



John Snow, Inc.

April 2012

# Transforming Health Care for Mothers and Babies in the Former Soviet Union



This publication describes work John Snow, Inc. (JSI), and the non-profit JSI Research and Training Institute, Inc., performed under several contracts and cooperative agreements funded by the United States Agency for International Development (USAID). In most countries, JSI was or is the lead technical assistance agency, and in some, JSI was a subrecipient to Abt Associates Inc. In every case, JSI worked closely with local institutions in the public and private sectors. We gratefully acknowledge these partnerships and the financial support of USAID for that work.

This publication was funded entirely by JSI.

The views expressed in this publication are the authors' and do not necessarily reflect the views of USAID, the United States Government, or any other organization, funding agency, or host country institution that may be mentioned in this report.



**John Snow, Inc.**

**JSI/Boston**

44 Farnsworth Street  
Boston, MA 02210-1211  
Phone: 1.617.482.9485  
Fax: 1.617.482.0617

**JSI/Washington DC**

1616 Fort Myer Drive  
Rosslyn, VA 22209-3110  
Phone: 1.703.528.7474  
Fax: 1.703.528.7480

**[www.jsi.com](http://www.jsi.com)**

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Mothers and Babies in  
the Former Soviet Union

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## Introduction

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A remarkable transformation in maternal and infant health care is spreading steadily throughout the countries of the former Soviet Union.

This publication outlines the dramatic shift from highly medicalized provider-centered care following outdated protocols to client- and family-centered care using evidence-based approaches, how that was accomplished and scaled up, and the impact on health and survival. This shift is due largely to the courage of early country counterparts who were willing to take significant risks to improve care for women and children and to the incredible energy and commitment of those who followed in their footsteps, spreading change. Equally important was the U.S. Agency for International Development's (USAID's) commitment to invest in improving maternal and child health (MCH) care in these countries. John Snow, Inc. (JSI) was undoubtedly a key player, but credit also goes to other donors and partners that worked collaboratively to support the governments in modernizing their MCH practices.

"Medicine is a conservative field, especially in [obstetrics and gynecology]. It was fashionable to provide too many drugs and interventions, but then the project came and advocated to go back to our roots, to our families. Maternal mortality, infant mortality, child mortality, and other health outcomes have improved. But, there's still work to be done to improve."

Head Obstetrician/Gynecologist,  
Tyumen Region, Russia,  
speaking at a press conference in 2011

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Beginning in 1999, with support from USAID, JSI\* worked in the Russian Federation, Ukraine, Georgia, and the five Central Asian Republics – Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan – to improve maternal and infant care and reduce maternal and infant morbidity and mortality. In Central Asia, JSI worked under a subcontract from Abt Associates Inc., the prime contractor for the *ZdravPlus* health reform projects. JSI led those projects' work on maternal and infant health. The chronology of these USAID projects in the different countries is presented in Figure 1.

The investment in the projects was modest, ranging from about \$200,000 to \$2.3 million per year in a country. Yet, in little more than a decade, these projects had a

remarkable impact on how maternal and neonatal health care is provided. Outdated, rigid, highly medical, and resource-intensive approaches are rapidly being replaced by modern evidence-based approaches that are more woman- and family-friendly, achieve better health outcomes, economize health sector resources, and empower women, families, health care providers, and administrators.

The transition to such radically new and different approaches has been a difficult one for the countries to make, and much remains to be done. However, the new approaches resonate with providers, women, and families who say they feel that childbirth is once again becoming a natural and positive experience, rather than one to be feared. The changes are anchored in community and health professionals' values, and the local ownership and momentum that

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\* In Russia, starting in 2006, JSI worked closely with its Russian partner, the Institute for Family Health.

**Figure 1: Timeline for the projects**

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Russia		Women & Infants Health Project			Maternal and Child Health Initiative			Maternal and Child Health Initiative II			Institutionalizing Best Practices in Maternal and Child Health					
Ukraine				Maternal & Infant Health Project			Maternal & Infant Health Project II									
Georgia				Healthy Women in Georgia			Health Women in Georgia SUSTAIN		SUSTAIN							
Central Asian Republics		ZdravPlus*				ZdravPlus II*										

\* Officially the Central Asia Quality Health Project and Quality Public Health and Primary Health Care in Central Asia project. JSI was a subcontractor to Abt Associates Inc. for these projects.

have been built over the years all point to continued expansion of these changes.

The following stories capture the dramatic changes that are taking place.

The tale of Alexey, a 34-year-old father of two in Surgut, a city in Siberia:

“I grew up in a large happy family, and my fiancée knew my dream was to have a lot of children. When my oldest son was born eight years ago, I wanted more than anything else in the world to take him into my arms, to give my wife a kiss and say, ‘Thank you, Darling, for giving me such a lovely boy!’ But neither husbands, nor parents, nor anyone at all was allowed to visit. You couldn’t even ask how your wife

and baby were. The doctors were always busy, and the nurses didn’t have any information. When my wife came home, she told me what she had to go through during a week in the maternity department: indifferent doctors, rude nurses, so many things happened to her that she didn’t understand, and [there was] no possibility to be with our baby whenever she wanted, for as long as she wanted. She felt she was living a nightmare and didn’t want to hear about having another child for another three or four years.

“Slowly, I got her to change her mind and promised her that everything would be better next time. By that time, some friends had told us their positive impressions of changes going on in some of our maternity hospitals. Several

weeks before the delivery, we carefully studied all the maternity facilities in the city and decided on the Regional Perinatal Center, one of the hospitals that was making changes. When our baby was due, we went there, and we both knew immediately we had made the right choice. I was able to be a partner with her in labor. I could stay near her and support her. We were given a separate room that didn’t feel like a hospital ward. It felt welcoming. And when the doctor put my second son on my chest, I almost cried! I was the one who gave him life. I was there when he took his first breath. The doctor even let me cut the cord. These are the kinds of things you never forget in your whole life! I was so grateful to the hospital staff for their competence and their con-

siderate and family-like attitude to mothers and newborns.

“Now my older son is eight; the younger is three. It’s high time to have a girl, though it is hard to say when that will happen. One thing I know for sure: We will go to that maternity hospital again.”

The head of the obstetrics and gynecology department in a large medical center in Zestafoni, Georgia, articulated the health care providers’ perspective on the changes, as he proudly showed some foreign visitors around a hospital in his district:

“In Georgia, we’re known for the Rose Revolution, but what you are seeing here was an obstetric revolution!”

An obstetrician-gynecologist at the Chachava Institute of Perinatology, the most prestigious private maternity hospital in Georgia, shed more light on the changes:

“I came to the *Effective Perinatal Care* training a total skeptic. I thought my hospital did the best obstetrics possible and that we had little to learn. John Snow, Inc.’s expert trainers changed my mind.

“I’m a scientist, and I respect the evidence. As I began to visit and actually see *Effective Perinatal Care*



hospitals, happy clients and better outcomes, I changed completely. I was inspired to become a vigorous advocate for evidence-based obstetric practices. I had an irresistible desire to share my newly acquired knowledge and experience with all my colleagues and professionals throughout the country ...

“Now, I think my career is divided into pre- and post-*Effective Perinatal Care*. I was transformed! I have changed practices in my hospital. I work as part of the Georgian *Effective Perinatal Care* Training Team. I teach *Effective Perinatal Care* to students and residents in medical

school. I’ve seen a lot of donor programs come and go, but this one has really made a difference.”

## The Legacy of the Soviet Health System

As the Soviet Union broke apart in the early 1990s, its 15 constituent republics declared independence, becoming separate sovereign nations. While each country is very different in size, population, ethnicity, culture, resources, and economy, they all inherited the same “Semashko model” health system, financed and operated by the government and promising the population universal access to free and comprehensive health care. While access to care was good, the system was characterized

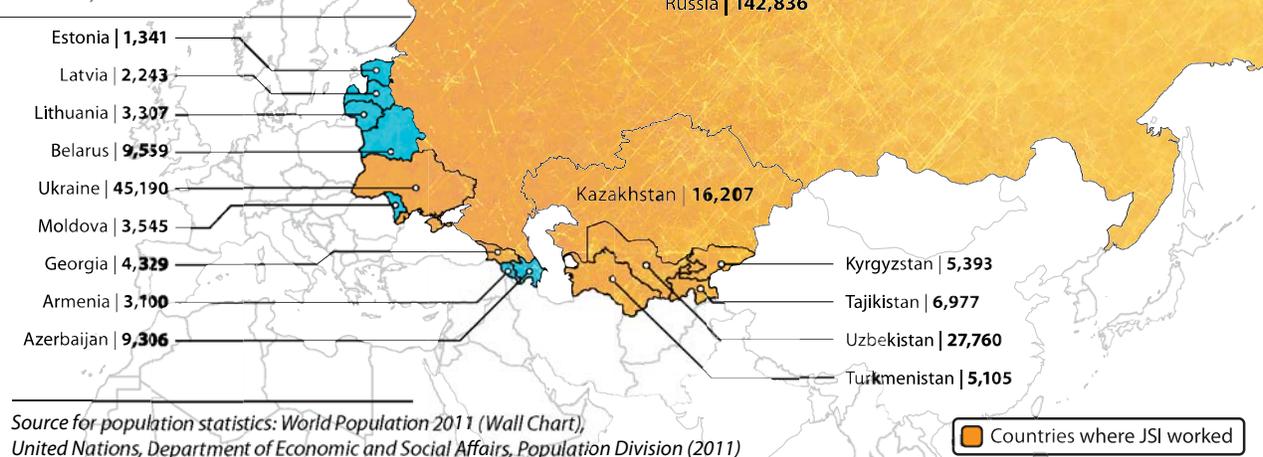
by central planning and control; heavy regulation accompanied by a system of inspections and punishments; over-reliance on curative and inpatient care at the expense of basic primary care; fragmented networks of specialized service providers; and excess capacity, both in buildings and personnel.

Under the Soviet system, medical science developed in isolation from the mainstream of international scientific information. Even today, many medical practices in the former Soviet Union remain informed by a “unique Soviet” approach or represent Western standards from 50 or more years ago. A widespread lack of knowledge of clinical epidemiology and minimal access to the Internet and international journals and publications, coupled with very limited

English language skills, kept providers from acquiring information about international standards, research, and approaches. Medical education was antiquated, both in what was taught and in teaching methodology, which emphasized theoretical information at the expense of practical skills.

Health workers adhered rigidly to regulations. Health facilities and health authorities had to meet targets. Deviations were subject to penalties, ranging from censure and fines to demotions and imprisonment. Professional cultural norms were governed by a closed system of decision-making, an absence of open discussion, and a rigid management culture averse to decentralization

**Figure 2: The countries of the former Soviet Union and countries where JSI worked** (with estimated 2011 population in 000s)



Source for population statistics: World Population 2011 (Wall Chart), United Nations, Department of Economic and Social Affairs, Population Division (2011)

or a team approach. Clients were passive recipients of services, expected to follow doctors' orders without question. In effect, the system was more responsive to the wants and directives of the government than to the needs of clients.

Health services were fully government-financed, but in the years leading up to the breakup of the Soviet Union, declining proportions of gross domestic product were dedicated to health-care.

So the new nations inherited a whole array of problems and challenges in seeking to maintain and improve their citizens' health. These included a financially unsustainable health system, decaying infrastructure, growing inequity between regions\* within countries and between different socio-economic groups, aging equipment, underpaid health workers, and patients obliged to pay under-the-table for most care.



Women wait for their relatives to display the new baby at the hospital window

\* For purposes of simplicity, the term "regions" is used in this document to include all administrative divisions, including *oblasts*, *krais*, *okrugs*, autonomous republics, and independent cities.

## Challenges in Maternal and Neonatal Health Care

Improving health care for mothers and newborns in the countries of the former Soviet Union presented unique challenges not found in other regions of the world.

The Soviet health system had far-reaching infrastructure that provided almost universal access to care and an abundance of specialized physicians and other health providers. Virtually all women received prenatal care and delivered in a hospital, attended by an obstetrician-gynecologist or, in some places, a midwife. Despite access to skilled care, key maternal and child health (MCH) indicators lagged behind those of Western Europe and even behind many less developed countries, calling into question the content of care.

The care provided to women was highly medicalized. Women were often hospitalized during the prenatal period; they had to make numerous prenatal visits, even during a healthy pregnancy; they received many medications, tests, scans, and specialist referrals; and they

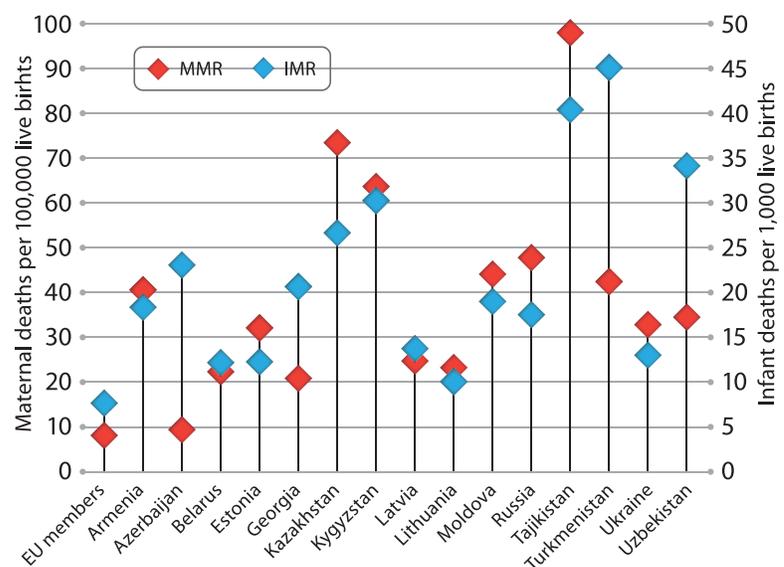
generally spent over a week in the hospital for delivery. So the challenge was to demedicalize care rather than to bring women into the health system, which is often the challenge in so many other parts of the world.

Demedicalizing care, in turn, called for introducing evidence-based medicine to demonstrate that better results could be achieved by adopting less medical approaches. However, evidence-based medicine was an alien concept to virtually all country counterparts when the projects started, and there was widespread skepticism that studies of sub-national population groups

could provide sufficiently reliable evidence for decision-making.

The complex web of laws and regulations in these countries also presented a major challenge because providers' practices could not be changed without changing the whole array of regulations. Failure to capture one of the policy changes needed to allow providers to practice according to new, evidence-based standards exposed them to punishment by one of the various supervisory bodies and inspection teams that governed – and continue to govern – their professional lives.

**Figure 3: Maternal mortality and infant mortality were higher than in the neighboring European Union (1990)**



Source: World Health Organization, Health for All Database, <http://data.euro.who.int/hfad>, accessed 3.12.12

Even with these challenges, one element facilitated change: strong government commitment to improving maternal and infant health care. The countries recognized that their maternal and infant mortality rates were higher than they should be, and they were open to trying what they considered radically new approaches to improve the situation. In addition, most former Soviet Union countries had experienced rapid population declines in recent decades, with low birth rates contributing significantly to the problem. So great was their concern, that they had put in place significant financial incentives to encourage women to have children. Childbearing was high on the national agenda of many countries and was a frequent, high-profile topic of national debate in political circles and in the media. The time was ripe for change.



## How Things Changed

To improve and modernize care and bring about improved health outcomes, JSI built on two fundamental principles: humanizing care and making health services more responsive to clients and families, and promoting care based on evidence-based medicine principles to improve outcomes. These two core principles underlie the major changes that took place in how services were provided.

### **A provider focus shifted to a more client and family focus**

During the Soviet era, maternal and infant care was organized around the provider, rather than around the woman and her family or companions. Women were subjected to unpleasant and potentially harmful practices at the maternity hospital, such as routine enemas, pubic shaving before delivery, too frequent episiotomies, and ice on the abdomen after the delivery. They were moved from place to place: from a pre-delivery ward to a delivery room, and finally a postpartum ward. In the delivery room, they were lined up in neat rows, without regard for

### **A note about data in this report**

Each of the projects covered in this publication was different, even though the basic thrust of their work in maternal and infant care was similar. Each had its own goals and objectives, and each had its own indicators to measure success. Thus, the same measures are not available across all the countries. Even where indicators appear to be the same or similar, there are often differences in the exact definitions of terms and/or data collection methods. Thus, comparisons *between* countries should be avoided. Rather, the data illustrate changes over time within a single country.

There may also appear to be a contradiction between statements in the text that certain practices were very frequent or “routine” during the Soviet era and data indicating relatively low levels of these practices. That is because while these practices were, indeed, the norm, earlier work by the projects and other partners had reduced their use by around 2005, which is the starting point for much of the data presented here.

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*“Roddom in Russian means ‘birthing home.’ So the hospital has to be a home to the women and the staff.”*

Deputy Head Doctor,  
Tobolsk Perinatal Center,  
Tyumen Region, Russia

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their privacy, where they lay flat on their backs on elevated “Rakhmanov beds” with their legs in stirrups. This facilitated the work of providers but was not optimal for birth outcomes and kept women from participating in the birth of

their babies. Eating and drinking during labor were restricted, and women could not walk around. Healthy newborns were subjected to unnecessary and painful examinations. Mother and baby were separated soon after delivery, and the baby was placed in a nursery. Breastfeeding often started late, depriving babies of the benefits of colostrum, and the baby was brought to its mother on a strict schedule for feeding. Partners and family members were barred from the hospital, so women would stand at the hospital window displaying their new babies to family and friends outside. Women were not involved in caring for their

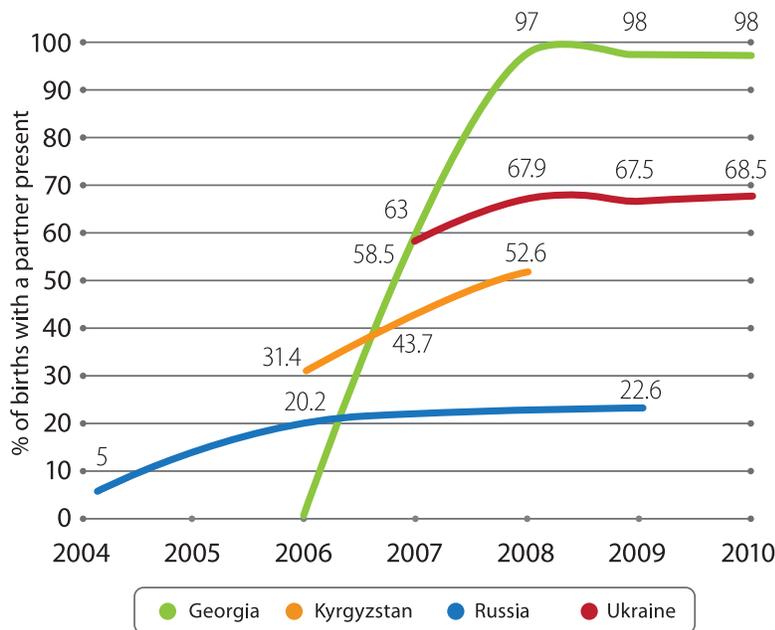


The old: a row of women lying on Rakhmanov beds



The new: free positioning and presence of a partner

**Figure 4: More women delivering with a partner present**



Notes and sources: **Russia:** Data are from surveys of women postpartum in five regions that participated in the Russia project between 2003 and 2006 (most were not in the project after 2006). Source: Maternal and Child Health Initiative II Final Technical Report;<sup>1</sup> **Ukraine:** Data are from project monitoring. Source: Ukraine Maternal and Infant Health Project (MIHP-II);<sup>2</sup> **Georgia:** Monitoring data from project sites; **Kyrgyzstan:** Data are from project monitoring. Source: Progress in Maternal and Newborn Health in the Kyrgyz Republic.<sup>3</sup>

babies, and they were given only the most basic information about their health and the procedures being performed on them. Hospital stays, even for normal deliveries, were more than a week.

The new approaches are more woman- and family-friendly. Maternity hospitals are open to relatives and friends, and the presence and support of a partner during labor and delivery is actively encouraged. Practices that are not based on evidence are well on their way to being confined to the past, and unnecessary restrictions (e.g., on eating, drinking and walking around) are becoming extinct. Women can move around and labor and deliver in the position they find most comfortable, often supported by a partner, and in many places, there are birthing

balls, delivery chairs, and other aids to help in the process. Where resources permit, they go through labor and delivery in private rooms with home-like decor, and most babies “room-in” with the mother from birth until both mother and child are discharged. In low-resource settings, women have private delivery rooms but are then transferred, along with their babies, to a room shared with other new mothers and their babies. Within a few minutes after birth – as soon as the newborn is dried and has received a rapid medical assessment – the baby

is placed on its mother’s breast to benefit from human warmth, to encourage immediate breastfeeding and to promote bonding. When immediate contact between mother and baby is not possible, (e.g., after a caesarian delivery with general anesthesia), the father or partner holds the baby to his or her chest, providing essential human warmth and contact. Increasingly, women and couples are empowered with information at each step in the process, are counseled on their choices and on healthy behaviors, are supported in making their own decisions about the care

they receive, and are encouraged to ask questions.

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“The only things we have left are oxytocin and soap!”

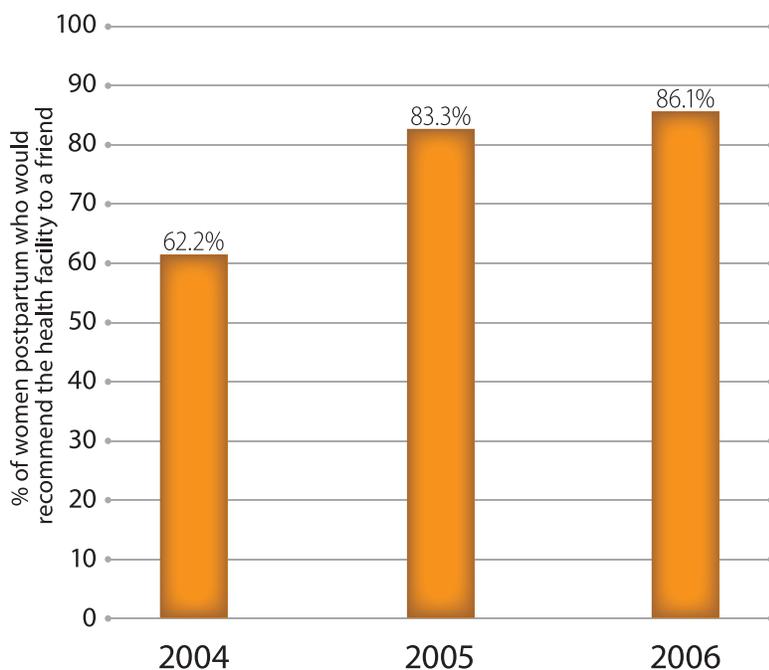
A senior hospital director commenting on demedicalization of care during the first Effective Perinatal Care course in Georgia

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### Care became more evidence-based

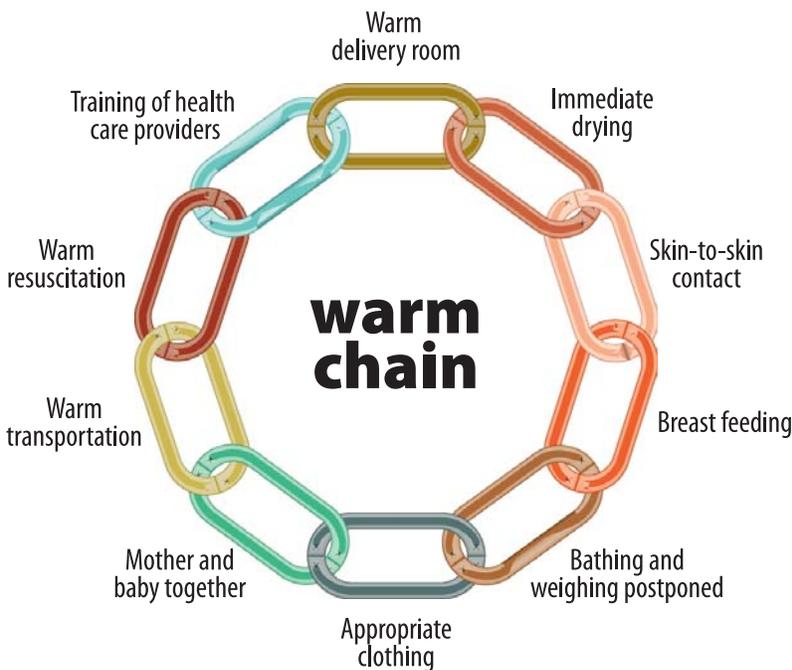
The health system, during the Soviet era, considered 80 percent or more of pregnant women to be at risk and the core function of prenatal and delivery care was to identify potential risks and manage them. This resulted in batteries of tests, scans, and referrals to specialists, and most women were hospitalized at some stage during their pregnancy. Many potentially harmful practices were performed widely or even routinely, such as episiotomies; artificial rupture of the membranes; post-delivery vaginal examinations to check the cervix; post-delivery vaginal smears; insertion of a tube down to the newborn’s stomach for diagnostic purposes; and intravenous infusions or blood transfusions for infants with jaundice.

**Figure 5: Client satisfaction increased in Russia**



Notes and source: Data are from surveys of postpartum women in five regions that participated in the Russia project between 2003 and 2006 (most were not in the project after 2006). Source: Maternal and Child Health Initiative II Final Technical Report (see References).

**Figure 6: Ten links in the “warm chain”**



Source: “Warm Chain” – Thermal Protection of the Newborn – video produced by Maternal and Infant Health Project, Ukraine.

The new approaches, by contrast, recognize that more than 85 percent of pregnant women do not need specialist interventions and that formal risk assessment systems neither prevent maternal mortality, nor save resources.<sup>4</sup> As a result, numerous non-evidence-based interventions began to be discontinued at the same time as critical, potentially life-saving interventions demonstrated to be effective were introduced. These include:

- The World Health Organization’s (WHO) partograph to chart the progress of labor

and help health workers track the condition of mother and fetus and make timely decisions about needed interventions, transfers to higher levels of care or the need for caesarian or instrument-assisted vaginal deliveries. Use of the partograph reduces maternal and neonatal mortality and morbidity.

- Active management of the third stage of labor (AMTSL), the most important practice to prevent postpartum hemorrhage, a major cause of maternal deaths. It involves three simple actions: administration

of oxytocin immediately after delivery; controlled cord traction; and uterine massage after delivery of the placenta.

- A rapid assessment of the newborn to identify asphyxia, a leading cause of neonatal mortality, and determine if there is a need for neonatal resuscitation. This is coupled with hospital procedures to ensure that all personnel working in delivery rooms are prepared for resuscitation at every birth, with essential resuscitation equipment and supplies ready and functional.
- The “warm chain” to ensure that the newborn is kept warm from the moment it enters the world, a critical issue in countries where winters are harsh and hypothermia affects a large majority of newborns (see Figure 6).
- Phototherapy lamps to treat infants with jaundice without any invasive procedures.

Many significant changes were made in providers’ practices, and a few are cited here as examples. As can be seen in Figure 7, noteworthy declines in episiotomies were recorded in Russia, Ukraine, and Georgia. There was a 38.5 percent drop in Russia over five years; 57.1 percent in Ukraine over four years;

and 91 percent in Georgia over six years. Another example is artificial rupture of the membranes, which also fell. In Ukraine, by 2010, only 3.5 percent of deliveries at project sites involved the procedure, compared with almost three times that many (9 percent) in non-project sites in the same regions.<sup>5</sup> And in Russia, this practice was reduced from 40 percent to 31 percent in project sites between 2003 and 2006, according to a study of more than 14,000 medical records.<sup>6</sup> Other examples are presented later in this report to show the link between

increased use of evidence-based practices and reduced incidence of maternal hemorrhage and newborn hypothermia.

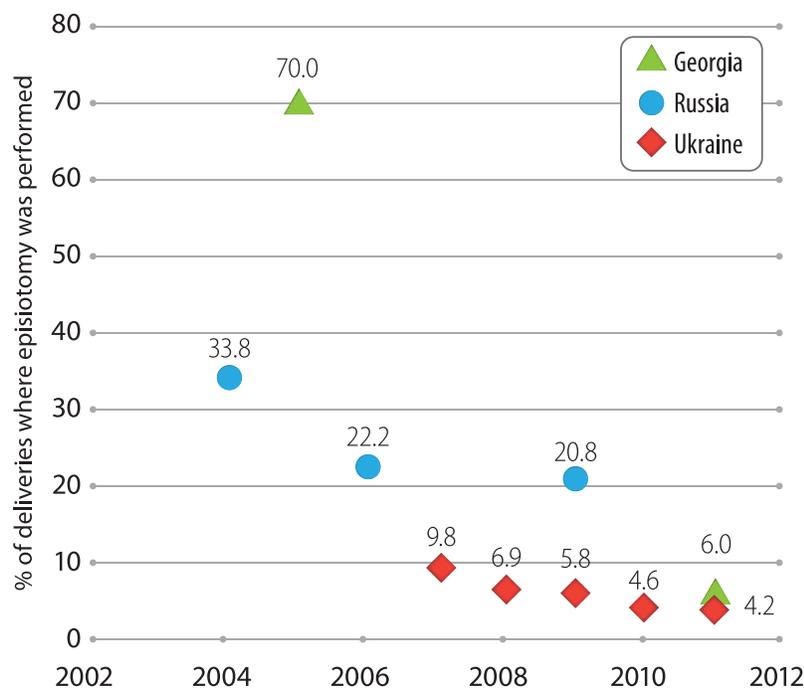
### Infection prevention and control practices were revisited

Underlying many of the antiquated practices followed in Soviet times were strict infection prevention and control rules established by the Sanitary Epidemiological Service (generally known as SanEpi or SES), an extremely powerful

arm of each country's Ministry of Health (MOH),\* and enforced by a large network of SanEpi inspectors around the country. Modernizing these infection prevention and control practices was the most difficult transition to make because it called for working with a separate system within the MOH that was accustomed to being the ultimate arbiter of clinical practices and that was concerned more with infection prevention and control rather than improving MCH.

To ensure a sterile environment for childbirth, maternity hospitals had to have separate entrances, hallways, wards, delivery rooms and even operating theaters for "infectious" (interpreted very broadly) and "non-infectious" patients; all rooms, hallways, walls and furniture had to be disinfected frequently; all clinical spaces, including all surfaces, equipment and instruments, had to be high-level disinfected; quartz lamps had to be used to kill germs in the air; and each maternity hospital had to close for a month each year and sometimes in between for disinfection and "rest." Staff had to wear masks, caps, and shoe-covers. Mothers and babies had to use harsh hospital-provided sterile clothing and linens. Visits

**Figure 7: Decline in use of episiotomies at project sites**



Notes and sources: **Russia:** Data are from surveys of women postpartum in five regions that participated in the project between 2003 and 2006 (most were not in the project after 2006). Source: *Maternal and Child Health Initiative II Final Technical Report* (see References); **Ukraine:** Data are from project monitoring. *Ukraine Maternal and Infant Health Project (MIHP-II)* (see References); **Georgia:** Monitoring data from project sites.

\* The term Ministry of Health (MOH) is used throughout this document to refer to the national government entity responsible for health matters, including Russia's Ministry of Health and Social Development and Georgia's Ministry of Labor, Health and Social Affairs.



The old: quartz lamps



The new: handwashing with soap, water and clean towels

from family members or friends were barred on the grounds that they could introduce infections, and health workers did not dare contravene SanEpi regulations, for fear of sanctions.

Meanwhile, many unnecessary procedures that were performed exposed the mother and baby to increased risk of infection, while not providing any benefits.

The new evidence-based approaches emphasize clean rather than sterile deliveries. Priority is given to basic cleanliness, hygiene, and the rigorous practice of universal precautions to prevent infection. Handwashing facilities with soap, water, and clean towels have been introduced, and toilets are more likely to be clean and sanitary. Gloves and disposable needles,

syringes, catheters, etc., have taken the place of reusable items, at least where resources permit. Most of the unnecessary disinfection, quartz lamps, sterilized clothing for mother and infant, and mask, cap and shoe-covers for health workers have been dropped in light of their limited utility. Separate facilities for “infectious” patients are disappearing, individual delivery rooms are being built, and the unnecessary medical procedures that contributed to infections are increasingly on their way out.

**Care became more integrated and holistic**

The highly vertical organization of services that characterized the Soviet health system worked against women getting needed care because of the barriers in-

herent in having to visit different health facilities or different services in the same facility. In perinatal care, this was most apparent in the marked separation of HIV/AIDS services in different health facilities, often in another part of town; but it was also evident in the separated and isolated family planning services within the women’s health care system.

*Integration:  
family planning*

Consistent with its important role in reducing maternal and infant mortality, postpartum and post-abortion family planning were core elements of the modern, evidence-based package that JSI promoted. The emphasis on family planning was a marked shift from the Soviet era, when IUDs were usually the



only modern contraceptives available, and abortion was the main means of fertility control. Working on family planning brought its own challenges, particularly in countries where it was seen as undermining pronatalist policies put into place to counteract rapidly shrinking populations.

JSI adopted a strategy of “horizontal integration” into MCH care: incorporating family planning counseling into prenatal “mothers classes,” into care for new mothers before hospital discharge, into outpatient postpartum care, and even linking it to infant care in pediatric clinics in some countries. In addition, postabortion family planning was addressed in the same courses, since abortion (which is legal) is usually provided in the same hospitals. The range of modern contraceptive methods appropriate for new mothers such as progestin-only methods and the

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“I was admitted to the maternity on November 2, 2005. I knew that I was HIV positive, and I was afraid that my baby and I would be treated as inferior. But I was wrong! They talked to me, they helped my morale, and I think my child was treated with the best attention. In that maternity, I was taught to live with HIV and to fight for my child’s life. I have no words to express how thankful I am to the entire health care staff, from doctors to hospital attendants.

“Friends, you have helped me so much! You have inspired me with faith in life...thank you!”

From a letter written by a woman living with HIV who delivered in a Donetsk, Ukraine, maternity hospital

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Lactational Amenorrhea Method (LAM), which were unfamiliar to most providers, were included. The myths about the safety and effectiveness of modern contraceptives, which were part of the Soviet-era legacy on family planning, were addressed. Training for health workers on counseling skills emphasized the couple’s role in selecting the method best suited to their needs and lifestyle, rather than the health worker deciding what was best for them. As a result, family planning began to be “mainstreamed” into the maternity care system, and important progress was made in giving couples responsibility for family planning decisions.

### *Integration: prevention of mother-to-child transmission of HIV*

The separation of HIV/AIDS care from women’s health care in two separate programs meant that most doctors caring for people living with HIV were unfamiliar with modern obstetric and newborn care, while doctors in maternity hospitals were afraid of working with patients with HIV. Most deliveries to women with HIV took place in HIV/AIDS hospitals, in infectious diseases hospitals, or in one designated maternity hospital in a city or region. Deliveries were vaginal, health workers often didn’t wear gloves, and the medical record was sometimes marked with the patient’s name and a clear indication that she was HIV positive.

Meanwhile, women living with HIV sought anonymity, so they often traveled to another region to deliver in a normal maternity hospital, and by the time their HIV test results came through, they had already given birth, usually without health workers taking proper precautions.

The Russia and Ukraine projects incorporated prevention of mother-to-child transmission of HIV (PMTCT) into their service “packages.” Initially, they had to make the case to staff in maternity hospitals that any woman might have HIV, so personnel needed to be prepared. For staff in AIDS centers and infectious diseases hospitals, the case was made that women and newborns would receive better care in an emergency situation at a maternity hospital. The projects then helped maternities integrate appropriate care into their services. Staff were trained on proper infection prevention practices, the importance of a nonjudgmental attitude toward women living with HIV, protecting confidentiality, and other topics. Convincing providers to perform caesarian sections to reduce the risk of infection for the infant proved particularly difficult, and the Russia project had to conduct a survey to demonstrate that vaginal deliveries had more complications than caesarians. Hospitals were required to have rapid tests and 24-hour links to HIV services in order to get antiretro-

viral treatment and infant formula for newborns. A key activity was to develop guidelines on PMTCT, and in a major step forward, these were quickly adopted as national policy.

The Ukraine project conducted joint trainings for providers in the women’s health care system and the HIV/AIDS system, building bridges between them. Modern practices were introduced. Most significantly, women with HIV began to deliver in regular maternity departments; caesarian deliveries increased; universal precautions were rigorously applied to prevent clinical transmission of infection; breastfeeding practices changed; and most challenging of all, stigma and discrimination toward people living with HIV was reduced. As with family planning, PMTCT was “mainstreamed” into maternal and neonatal care but with more rapid results. After only two years of intensive work in Crimea in Ukraine, mother-to-child transmission there fell from 11.8 percent in 2004 to 1.5 percent in 2006 – well below the national level of 8 percent that year. Moreover, even though project assistance on PMTCT ended, that low level has been maintained.

***Integration: women’s reproductive cancers***

The Georgia project went beyond maternal and infant care, tackling various challenges that women



face at different life stages. When its landmark Reproductive Age Mortality Study (RAMOS)<sup>7</sup> showed that breast cancer was the single biggest killer of women of reproductive age in Georgia, followed by cervical cancer, it set out to address these issues. The project worked with public and private sector partners to increase awareness of these cancers, their prevention and treatment, to reduce stigma, mobilize communities, and expand access to early diagnosis, care and treatment. It trained health care providers on early detection of breast and cervical cancers and on

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**“The project has changed the way we think.”**

Staff member at Maternity Hospital #3, Tyumen City, Russia

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social mobilization techniques and messages, so they could inform consumers and promote early detection. Integration of these efforts into women's and children's health services was valuable to advance awareness and services related to breast and cervical cancer.

### **The roles and relationships of health care providers were transformed**

Just as the practices introduced through the projects promoted client- and family-centered care, they also brought a paradigm shift in how health care providers saw clients and each other.

In the past, health workers looked to the most senior person in the room or the department to give orders. Roles and responsibilities were not always clear. The projects adopted a team approach to training, building interdisciplinary teams that worked together

more effectively. Courses brought together different medical specialties and in a sharp departure from prior practice included midwives and nurses alongside doctors. This gave all concerned a new realization of the professional capabilities of each team member. It also provided a forum to clarify each team member's tasks, so it was clear who would do what in routine situations and in emergencies. The importance of clear communication procedures was a recurring topic.

Most midwives and nurses had traditionally been limited to somewhat menial tasks. They would prepare the delivery room, sterilize instruments, clean up after deliveries, attend to paperwork, etc. The new approaches promoted larger professional roles for them, recognizing that most maternal and infant care can be safely and more cost-effectively performed by midwives and nurses. As the changes were implemented, these staff began to spend time with expectant mothers to monitor progress and provide support and reassurance; at times, managing uncomplicated deliveries; and they assumed important roles in counseling and educating clients on breastfeeding, danger signs, infant care, family planning, and other topics prior to discharge.

Health care administrators also found themselves with expand-

ed roles. Instead of waiting for higher-ups in the health system to come and tell them what to do, they began to apply simple quality improvement methods. They were called upon to identify what their health facility (or facilities) was doing right, where improvements were needed, and to develop and implement solutions to problems. They learned the importance of producing reliable data and using it to evaluate and improve services instead of simply to determine if targets were being met. They started to work more collaboratively with their staff to bring about genuine improvements. These administrators learned modern training techniques and supportive supervision, so they could take the lead in spreading the new practices in their facility, city, or region. In short, they began to step into a modern management role, taking the lead in bringing about improvements in the care being provided.

## How Change Happened

Making such major changes involved an array of mutually-reinforcing strategies to influence health care providers' attitudes toward their work and change the ways they practiced. These changes also encouraged the health care system to support the new evidence-based practices, while at the same time, building public demand for more client- and family-friendly services. JSI sought to spread the new practices as widely as possible to benefit women and infants and also in order to build a critical mass of providers who would advocate for their adoption at the national level.

### **Promoting evidence-based medicine and evidence-based decision-making**

Reliance on evidence proved to be critical to making the case for the new approaches to maternal and neonatal care.

Evidence-based medicine was still a new concept in the former Soviet Union, where the Soviet health system had not made much use of epidemiological and survey methods. Nevertheless, health

workers were open to statistical evidence on the effectiveness of various clinical approaches, although they questioned whether studies of samples of the population could produce data with broader applicability, and they were not always convinced that the data were applicable to their particular country settings.

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*"Now when someone asks why you do this, it's no longer because we've always done that. It's because it's evidence-based."*

Head Doctor, Municipal Perinatal Center, Orenburg, Russia

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JSI considered it extremely important to expose country counterparts to evidence-based medicine since its application would be key to enabling the countries to update their policies and practices in the future, independent of international projects. Evidence-based medicine and data-based decision-making became a sort of dogma, with virtually all discussions centered on evidence: initial discussions with policymakers; initial needs assessments that compared existing practices with those based on international evidence; deliberations in working groups; the projects' training courses themselves; and follow-up visits. This gave coun-

terparts a whole new perspective on how clinical policy and practice evolve elsewhere in the world.

Significantly, the projects paid close attention to collecting local data to show the impact of the new practices in each country setting to have a body of local evidence to reinforce the international evidence. This was valuable to convince skeptics that international best practices applied in their country, not just in other countries, and it gave counterparts first-hand exposure to the value of data.

### **Collaboration with the World Health Organization**

When the Russia project started in the late 1990s, there were no technical resource materials available that were appropriate to the special issues involved in working in the former Soviet Union. Project staff adapted materials JSI had developed under the USAID-funded MotherCare project, which drew heavily on WHO standards and recommendations, emphasizing client-centered care, the importance of family involvement, and the evidence behind clinical practices. With input from American and European physicians and midwives, this became a training program on Family Centered Maternity Care that was used in the pilot regions where the Russia project started



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“Of course, when we first heard this information, it was just information, and we laughed... When [the WHO consultant] came the first time, he just visited this maternity hospital ... and there was a lot of resistance to everything [he] talked about. The meeting lasted for two, maybe two-and-a-half hours... By the end of the meeting, doctors started to listen to him, to really listen... What he told us seemed unreal, although somewhere inside, we felt that it was OK, but we had had so much instruction that was against what he was saying.”

An obstetrician-gynecologist at  
Zhezkazgan Maternity Hospital, Kazakhstan

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out. JSI also developed a facility-based assessment tool to go hand in hand with the training program, to support implementation of the new practices and measure results.

At this time, the World Health Organization's (WHO's) Regional Office for Europe began working on a manual designed specifically to address key issues facing the countries of the former Soviet Union in moving toward more client-friendly, family-friendly, and evidence-based maternal and newborn care. JSI in Russia collaborated with this effort. This led to publication in 2002 by WHO/Europe of *Promoting Effective Perinatal Care*. WHO also developed a small cadre of Russian-speaking medical professionals from the former Soviet Union to train providers on these practices and advocate with policymakers for their adoption. The manual and

the trainers became the starting point for JSI's work in Ukraine and Central Asia, where they were enormously important because most countries in the former Soviet Union look to WHO for guidance on health matters. For JSI, collaborating with WHO facilitated the process of convincing MOHs to try the practices embodied in *Promoting Effective Perinatal Care*. For WHO, the USAID-funded projects were valuable partners because of the resources they could bring to training, education and other activities, and the ongoing in-country technical assistance they could provide.

As the projects worked in various countries and learned more about the changes needed, JSI was able to help WHO strengthen and update its materials and expand the topics they addressed. It also contributed to the pool of WHO

trainers/experts working around the region. Starting in 2005, the Ukraine project took the initiative to work with WHO/Europe and the Russia and Georgia projects to develop a training curriculum that would support its *Promoting Effective Perinatal Care* manual and incorporate more in-depth discussion of common complications in maternal and newborn care. In 2009, the resulting *Effective Perinatal Care* curriculum, in Russian and English, based on current evidence and adult learning principles, was adopted by WHO/Europe as a joint publication with USAID and JSI, available for use throughout the former Soviet Union.\* The Ukraine project also collaborated with WHO headquarters on two training

\* <http://www.euro.who.int/en/what-we-do/health-topics/Life-stages/maternal-and-newborn-health/policy-and-tools/effective-perinatal-care-training-package-epc>

videos to foster implementation of important practices that health workers had difficulty adopting: *The Partograph for Better Care during Childbirth* was adopted by WHO for worldwide use\* and an e-learning tool, “Warm Chain” – *Thermal Protection of the Newborn*, which was integrated into the computerized learning version of *Integrated Management of Childhood Illness* (IMCI).

### **Starting up and building support**

The process used to introduce the new perinatal care practices played an important role in their subsequent expansion and, later, their endorsement in national policy.

The first step was discussion, undertaken whenever possible jointly with WHO and other donors or partners, with top officials at the MOH and in regional health departments to review the principles behind modern maternal and neonatal care and outline key evidence-based practices and their health benefits. In some countries, these discussions moved quickly while in others they took years, depending on the attitudes of top officials.

Once the MOH agreed to try the new approaches, the project

\* [http://www.who.int/maternal\\_child\\_adolescent/news\\_events/news/2010/distance\\_learning/en/](http://www.who.int/maternal_child_adolescent/news_events/news/2010/distance_learning/en/)

### **Country-to-country networking**

With limited technical resources available appropriate to working in the former Soviet Union and little material available in Russian, JSI took it upon itself to build bridges between the projects in the different countries, so they could help each other. They shared materials and tools they had developed (protocols and guidelines, training curricula, assessment tools, educational materials for clients and the community, etc.), shared the names of consultants, and organized study tours, so counterparts could see how other countries had tackled the process of modernizing MCH care. JSI staff working on perinatal care in the region met annually to discuss successes and challenges and attended each other’s conferences and major events to learn from their colleagues’ experiences. They also worked closely as a group with WHO to develop new materials useful throughout the former Soviet Union.

This networking accelerated change, preventing countries from having to reinvent the wheel. It also left a legacy of important tools, mostly in Russian, adapted to the needs of the post-Soviet environment.

worked with the MOH to identify regions interested in supporting the new initiative and within those regions a few pilot maternity hospitals. Larger maternity hospitals or perinatal care centers were often chosen because they set the trends in their area and have supervisory responsibility for other health facilities. These hospitals are also at the center of a network of service delivery sites where women obtain care during pregnancy, delivery, and afterwards, women’s consultations, family planning centers, and

children’s polyclinics. The support of the MOH was critical in bringing regional or city authorities and individual health facilities on board. Without it, the projects would not have found in-country partners.

The first step in each pilot site was to conduct a rapid needs assessment to evaluate the care being provided, with the results then shared with stakeholders to demonstrate how current care diverged from international evidence-based recommendations. The assessment

results invariably triggered heated discussions because they showed how profoundly different the new approaches were from the ways health workers had been trained to practice. To encourage ownership and genuine understanding, JSI then either established working groups or engaged in extended discussions to review the evidence behind the new practices and fine-tune the training materials for the local environment before embarking on front-line training of health workers. These discussions took time but played a critical role in building a solid base of support before training began, something that was valuable to senior managers who were taking a big risk in embracing such dramatically different new approaches.

In addition to building support at the local level, JSI worked at regional and national levels to build understanding of, and commitment to, the changes underway in order to facilitate subsequent expansion and policy changes. Study tours to other countries where the new practices were already being implemented played an important role in providing key opinion leaders and managers with a vision of what the new care looked like and reassuring them that the new practices were not harmful; to the contrary, they produced positive results. The first study tour destinations were Lithuania and the JSI

**The importance of champions**

In Ukraine, the first training produced little change in providers' practices, and project staff asked for additional assistance from WHO experts to address specific problems. However, the second course fell on fertile ground, when the head of a regional maternity hospital was eager to try the new "warm chain" practices to reduce hypothermia at her facility, which affected about 90 percent of infants born there. She achieved rapid results and moved on enthusiastically to implement the rest of the package of care and become a champion of the new approaches around the country. Inspired by her experience, others began to follow suit, and soon change was in the air.

pilot sites in Russia with Ukraine receiving groups later as the program developed. Once each country's pilot sites were established, the first steps of spreading change again involved study tours but this time within country.

Also important in the early days of bringing in new sites, as well as later, were in-country "champions," such as regional MCH directors and head doctors of large maternity hospitals, who were passionate about the changes they had introduced, having seen first-hand how they improved health outcomes and were embraced by women and families. They carried the good news to their colleagues through visits to other regions, conferences, and other forums. In particular when these champions came from national institutions or tertiary

care facilities in the regions, their support carried a lot of weight, so the projects made a major effort to develop these leaders, involving them in working groups, study tours, and training opportunities to empower them with the knowledge to stay on the front line of change during the life of the projects and in the future. In Georgia, champions not only included senior health officials, academics and political leaders, but also private sector leaders who played an important role in advocating for the new practices in a health system being rapidly privatized.

**New ways of training to support new practices**

In order to bring about the radical changes needed in perinatal care, JSI adopted approaches to training

that used adult learning principles that were very new to the region and proven to be effective. Training programs were standardized with respect to content, materials, and teaching methods. This was critical to ensure consistency and quality, especially as local trainers began to teach. All course content was based on evidence, which in itself was a new way of presenting clinical material.

To make the training highly practical and relevant, most courses were conducted on-site at a maternity hospital, in contrast to the customary academic lectures taught in classrooms. Short lectures were accompanied by discussions, group-work, role-plays, case studies, skills practice on anatomical models, and other modern teaching methods. Each course also included plenty of practice in clinical settings with real clients, under the supervision of a trainer, to ensure that participants were competent in the new skills, including counseling, before the course ended.

A team-based approach to training brought together obstetrician gynecologists, neonatologists, nurses, midwives, and others from a health facility, or a network of related health facilities, into one group to build teams that would work together effectively to implement the new practices in their

facility and community. This reflected the importance of all team members in a clinical setting being aware of what each person should be doing. In a system where midwives and nurses generally had very limited clinical functions, joint training opened the eyes of the doctors and gave them new respect for their professional capabilities. Courses that covered infection prevention and control also included representatives from SanEpi to expose them to the new practices and the evidence behind them, so they wouldn't penalize health workers for following them.

Counseling was something very new to health providers and was a core element of all the courses. Every module helped them step into their new role of informing and enabling women and their partners to make their own informed choices about pregnancy, childbirth, the postpartum period, and infant care. The key messages to be communicated to clients were stressed, and courses provided ample opportunity to practice counseling through role plays on different topics. This was a difficult transition for health workers accustomed to making decisions for their patients and who were now called upon to support women and couples in decision-making about their own care.



A Georgian group visits Ukraine for a study tour.

A number of resources were developed to reinforce the training and help providers adopt the new practices. Among these were the videos made in collaboration with WHO (the partograph and the “warm chain”) as well as other videos on family centered maternity care, hand-washing, various obstetrical techniques, AMTSL, breastfeeding, postpartum family planning, and PMTCT. Among the job aids produced were posters on birthing positions, proper hand-washing technique, the steps in AMTSL, poster-sized partographs to place on the walls, and flyers for health workers to place on their desks to remind them of key steps in counseling on various topics. These differed from country to country, but the projects routinely



drew on each other's resources as they developed their own.

The content of training expanded significantly over time. In addition to the evolution from *Family Centered Maternity Care and Promoting Effective Perinatal Care to Effective Perinatal Care* outlined on pages 19 and 20, it became clear that in many places more in-depth coverage was needed to change the way providers really practiced certain new skills on a routine basis. In addition, providers needed regular training and practice on emergency practices to ensure they would be prepared when a real emergency arose. Thus, a number of free-standing courses were developed on a significant number of topics, including antenatal care, free delivery positions, the second stage of labor, breastfeeding, emergency

obstetric care, and emergency neonatal care. Again, the projects drew on each other for inspiration.

With sustainability in mind, an important emphasis was to develop local experts and trainers who could transfer their knowledge and skills to health workers after the projects ended. Developing this expertise took time, given the sweeping nature of the changes being made. Initially, all training was conducted by international experts who gradually built a cadre of national trainers. As the new practices took hold in a region, local talent emerged, and these individuals grew into trainers and experts by working and co-training with national experts, participating in working groups, and benefiting from further training, study tours, and other professional develop-

ment opportunities. Wherever JSI worked, it sought to leave behind a cadre of local trainers and experts, and it did so in Russia, Ukraine, and Georgia. In Central Asia, the process moved more slowly and relied more on international trainers.

### **Beyond training to quality improvement**

Training was the first step in a quality improvement process. After the initial training, there were follow-up visits and supportive supervision, using assessment tools and comparing the results with baseline data collected before the project began working at a site. The tools drew on data collection systems already in place, plus provider observations, interviews with clients (or client surveys) and providers, and medical chart reviews to look at the quality of care. The results were used to identify performance gaps, and the staff most immediately affected were involved in participatory processes to identify barriers to change and to plan improvements.

Use of quality improvement methods was new in post-Soviet environments, where quality of care was assessed through inspections to verify compliance with (often outdated) standards and protocols and achievement (at least on paper) of targets. Through the projects, health care managers

and health workers learned to work together to identify problems and solve them on a continuing basis. Particularly innovative was the use of client interviews. The idea of a client's perspective being important took some time to take hold but came to be recognized as very valuable. Indeed, the change from a focus on the provider to a focus on the client was nothing less than a paradigm shift.

The quality improvement approach used in Georgia was typical and based on the principles of supportive supervision. It involved quarterly site visits by a team of experts, including an obstetrician-gynecologist, a neonatologist, and a midwife. These visits included observing maternal, neonatal, and postpartum care practices, reviewing obstetric and neonatal medical records, and interviewing clients and health care providers. This led to development of action plans to address key problems and develop possible solutions, with the timeline and the person or team responsible for each solution clearly identified. Typically, facilities established quality improvement teams (e.g., on the partograph, infection control, the "warm chain," etc.) to take the lead in making improvements at the facility. An example comes from Cherkasy in Ukraine, where monitoring showed high levels of postpartum hemorrhage in the three largest maternities. The

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"Our patient satisfaction survey is our most important indicator."

Deputy Head  
Regional Maternity # 1,  
Vologda, Russia

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head obstetrician-gynecologist for the region analyzed the situation in the different maternities. Then AMTSL was discussed at a regional meeting of obstetrician-gynecologists, a short training was conducted on Specialists' Day (an annual occasion when obstetrician-gynecologists are honored), and with follow-up support over a three-month period, postpartum hemorrhage in these maternities fell from 26.2 percent to 11.4 percent.

The existence of the assessment tools and their use by local health care providers and administrators was important to maintain and improve service quality at existing sites and to expand quality initiatives to new ones under local leadership. It was also essential to the success, sense of ownership, and ultimate sustainability of the projects' approach.

### **Changing public attitudes and practices and building demand**

The projects all recognized that the new client-friendly, quality services would only be used if people were aware of them and wanted to use them. In order to do this effectively, they had to introduce the basic tools of modern social marketing. Formative research, strategic program design, message development, and pretesting were

### **"Quality of care maternities" in Ukraine**

To encourage hospitals to strive to meet standards, the Ukraine project worked with the MOH to introduce a form of certification for maternity hospitals to become a "quality of care maternity." Sites that met certain criteria received a plaque to display at the entrance, with a star for each of nine key perinatal care practices where the facility met standards.

By 2011, 62 of the project's 186 maternity hospitals were certified as "quality of care maternities," with three of them qualifying for all nine stars.

all new to the health sector in these countries.

In all the countries, public education materials, such as brochures, posters, and flyers, were the starting point for communications for behavior change and were always in high demand. The projects relied on each other for inspiration and produced a wealth of print materials and several videos on companion deliveries, breastfeeding, postpartum family planning, becoming a parent, PMTCT, sudden infant death syndrome (SIDS), and other topics.

A major focus of behavior change activities was to get men involved, and the “mothers classes” or “parents schools” that were already a part of antenatal care in most countries before the projects started were at the heart of these efforts. These classes were modified in line with the changes being made in perinatal care, particularly by encouraging a spouse, family member, or friend to attend to learn how they could help during labor and delivery. The classes also became much more practical and interactive. Promoting “daddies in the delivery room” was a giant cultural step in Georgia, where “parents schools” were introduced for the first time. There, they evolved into a series of four three-hour sessions with training for providers and materials

to guide the sessions to prepare mothers and their partners for a better experience during pregnancy and delivery and after birth. Testimonies abound from parents who participated in these “schools,” as well as from providers, describing a better overall experience for parents, faster recovery for mothers, and satisfied health care managers.

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David and Natia were one of the first couples to labor and deliver together in Georgia and described the experience as “unforgettable – the most precious in life!”

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Mass media proved to be an effective way to reach large audiences and build credibility for the new approaches. Workshops for journalists were held, and media representatives toured maternity hospitals that were implementing the new practices and interviewed mothers and their families. This led to broad media coverage of the new services and the positive results they were producing and triggered long-term interest among a number of journalists in covering maternal and infant care.

Not only journalists, but also the public were invited into maternities

– a dramatic shift from the closed hospitals of the past. The very first Russia project introduced the idea of “open door days” when women, their partners, and family members were invited to tour the hospital, following step-by-step and room-by-room what would happen during their hospital stay, and had the opportunity to meet the staff. The response was overwhelmingly positive, and these events began to build demand for the new client- and family-centered services. In Ukraine, a video, *Delivering Together*, was shown during open door days, and subsequently, partner deliveries surged. Open door days became one of the most important tools for behavior change. In recent years, however, as modern technologies have become more widespread, the Russia projects have helped maternity hospitals set up websites where they announce the new services available, reaching a larger audience than open door days.

The Russia and Georgia projects’ approach to behavior change among men and women relied on community-based, facility-based, and mass media channels to communicate a range of carefully crafted health messages in waves, or campaigns linked to overall project activities. For example, in Russia, the message “Dear Mama, only you and your milk in the first six months” was the

focus of an entire campaign. There were billboards on main streets, strategically positioned posters, television and radio spots with this message, community events and leaflets for the population with the same message and some additional information, and job aides for health workers, so they also communicated the same messages. Men and women heard these messages, participated in community events, and experienced clinical care that focused on similar issues, reinforcing the behavior change message at each step.

In Ukraine, the main thrust of communications activities was to inform communities about the benefits of the new approaches to increase demand for appropriate, evidence-based care. To supplement the numerous public education materials produced, specialists in communications for behavior change were trained in project-assisted regions, particularly on effective counseling skills for health workers, and they became the force behind communications activities. In some regions, large campaigns were conducted in collaboration with the MOH and UNICEF, with distribution of educational materials and counseling for young families on mother and baby care, breastfeeding, postpartum contraception, and other topics.

In 2007, an educational campaign on SIDS was conducted in the Luhansk region of Ukraine, with additional funding from TNK-BP, a leading Russian oil company active in Ukraine. The *Back to Sleep* campaign involved counseling sessions by health workers, booklets targeted to families with children under age one, posters and stickers in pharmacies, supermarkets and on public transportation, and other public education activities. Population surveys conducted in Luhansk after the campaign found that 85 percent of babies slept on their backs, as recommended, compared with only 25 percent in a comparison region where there had been no campaign. Afterward, other regions conducted smaller-scale campaigns with their own funding, using the project-developed materials.

### Scaling up systematically

With the level of effort involved in changing practices in each maternity hospital being extensive – 1.5 to 2 years – scaling-up to reach all the major facilities in a region or in a country presented a huge challenge. This was particularly true for Russia with its vast geographic reach and 83 regions, many of them the size of entire nations.

Both Russia and Ukraine held competitions to build momentum in



the early years of the projects. Once the first pilot project was finished in Russia, a competition was held for new regions to enter the next project. A set of criteria was developed to maximize the chances of identifying regions that would bring commitment and enthusiasm to the project. These included top-level political commitment, willingness on the part of maternal and infant health care leaders to implement the new practices, and the ability to share the costs of working in the region. Forty regions, almost half of all the regions in the country, submitted proposals, and an evaluation committee had the tough assignment of analyzing them and selecting the 10 winners. These regions, indeed, proved to be good partners, and the objective merit-based selection process won respect for the project.

In Ukraine, meetings and conferences provided a forum for sites to present their experiences to other sites, through conventional and poster presentations, in order to promote the new practices. Small prizes were awarded for the best results and/or the most innovative strategies in the form of a small piece of equipment or other item that would improve care.

All the projects recognized the importance of disseminating their work beyond their regions to build interest and understanding of what they were doing and to create momentum to spread the new practices to other geographic areas. This was done through professional conferences and seminars, newsletters, and websites. Both the Russia and Ukraine projects' websites became widely-used resources for modern evidence-based protocols, guidelines, training courses, public education materials, and other information for health care providers across the two countries and beyond.\*

The projects generally focused their technical assistance at the regional level on a small number of large and influential facilities, counting on them to lead change throughout their regions, so project resources could benefit other areas. Project inputs were limited to train-

\* <http://www.ifhealth.ru> (Russia) and <http://www.mihp.com.ua/index.html> (Ukraine)

ing, technical assistance, and materials for those sites, with minimal support for equipment, leaving the hospitals themselves to finance renovations to create individual delivery rooms, purchase furniture and equipment, and support outreach to other providers in the region. Most of the projects had agreements with regional authorities requiring them to share costs and to spread the new approaches throughout their regions in return for project assistance.

In Ukraine and Georgia, the projects developed Centers of Excellence in partner regions, so expert resources would be available to support and strengthen the new practices after the project ended. The Centers' tasks were to conduct

trainings for the entire region and to monitor continuously quality of care and foster improvements. To qualify, maternity hospitals in Ukraine had to have more than 1,500 deliveries a year; have demonstrated good *Effective Perinatal Care* practices; and have cadres of trainers on evidence-based medicine, *Effective Perinatal Care* (including obstetrician-gynecologists, neonatologists and midwives), antenatal care (obstetrician-gynecologists and midwives), infection prevention and control (including an epidemiologist) and PMTCT. By 2011, there were 19 such centers in 18 of Ukraine's 27 regions, and six in four of Georgia's 12 regions.

Particularly critical to successful scale-up was the use of monitor-



ing tools and indicators to ensure quality. While not all the tools were used at all sites, these tools included checklists to observe providers serving clients, facility checklists, medical record reviews and interviews with clients. Project staff used these tools initially to assess project sites, but almost from the beginning, they worked with on-site leaders to help them use the tools to monitor their own progress and use the data to improve their performance. This prepared leaders to use the tools to ensure quality as they scaled up the new approaches to other sites.

In addition to encouraging governments to invest in improving MCH services, all the projects sought to stretch their resources by working collaboratively with other donors and projects and leveraging private sector resources. A prime example of donor collaboration was in Kyrgyzstan, where the project partnered with two other USAID projects (Healthy Family and Child Survival), the Asian Development Bank, Kreditanstalt fuer Wiederaufbau (German development bank), Swiss Red Cross, UNFPA, UNICEF, and WHO. Different donors and projects assumed responsibility for different sites and different elements of scale-up but used the same training program, trainers, materials, and monitoring tools. This was key to reaching all

regions of the country in the short span of five years (2005–2009).

The ultimate tool to expand the projects' reach was national policy because in the rigid post-Soviet health system, health workers would strive to follow national policy, and inspections would be conducted in line with these policies.

## **Sustaining the changes**

### *Sustaining the changes: national policy*

Policy plays a critical role in post-Soviet environments where the presumption is that things are forbidden unless they are explicitly authorized by law or policy. Most

## **National research centers on MCH**

National research centers on MCH provide leadership on MCH in their countries and are usually responsible for national policy on these topics. Working with them proved to be particularly challenging, yet their support was crucial to adopting national policies and providing leadership to encourage the regions to move forward with modern approaches.

The centers also operate hospitals that generally serve the elite and care for the most complicated cases transferred from all over the country. To them, the demedicalized approaches advocated by WHO, JSI, and other international partners seemed inappropriate, irrelevant, and possibly even threatening. They were not ready to adopt them or to endorse policies embodying these approaches. And in some countries, they effectively slowed down the process of getting started or spreading change.

Working with the centers took time, patience, and investment over a period of years, exposing their staff to international and national evidence, to other countries' progress through study tours, and to the experience in regions in their own countries. In the end, it was the modern approaches to management of complicated pregnancies and deliveries embodied in the *Effective Perinatal Care* program, rather than management of uncomplicated pregnancies, that captured their interest and got them involved.

health workers will not implement practices that are not officially endorsed, and antiquated non-evidence-based laws, protocols,

### Examples of national policies adopted

The projects helped MOHs adopt a host of new evidence-based national policies, including on:

- Normal pregnancy, labor and delivery
- Antenatal care
- Infection prevention in maternities
- caesarian delivery
- Emergency obstetric care
- Hemorrhage
- Eclampsia
- Hypertension in pregnancy
- PMTCT
- Premature birth
- Neonatal resuscitation
- Breastfeeding
- Pediatric care

and guidelines present a major obstacle to adoption of modern approaches, even when providers are convinced of the benefits of the new ways.

Once the projects had gained the support of policymakers at the national and regional levels to try the new evidence-based approaches, the MOH in each country issued a decree allowing their implementation on a pilot basis at project sites. As early results from pilot implementation became available, work began on updating national standards, protocols and guidelines, paving the way for broader implementation. The key mechanism for this was the creation of working groups, including national leaders, academics, regional and local representatives working at the pilot sites and others. The working groups reviewed international and local evidence and results and the policies of other countries and then drafted updated policies. Since they were accustomed to developing policy based on expert opinion rather than on evidence of effectiveness, the projects first had to orient working group members to evidence-based medicine.

One example of the policy development process was the new national policy on infection prevention and control in Ukraine. Participants from SanEpi (both national and local) were includ-

ed in training courses for service providers. In this way, they were exposed to the evidence behind the new practices, and as the practices began to be implemented, they had a chance to see their positive effects. In time, the MOH recognized the need to update its policy and established a Technical Advisory Group to revise the existing policy. This group included not only key national experts in epidemiology, obstetrics-gynecology, neonatology, and pediatrics, but also staff from maternity hospitals. Initially, the group was trained on evidence-based medicine, and project staff insisted that all provisions in the new policy had to be supported by evidence of their effectiveness. As a result, the order they developed followed international recommendations and was endorsed by the MOH.

In Georgia, the policy process took a bottom-up approach. As evidence-based medicine became more widely known and appreciated, local partners realized that new evidence-based guidelines could promote wider adoption of best practices in perinatal care. JSI worked with the MOH to develop a process for development and approval of clinical protocols and guidelines. Then a core team of top-level clinicians, including obstetrician-gynecologists and neonatologists with the expertise to prepare protocols and guidelines,

developed updated, evidence-based guidelines on obstetrics and neonatal care for the country. To make the guidelines and protocols more practical for front-line service providers, each one contained a guide for development of local clinical protocols as a reminder of key information and procedures.

In Russia, the project worked initially at the regional level to adopt modern, evidence-based policies. Particularly in its early days, the project provided a steady stream of information and activities to engage policymakers' and professionals' interest in the new practices, sharing project data as it became available. This approach stimulated thought and discussion and helped create an environment that would allow – and ultimately institutionalize – the new approaches. Gradually, momentum built, as increasing numbers of regions implemented the new practices, recognized their benefits and adopted regional policies. On their own, the regions began to ask the MOH to update its policies in line with the evidence. This prompted the MOH to adopt a new national law permitting families/partners to attend during labor and delivery as well as rooming-in of mother and baby. It also led to adoption of a new infection prevention and control policy on maternal and newborn care, largely in line with the international stan-

dards promoted by the USAID projects for a decade. In recent years, the MOH has been open to making changes, and the Russia projects have been working with them to modernize their policies.

In all the countries, policy development was not a free-standing activity but was closely tied to implementation. In Ukraine, each new national protocol/guideline was supported by a user-friendly training package with trainers at the regional level and a set of indicators to monitor adherence and for use in the accreditation process. At the regional level, new guidelines were discussed with providers during “Specialist Days,” and their implementation was monitored and reviewed on a monthly or quarterly basis, with recommendations made to improve any problem areas. At the facility level, administrative staff shared the results of their monitoring with staff, repeated internal trainings were conducted by local trainers, there were open discussions on how to improve implementation of guidelines, and local clinical guidelines were developed. Indeed, over the life of the project in Ukraine, it became mandatory for facilities to adapt and adopt national clinical protocols for their particular facility. The facility-level protocol must be in line with the national protocol but more detailed.



### *Sustaining the changes: medical education*

The projects also worked to include the new evidence-based practices in medical education, so that future generations of health workers would graduate with better information and skills. The Ukraine project spent almost four years collaborating with the MOH and leading Ukrainian universities to revise the national pre-service medical education curricula on obstetrics and neonatology. It worked with expert groups and sub-groups, beginning by orienting them to evidence-based medi-

cine and then providing them with evidence-based scientific documents translated into Ukrainian or Russian and working with them on drafts of individual sections of the curricula. The end product included 66 chapters and incorporated interactive teaching methods new to the academic environment. This curriculum was ultimately endorsed by the MOH and Ministry of Education and Science as the official program to be used in higher education institutions. Manuals were sent in bulk to each medical school, along with the project's e-learning materials and videos for use as teaching aids. TNK-BP, the Russian oil company, supported training for obstetrician-gynecologist faculties around the country so that by 2011 all 22 pre-service medical education institutions in Ukraine were using the new curriculum. The neonatology curriculum was revised following the same process, but it took only two years to develop its 23 chapters covering management of healthy newborns, preterm newborns, and sick newborns.

In Georgia, improvement of pre-service medical education began in 2009. Obstetric and neonatal care curricula were developed, based on current evidence and using case-based teaching methods – an innovation in Georgia – to help future doctors acquire problem-solving skills. The curricula used

case vignettes enabling students to directly transfer their newly acquired information and skills to patient care. The project conducted a series of capacity-building activities for faculty and academic leaders in collaboration with the Harvard School of Public Health, the University of California at San Francisco and Oslo University Medical School. These introduced case-based teaching, clinical skills development methods, and other modern approaches to medical education. The project placed a strong emphasis on the development of practical skills, in contrast to the theoretical approaches in use. It provided technical support for the development of clinical skills-building labs to help medical education institutions develop students' clinical skills and introduced Objective Structured Clinical Examinations as a tool to evaluate clinical competencies of students for graduation.

In Russia, work with medical education was more informal. Pre-service and postgraduate faculty participated in project training courses and working groups, so they gained exposure to the new practices, and some even became trainers. Hospitals where medical students are placed for practical training were often selected as project sites, enabling students to learn about modern approaches. A similar approach was adopted

in the Central Asian Republics, but in Russia and these five countries, formal work on curriculum revision at the national level was not undertaken. In Kyrgyzstan, given the importance of midwives in obstetrics, faculty from all the medical colleges in the country where nurses and midwives are educated were also trained.

### *Sustaining the changes: health information systems*

All the countries faced the problem that modern practices were undermined by antiquated forms for medical records and for statistical reporting. The systems needed to be modernized to keep up with the changes being made in perinatal care and to promote sustainability of the new practices. The old forms were paper-based and cumbersome, with large numbers of indicators and reports. Computer-based systems were needed to allow for quick and easy production of data and to facilitate use of data for decision-making at all levels of the health system.

At the request of the MOH in Ukraine, the project worked with expert groups to identify a set of priority indicators for pregnancy, delivery, and newborn care to monitor implementation of the new national perinatal care policies and protocols. Many of the same indicators used for quality improve-

ment were integrated into the new information system. New monitoring software was developed and installed at the MOH in Kyiv and in most regions of the country and is being used in parallel with the old system, pending MOH approval for its nationwide use. The new system reduces the burden of data collection and facilitates analysis at various levels of the health system. Most important, however, the data are being used at the local level because they help managers identify positive and negative trends, enabling them to take timely corrective action when needed.

In addition, the expert groups developed new medical records for pregnancy and delivery and for newborn care to produce the requisite indicators as well as other important information for provision of care. The new medical records require less time to be completed, provide clear standardized patient information, protect client confidentiality and can easily be converted into an electronic format.

## What Difference Did the Changes Make?

It is certainly important that the projects introduced modern, evidence-based approaches to maternal and newborn care and made services more client- and family-friendly. Ultimately, however, all the projects sought to improve maternal and neonatal health and survival on as large a scale as possible.

### Coverage of the new client-centered, evidence-based approaches was broad

By 2011, Russia had modernized maternal and neonatal health practices and policies in 30 out of 83 regions. Almost 47 percent of births were covered in project regions, except Moscow, but this still amounts to only 12 percent of all births in Russia.

By 2011, Ukraine had reached 186 maternity hospitals – 40 percent of all maternity hospitals in the country – in 20 of the country's 27 regions. These hospitals manage 54–55 percent of all births in



Ukraine, including a large proportion of complicated deliveries.<sup>8</sup>

By 2011, Georgia had brought *Effective Perinatal Care* to nine out of 12 regions, with project sites covering over 60 percent of births in the country.

By 2009, work on perinatal care in the Kyrgyz Republic had reached all eight regions of the country, covering 62 percent of hospital maternities nationwide. In the other Central Asian Republics, progress was slower, and JSI did not reach the stage of broad expansion of the new practices.



### Maternal health improved

Project interventions brought about major changes in health care providers' practices, as discussed on pages 10-18, so it is encouraging that patient outcomes improved as use of these evidence-

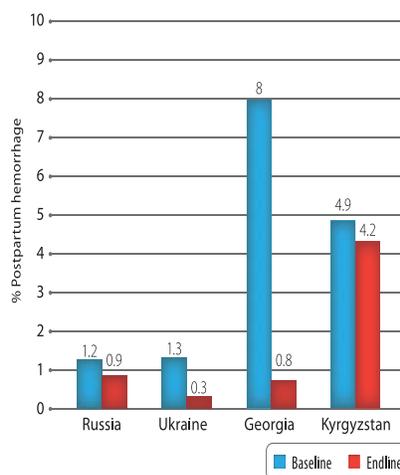
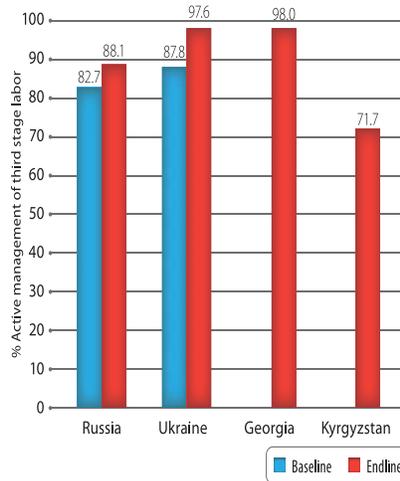
“Peaceful sleep finally came back to us after implementation of *Essential Perinatal Care* principles. . . . No more dreadful fear of postpartum hemorrhage!”

Head of the Obstetric Department, Obstetrics and Gynecology Hospital, Kutaisi, Georgia

based practices increased. Probably the most significant example of this, with respect to maternal health, can be seen from trends in hemorrhage, a major cause of maternal mortality, as use of AMTSL increased. See Figure 8.

One of the ultimate goals of all the projects as they began to scale up was to contribute to reductions in maternal mortality, so it is important to look at changes in that indicator, despite the difficulties of accurate measurement. In statistical terms, maternal mortality is a sufficiently rare occurrence that one maternal death in a few health facilities, in a region or even a country with a small number of births, has a dramatic effect on maternal mortality statistics. Thus, it is only when very large numbers of births are used as a denominator that this measure becomes robust. The nature of the projects’ work,

**Figure 8: As use of AMTSL increased, maternal hemorrhage fell**

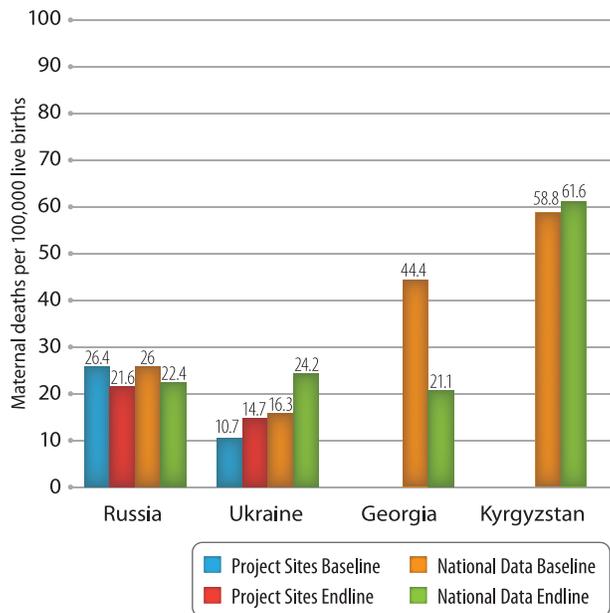


over relatively short time periods in individual and constantly shifting regions of the countries, makes it difficult to show impact on maternal mortality. Moreover, maternal and infant mortality statistics remain highly sensitive in the former Soviet Union, and official statistics may not always be an accurate reflection of reality.

Notes and sources: **Russia:** Baseline data are for 2003; endline for 2006. Data are from reviews of over 14,000 medical records at two project pilot sites. Data on hemorrhage are for severe postpartum hemorrhage (a drop in maternal hemoglobin concentration of greater than 40 g/liter). Data are statistically significant. Source: *Study on the Impact of the Maternal and Child Health Initiative* (see References); **Ukraine:** Baseline data are for 2007; endline for 2010. Data on practice of AMTSL are from project monitoring; baseline data on hemorrhage are from project monitoring; endline data on hemorrhage (for project sites) are from the updated health information system; **Georgia:** Baseline data are for 2005; endline for 2010. Source: *Monitoring data from project sites*; **Kyrgyzstan:** Baseline data are for 2005; endline for 2008. Data on AMTSL are from project monitoring; data on hemorrhage include postpartum hemorrhage, and are from the MOH of the Kyrgyz Republic.

Figure 9 seeks to capture the effect of the projects on maternal mortality during the period around 2006 to around 2009 when most of them had passed the piloting and early expansion stage and were rolling out their interventions on a broader scale. While the data do not allow for accurate cross-country comparisons, the 52.5 percent national decline in Georgia’s maternal mortality ratio (the number of maternal deaths per 100,000 live births) is particularly noteworthy. Russia also shows an impressive 18.2 percent decline at project sites compared with 13.8 percent nationwide. Ukraine and Kyrgyzstan, on the other hand, present a more complicated picture. Data from Ukraine indicate a rise in maternal mortality at project sites between 2007-8 and 2009-10 as well as nationwide. However, an

**Figure 9: Changes in maternal mortality, Russia, Ukraine, Georgia, and Kyrgyzstan**



*Notes and sources: Data for project sites are presented in blue and red; national data are presented in orange and green. **Russia:** Data are maternal mortality rates, covering 3-year periods centered on 2006 and 2009 to provide more stable estimates in light of large annual variations. National data are from the MOHSD; data for project regions are from regional health departments in 10 regions that were in the project between 2003 and 2006 (and mostly not thereafter) and thus show the longer-term impact of the project on reducing maternal mortality. **Ukraine:** Data are two-year averages to provide more stable estimates, for calendar years 2007-2008 and 2009-2010. Source: Ukraine Maternal and Infant Health Project (MIHP-II) (see References). **Georgia:** Baseline data are for 2006; endline for 2010. The data are from national surveys. Sources: Georgia Reproductive Age Mortality Study 2008 (see References) and Georgia Maternal Mortality Study 2010.<sup>11</sup> **Kyrgyzstan:** Data are for 3-year periods centered on 2006 and 2009 to obtain more stable data in light of large annual variations. Data are national, from the MOH.*

independent biostatistics consultant, who conducted a rigorous statistical analysis of the project's impact over the period 2003–2010 concluded that the project had a statistically significant effect on reducing the average annual rate of increase in maternal mortality by two-thirds but that the effect did not carry over to the overall maternal mortality ratio.<sup>9</sup> It should also

be noted that the project made a significant effort to improve reporting of maternal deaths, which may also have pushed up the numbers. Finally, Kyrgyzstan shows a modest increase in the maternal mortality ratio, but with the number of births there being small (around 120,000 a year<sup>10</sup>), this ratio shows substantial year-to-year variations. Indeed, the ratio for 2010 (50.6/100,000 live

births) was 19 percent lower than for 2007 (62.5).

### Newborn health improved

The significant changes in health care providers' practices with respect to care of newborns brought in their wake a number of improved health outcomes. One example is how implementation of the "warm chain" cut rates of hypothermia sharply at project sites in all four countries, as can be seen in Figure 10.

Another example of the impact of the new practices comes from Kyrgyzstan where implementation of evidence-based newborn resuscitation practices was associated with a decline in newborn asphyxia and fetal hypoxia from 14.8 percent in 2005 to 8.2 percent in 2008.<sup>12</sup>

As was the case for maternal mortality, one of the aims of the projects in all countries was to reduce infant mortality. According to WHO/Europe, neonatal conditions are one of three leading causes of child mortality, and 75 percent of neonatal deaths occur in the first week of life,<sup>13</sup> so the projects paid particular attention to addressing major preventable causes of death in the early neonatal period.

All the countries achieved excellent results in reducing deaths among newborns. In the case of Russia

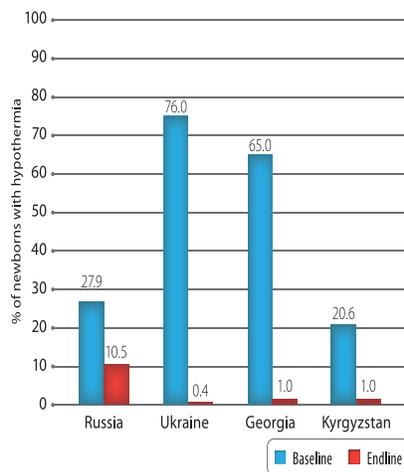
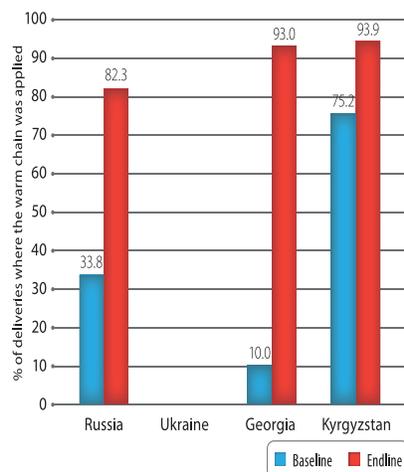
and Ukraine, there were steeper drops in early neonatal mortality at project sites than in the countries as a whole (Figure 11). Ukraine experienced an impressive 50.7 percent drop in the early neonatal mortality rate at project sites, compared with 14.9 percent nationwide. Moreover, an independent assessment concluded that the Ukraine project had a statistically significant effect on the overall early neonatal mortality rate, compared to non-project sites.<sup>14</sup> Russia showed a 28.6 percent decline at project sites, compared with 27 percent nationally. Georgia, meanwhile achieved a strong decline of 46 percent, and Kyrgyzstan recorded a drop of 15.3 percent.

### Abortion rates declined as use of family planning increased

All the projects included postpartum family planning counseling as part of their package of services, and that likely contributed to declines in abortion. This is best illustrated in the case of Russia, where the JSI projects' postpartum and postabortion interventions were the only significant effort to strengthen family planning either by the government or donors.

Figure 12.a shows increased provision of postpartum family planning counseling at project sites in Russia and how that went hand in hand with reduced abortion rates.

**Figure 10: Implementation of the “warm chain” led to reductions in newborn hypothermia**



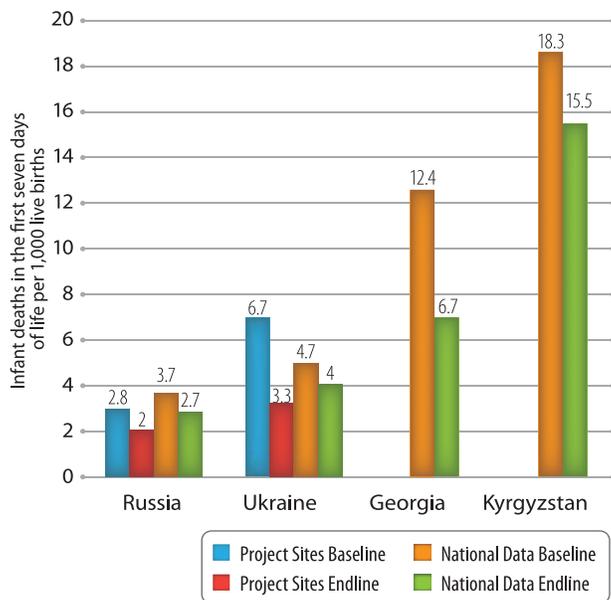
There was a 39.7 percent decline in abortion rates in project-assisted regions, which compares favorably with a 28.9 percent drop nationwide in the same period (from 42.9 in 2003 to 30.5 in 2009) – not shown. This trend is confirmed by more recent data from (a differ-

*Notes and sources: Hypothermia refers to a temperature below 36.5° C taken 2 hours after birth. **Russia:** Baseline data are for 2003; endline for 2006. Data are from reviews of over 14,000 medical records at two project pilot sites. Data are statistically significant. Source: Study on the Impact of the Maternal and Child Health Initiative (see References). **Ukraine:** Baseline data are for 2003; endline for 2010, for project sites. Baseline data on hemorrhage are from project monitoring; endline data are from the new health information system introduced by the project. **Georgia:** Baseline data are for 2005; endline for 2009. The baseline figure of 65 percent hypothermia is the average of the 40-90% range found in health facilities during baseline assessments. Source: Monitoring data from project sites. **Kyrgyzstan:** The timing of baseline data varies, depending on when a site entered the project (from 2006 on); endline data are for 2008. Source: Progress in Maternal and Newborn Health in the Kyrgyz Republic (see References)*

ent set of) regions in the current project, where the abortion rate declined by 24 percent between 2007 and 2010, compared with 15.6 percent in Russia as a whole.<sup>15</sup> Kyrgyzstan saw an impressive increase in postpartum family planning counseling from 57.4 percent in 2006 to 87.5 percent in 2008, and this was likely accompanied by a drop in abortions, but abortions are very under-reported in the Kyrgyz Republic, so the data are not included here.

Ukraine and Georgia worked on family planning not only postpartum and postabortion, but also in outpatient health facilities where they reached the broader population. In Georgia, this was through the same project as the maternal and infant health interventions,

**Figure 11: Early neonatal mortality rates in Russia, Ukraine, Georgia, and Kyrgyzstan**



*Notes and sources: The impact of the projects on early neonatal mortality in Ukraine and Kyrgyzstan is understated because they introduced the international live birth definition during the time period covered. This has the effect of increasing neonatal and infant mortality rates. **Russia:** Baseline data are for 2007; endline for 2010. National data are from the MOHSD; data for project regions are from regional health departments in 5 regions where the project has worked since 2004-2007 (time in the project varies from one region to another). **Ukraine:** Baseline data are for 2007; endline for 2010. National data are from the MOH; data for project sites are from monitoring of project sites. **Georgia:** Baseline data are for 2005; endline for 2010. National data from the Georgia Statistical Yearbook, 2003-2010, National Center for Diseases Control and Public Health, Ministry of Labor, Health and Social Affairs. **Kyrgyzstan:** Baseline data are for 2005; endline for 2010. National data from the MOH.*

while in Ukraine it was through a separate USAID-funded family planning project that reached about half the regions in the country. These countries also show increases in contraceptive use and decreases in abortion, as can be seen in Figures 12.b and 12.c.

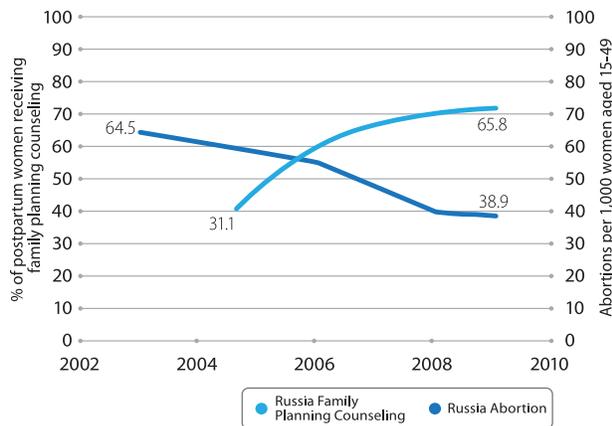
### **Economizing resources for the health sector**

The Russia project found early on that the new perinatal care practices were generating significant savings for the health system – as might be expected for interventions that were, for the most

part, reducing unnecessary care. Project staff recognized the importance of documenting those savings and sharing the results with policy makers. In 2003, they reviewed over 600 medical records from before and after project interventions at two pilot sites and found the cost of care at one site fell 29 percent and at the other 10 percent after starting to adopt the new practices. Included in these figures were the cost of the hospital stay itself, use of analgesics, anesthesia, tests, and drugs.<sup>17</sup> As Russia scaled up, it also became obvious that the Russian regions themselves were cost-sharing way beyond what was expected. A leveraging study estimated that for every dollar invested by USAID in the project, the regions in response invested \$6–\$12.<sup>18</sup>

At the pilot site in Kazakhstan, the *ZdravPlus* project looked at the impact of the new practices on the costs associated with hospitalizations, using data from a case-based hospital payment system. It found a 13 percent decrease in cost for the 11 monitored conditions most likely to have been affected by the new practices.<sup>19</sup> The report noted that other documented changes, such as less complicated deliveries and shorter lengths of stay were probably producing additional savings; the average length of stay fell from 4.1 to 3.7 days between 2002 and 2003.

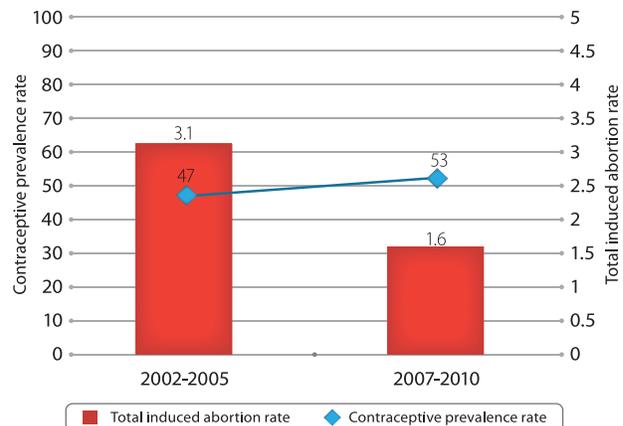
**Figure 12.a: Increased provision of postpartum family planning counseling is accompanied by reduced abortion rates in Russia**



**Notes and Sources:** **Russia:** family planning counseling data are from surveys of women postpartum in five regions that participated in the project between 2003 and 2006 (most were not in the project after 2006). Abortion rates are for project regions. Source: *Maternal and Child Health Initiative II Final Technical Report* (see References).

**Kyrgyzstan:** Data from interviews with postpartum women at project sites. Source: *Progress in Maternal and Newborn Health in the Kyrgyz Republic* (see References).

**Figure 12.b: In Georgia, increases in contraceptive prevalence were accompanied by declines in the abortion rate**



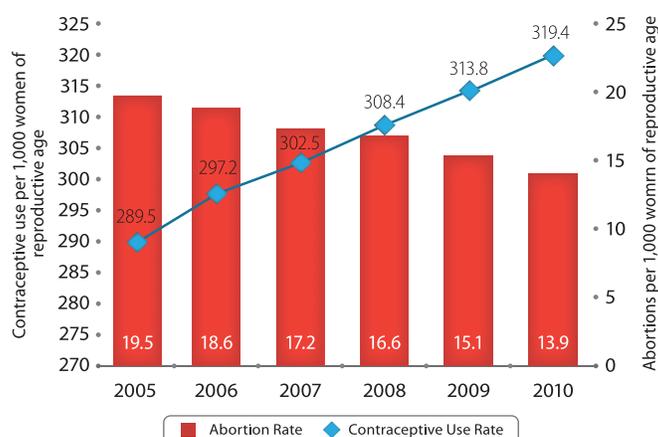
**Note:** Data are from national surveys. The contraceptive prevalence rate refers to married women aged 15-44 using any method of contraception; the total induced abortion rate is the number of abortions a woman is expected to have in her lifetime under current age-specific abortion rates.<sup>16</sup>

The Ukraine project, too, examined the cost impact of the changes it was promoting, so policy makers could see that the new technologies were yielding health benefits at the same time as saving money. It reviewed 600 medical records from 2002 and 2005 in three hospitals, before and after the project's interventions. It sought to measure savings accrued from reduced use of non-evidence-based analgesics and anesthetic drugs, antibiotics and intravenous solutions, laboratory tests, as well as bottles and infant formula. It found that per patient expenditures fell by 67

percent in one facility, 80 percent in another, but only 25 percent in a third, where the new practices were not yet fully implemented. The study also noted that additional savings could be achieved by further reducing unnecessary tests for mothers and newborns, better implementation of evidence-based perinatal practices in neonatal intensive care units, and implementation of updated protocols for the management of sick newborns.<sup>20</sup> It concluded that if the new evidence-based interventions were practiced around the country, Ukraine could not only

dramatically improve the quality of care for mothers and newborns, but also reduce the cost of care by approximately \$8 million per year. These findings proved enormously valuable, particularly in the early years of the project, when regions were concerned that they could not afford the investments in infrastructure needed to improve care. The data about long-term savings on medications, supplies, and other items were often the argument that convinced them to try *Effective Perinatal Care*.

**Figure 12.c. In Ukraine, increases in the contraceptive use rate were accompanied by declines in the abortion rate**



Note: The contraceptive use rate is the number of women seen in MOH health facilities who use IUDs or hormonal contraception per 1,000 women of reproductive age; the abortion rate is the number of abortions in MOH health facilities per 1,000 women of reproductive age.  
Source: MOH of Ukraine

were disseminated among Georgia’s major hospital investors and health insurance companies and, along with improved quality of care, became an important factor in advocacy for *Effective Perinatal Care*. Private investors, in particular, were very impressed with the results of *Effective Perinatal Care* and requested technical assistance in implementation of its principles in their hospitals.

*The Georgia Cost Impact Study*<sup>21</sup> borrowed from the study protocols used in Russia and Ukraine to design a study undertaken in two representative project-assisted hospitals (one private, one public), comparing all costs of maternity and newborn care services. Based on a review of 400 delivery/newborn records for 2004 and 2007 (before and after implementation of *Effective Perinatal Care*), it found that the average overall delivery cost after training and implementation of the new practices was 13.4 percent lower than before. These savings were largely due to reductions in the costs of maternal drugs (59 percent) and supplies (77 percent). The study results

“We have seen the concrete benefits from promotion of *Effective Perinatal Care* principles at Zugdidi Hospital through demedicalization and reduced medical interventions during the delivery. The benefits seen both in terms of improved health outcomes and reduced hospital expenditures suggest that we should request JSI support in replicating *Effective Perinatal Care* practices in our other medical facilities.”

A private investor in Georgia

## Conclusion

In little more than a decade, there have been major strides forward on maternal and neonatal care with USAID's investment having a real impact. The way care is provided has changed dramatically and on a broad scale, making life better for women, babies and families and contributing to improved health and survival. Moreover, the new approaches appear to be well on the way to becoming the norm across much of the former Soviet Union.

But the work is by no means finished. Even in regions where the JSI projects have worked, providers' improved practices still need to be reinforced and strengthened. Many more geographic areas remain to be reached, and the new practices need to be fully integrated into medical education, both pre-service and postgraduate. There is still much work to be done to overcome the skepticism of many medical leaders in some countries to complete updates to the policy framework. Evidence-based medicine is still not on a firm footing in these countries, yet their ability to make future improvements in the quality of care depends on leaders who fully appreciate the value of evidence-based approaches to health care, who are committed

to implementing them and who have staff with the expertise and language skills to stay abreast of and evaluate scientific data from around the world.

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"My wife had a baby here about five years ago, but so much has changed now, it makes you want to have another baby!"

A professional photographer taking pictures at Tyumen Maternity #3, Russia

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Current JSI projects in the former Soviet Union continue to reinforce and spread the shift to family-friendly approaches and the demedicalization of care for normal pregnancy, delivery, and neonatal care, coupled with improved management of complications. In addition, some are pushing new boundaries needed to improve health outcomes and to use resources more effectively. The Russia project is working with selected regions to rationalize the perinatal care system through a three-tiered regionalized approach, where all medical providers will know for certain at which level of the system they work and what is expected of them; have the necessary knowledge, skills, and equipment to perform competently; and be familiar with the

referral system to other levels of care. In Ukraine, a Presidential Initiative, *New Life – New Quality of Maternal and Child Health Care*, was adopted in 2010, placing a strong emphasis on the regionalization of care as a key strategy to improve birth outcomes. The project is working with the MOH to develop national policy and is helping two regions to improve the quality of care, develop local protocols, and pilot regional referral systems. It has been drawing on the early experience of the Russia project in this area, so the collaboration among countries continues.

The Russia project is also working in selected regions to link the health system with social services with a view to identifying women with social risk factors and seeking to ensure that they obtain *both* the health and social services they need to maximize the chances of a healthy pregnancy and a good start in life for mother and baby. Early indications are that this approach shows great promise in improving care for the most vulnerable women.

Ukraine has introduced the Kangaroo Mother Care method in selected hospitals to improve the health and survival of sick and preterm newborns and reintroduce the mother as the primary care giver for these fragile infants. By providing them with skin-to-



skin contact with the mother or another family member, these babies are benefiting from the mothers' warmth, breastfeeding, and bonding with their parents. Early results from the pilot site in Kyiv show no cases of nosocomial infection, less hypothermia, better weight gain, less antibiotic use, a faster transition to breastfeeding, and earlier discharge.<sup>22</sup>

Georgia is moving in bold new directions in the sphere of quality of care, in the context of a health system well along the way to being completely privatized. It is introducing accreditation and certification of health care facilities in an effort to standardize and improve the quality of services. JSI is providing technical assistance to the certification process, helping to develop certification standards and

indicators, define the process, and develop an award package that will motivate institutions and staff and provide added marketing value for clients/patients. JSI's project is helping the government pioneer this effort in maternal and neonatal care, with the expectation that it will serve as a model for certification in other clinical areas. It is also embarking on "social marketing"

of family friendly maternity care, using television spots to promote partner deliveries and demonstrate to the public how family friendly health care facilities provide care. The Parent School Program, which includes training, materials, and support, is being offered to interested maternity hospitals and polyclinics to enhance their package of prenatal care services. Social marketing also includes support for the promotion of the certification program through a "quality seal" award package for certified facilities: an outdoor plaque, indoor certificate, inclusion on the list of certified facilities promoted on the MOH's website, and featured in periodic publications. Clearly, certification will become an important competitive advantage for facilities seeking to position themselves better in a privatized health care system.

Clearly, even after a little more than a decade of work, the new

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"Companion presence in the delivery room, free positioning during labor and delivery, non-medical interventions and active management of the third stage of labor, as well as early skin-to-skin contact and constant rooming-in after delivery – these are practices we would never have thought of 5-8 years ago. Thanks to the project, Ukrainian families are happier and eager to have more babies."

A midwife at Donetsk Maternity Hospital No. 3, Ukraine

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approaches are already bringing demonstrable benefits to women, infants, families, and the health system. The introduction of evidence-based approaches to maternal and neonatal care are improving health outcomes and show promise in reducing maternal and neonatal mortality. The adoption by health care providers of more client- and family-oriented ways of providing services is welcomed by women and families and is contributing to the demedicalization of care. The humanization of care that underlies the new approaches is having an impact on health care providers, too. They are adopting

more team-oriented ways of providing services that bring them greater job satisfaction and also contribute to better, safer care. Finally, the health system is reaping benefits through better-integrated, more efficient care that is reducing costs while at the same time improving health.

The speed with which these changes have taken root and spread indicate that they will continue to move forward, holding out the promise of improved maternal and infant health and better health indicators in the countries of the former Soviet Union. In addition, the

changes could have a much larger impact. The spread of evidence-based medicine to other medical specialties could have a dramatic effect on the quality of health care in post-Soviet settings more broadly and contribute to healthier citizens and societies. Finally, the broader adoption of client-centered approaches to care places clients/patients where they belong in health care: front and center. Better-informed citizens, who are more involved in their own health care and who demand better care and a more responsive health system are the foundation for an empowered and healthier society.

## Acronyms and Abbreviations

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AMTSL</b>	Active Management of the Third Stage of Labor
<b>EBM</b>	Evidence-Based Medicine
<b>EU</b>	European Union
<b>HIV</b>	Human Immunodeficiency Virus
<b>IMCI</b>	Integrated Management of Childhood Illness
<b>IMR</b>	Infant Mortality Rate
<b>IUD</b>	Intrauterine Device
<b>JSI</b>	John Snow, Inc.
<b>LAM</b>	Lactational Amenorrhea Method
<b>MCH</b>	Maternal and Child Health
<b>MMR</b>	Maternal Mortality Ratio
<b>MOH</b>	Ministry of Health
<b>MOHSD</b>	Ministry of Health and Social Development of the Russian Federation
<b>PMTCT</b>	Prevention of Mother-to-Child Transmission of HIV
<b>RAMOS</b>	Georgia Reproductive Age Mortality Study
<b>SanEpi</b>	Sanitary Epidemiological Service
<b>SIDS</b>	Sudden Infant Death Syndrome
<b>UNFPA</b>	United Nations Population Fund
<b>UNICEF</b>	United Nations Children’s Fund
<b>USAID</b>	United States Agency for International Development
<b>WHO</b>	World Health Organization

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