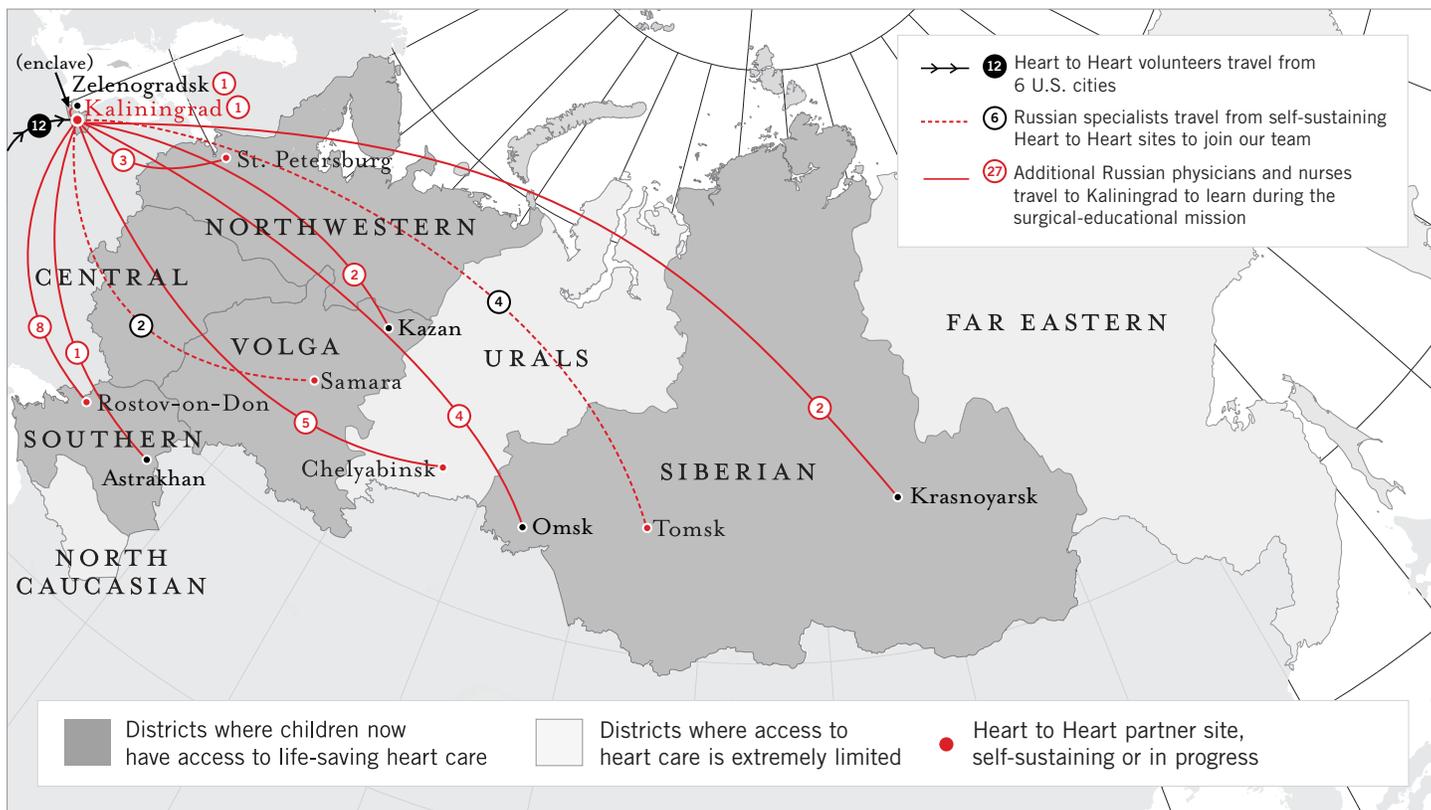


INTO the HEARTLAND CAMPAIGN

SITE: KALININGRAD
DISTRICT: NORTHWESTERN
COLLABORATION LAUNCHED: 2013

SEPTEMBER 17–27, 2014
SURGICAL-EDUCATIONAL
MISSION 2



An international team tackles a global problem Worldwide, congenital heart defects are the most common birth defect: treating these babies is an international challenge. Heart to Heart volunteers from six cities across the U.S. and two cities in Russia traveled to the enclave of Kaliningrad to train this region's first pediatric cardiac team of 35 physicians and nurses. From eight cities across Russia, an additional 27 physicians and nurses traveled to learn in Kaliningrad.

DESTINATION KALININGRAD: ADVANCING PEDIATRIC CARDIAC CARE ACROSS RUSSIA

Worldwide, one out of every ten children born with congenital heart disease (CHD) requires surgery in the newborn period (the first 30 days of life). In 1989, when we began training cardiac specialists in the USSR, it was almost unheard of for a newborn baby in Russia to have the opportunity to undergo

open heart surgery. From the outset, we envisioned developing a center of excellence where newborn surgery would be open heart surgery. From the outset, we envisioned developing a center of excellence where newborn surgery would be routine, with outcomes comparable to those at leading U.S. centers. Thanks to our founders' tenacity, this was achieved in St. Petersburg, our flagship program, by the end of the 1990s.

HEART TO HEART 2014 KALININGRAD TEAM **Children's Healthcare of Atlanta:** Brenda Jarvis, senior PICU nurse **Edwards Lifesciences:** David Williams,* engineer **Mayo Clinic:** Dr. Frank Cetta, pediatric cardiologist; Dr. Kavitha Pundi, pediatric cardiology fellow; Dr. Nathan Taggart,* pediatric cardiologist **Nationwide Children's Hospital:** Dr. Mark Galantowicz, pediatric cardiac surgeon; Daniel Gomez CCP, perfusionist; Dr. Aymen Naguib, anesthesiologist; Dr. Janet Simsic, pediatric cardiac intensivist **Samara Regional Cardiac Center:** Dr. Anton Avramenko,* OR interpreter; Dr. Dina Vozdvizhenskaya,* cardiology interpreter **Tomsk Cardiology Institute:** Dr. Alexander Nikolishin,* ICU doctor, night shift; Irma Ozashvili,* interpreting coordinator; Dr. Gleb Pavlichev,* PICU interpreter; Elena Sukhomlinova, PICU nurse, night shift **UC Davis Medical Center:** Olesya Dushkova,* surgical technologist **Heart to Heart:** Karen O'Brien,* interviewer & photographer; Albina Popova,* administrative coordinator.

*Russian-English bilingual



A new national resource for patient care and training Lectures in Kaliningrad were attended by cardiologists, echocardiographers, intensivists, and cardiac surgeons from across Russia. Q&A discussions were frequently as long as the lectures – and extremely animated. At the request of his Russian colleagues, Dr. Mark Galantowicz (shown at left above) delivered a presentation on his signature surgery, the Hybrid procedure for the repair of HLHS.

In 2002, Heart to Heart launched our *Into the Heartland Campaign, 2002-2019*, with the ambitious goal of developing a network of seven self-sustaining centers of excellence strategically located throughout Russia. This network of advanced specialists newly trained by Heart to Heart would ensure access to life-saving cardiac procedures for all babies and children nationwide. Additionally, our “graduates” would set the national pediatric cardiac agenda and train the next generation of specialists.

For twenty-five years now, pediatric cardiac doctors and nurses from all over Russia have been traveling to Heart to Heart’s partner sites to benefit from our teaching and training during our surgical-educational missions. Consequently, at every site, we encounter long-term colleagues who believe strongly in our program model.

For example, Prof. Yuri Schneider, the chief of the new Kaliningrad Federal Cardiac Center (KFCC), has been a surgical colleague of our founder’s for over 20 years. While in St. Petersburg, Prof. Schneider and his patients experienced firsthand the dramatic improvements resulting from Heart to Heart’s decade of collaboration there. He is as enthused as we are to elevate heart care in this part of the country.

Teaching toward the Gold Standard

The KFCC, under the leadership of Prof. Schneider and lead pediatric cardiac surgeon Vyacheslav Belov, has already caught the attention of colleagues and patient families across the country. Only two years into our collaboration, the KFCC has already reached the national average for newborn open heart surgery: 10% of their 2013 case mix was comprised of babies less than 30 days old.

This year in Kaliningrad, the Heart to Heart OR team was led by Dr. Mark Galantowicz, renowned for an innovative surgical approach to repairing the most challenging heart defect, Hypoplastic left heart syndrome (HLHS). Dr. Galantowicz is internationally recognized for his role in developing the Hybrid procedure, which must be performed in the newborn period for babies born with HLHS to survive.

The mission got off to a cordial and collegial start. At the official welcome ceremony led by Cardiac Chief Schneider and the regional Minister of Health, the Minister thanked Heart to Heart for continuing our collaboration this year despite current political tensions. Medical team leader Frank Cetta responded on behalf of Heart to Heart.

Pioneering newborn cardiac surgery in Russia

In 2013, 27% of all newborn babies who underwent open heart surgery in Russia did so at a Heart to Heart partner site.



Heart to Heart continues to emphasize the importance of each program reaching the internationally-recognized gold standard: performing open heart surgery on newborns with excellent outcomes. In fact, a Heart to Heart program cannot be considered self-sustaining until the team has demonstrated competency in the management of newborns for three consecutive years.



A day at the Kaliningrad Federal Cardiac Center The joint Heart to Heart-Kaliningrad team evaluated 76 children: cases ranged from straightforward to highly complex. Kirill (at left) was born with an incompetent valve, which we repaired. Katya (center) was born with a complex defect requiring multiple, staged cardiac procedures. Having local access to cardiac care for the first time is a long-sought-after development for tens of thousands of families and for the entire medical community.

“I’d like to thank Yuri and the Minister for inviting us to Kaliningrad once again. Heart to Heart is not about nationality – Heart to Heart is a family. As I look around the room, I see the number of young faces who have joined us – including many Russian colleagues from other centers who have become part of our family. They are our next generation.”

FRANK CETTA, MD
CHAIR, DIVISION OF PEDIATRIC CARDIOLOGY, MAYO CLINIC
HEART TO HEART VOLUNTEER SINCE 2004

Kaliningrad: addressing the patient backlog

For the first time ever, parents in the Kaliningrad region have a heart center close to home. Every afternoon, lead pediatric cardiologist Natalia Ganyukova and her team examine more than ten babies and children at various stages of congenital heart disease. Depending on the severity of the defect, CHD can advance quickly, moderately, or slowly. And for parents worried that their child might have a heart defect, an accurate diagnosis ruling out CHD brings huge relief.

Determining the best course of treatment for each child in the backlog of patients is a major undertaking for the new Kaliningrad team. The KFCC’s substantial backlog presents Heart to Heart with invaluable teaching opportunities. The joint team performed echo studies, discussing in depth how each child’s defect has affected his or her heart and lung health, and overall well-being. Each echocardiographic examination functioned as a mini-workshop, with up to 25 specialists looking on and asking questions about cardiac anatomy and physiology. Thankfully, for many children, the “window of opportunity” has not yet closed – they are still operable.

As on all our missions, high-level medical interpreting allowed for nuanced transfer of knowledge and experience. This level of communication also facilitated our role modeling of best practices in all aspects of patient care – from diagnosing, to performing open heart or catheter-based operations, to providing post-operative care in the PCICU.

Moreover, Heart to Heart’s cultural fluency – a deep understanding of Russia’s medical system – enables our lecturers to present valuable topics in the context of Russia’s evolving cardiac landscape. In the OR, teaching moments were maximized, thanks to three of our expert interpreters, including a pediatric cardiac surgeon from our self-sustaining site in Samara.

A network to advance care nationwide

Across Russia, our colleagues are working at a higher technical level than ever before – and moving forward fast. Serving to further accelerate their progress, physicians in Kaliningrad now have the benefit of Heart to Heart’s network – a network 25 years in the making. Through this collaboration, they have joined a family of colleagues to learn from – hundreds of advanced specialists both in Russia and in the U.S. This is so promising for babies born with life-threatening defects in this part of the world – and so rewarding for Heart to Heart’s dedicated medical volunteers.

We continue to be inspired by our colleagues’ commitment to their work, by the generosity of our Russian hosts, by the lengths to which Russian parents go to secure care for their children, and most of all, by the bravery and sweetness of the children themselves. We are incredibly thankful to be able to do the work we do.

FINANCIAL OVERVIEW

Financial support

Edwards Lifesciences Foundation	115,691
St. Jude Medical Foundation	24,324
World of Children Award	9,306
Total Financial Support	\$149,321

In-kind support

In-kind medical services	472,084
Non-medical in-kind (see Expenses below)	28,600
Total In-kind Support	\$500,684

Total program value

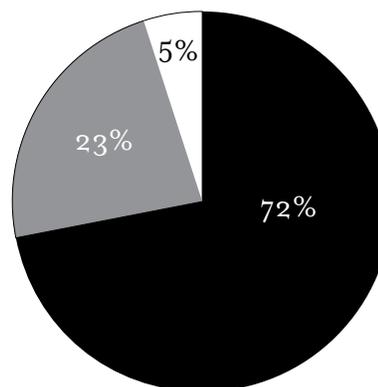
Donated medical services	472,084
Expenses (excl. non-medical in-kind)	149,321
Non-medical in-kind donations (Russian)	28,600
Total Program Value	\$650,005

Expenses

Ground transportation, in-kind	1,900
Interpreters, in-kind	3,400
Lodging, in-kind	18,720
Meals, in-kind	2,340
Program supplies	1,285
Pre- and post-trip coordination + logistics	56,692
Travel	22,054
Travel insurance, in-kind	1,440
Visas, in-kind	800
Year-round program development	69,290
Total Expenses	\$177,921

Data compilation as of January 22, 2015

KALININGRAD PROGRAM YEAR 2 Total Program Value: \$650,005



- Heart to Heart in-kind medical services \$458,804
- Expenses (excl. non-medical in-kind) \$149,321
- Non-medical in-kind donations (Russian) \$28,600

PROCEDURES PERFORMED SEPT 2014

Patient exams (80)	47,600
Echo studies + readings (80)	98,320
Cath lab - diagnostic (6)	48,384
Cath lab - interventional (2)	25,957
Pediatric open heart surgeries (5)	113,387
Anesthesia (5)	62,285
Perfusion (5)	13,280
Intraoperative TEE (5)	6,000
Post-op exams / readings (5)	1,920
ICU post-op care, MD (5)	10,740
RN/tech support (ICU + OR)	10,461
Professional consulting + lectures	33,750
Total In-kind Medical Services	\$472,084

77% of the total program value consisted of goods and services donated in-kind to Heart to Heart and utilized in Kaliningrad in Program Year 2. The remaining 23% consisted of financial support from our major sponsors and individual donors.

Thank you to our major sponsors, whose support continues to fuel our progress.

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