Improving Care For Mothers And Babies In The Russian Federation

Collaborative on expanding breastfeeding
Report on the demonstration and spread collaboratives.

a. The evidence base
Breastfeeding assures a healthy start to life and provides the fundamentals for physical and mental health in the following years. A 2007 review by the US Agency for Healthcare Research and Quality found evidence that breastfeeding lowers the overall rate of childhood illness, and has specific significant preventive effects on pneumonia, lower respiratory infections, newborn necrotic enterocolitis, Sudden Infant Death Syndrome, atopic dermatitis, bronchial asthma, Type I diabetes, and leukemia. Breastfeeding was also found to have positive effects on the health of the mother, lowering the risk of Type II diabetes, and ovarian and breast cancer. [1]

Presumably by assuring the optimal nutrition for the child’s growth throughout a critical developmental period, breastfeeding was also found to have long-term positive effects on the development of atherosclerosis, hypertension, obesity and type II diabetes.

Starting breastfeeding in the first hour after birth and maintaining breastmilk as an exclusive source of food and drink during the first six months of life reduces morbidity and mortality among infants and young children.

WHO and UNICEF together have developed many critical documents, handbooks and guidelines designed to increase rates of breastfeeding, that are endorsed by member countries. “Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services,” a joint WHO/UNICEF statement (1989), laid out the “Ten Steps to Successful Breastfeeding,” which states that every facility providing maternity care and care for newborns should:

1) Have a written breastfeeding policy that is routinely communicated to all health care staff.
2) Train all health care staff in skills necessary to implement this policy.
3) Inform all pregnant women about the benefits and management of breastfeeding.
4) Help mothers initiate breastfeeding within half an hour of birth.
5) Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6) Give newborn infants no food or drink other than breast milk, unless medically indicated.
7) Practice rooming-in - that is, allow mothers and infants to remain together - 24 hours a day.
8) Encourage breastfeeding on demand.

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9) Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.

10) Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.[2]

In 1991 WHO and UNICEF started the Baby Friendly Hospital Initiative (BFHI), which works to create conditions that support exclusive breastfeeding in maternity hospitals. This initiative is being realized in more than 200,000 hospitals in 156 countries worldwide. To be awarded the title of “Baby-Friendly Hospital,” a facility must show that they have realized and institutionalized the “10 Steps.” BFHI designation has been demonstrated to increase a mother’s breastfeeding success during the first six weeks of pregnancy [3,4]. The more of the ten steps the hospital has implemented, the more likely the mother is to continue breastfeeding for at least six weeks. The WHO has developed a 40-hour training course for hospitals on the ten steps, which has been shown to increase the probability that the hospital implements recommended practices and to increase breastfeeding rates [5].

BFHI was introduced into Russia in 1996. Since that time, it has grown to cover 286 maternity hospitals in 49 regions. These hospitals handle about 21% of the country’s births. The Russian office of BFHI, headquartered at the Scientific Research Institute for Public Health and Health Management of First Moscow State Medical University named for Sechenov, has also developed standards for assessing compliance of women’s consultations and children’s polyclinics with the “Ten Steps;” 145 women’s consultations and 190 children’s polyclinics have received BFH designation.

According to a survey by the Scientific Research Institute on Nutrition of the Russian Academy of Medical Sciences in 6 Russian regions, 97.5% of Russian mothers initiate breastfeeding at the maternity hospital. But according to official data from the Ministry of Health and Social Development (MOHSD), only 40% of children are breastfed until at least 6 months, this represents a 13 percentage point increase since 1999. In our target regions of Kostroma and Tambov regions, the percent of mothers who breastfed up until at least 6 months were 28.7% and 29.3%, substantially below the Russian average. Therefore, there was room for improvement. The project partnered with the BFHI to carry out an improvement collaborative on expanding breastfeeding.
b. The change packages

Through this partnership, “Improving Care for Mothers and Babies” continued the spread of successful BFHI practices at maternity departments (including pathology of pregnancy departments and maternity wards), women’s consultations, and children’s polyclinics, to facilities taking part in the project. We also collaborated on developing, piloting and replicating BFHI practices for children’s hospital departments of newborn pathology and preterm infants, and shared those practices domestically and internationally.

The final project change package included the following objectives and individual changes:

**Objective 1.** Introduction of a unified policy on breastfeeding

**Objective 2.** Development of consistency and collaboration between different facilities and levels of the health system, possibly by creating a committee to coordinate activities

**Objective 3.** Participation of the facility in the BFHI

**Objective 4.** Training of facility staff on breastfeeding support

**Objective 5:** Educating the public about breastfeeding, through use of:

- Brochures
- Informational stands
- Articles and programs in the media
- Educational lectures
- Thematic public education campaigns
- Telephone hotlines

**Objective 6:** Mandatory counseling for pregnant women, including:

- Individual counseling
- Group activities, such as a School for Positive Parenting
- Conversations with partners and family members

**Objective 7:** Introducing measures to establish breastfeeding at the maternity hospital:

- Early placement of the baby at the breast
- Individual delivery rooms (in Russia many delivery rooms have 2 or more tables)
- Partner births (the mother is a more common partner than the husband)
- Rooming-in of mother and baby in the maternity ward
- Training and counseling of mothers
- Excluding supplemental feeding and liquids, pacifiers and nipples
- Administering medications that do not impact the ability to breastfeed

**Objective 8:** Support for breastfeeding mothers after discharge

- As part of the standard post-delivery home visits
- Breastfeeding counseling at healthy baby clinics, where mothers can come with questions and for group activities
- Hotlines
- Mothers’ breastfeeding support groups

**Objective 9:** Introducing algorithms for organization of breastfeeding in complicated situations, including:

- Inpatient treatment:
  - Rooming-in of the mother at the children’s hospital
  - Breastmilk pumping for ill or preterm infants
  - Tube and cup feeding for babies unable to suck at the breast
  - Guidelines on feeding of preterm infants

- Eliminating social reasons for women’s refusal to breastfeed, including bringing in a psychologist to work with these women.

**c. Participants**

Five hospitals from Kostroma Region and seven hospitals from Tambov Region participated in phase 1 of the project (the demonstration phase), as shown in Table 1. The hospitals varied in composition from large multi-profile inpatient facilities, to central district hospitals with freestanding maternity facilities, children’s polyclinics and women’s consultations. Tambov Region Children’s Hospital, the only children’s hospital participating in phase 1, piloted adaptation of the “Ten Steps” to children’s hospitals. Each facility decided which level or levels of care to target. Yaroslavl region elected not to participate because they had recently completed another special project focusing on breastfeeding.

In Phase 2 or the spread phase, this collaborative, conducted in collaboration with the Russian affiliate of the WHO/UNICEF Baby-Friendly Hospital Initiative, drew formal participation from 17 health facilities from four regions shown in Table 2, although as shown in Table 5, many more facilities joined the training courses and experimented with some of the innovations. As in phase 1, each facility focused on expanding breastfeeding at one or more levels of health care: antenatal care and parenting classes at the women’s consultation, at the maternity hospital, and in the community with support from district pediatricians and children’s polyclinics. In Tula region, four children’s hospitals participated; the three with inpatient departments caring for ill and preterm newborns worked to roll out the innovations introduced at Tambov Region Children’s Hospital in phase 1. Tambov Region Children’s Hospital itself led an effort to spread breastfeeding practices region-wide.
Table 1. Facilities pursuing improvement objective of expanding breastfeeding, phase 1 of project.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of facilities</th>
<th>List of Facilities</th>
<th>Improvement Team Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kostroma</td>
<td>5</td>
<td>Nerekhta Central District Hospital</td>
<td>V.A. Bachigina, I.V. Meteleva, E.N. Markarova, R.B. Sharifkulov</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td>Sharya Central District Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Galich City Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma City Maternity Hospital No. 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kostroma Region Hospital</td>
<td></td>
</tr>
<tr>
<td>Tambov</td>
<td>7</td>
<td>Luki Hospital, Tambov City</td>
<td>S.A. Belikova, E.N. Murzina, S.A. Polyanskaya, E.V. Zhukova, T.V. Medvedeva, O.I. Popov, L.V. Kapralova, E.V. Kurnosova, N.I. Krainova, S.I. Korotkova</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td>Region Children's Clinical Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Morshansk Central District Hospital</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Rasskazovo Central District Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Michurinsk City Hospital No. 2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Tokarevskaya Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uvarovskaya Hospital</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Facilities participating in breastfeeding collaborative, phase 2 of project.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of facilities</th>
<th>List of Facilities</th>
<th>Improvement Team Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kostroma</td>
<td>3</td>
<td>Nerekhta Central District Hospital</td>
<td>V.A. Bachigina, I.V. Meteleva, E.N. Markarova, R.B. Sharifkulov</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td>Sharya Central District Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Galich City Hospital</td>
<td></td>
</tr>
<tr>
<td>Tambov</td>
<td>5</td>
<td>Luki Hospital, Tambov City</td>
<td>S.A. Belikova, E.N. Murzina, S.A. Polyanskaya, E.V. Zhukova, T.V. Medvedeva, O.I. Popov, L.V. Kapralova, E.V. Kurnosova, N.I. Krainova, S.I. Korotkova</td>
</tr>
<tr>
<td>Region (Participating Region-wide)</td>
<td></td>
<td>Region Children's Clinical Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Morshansk Central District Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rasskazovo Central District Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Michurinsk City Hospital No. 2</td>
<td></td>
</tr>
<tr>
<td>Ivanovo</td>
<td>1</td>
<td>Ivanovo City Maternity Hospital No. 4</td>
<td>A.A. Karneev, O.V. Burova</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tula City Hospital No. 1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Tula Region Children's Hospital</td>
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<tr>
<td></td>
<td></td>
<td>Schekinskaya City Children's Hospital</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Aleksinskaya Dist. Hosp. No. 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tula City Children's Hospital No. 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Novomoskovsk City Children's Hosp</td>
<td></td>
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<tr>
<td>Total</td>
<td>17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

d. Project inputs
The project collaborated with BFHI to sponsor four sessions of the standard WHO 40-hour training course on breastfeeding counseling, the first organized as a training of trainers session. Svetlana Polyanskaya of Tambov Region Children's Hospital was developed as a master breastfeeding trainer. Trainings drew enthusiastic participation beyond the borders of the collaborative, from 91 participants from 17 health facilities, 3 academic institutions and one mothers support group from seven regions. Training sessions are listed in Table 5. During phase 1, support was also provided by clinical experts in neonatology during on-site supportive visits.
During phase 1, we supported printing and distribution of numerous brochures, posters and other informational materials for mothers and families cared for at project facilities, as listed in Table 3. Some of these materials had been professionally developed by BFHI, others were developed by participating facilities themselves, and shared on disk and through the web portal. Russian-language informational films on breastfeeding were distributed on DVD. Facilities identified and shared additional materials. Two drafts of the project change package were printed and distributed to trainees and participating facilities; supplemental documents and handbooks developed by BFHI were distributed on CD and through the web portal.

The collaborative gave special attention to breastfeeding support for ill and preterm infants. During the U.S. study tour, perinatal care leaders, including our expert trainer on breastfeeding preterm and ill newborns, Irina Riumina, toured an innovative NICU at Women’s and Infants Hospital of Rhode Island, which was constructed specifically to permit rooming-in of entire families and kangaroo mother care for early preterm babies. The AAP annual meeting attended by study tour participants also included an educational session on nutrition for preterm neonates. Dr. Riumina later taught a special seminar for our region breastfeeding leaders on breastfeeding of ill and preterm newborns. The training included visits to the Kulakov Center Newborn Pathology Division, where these techniques were used; a week later Dr. Jill Biden, wife of Vice President Joe Biden, toured this same facility and spoke with breastfeeding mothers there.

The project supported BFHI Russia coordinator Lyubov Abolyan DMS and Dr. Polyanskaya to travel to Uppsala, Sweden in September 2011 to present their results on supporting breastfeeding of ill and preterm newborns under the project’s at the international Baby-Friendly Neonatal Care Conference and Workshop, which was devoted to this topic. (Dr. Abolyan’s travel expenses were covered by Medela-Russia).

The project supported Dr. Abolyan and her colleagues, to conduct assessment visits to facilities for determination of their eligibility for BFH designation. These visits included detailed inspections and interviews with patients and medical staff.
Table 3. Informational materials on breastfeeding printed and copied by the project.

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Author/Publisher</th>
<th>Number of copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Help for mom at the maternity hospital”</td>
<td>Informational booklet for mothers</td>
<td>Yaroslavl Region Maternity Hospital</td>
<td>2500 copies printed</td>
</tr>
<tr>
<td>ABCs for young parents”</td>
<td>Informational booklet for parents</td>
<td>Luki City Hospital, Tambov</td>
<td>2500 copies printed</td>
</tr>
<tr>
<td>Manual for future mothers</td>
<td>Informational booklet for parents</td>
<td>ROMART</td>
<td>282 copies distributed</td>
</tr>
<tr>
<td>Manual for parents on infant care</td>
<td>Informational booklet for parents</td>
<td>ROMART</td>
<td>4161 copies distributed</td>
</tr>
<tr>
<td>Manual on breastfeeding</td>
<td>Informational booklet for parents</td>
<td>ROMART</td>
<td>279 copies distributed</td>
</tr>
<tr>
<td>Breastfeeding</td>
<td>Poster</td>
<td>Institute for Family Health</td>
<td>98 posters printed</td>
</tr>
<tr>
<td>How to make breastfeeding useful and pleasant</td>
<td>Pamphlet for Breastfeeding Mothers</td>
<td>Baby-Friendly Hospital Initiative in Russia</td>
<td>1000 copies reprinted</td>
</tr>
<tr>
<td>How to make breastfeeding easier</td>
<td>Pamphlet for mothers in the maternity hospital</td>
<td>Baby-Friendly Hospital Initiative in Russia</td>
<td>2500 copies reprinted</td>
</tr>
<tr>
<td>Why it’s important to breastfeed</td>
<td>Pamphlet for future mothers</td>
<td>Baby-Friendly Hospital Initiative in Russia</td>
<td>2500 copies reprinted</td>
</tr>
</tbody>
</table>

Table 4. Clinical experts for the collaborative on expanding breastfeeding.

<table>
<thead>
<tr>
<th>Expert</th>
<th>Qualifications/ background</th>
<th>Role in project and related policy development activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyubov Abolyan, DMS</td>
<td>Russia coordinator for the WHO/UNICEF Baby-Friendly Hospital Program, Head of the Laboratory for hygienic family education of the research institute for public health and health care management, First Moscow State Medical University (FMSMU) named for I.M. Sechenov, director of the MOHSD Center for promotion, support and expansion of breastfeeding.</td>
<td>Chaired LS sections on breastfeeding, provided clinical training on breastfeeding, author of written change package on breastfeeding, conducted assessment of project facilities for Baby-Friendly Hospital status, presented project results at conference in Sweden.</td>
</tr>
<tr>
<td>Fatima Yevloyeva MD</td>
<td>Pediatrician, staff of the Laboratory for hygienic family education of the research institute for public health and health care management, FMSMU, recipient of awards for excellence in health care.</td>
<td>Co-author of written change package on breastfeeding</td>
</tr>
<tr>
<td>Larisa Stroeva MD</td>
<td>Neonatologist, Docent, Department of Continuing Pediatric Education, Yaroslavl State Medical Academy; trainer for the Baby-Friendly Hospital Initiative.</td>
<td>Provided clinical training on breastfeeding.</td>
</tr>
<tr>
<td>Expert</td>
<td>Qualifications/background</td>
<td>Role in project and related policy development activities</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>--------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lyudmila Romanchuk MD</td>
<td>Pediatrician, director of the Moscow Region Center for Support of Breastfeeding</td>
<td>Provided clinical training on breastfeeding</td>
</tr>
<tr>
<td>Andrei Ilchenko MD</td>
<td>Pediatrician. Former quality improvement expert, URC. Former chief doctor, Tver City Children's Hospital No. 1. Participated in QAP.</td>
<td>Phase 1 expert on neonatology for Kostroma Region. Conducted supportive visits to facilities, participated in LS,</td>
</tr>
<tr>
<td>Boris Kapitonov MD</td>
<td>Chief anesthesiologist-resuscitation specialist of Tver Region, head of intensive care unit, Tver Region Children's Hospital. Led QAP efforts on breastfeeding in Tver Region.</td>
<td>Phase 1 expert on neonatology for Tambov Region. Conducted supportive visits to facilities in Tambov and Kostroma region on breastfeeding, participated in LS, conducted audits. Co-author of written change package on breastfeeding.</td>
</tr>
</tbody>
</table>

Table 5. Training sessions on breastfeeding supported by the project

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Location</th>
<th>Length</th>
<th>Trainers</th>
<th>Regions/ facilities</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 23-27, 2009</td>
<td>Breastfeeding Counseling</td>
<td>Nerekhta, Kostroma Region</td>
<td>5 days/40 hrs</td>
<td>L. Stroeva, Yaroslavl SMA</td>
<td>Nerekhta Hospital&lt;br&gt; Feldsher/midwife offices in 4 neighboring villages</td>
<td>12</td>
</tr>
<tr>
<td>Dec 7-11, 2009</td>
<td>Training of Trainers on Breastfeeding Counseling</td>
<td>Kostroma</td>
<td>5 days/40 hrs</td>
<td>Larisa Stroeva, YSMA</td>
<td>Kostroma Region:&lt;br&gt; Kostroma Region Hospital&lt;br&gt; Kostroma City Maternity Hospital No. 1&lt;br&gt; Nerekhta Hospital&lt;br&gt; Sharya Hospital&lt;br&gt; Kostroma Center for Family Planning and Reproduction&lt;br&gt; Kostroma City Children’s Hospital*&lt;br&gt; Kostroma Medical College*&lt;br&gt; Tambov Region:&lt;br&gt; Luki Hosp., Tambov City&lt;br&gt; Morshansk Hospital.&lt;br&gt; Michurinsk City Hosp. #2, Region Children’s Hospital</td>
<td>33</td>
</tr>
<tr>
<td>Feb 1, 2011</td>
<td>Pediatrician’s day seminar</td>
<td>Tambov</td>
<td>1 day</td>
<td>E.Murzina &amp; S.Polyanskaya</td>
<td>Pediatrists from Tambov region</td>
<td>About 50</td>
</tr>
<tr>
<td>Mar 1-3, 2011</td>
<td>Seminar: Breastfeeding of ill and preterm newborns</td>
<td>Moscow</td>
<td>3 days</td>
<td>Irina Riumina, Natalya Yevtseva &amp; Elena Grosheva, Kulakov Ctr.</td>
<td>Kostroma Region&lt;br&gt; Tver Region*&lt;br&gt; Ivanovo Region&lt;br&gt; Yaroslavl Region*&lt;br&gt; Tula Region&lt;br&gt; Tambov Region&lt;br&gt; Yaroslavl State Med. Academy&lt;br&gt; Bashkortostan Republic*&lt;br&gt; Baby-Friendly Hospital Initiative</td>
<td>14</td>
</tr>
<tr>
<td>Date</td>
<td>Topic</td>
<td>Location</td>
<td>Length</td>
<td>Trainers</td>
<td>Regions/ facilities</td>
<td>Participants</td>
</tr>
<tr>
<td>------------</td>
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<td>----------------</td>
<td>---------</td>
<td>---------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Mar 21-23, 2011</td>
<td>Breastfeeding Counseling</td>
<td>Ivanovo</td>
<td>3 days</td>
<td>Lyubov Abolyan, BFHI Lyudmila Romanchuk, Moscow Region</td>
<td>Ivanovo Region: Shuy Hospital City Children’s Clinical Hosp. No. 5* City Maternity Hosp. No. 1* Ivanovo State Med Academy* City Maternity Hosp. No. 4</td>
<td>17</td>
</tr>
<tr>
<td>Jun 21-23, 2011</td>
<td>Breastfeeding counseling</td>
<td>Tula</td>
<td>3 days</td>
<td>L. Abolyan, BFHI Svetlana Polianskaya, Tambov Obl.</td>
<td>Tula Region: Schekinskaya City Children’s Hospital Belevskaya Hospital* Kimovskaya Hospital* Region Perinatal Center Uzlovskaya Hospital* Novomoskovsk Maternity Hosp Bogoroditskaya Hospital Region Children’s Hospital Efremovskaya Hospital Tula City Hospital No. 1 Aleksinskaya Hospital #1 Novomoskovsk City Children’s Hospital Tula City Children’s Hospital #3 Mamcompaniya mothers’ breastfeeding support group</td>
<td>30</td>
</tr>
<tr>
<td>Sept 14-16, 2011</td>
<td>Presentation, &quot;The Baby-Friendly Hospital Initiative in Neonatal Units for Sick and Preterm Newborns in Russia&quot;</td>
<td>Uppsala, Sweden</td>
<td>20 min presentation, 3 day conf.</td>
<td>S. Polyanskaya L. Abolyan, BFHI Svetlana Novikova, FMSMU</td>
<td>Baby-Friendly Neonatal Care Conference and Workshop attended by Representatives of 27 countries</td>
<td>About 200</td>
</tr>
</tbody>
</table>

*Not participating in collaborative

e. Testing of changes

Many of the changes recommended in the final change package described above were developed and tested by project facilities. In maternity hospitals, most facilities initially were not allowing breastfeeding and skin-to-skin contact for 2-3 days following Caesarian section. Tambov region changed C-section procedures to use spinal rather than general anesthesia, permitting early placement at the breast, with caregiver support during the first 24 hours. When this was not possible, in Nerekhta Hospital, Kostroma Region, babies were fed from a small cup rather than an artificial nipple. The antibiotic regimen used for operative births was switched so that it did not preclude breastfeeding. Nerekhta also introduced rooming-in as a standard procedure, and tracked it closely.
One issue identified by teams addressing various improvement objectives early in phase 1 was the inconsistency of parental education programs. While regulations in force in 2009 required prenatal education of mothers, there were no standards for the content, number of hours or number of sessions of such programs, whether counseling should be individual in group classes, and whether maternity hospitals, women’s consultations or children’s polyclinics should be responsible. A number of participants included design of “Schools of Positive Parenting” among their improvement objectives. Clinical expert Vladimir Nikhonorov, who taught private-sector parenting classes in Ivanovo, provided a suggested eight-session outline.

A variety of approaches to parenting education were tested. Michurinsk City Hospital No. 2, Tambov Region organized a club for 21st century parents, “The miracle of life,” created to provide breastfeeding support and to promote family-centered parenting. About 70% of expectant mothers join the club and participate in activities led by a psychologist and obstetrician-gynecologist. 13 different classes are offered in the series. Led by a neonatologist, the Yaroslavl Region Maternity Hospital improvement team developed a successful School for Expectant Parents, including published brochures and informational material. A handbook describing that school and how to establish similar programs was endorsed by the region education department. In Tula region, children’s polyclinics began to work with expectant mothers to prepare them for breastfeeding. At Sharya Central District Hospital, Kostroma region, the maternity department, women’s consultation and children’s polyclinic developed a unified plan for a “Parents’ School,” including a clear referral pattern for parents, providing expectant parents with tours of the maternity hospital, and soliciting participants’ feedback after the classes. Participation grew from 11 percent of parents in 2008 to 32 percent in 2010. Building on the improvement team’s relationship with the local Russian Orthodox diocese (established as part of the teen reproductive health collaborative, see chapter 5) Orthodox priests offered counseling on building family values to expectant parents.

Teams learned to work with their communities to promote breastfeeding. Team leader Natalya Vyalitsina established a “Your Health” section in a local women’s magazine, and published two articles on breastfeeding, including one on the Parents’ School. The Sharya City Administration also provided a large banner on breastfeeding for display in the city center.

Of the “Ten Steps,” step 10, on work with mothers’ support groups, engendered the most initial skepticism among project participants. Breastfeeding support groups of experienced mothers, as well as the new profession of lactation consultant, has been spreading in Moscow and surrounding regions, in response to training programs offered by American and British groups, as well as BFHI. But the government hospitals and regional leaders participating in the project worried about the legality of allowing access to hospitals by caregivers other than licensed healthcare professionals, and whether these mothers would want to be paid. To address these concerns, some facilities, such as Tambov Region Children’s Clinical Hospital, provided post-discharge consultation by hospital nurses and midwives who themselves were experienced, breastfeeding mothers. The children’s polyclinic at Michurinsk City Hospital No. 2 distributed
business cards with phone numbers of mothers who were willing to provide advice and support, including members of the hospital staff.

However, at the project’s fourth learning session in Tambov, two representatives of an independent mother’s support group asked to attend and to address the participants. They distributed their business cards and encouraged Tambov city hospitals to contact them, and to refer mothers. Luki City Hospital was positively inclined. Sharya Hospital organized its own mothers’ support group. In phase 2, Tula City Children’s Hospital No. 3 made the focus of their activities close links with Mamcompaniya a local mother’s support group, including providing weekly group sessions for new mothers at the children’s polyclinic. The Tula polyclinic’s active, engaged staff of neighborhood pediatricians, also added breastfeeding status to their detailed tracking of the 879 children in the district under one year of age and integrated breastfeeding training and support for mothers, fathers and grandmothers into their existing schedule of home visits prior to birth and during the first week of life.

At the children’s polyclinic of Tula City Children’s Hospital No. 3, the active, engaged staff of neighborhood pediatricians, added breastfeeding status to their detailed tracking of the 879 children in the district under one year of age, integrated breastfeeding training and support for mothers, fathers and grandmothers into their existing schedule of home visits prior to birth and
During the first week of life, strengthened breastfeeding support in their weekly group sessions for new mothers developed close link with a local mother’s support group.

As the leading neonatal care and training institution in Tambov Region, Tambov Region Children’s Hospital (TOCH) was determined to take a leadership role, including expanding breastfeeding among the babies admitted to its intermediate and neonatal intensive care wards. When the hospital was remodeled in 2008, TOCH had installed individual cubicles permitting rooming-in of mothers with babies in intermediate intensive care; staff took advantage of this change as a basis for increasing breastfeeding.

Dr. Polyanskaya and a nurse responsible for infant feeding received a 5-day, 40-hour WHO/UNICEF training course; they then trained the remainder of the medical staff in the hospital. The Ten steps were modified for use in the intermediate care facility; daily support was provided to mothers to continue and/or start breastfeeding; babies unable to breastfeed were fed by expressed breastmilk from a specially designed baby feeder. Use of bottles and nipples was limited to abandoned children and those with HIV or TB-infected mothers. Informational films, brochures and posters were provided; contacts with experienced mothers and hospital staff were provided for support after discharge. Preterm infants, who were admitted starting Jan. 2010, roomed-in with their mothers in single rooms specially equipped with incubators or heated cribs. The preterm infants may be breast fed or fed expressed breastmilk depending on the severity of their condition, birthweight and gestational age.

When Tula Region joined the project in phase 2, Dr. Polyanskaya traveled there as a trainer, visited Tula Region’s Children’s Clinical Hospital, and provided them and the other children’s hospitals in the region with training and informational materials. The Tula Region hospital, which first adopted a policy to support breastfeeding in 2002, rapidly adopted and built on the innovations of their sister facility, in the department of newborn pathology and intensive care. Materials developed in Tambov (as well as locally) were posted on the walls and in reference binders for mothers, in the ward where they were rooming in with their newborns.

In honor of National Pediatrician Day, February 24, 2011, Tambov Region Children’s Hospital organized and conducted an region-wide training on expanding breastfeeding. The project took the opportunity to issue its first draft of its change package on expanding breastfeeding, which was distributed to the approximately 50 pediatricians attending.

f. Work products

- Change package on Expanding breastfeeding practices for harmonious development and improvement of infant health, November 2011.

g. Evaluation methods

As a project, we tracked only one indicator of a care process separately, percent of newborns placed in skin-to-skin contact with the mother for at least two hours. This indicator was shared with the hypothermia prevention collaborative and is discussed in chapter 2. Other process indicators were subsumed and combined in the evaluation process for BFH status.

Project wide, we tracked exclusive breastfeeding at three time points: at discharge home from the maternity hospital (which did not include transfers to children’s hospitals), at 3 months of age, assessed at 3 month visits to children’s polyclinics, and at six months of age. Exclusive breastfeeding means that the child is fed no food or drink other than the mother’s breastmilk, although breastmilk may be pumped and given by hand. (Breastfeeding, also called “mixed feeding,” means that the baby receives some breastmilk and some formula). Participating facilities were to report these indicators monthly.

The final project change package added recommendations to track both breastfeeding and exclusive breastfeeding at discharge, 1, 3, 6, 9 and 12 months of age. These indicators could be tracked for each child on a special medical record insert, that was included in the change package. Some facilities tracked these indicators as well. Children’s hospitals tracked breastfeeding at both admission and discharge.

For Kostroma and Tambov Regions, we also collected official regional statistics on breastfeeding of children from 3-6 months and 6-12 months of age.

h. Results

Figure 1 shows the growth and consistent practice of skin-to-skin contact and early placement at the breast in 33 project maternity departments. Over 75 percent of project hospitals were consistently implementing this practice by September 2011.

While breastfeeding was nearly universally practiced in Russian hospitals, supplemental feeding with water or formula was also common. Figure 2 shows the growth of exclusive breastfeeding in 14 reporting maternity hospitals from about 50% of healthy newborns before the project began to 80-90% at the conclusion.

The project’s success in increasing breastfeeding in the community, at the level of the children’s polyclinic, was less successful, partly because rates of reported exclusive breastfeeding at ages 3 and 6 months at the facilities which chose to pursue this objective were quite high to begin with. Still, Figure 3 shows an increase from about 60% exclusive breastfeeding at these ages to about 75% during phase 1 of the project, and (after a drop when new facilities were added)
from 60% to about 80-85% during phase 2. It is somewhat surprising, however, that reported exclusive breastfeeding levels were so similar at 3 and 6 months.

Figure 4 presents a more careful and nuanced look at breastfeeding levels across time at a single hospital, Sharya Hospital, Kostroma Region, which as discussed above has taken a thorough, unified approach to breastfeeding support across levels of care and the community. As can be seen, the percent of infants breastfed decreased as they aged, but at each age, the proportion breastfed increased during the project period. The amount of the increase between 2008 and 2010 varied from 8 percentage points at 3 months of age, to 18 percentage points at 6 months of age.

Figures 5-7 show the results of the innovative work to increase breastfeeding rates at children’s hospital departments of newborn pathology and preterm infants. Figure 5 presents the combined rates of exclusive breastfeeding at discharge from the three children’s hospitals that reported their results: Tambov Region Children’s Clinical Hospital, Tula Region Children’s Clinical Hospital, and Tula City Children’s Hospital No. 3.

Figure 6 presents a more detailed look at the results from the Tambov Region facility. It displays trends in breastfeeding rates among babies in 6-month intervals from 2009 to 2011, at the maternity hospital from which they were admitted to the children’s hospital and upon discharge from the children’s hospital. The left side of the chart shows that the region’s maternity hospitals had some notable success in raising breastfeeding rates among these newborns during the course of the project. Rates of exclusive breastfeeding increased ten percentage points. During the stay at the children’s hospital, breastfeeding and exclusive breastfeeding increased about 30 percentage points at each time period. In 2011, breastfeeding rates at discharge were 80% and levels of exclusive breastfeeding 61%.

Figure 7 compares the results for full-term ill infants to those among preterm infants; in the latter group, we observe a steady increase in breastfeeding rates during the last two years: any breastfeeding from 74 percent to 82 percent; exclusive breastfeeding from 26 to 37%. The hospital is working intensively with mothers of ill full-term babies to reverse the small decrease in breastfeeding levels observed in 2011.

Tula Region Clinical Hospital conducted a similar analysis for September 2011 only. The results showed that among the 58 newborns discharged that month, exclusive breastfeeding increased from 41% (24 babies) at admission to 86% (50 babies) at discharge.

Six project facilities, listed in Table 6, were designated as “Baby-Friendly Hospitals” during the course of the project. This includes the first and second children’s hospital to be so designated, the Children’s Clinical Hospitals in Tambov and Tula Regions. Dr. Abolyan was impressed that the first project hospital to receive BFH designation, had done so within a mere 13 months after initiating improvements in breastfeeding. Usually, she said, the process takes several years after initial training and more than one assessment attempt. (The list also includes Torzhok Central District Hospital, Tver Region, which first tackled the “Ten Steps” in the late 1990s but was previously unable to support the assessment process.)
Figure 1. Breastfeeding Collaborative. Mother-to-child skin-to-skin contact.

Mother-to-child skin-to-skin contact for 2 hours after birth
Percent compliance with this recommendation among 33 hospitals
Median, 25th and 75th percentiles

% 100 90 80 70 60 50 40 30 20 10 0

Start of phase 2
Breastfeeding training
Project start

2009 2010 2011
J F M A M JJA S O N DJF M A M JJA S O N DJF M A M JJA S
Reporting hospitals 15 16 16 17 17 15 16 16 16 16 24 24 22 22 22 22 22 19 17 14 13 18 19 19 14 13 8

Median 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
25th percentile 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
75th percentile 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Figure 2. Breastfeeding collaborative. Exclusive breastfeeding in the maternity ward.

Percent of newborns exclusively breastfed at discharge from the maternity department, 14 reporting hospitals

Project start
Training on Breastfeeding Support
Phase 2 of project New oblasts added

2009 2010 2011
J F M A M JJA S O N DJF M A M JJA S O N DJF M A M JJA S
Discharged newborns 697 666 785 766 668 767 810 994 749 714 699 654 912 873 1033 915 857 793 1190 973 587 508 319 387 411 377 711 574 710 1012 1239 990 492
% of babies exclusively BF 51 55 57 48 56 52 55 52 63 61 62 66 70 74 76 76 74 79 80 84 87 87 90 89 90 84 82 83 78 96
Hospitals reporting 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9

15
Figure 3. Breastfeeding Collaborative. Exclusive breastfeeding at 3 and 6 mo.

Figure 4. Breastfeeding at children's polyclinic, Sharya Hospital, Kostroma Region.
Figure 5. Exclusive breastfeeding at children's hospitals.

Percent of ill and preterm newborns exclusively breastfed at discharge from children's hospitals in Tambov and Tula Oblasts.

Hospitals included:
- Tambov Oblast Children's Clinical Hospital
- Tula Oblast Children's Clinical Hospital
- Tula City Children's Hospital #3

Figure 6. Feeding method among babies rooming-in on admission and at discharge, Tambov Region Children's Hospital. % and number of children fed by each method.
Figure 7. Feeding method at discharge among pre-term and full-term babies rooming-in with mothers, Tambov Region Children’s Hospital. Percent and number of children fed by each method.

Table 6. Project facilities awarded the status of “Baby-Friendly Hospital”

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Units awarded BFH status</th>
<th>Date awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michurinsk City Hospital No. 2, Tambov Region</td>
<td>Maternity Hospital, Women’s Consultation, Two children’s polyclinics</td>
<td>June 2010</td>
</tr>
<tr>
<td>Tambov Region Children’s Clinical Hospital</td>
<td>Division of Newborn Pathology and Preterm Infants</td>
<td>November 2010</td>
</tr>
<tr>
<td>Torzhok Central District Hospital, Tver Region</td>
<td>Maternity Hospital</td>
<td>December 2010</td>
</tr>
<tr>
<td>Galich City Hospital, Kostroma Region</td>
<td>Maternity Department</td>
<td>May 2011</td>
</tr>
<tr>
<td>Sharya Central District Hospital, Kostroma Region</td>
<td>Maternity Department, Women’s Consultation, Children’s Polyclinic</td>
<td>May 2011</td>
</tr>
<tr>
<td>Tula Region Children’s Clinical Hospital</td>
<td>Division of Newborn Pathology and Preterm Infants</td>
<td>October 2011</td>
</tr>
</tbody>
</table>
i. Discussion

The project results indicate the relative ease and acceptance in central Russia of promoting breastfeeding in maternity and children’s hospitals, under an environment that supports family-friendly maternity care. Achieving measurable change in the community is more difficult, given the range of influences and social factors, but the data suggest it may be feasible.

The wide acceptance of the changes tested is shown by the endorsement of the published change package by 29 facilities participating in the project, although only 17 had formally joined the collaborative.

As noted in chapter 2, the May 2010 sanitary-epidemiologic regulation for maternity hospitals, which Dr. Riumina was instrumental in preparing, required early placement at the breast and skin-to-skin contact with the mother immediately after birth. It strongly recommends rooming in of babies with mother with breastfeeding on demand. It permits breastmilk pumping, and requires pumping to be available in perinatal centers with neonatal intensive care units (NICUs) and newborn pathology departments (although it does not address this issue with respect to children’s hospitals). Breastmilk can be refrigerated up to 12 hours and stored in sterile containers, but only after pasteurization. Babies are allowed to be fed breastmilk only provided by their own mother. These new regulations greatly ease introduction of breastfeeding at maternity hospitals and perinatal centers.

With regard to children’s hospitals, the regulation stated that rooming-in of mothers with children up to 3 years of age in children’s hospitals must be allowed. This last provision has been raised to the level of a legal right by health rights legislation signed by President Medvedev in Nov. 2011. The sanitary regulation recommends that departments of newborn pathology and preterm infants be organized on a rooming-in basis. It does not permit rooming in the NICU, but says parents must be allowed to visit.

On the basis of that regulation, the July 2011 MOHSD methodological letter [8] endorsed:

- exclusive breastfeeding for babies through six months of age
- breastfeeding up to two years of age;
- individual and group breastfeeding training
  - as part of parenting “schools” and antenatal care at women’s consultations,
  - for expectant mothers admitted to pregnancy pathology departments;
  - in maternity wards.
- Support for breastfeeding in both maternity wards and children’s polyclinics
- Hotlines for distance consultation
- Immediate placement at the breast in the delivery room
- Rooming-in and feeding on demand are strongly encouraged
- Training of medical personnel in breastfeeding support at facilities and colleges,
- informational materials to be provided for patients,
- formula marketing restricted in MCH facilities per the International Code of Marketing of Breastmilk Substitutes,
- elimination of the use of nipples and bottles for breastfeeding infants.
- Access of family members to visit expectant and new mothers and newborns

While this closely reflects the work of our project, it was likely based particularly on intensive, across the board collaboration with BFHI in another region, Volgograd Region, which was featured in another recent MOHSD methodologic letter.

“Improving Care for Mothers and Babies” has moved somewhat beyond the federal-level documents in testing approaches to breastfeeding expansion for sick and preterm infants admitted to children’s hospitals. There is still not complete consensus between the Kulakov Center and BFHI on the feasibility of the methods for feeding preterm newborns tested in Tambov and Tula. In part, this may reflect differences in the severity of illness of newborns treated in the Newborn Pathology and Preterm Infants unit at the Kulakov Center and those treated in regional facilities. In Tambov region, about 10% of all newborns are referred by maternity hospitals to the regional level for diagnosis and treatment; in Tula region, this figure reaches 25%, (This is likely due to excessive caution and a lack of diagnostic equipment and skills at the rayon level). Many of these newborns in fact do not require treatment and are able to breastfeed normally.

On the domestic Russian level, it is our hope that discussions will continue and these innovations will continue to be rolled out and refined in additional children’s hospitals. Drs. Abolyan and Polyanskaya have provided input to the BFHI in development of standards for BFH designation of NICUs, so it is likely that the experience of ”Improving Care for Mothers and Babies“ will have influence at the international level.

j. References


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12) Polyanskaya S.A., Introduction of modern perinatal technologies for protection and support of breastfeeding in the newborn pathology and preterm infants’ department of Tambov Region Children’s Clinical Hospital, material provided to the competition of young scientists of FMSMU, prize winner in the Public Health category.

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