastfeeding counseling for young
4. Education program need to be accredited education programs that include coordinated professional attitudes
5. Require special training of managerial staff in health facilities about the importance of breastfeeding and standards adapted to the needs of mother and child
6. Introduction of pregnancy books and booklets for children, according to developed countries
7. Clear separation level (healthy pregnancy-primary level, risk of pregnancy-tertiary level)
8. Ban free formula sold in stores, or more serious regulating their distribution on the market
9. Reconciliation of attitudes about the use of antibiotic prophylaxis, and other drugs (antiepileptic)
10. Advertise breastfeeding on television like campaigns against smoking