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The Baby-Friendly Hospital Initiative in Neonatal Units for Sick and Preterm Newborns in Russia

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Overview

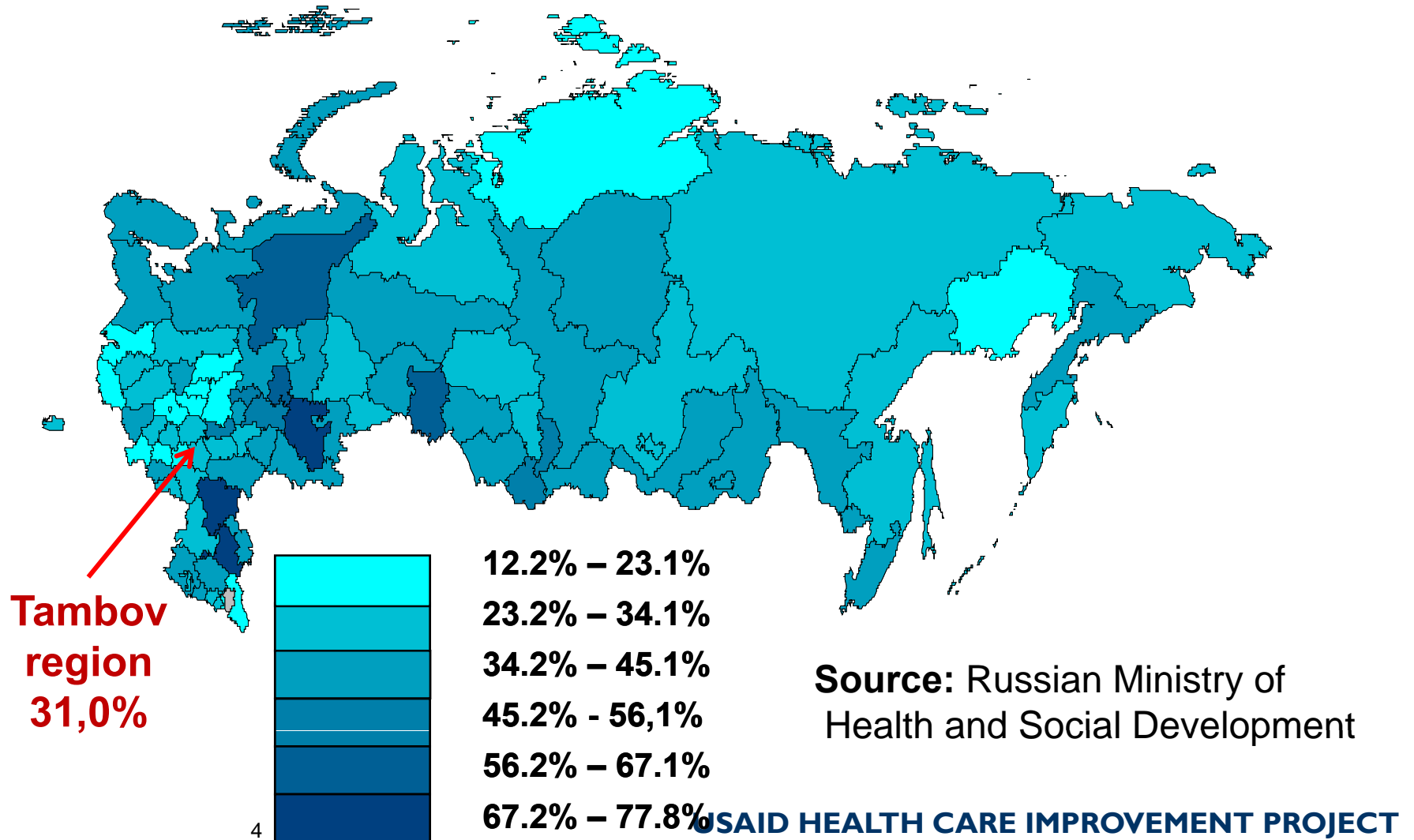
- **Since its introduction into Russia in 1996, the WHO/UNICEF Baby-Friendly Hospital Initiative (BFHI) has grown to cover 286 maternity hospitals in 49 Russian regions and 21% of all births.**
- **Since 2009, BFHI has partnered with “Improving Care for Mothers and Babies,” part of the USAID Health Care Improvement project, to expand breastfeeding practices in central Russia.**
- **We piloted introduction of the “10 steps to successful breastfeeding” into the Department of neonatal pathology and preterm infants of a pilot regional children’s hospital in Tambov (TRCH), Russia.**
- **In Nov 2010, this hospital became the first of its kind in Russia to receive “Baby-Friendly Hospital” status.**
- **We are now spreading the lessons learned to other Russian regions.**

Breastfeeding in Russia

- In the Soviet Union in 1938, exclusive breastfeeding was highly promoted. 72% of 6-month-olds were still exclusively breastfed.
- **By 2000, some breastfeeding was still universally practiced at the maternity hospital. But by 6 months of age it had fallen to 30%.**
- From 2000-2010, breastfeeding practices increased steadily, and had reached 40% of 6-month olds by last year.



Distribution of breastfeeding at 6-months Among Russian regions, 2009



“Improving Care for Mothers and Babies” in Tambov region



- **Historically agricultural region**
- **Population, 1.1 million**
- **10,000 births per year at 13 maternity hospitals**
- **10 hospitals joined project in May 2009—
6 focused on expanding breastfeeding**
 - **Tambov Regional Maternity Hospital**
 - **Tambov Regional Children’s Hospital (TRCH) —led breastfeeding efforts**
 - **2 maternity hospitals in Tambov City—1 focusing on breastfeeding**
 - **One polyclinic in Tambov City**
 - **5 central district hospitals – 3 focused on breastfeeding**
 - **1 town hospital in Michurinsk – focused on breastfeeding**

Project-level interventions

- **May 2009** — Training on health care quality improvement (QI) methods. Analysis of problems at hospitals, in teams
- Quarterly support visits to hospitals by QI and clinical specialists
- Experience-sharing through project web portal
- **Nov 2009, Feb 2010, June 2010, Oct 2010, May 2011**— Learning sessions to share experiences with other facilities and regions
- **Dec 2009**—Training of 6 trainers from Tambov region in 40-hour WHO/UNICEF course
 - **Included neonatologist (S. Polyanskaya) and nurse from TRCH**
- **June 2010**—Successful assessment of Michurinsk City Hospital No. 2 for “Baby-Friendly Hospital” status
- **Nov 2010**—Successful assessment of TRCH
- **Mar 2011**—Seminar on “Breastfeeding of Sick and Preterm Infants” in Moscow, including 2 participants from TRCH

Tambov Regional Children's Hospital

- **Founded in 1940**
- **399 total beds**
- **Department of neonatal pathology and preterm infants**
 - **40 intermediate care beds + 9 beds for intensive care**
 - **1000-1100 newborns per year admitted**
 - **Typical age upon admission: 6-8 days**
 - **Preterm neonates – 11,9%**
 - **Low birth weight neonates – 13,6%**
- **Reasons for admission of newborns:**
 - **neonatal cerebral ischemia – 75%;**
 - **jaundice – 40%; – birth trauma – 20%**

Most admitted newborns have more than one diagnosis



Adaptation of 10 steps to successful breastfeeding:

Step 1: a written breastfeeding policy

Jan 2010: The chief doctor issued an executive order on implementation of the 10 steps of the BFHI (shown here, hanging in the department)

The policy forbids advertising of formula, bottles, nipples, etc.

10 ПРИНЦИПОВ ГРУДНОГО ВСКАРМЛИВАНИЯ

ОБУЧАТЬ ИНФОРМИРОВАТЬ ПОКАЗЫВАТЬ

ПРИНЦИП 1.
Иметь зафиксированную в письменном виде политику в отношении практики грудного вскармливания и регулярно доводить ее до сведения всего медико-санитарного персонала.

ПРИНЦИП 2.
Обучать весь медико-санитарный персонал и родителей необходимым навыкам для осуществления этой политики.

ПРИНЦИП 3.
Информировать всех беременных женщин о преимуществах и методах грудного вскармливания.

ПРИНЦИП 4.
Информировать беременных женщин о важности раннего начала грудного вскармливания в течение первого часа после родов.

ПРИНЦИП 5.
Практиковать круглосуточное совместное размещение матери и ребенка.

ПРИНЦИП 6.
Не давать младенцам никакой иной пищи или питья, кроме грудного молока в течение первых 6 месяцев жизни, за исключением случаев медицинских показаний.

ПРИНЦИП 7.
Показывать матерям, как кормить грудью и как сохранить лактацию, даже если они должны быть отделены от своих детей.

ПРИНЦИП 8.
Не давать новорожденным, находящимся на грудном вскармливании, никаких успокаивающих средств и устройств, имитирующих материнскую грудь (соска, пустышка).

ПРИНЦИП 9.
Поощрять грудное вскармливание **ПО ТРЕБОВАНИЮ** младенца, а не по расписанию.

ПРИНЦИП 10.
Поощрять создание групп поддержки матерей, информировать матерей о возможности обращения в эти группы за консультативной помощью. Создавать в детской поликлинике обстановку поддержки семей, в которых есть дети, вскармливаемые грудью. Осуществлять преемственность в работе детской поликлиники, женской консультации и акушерского стационара.



Adaptation of 10 steps to successful breastfeeding:

Step 2: Train all medical personnel

Jan-June 2010: 1st training cycle

- All 68 staff (doctors, nurses, aides) trained.
- Provided by 2 trained instructors
- 40-hour WHO course divided into topics
- 1 topic covered per training session
- Twice monthly sessions scheduled to cover both shifts



July-Dec 2010; Jan-June 2011. Repeat training cycles for all staff

- In 2011, we added updated material including material from:
 - The WHO-UNICEF 20-hour course
 - The WHO Technical Review “Optimal feeding of low-birth-weight infants”
 - The Academy of Breastfeeding Medicine (ABM)
 - The International Lactation Consultant Association (ILCA)
 - National Breastfeeding Program recommendations of the Russian Union of Pediatricians/National Association of Dieticians and Nutritionists

Adaptation of 10 steps to successful breastfeeding: Step 3: Inform all mothers about the benefits and management of breastfeeding.

Since Jan 2010, 100% of mothers of admitted newborns received individual instruction in breastfeeding



Since July 2010, all mothers have participated in weekly group breastfeeding instruction.

Since Dec 2010, all mothers watch films on breastfeeding in their rooms on a portable DVD-player

Adaptation of 10 steps to successful breastfeeding.

Step 4: Skin-to-skin contact; kangaroo mother care

- **Since Sept. 2010**, if the baby is stable, skin-to-skin contact is implemented for both full-term and preterm babies, no matter how early or small.
- Skin-to-skin contact is maintained for 30-60 minutes at a stretch, more than 7-8 times per day.
- This both improves the condition of the baby and supports breastfeeding.



Adaptation of 10 steps to successful breastfeeding: Step 5: Pumping breastmilk “on demand”

- **April 2010, Purchase of 2 breastpumps**
- **Feb 2011, Donation of 5 additional pumps**
- **Mothers whose babies are unable to nurse should pump breastmilk every 3 hours**
- **In Russia sanitary rules do not permit this milk to be stored longer than 1 hour**



- **Therefore the mother tries to pump “on demand”—to anticipate when the baby will want to be fed.**

Adaptation of 10 steps to successful breastfeeding:

Step 6: Principles for feeding preterm and LBW infants

In Jan. 2010, TRCH started admitting preterm newborns, who room-in with mothers in single rooms with incubators or heated cribs.

- 1. Choice of feeding method depends on the severity of the infant's condition, birthweight and gestation age.**
- 2. Newborns on total parenteral nutrition are to be provided minimal amounts of (trophic) enteral nutrition, if the child's condition permits.**
- 3. For children <1500 gm birthweight, fortify expressed mother's milk with multinutrient supplements.**
- 4. For artificially fed infants only special formula designed for preterm infants is used.**

Step 6: Feeding guideline for LBW & preterm newborns

Source: Russian National Breastfeeding Program of the Russian Union of Pediatricians/National Association of Dietologists and Nutritionists, 2008

Birthweight (grams)	Gestational age	Feeding method
<1000	-	Total parenteral nutrition + minimal enteral (trophic) feeding
1000-1500	<30 weeks	<ul style="list-style-type: none">- Tube feeding- Total parenteral nutrition + minimal enteral (trophic) feeding
1500-2000	30-33 weeks	<ul style="list-style-type: none">- Nursing is possible- Pumped breastmilk, fed through a tube, small cup, spoon, syringe etc.)
2000-2500	33 weeks or more	<ul style="list-style-type: none">- Breastfeeding- Breastfeeding + pumped breastmilk

Step 6: Breastmilk feeding for LBW newborns

Schedule, with strict daily monitoring of weight gain

Day of life	Kcal/kg/day
1	25-30
2	40
3	50
4	60
5	70
6	80
7	90
10-14	100-120
17	130



Source: Russian National Breastfeeding Program of the Russian Union of Pediatricians/National Association of Dietologists and Nutritionists, 2008

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Adaptation of 10 steps to successful breastfeeding: Step 7: Practice rooming-in 24-hours a day

- After renovation, **since July 2008**, the department has state-of-the-art hospital rooms for rooming-in.
- Mothers with full-term babies share double rooms, those with pre-term babies are in single rooms.
- Mothers and infants are separated no more than 2 hours per day.
- The other 10 beds are used for abandoned children or children whose mothers are receiving treatment at another hospital



Adaptation of 10 steps to successful breastfeeding: Step 8: Feeding on demand, if the child's condition permits

- **Since July 2008** and introduction of rooming-in, feeding is unlimited and on demand if breastfeeding is exclusive and weight gain is good.
- **If the child is weak or sick or weight gain is poor, timing of feeding may be closely controlled: every 2-3 hours or more frequent.**



The mother puts the baby to her breast at the first sign of hunger, without waiting for the baby's cry

Adaptation of 10 steps to successful breastfeeding:

Step 9: Eliminate bottles and nipples

- **Since March 2010**, bottles have been used only for abandoned babies.
- Feeding cups, soft feeders, syringes and special needs feeders are used as alternatives to bottle feeding for babies who cannot nurse.
- To teach babies to suck and stimulate their mothers' production of milk the Supplementary Nursing System, finger feeders and nipple shields are used.



Adaptation of 10 steps to successful breastfeeding: Step 10: Support for breastfeeding after discharge

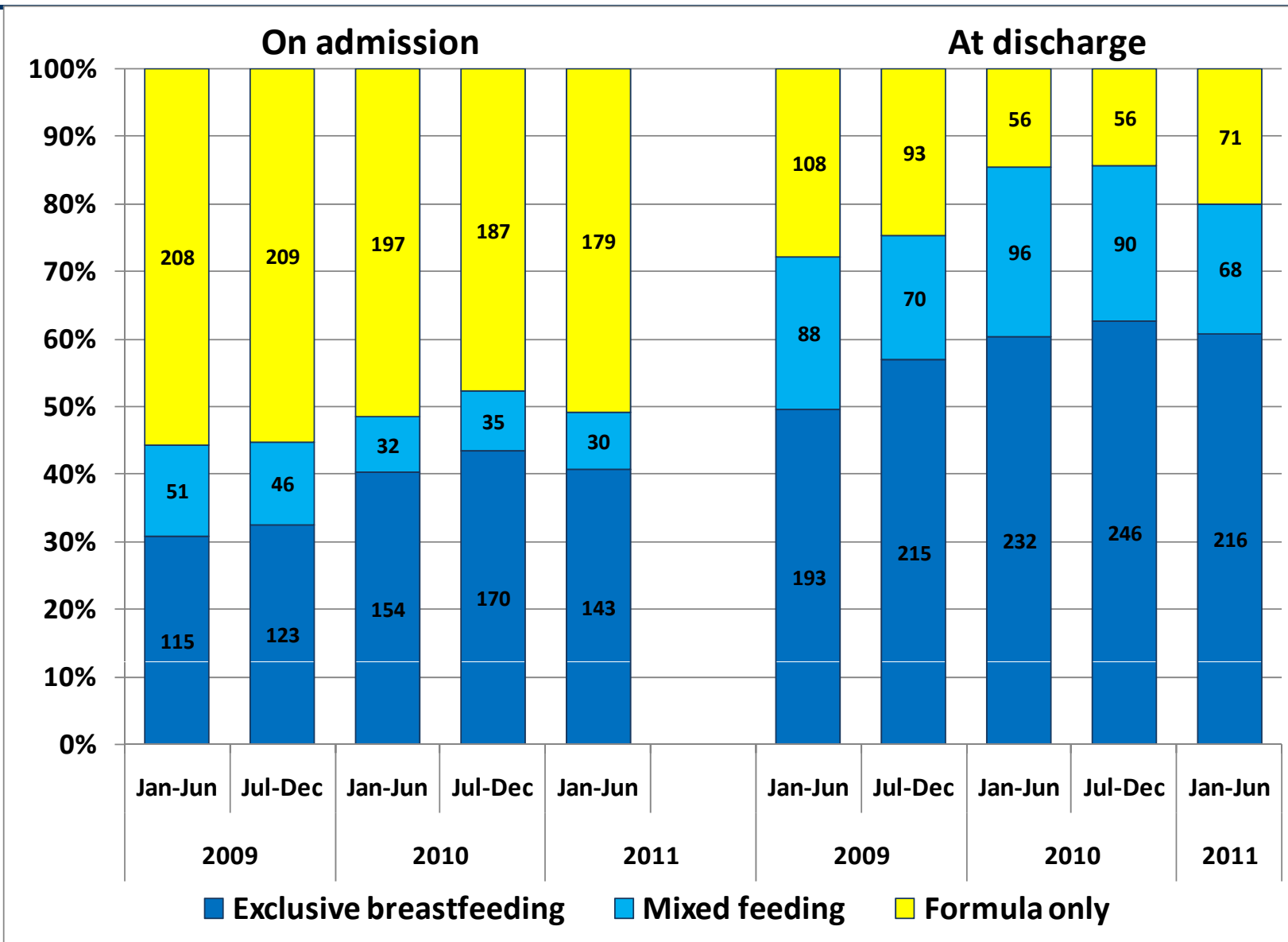
- **Since March 2010**, TRCH has surveyed all rooming-in mothers about how long they plan to breastfeed. Answers:
 - **6 months—29%**
 - **12 months—53%**
 - **At least 2 years – 18%**
- All patients are seen at follow-up visits in TRCH's outpatient department after discharge.
- The department also runs a hotline for any post-discharge questions.



- **Since May 2010**, staff who are themselves experienced breastfeeding mothers provide continued support.

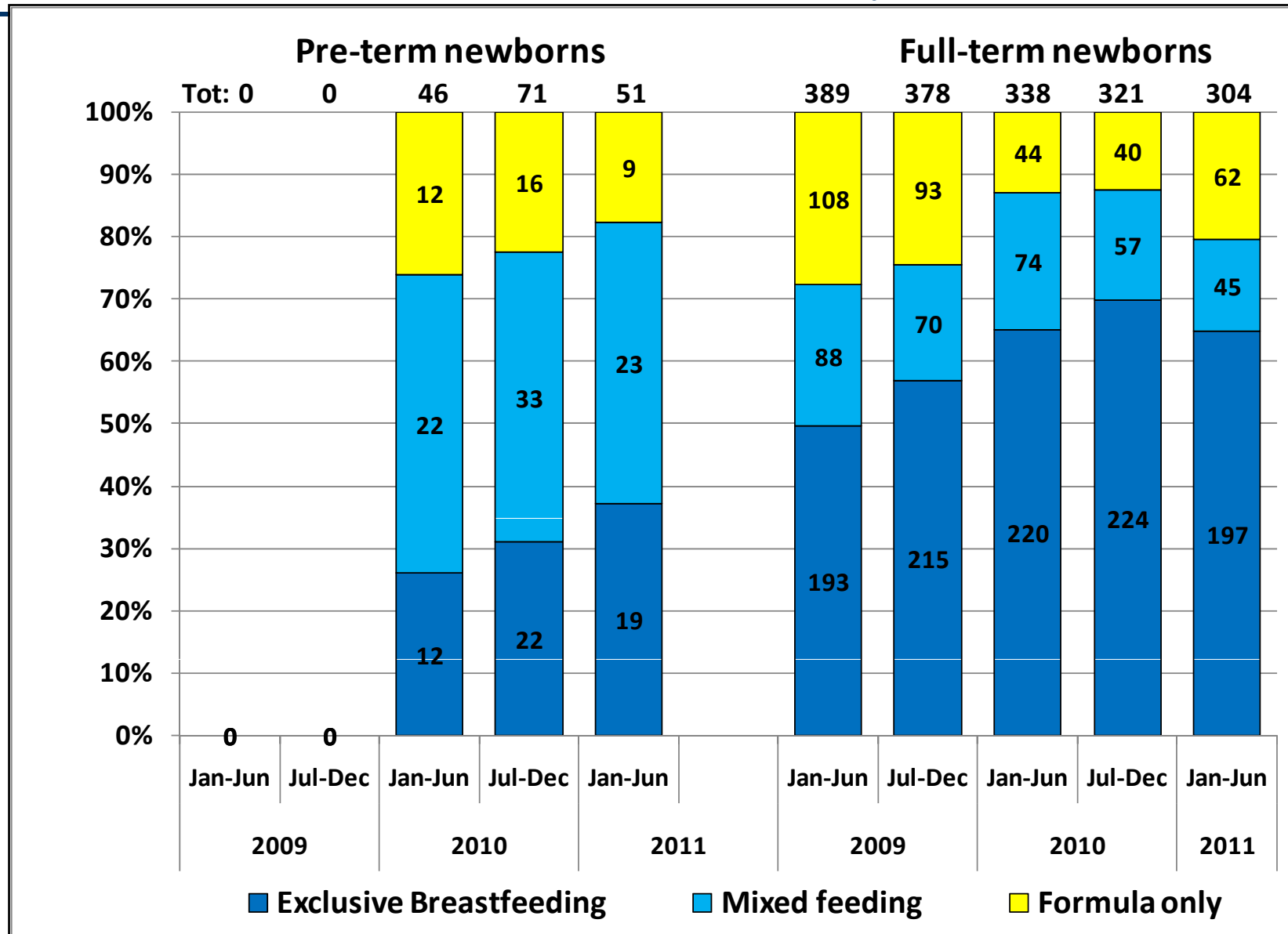
Results: Feeding method among babies rooming-in with mothers on admission and at discharge, TRCH

Percent and number of children fed by each method



Results: Feeding method at discharge among pre-term and full-term babies rooming-in with mothers, TRCH

Percent and number of children fed by each method



Conclusions

- **Adaptation of the 10 Steps at TRCH significantly increased the level of breastfeeding among sick and preterm newborns—to 80-85%.**
- **Mothers in Tambov Region intend to breastfeed; maternity hospitals are supporting them better, but still lack knowledge and skills needed to support breastfeeding of sick and preterm babies.**
- **Rooming-in of mothers and these babies is possible, and it is the critical step. Introduction of rooming-in and feeding on demand enabled a 25% increase in breastfeeding after admission to TRCH.**
- **An additional change package of interventions (training staff, acquiring pumps, exchanging experiences, measuring quality etc.) enabled an additional 10% increase in breastfeeding.**
- **We are working intensively with mothers of ill full-term babies to reverse the small decrease in breastfeeding levels at TRCH in 2011.**

Next steps at TRCH

- **Spreading baby friendly practices to a soon-to-be opened 40-bed Preterm Infant Department, which will care for most preterm babies in Tambov region.**
- **Clarifying sanitary standards for expression and storage of breastmilk.**
- **Enrichment of breastmilk for preterm babies.**
- **Broadening indications for using breastmilk for ill and preterm infants.**
- **Formation of support groups for mothers of these high-need infants after discharge.**

Spreading lessons learned

- **Replication of experience in 4 children’s hospitals in the nearby region of Tula.**
- **Further development of standards for assessment of children’s hospitals for “Baby-Friendly Hospital” status.**
- **Publication of a written “change package” on breastfeeding, including sections on breastfeeding pre-term and sick infants.**
- **Spreading all breastfeeding practices regionwide in Tambov. Through two annual seminars, TRCH has trained 100 pediatricians from all the region’s maternity and child facilities.**
- **Sharing experiences with all of you in Uppsala!**

Acknowledgments

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***All photos by S.A. Polyanskaya
and L.V. Abolyan***