

INTO *the* HEARTLAND CAMPAIGN

SITE: TOMSK
DISTRICT: SIBERIA
COLLABORATION LAUNCHED: 2006

APRIL 14-26, 2009
SURGICAL-EDUCATIONAL
MISSION 4



Dr. Evgeniy Krivoschekov, Tomsk's lead pediatric cardiac surgeon, looks on as Heart to Heart medical volunteers surgeon Gary Raff (seated, left) and cardiologist Frank Cetta (seated, right) review and discuss a child's angiogram with the full team to collectively determine the best course of treatment.

TEAM TOMSK

On April 14, 2009, eleven Heart to Heart medical volunteers flew from five different cities across the United States, converging in Tomsk, Siberia, for the fourth time.

The pediatric cardiac team was made up of ten Heart to Heart veteran volunteers—plus one physician who was a first-time participant. Team Leader Dr. Frank Cetta provided medical leadership on our Tomsk mission, as he has for the previous three years. Frank is the Division Chair of Pediatric Cardiology at the Mayo Clinic and lectures all over the world.

The veteran dynamic duo of Dr. Janet Simsic and Brenda Jarvis, RN from Emory University Hospital/Children's Hospital of Atlanta has become a formidable *troika*. Janet and Brenda

have been on the Tomsk team since the program's launch in 2006. They have brought to Tomsk not only their experience from four medical-surgical missions at our Samara site, but also their wonderful colleague from Atlanta, Lisa Poppell, RN, now herself a veteran of four trips to Tomsk and Samara. In the Pediatric Cardiac Intensive Care Unit (PCICU), Janet, Brenda, and Lisa provide invaluable patient care, as well as educating and training the developing Siberian team.

Five of the six other pediatric cardiac specialists have been on previous missions to Tomsk. Newcomer Nathan Taggart, MD, a young cardiology fellow from the Mayo Clinic, speaks Russian—a welcome addition to this experienced team.

HEART TO HEART 2009 TOMSK TEAM: Children's Hospital of Philadelphia: Dr. Laura Diaz, pediatric cardiac anesthesiologist; Talya Ebel, perfusionist; Gail Keyser, OR technician. Children's Hospital of Wisconsin: Maryanne Kessel, director, Herma Heart Center. Emory University Hospital/Children's Hospital of Atlanta: Brenda Jarvis, senior PCICU nurse; Lisa Poppell, PCICU nurse; Dr. Janet Simsic, pediatric cardiac intensivist. Loyola University Medical Center: Lynn Graham, clinical nurse. Mayo Clinic: Dr. Frank Cetta, pediatric cardiologist; Dr. Nathan Taggart, cardiology fellow. University of California at Davis Medical Center: Dr. Gary Raff, pediatric cardiothoracic surgeon.



Heart to Heart veteran medical volunteers in the PCICU at Children’s Hospital of Atlanta, their home institution (left to right: Brenda Jarvis, RN, Lisa Poppell, RN, and Janet Simsic, MD). This “Formidable Troika” has been key in teaching post-operative management of babies and children to the intensive care staff at the Tomsk Cardiology Institute ever since its stand-alone children’s intensive care unit (shown at right) was established in 2006.

PROGRAM PROGRESS

Last year, our Tomsk colleagues performed 224 heart operations, a 21% increase over 2007. Surgical outcomes have significantly improved—but statistics do not tell the whole story. The Tomsk team has successfully managed increasingly-complex cases, including more and more infants and newborns. Dr. Evgeniy Krivoschekov, Tomsk’s leading pediatric cardiac surgeon, has evolved both technically and as the leader of his team.

ECHO STUDIES NOW AVAILABLE IN THE TOMSK PEDIATRIC OPERATING ROOM

In the operating room, after each defect was repaired (but before the child’s chest was sewn closed), a cardiologist performed an intraoperative echo study using a transesophageal probe. In the US, the effectiveness of most repairs is confirmed while the patient is still in the operating room. In Russia, as programs evolve, intraoperative TEE examinations become standard. The use of the TEE reflects two developments: children are being treated at younger ages, and surgeons are capable of performing more complex repairs. Surgeons want to ensure the effectiveness of their work before sewing the child’s chest closed and transferring the child to the intensive care unit. Performing an echo study in the OR using the transesophageal probe provides immediate feedback to the surgical team. This major investment (approx. \$40,000 US) by the Tomsk hospital administration is a testimonial to both the institutional commitment and overall program progress.

PROGRAMMATIC MILESTONE

Heart to Heart’s educational model culminates in a self-sustaining children’s heart program at each sponsored site. Our most recent mission to Tomsk marks the program’s mid-point.

The idea of saving babies is wonderful and heart-warming—but the reality of taking care of critically-ill babies day after day is draining—physically, mentally and emotionally. For our colleagues in Tomsk, the excitement and fanfare of launching a new children’s program has given way to the day-to-day challenges. Treating infants and newborns is no longer a “novelty”; it is steadily becoming the standard routine—which is exactly Heart to Heart’s objective in Siberia.



“What I love about working with Heart to Heart is that the minute we hit the ground, we begin functioning as one team. We focus of course on patient care, but also on teaching our Russian colleagues to think and work as a cohesive unit—to combine all the thinking from cardiologists, surgeons, anesthesiologists, perfusionists, and ICU specialists...to determine the best approach to providing care for each child.”

—DR. FRANK CETTA, LEADER, HEART TO HEART TOMSK TEAM
DIVISION CHAIR, PEDIATRIC CARDIOLOGY, MAYO CLINIC



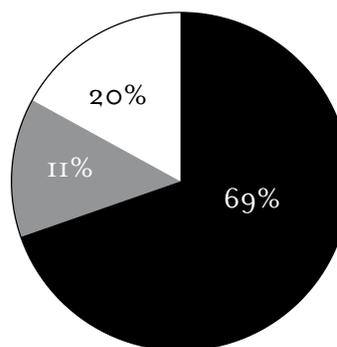
PATIENTS DIAGNOSED + PROCEDURES PERFORMED

At the specific request of our Tomsk colleagues, our mission focused even more than usual on education. Every Heart to Heart team member delivered at least one lecture; conferences were held daily, sometimes twice a day. Working with the Tomsk cardiologists, Heart to Heart diagnosed 31 patients, ranging from a 14-day-old baby to two young adults aged 18 and 23.

The joint Heart to Heart-Tomsk team collaborated on nine cardiac catheterizations. Three of these were interventional (minimally-invasive procedures, sometimes in place of open-heart surgery). The other six catheterizations were diagnostic: one of Heart to Heart’s goals is to teach state-of-the-art diagnostic techniques which today often combine the use of echocardiographic and cath-lab technologies.

The Heart to Heart-Tomsk team performed four advanced surgeries. Three were successful; one child, Danna, did not survive. Regardless of program progress, every child cannot be saved. The backlog of children needing surgery for childhood heart disease in Russia alone is estimated at 50,000—an overwhelming number of whom should have been treated years ago. The death of 5-year-old Danna reminds us why is it so important to develop programs that can treat babies and children (newborns to 3-year-olds) in a timely manner. In the US, Danna would have had surgery within the first two years of her life, but three years ago, her family had nowhere to turn. Thanks to the continued generosity of our donors, Heart to Heart’s programs have already saved more than 8,000 children in Russia.

TOMSK 4, APRIL 2009



- Heart to Heart In-kind Medical Services
\$315,154 {69%}
- Expenses
\$93,600 {20%}
- Non-Medical In-kind Donations
\$49,360 {11%}

TOTAL PROGRAM VALUE: \$458,114

PROCEDURES PERFORMED

CathLab - Diagnostic (6)	48,384
CathLab - Interventional (3)	30,184
Patient Exams (31)	18,445
Echo Studies + Readings (31)	37,200
Pediatric Open-Heart Surgeries (4)	107,460
Anesthesia (4)	9,380
Perfusion (4)	10,506
Intraoperative TEE Studies + Readings (4)	4,800
Post-Op Exams/Readings (8)	3,069
ICU Post-Op Care, MD (11)	4,297
RN/Tech Support (ICU + OR)	5,100
Professional Consulting / Didactic	36,329
Total In-kind Medical Services	\$315,154

TOMSK 4 SURGICAL-EDUCATIONAL MISSION, APRIL 2009: FINANCIAL REPORT

FINANCIAL OVERVIEW

FINANCIAL SUPPORT

Russian Gift of Life, USA	50,000
Heart to Heart – Into the Heartland funds	43,600
Total Financial Support	\$93,600

IN-KIND SUPPORT

Donated Medical Services	315,154
Non-medical In-kind {See Expenses below}	49,360
Total In-kind Support	\$364,514

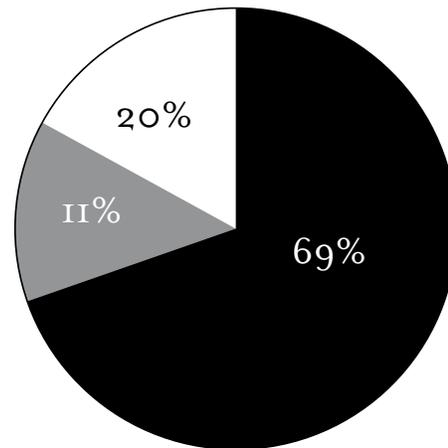
TOTAL PROGRAM VALUE

In-kind Medical Services	315,154
Non-medical In-kind Donations	49,360
Expenses {excluding Non-med. In-kind}	93,600
Total Program Value	\$458,114

EXPENSES {detail}

Airfare (II)	12,438
Airfare (In-kind discount)	660
Lodging (In-kind donation)	11,160
Meals (In-kind)	1,860
Interpreters (In-kind)	31,500
Ground Transport (In-kind, incl. Moscow)	900
Travel Insurance (In-kind)	1,300
Visa Support (In-kind)	1,980
Incidentals	1,400
Program Admin + Coordination	79,762
Total Expenses	\$142,960

TOMSK 4, APRIL 2009



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 - Expenses \$93,600 {20%}
 - Non-medical In-kind Donations \$49,360 {11%}
- Total Program Value \$458,114**

TOMSK 4 VALUE PROPOSITION:

Every donated dollar was leveraged **5** times.

TOMSK 4 TOTAL PROGRAM VALUE:

80% of Tomsk 4 total program value consisted of services and products donated to Heart to Heart.

Data compilation as of June 25, 2009.

FINANCIAL SUPPORTERS

Our heartfelt gratitude to the Edwards Lifesciences Fund, The Estate of Nika Thayer, Joey's Corner, Medtronic Foundation and Russian Gift of Life, USA for their generous support of our journey *Into the Heartland*. We are honored to have them as partners.



The Estate of
NIKA PLESHKOVA THAYER

