Healthy Outcomes
HealthPartners Institute for Education and Research
2012 Annual Report

Connecting the dots: education and research to improve the health of our community
Connecting the dots - creating a culture of partnership

Since HealthPartners Institute for Medical Education and HealthPartners Research Foundation merged into a new organization in 2012, we have been working to identify and harness the many unique strengths of education and research.

Our combined strengths allow HealthPartners Institute for Education and Research (the Institute) to bring even more value to HealthPartners as a learning health system and to the community as public health research and health professional education that improves patient care.

In this challenging financial climate of federal budget cuts, we are always looking for new partnerships and opportunities to advance our mission of improving the health of our members, our patients and the community.

Thank you for your continued support of our work.

David Abelson, MD
President

Terry Crowson, MD
Interim Executive Director of Education

Andrew Nelson, MPH
Executive Director of Research
Institute recognizes former leaders

We would like to express our gratitude to two leaders who left the HealthPartners Institute for Education and Research in 2012: Brian Rank, MD, president since 2000, and Carl Patow, MD, MPH, vice president and executive director of education since 1998.

Dr. Rank joined HealthPartners in 1995 and has been medical director for HealthPartners Medical Group & Clinics since 1998. Dr. Rank helped lead the merger of Regions Foundation with the Group Health Foundation to form the HealthPartners Research Foundation (now the Institute) in 1998. He served on the Board of Directors and was a vital connection between research and the health care-delivery system, building the foundation for the development of HealthPartners as a learning health system. As an oncologist, he was involved in clinical trials through the Community Clinical Oncology Program.

Dr. Carl Patow provided tremendous leadership and inspiration for our education mission during his 14 years with HealthPartners. During his tenure, our graduate medical education (GME) programs grew from seven to 10 HealthPartners-sponsored residency and fellowship programs and 10 programs affiliated with the University of Minnesota. Dr. Patow was instrumental in galvanizing GME in both the creation of a Twin Cities Resident Council and in addressing the state and national funding challenges in medical education. He spearheaded a multi-year national initiative to improve patient care by integrating quality and patient safety into residency and fellowship training.

Dr. Patow also led the development of HealthPartners Clinical Simulation program and championed a major remodeling of our medical library. Finally, he brought us innovative, award-winning educational programs such as Joining Forces, the EBAN Experience, BlackBox CME and a HealthPartners-commissioned, Guthrie Theater-produced play, “Play What’s Not There.”

Thank you, Dr. Rank and Dr. Patow, for your many years of exceptional service.
Team Spotlight: Clinical Simulation

The HealthPartners Clinical Simulation team facilitates experiential learning opportunities to promote teamwork, communication, skills mastery, clinical reasoning and systems improvement.

In recent years, the team has experienced rapid growth, increasing simulation program participation by 77 percent in just two years. This increase is due in part to integration of simulation with quality and performance improvement initiatives at Regions Hospital and expanded program offerings. New programs include:

- Multiple-patient simulation, by which care teams may practice responding to critical care needs of more than one patient at a time.
- Dental emergency response, providing dental professionals the opportunity to practice managing medical emergencies in their clinic using their own medical equipment.
- A simulation instructor course, designed for individuals who desire more in-depth knowledge and skills in effectively incorporating simulation into all levels of health care education, from undergraduate programs to staff development.

HealthPartners has the only simulation program in the upper Midwest accredited by the Society for Simulation in Healthcare. Team members Gail Johnson and Krista Kipper are Certified Health Care Simulation Educators (CHSE). The CHSE certification recognizes specialized knowledge, skills and accomplishments in simulation.

Simulation programs are offered either at the learner’s location, in-situ (in actual clinical environments), or in the HealthPartners Clinical Simulation and Learning Center at Regions Hospital in St. Paul.

HealthPartners Clinical Simulation Staff (left to right):
Heather Anderson, MA, RN, CCRN, Simulation Educator;
Nadia Kourinova, Administrative Assistant; Hans Lamkin, Simulation Technology Specialist; Krista Kipper, BSN, CHSE, Simulation Program Manager; Gail Johnson, PhD(c), CHSE, Director; Mollie Lee, Simulation Program Assistant

5,765 health professionals who participated in simulation-based clinical education

To learn more, visit hpclinsim.com
Introducing . . .

**Joined the Institute:** January 2012

**Other offices:** Assistant professor, University of Minnesota, Minneapolis, Division of Pediatric Clinical Neuroscience in the Department of Pediatrics

**Education:** MS and PhD, clinical psychology, Finch University of Health Sciences/The Chicago Medical School; internship and fellowship training, pediatric psychology, Children’s Hospital of Philadelphia; fellowship training, pediatric neuropsychology, University of Minnesota, Minneapolis.

**Skill set:** Pediatric neuropsychology and psychological assessment, child health psychology consultation and liaison, cognitive-behavioral and family therapy.

**What drew me to research:** The opportunity to contribute to new knowledge and develop programs in areas that make a meaningful difference in the lives of children and families.

**Research interests:** Cancer survivorship, psychosocial adjustment of children and families to chronic illness, childhood obesity prevention and children’s mental health and cognitive development.

**Current projects:** Co-investigator on the National Institute of Child Health and Development/National Institutes of Health-funded Minnesota Center for Childhood Obesity Prevention: Linking Primary Care, Community & Family (NET-Works); Co-investigator on Healthy Homes/Healthy Kids Study, a National Institute of Diabetes and Digestive and Kidney Diseases-funded study to evaluate the long-term efficacy of a pediatric primary care-based obesity-prevention intervention for at-risk 5- to 9-year-old children.

**Vision or goals for your position:** To design and evaluate prevention and treatment programs for improving children’s health outcomes, emotional functioning and cognitive development.
Jeanette Ziegenfuss, PhD
Data Collection Center manager

**Joined the Institute:** September 2012

**Former position:** Associate consultant, Health Care Policy and Research/assistant professor of Health Sciences, Mayo Clinic

**Education:** PhD, 2008, Health Services Research, University of Minnesota, Twin Cities

**Skill set:** Research methods, including survey methodology and study design. Survey skills extend across the entire process of data collection from question writing and questionnaire design to choice of mode and contact protocol and sample selection, weighting and analysis. In addition, I have expertise in the secondary analysis of survey data collected by federal statistical agencies.

**What drew you to research?** The systems around care and the experiences that could only be systematically collected via self-report. Specializing in a method rather than a content area allows me to interface with a wide variety of content areas and the multiple intelligences that come with them.

**Research interests:** Sources of potential error in the collection of self-reported data. This manifests itself in patient, provider and general population surveys. Of all types of error, nonresponse error is the most interesting to me, particularly how decisions about survey design impact who chooses to respond.

**Current projects:** My highest priority is assisting other investigators collect the highest-quality data for their research. I am setting up an infrastructure to allow us all to learn collectively from the experience of past projects to inform future data collection and recruitment efforts. Recently, my own work has been focused on physician survey response behavior as well as broader research participation in the body of evidence being developed to constitute comparative effectiveness research.

**Vision or goals for the Data Collection Center:** I want the Data Collection Center to become a laboratory for survey methods work. As such, we will explore the use of new technologies and leverage our experiences to guide best practices. The HealthPartners environment is optimal for this type of research because we often know so much already about the individuals we are contacting. This knowledge helps us understand the trade-offs between cost and generalizability in optimal survey design.
Physician well-being takes center stage

Physician well-being is an emotionally charged issue that has become increasingly important across HealthPartners and the country. As part of a HealthPartners organizational initiative, the Institute established a goal to increase the national conversation about physician well-being, building a sustainable physician community to meet future needs.

Understanding that storytelling is a device for reflection/discussion and is particularly well-suited to the highly personal issue of physician burnout, the Institute, in partnership with the Guthrie Theater, commissioned William H. Thomas, MD, to write a play. The script, titled: “Play What’s Not There,” follows five physicians at various stages of their careers, living with stress, family life, work demands, dreams and destiny leading them to reflect on their motivations for and dedication to their careers.

In June 2012, the play was performed at the Guthrie Theater in Minneapolis. At the conclusion of the play, audience members participated in a facilitated discussion about the topics covered in the play. Residents, physicians, nurses and their families weighed in on the struggle to have a work-life balance in the medical profession and ways to make the situation better. Comments from participants were highly positive and ranged from “the play was remarkable in its ability to address a thought-provoking subject with humor, mythology and a scene with treadmills!” to “it was AWESOME!”

The story continues to resonate with physicians and the Institute is dedicated to promoting this innovative learning experience, offering a number of options to physician leaders. Multiple performances and script readings of the play have already happened in many different venues, creating a new dialogue about physician health.
Internal grant program: Discovery and Partnership Grants

**Discovery Grants**
- Allocate funds for small studies and pilot projects to new researchers
- Address clinical or organizational problems
- May lead to future external funding

**2012 Discovery Grants**
- **Aaron Burnett, MD:** “Sub-Dissociative Ketamine for the Management of Acute Pediatric Pain”
- **Charlene McEvoy, MD:** “Effects of High-Dose N-Acetylcysteine on Respiratory Health Status in Patients with Chronic Obstructive Pulmonary Disease (COPD) and Chronic Bronchitis: A Randomized, Placebo-Controlled Trial (NAC Study)”
- **William Mohr, MD:** “Continuous Lidocaine Infusion for Management of Perioperative Burn Pain”
- **Matt Morgan, MD:** “Factors Influencing Satisfaction in Emergency Department Patients”
- **Benjamin Orozco, MD:** “Pilot Study of Cerebral Perfusion in a Swine Model of Propanolol Toxicity”
- **Sam Stellpflug, MD:** “Investigation into Potential Reversal of Dabigatran-Induced Coagulopathy with Intravenous Fat Emulsion Therapy”

**Partnership Grants**
- Allocate funds for clinical practice improvement research
- Focus primarily on fostering the evaluation of innovations and interventions at HealthPartners, HealthPartners Medical and Dental Group and Regions Hospital

**2012 Partnership Grants**
- **Karen Margolis, MD, MPH:** “Assessing Accuracy of Blood Pressure Management in HealthPartners Usual Clinical Care”
- **Pamala Pawloski, PharmD:** “Proton Pump Inhibitor Use and the Risk of Adverse Cardiovascular Events in Aspirin-Treated Patients with Coronary Artery Disease”
- **Michael Rosenbloom, MD:** “The 6th Vital Sign Project: Does Cognitive Screening in the Elderly Population Improve Clinical Care?”
Study enables researchers to fully participate in multisite cancer research

As a result of a 2012 Discovery Grant-funded study, the Institute was able to add another data source to the resources available to conduct cancer research.

In their study, “Determining Virtual Data Warehouse Sufficiency of Regions Tumor Registry Data,” researchers Thomas Flottemesch, PhD; Amy Butani; Jody Jackson, RN; and Cheri Rolnick, PhD, MPH sought to determine whether they could populate the Institute’s virtual data warehouse with data from Regions Hospital’s tumor registry.

The Institute’s ability to participate fully in multisite, collaborative cancer research had been limited because its virtual data warehouse lacked detailed tumor data. The virtual data warehouse is a federated data structure that facilitates multisite research by compiling proprietary clinical, administrative, and other care data from different sites into a similar structure with common data elements and definitions.

Regions’ oncology department maintains a cancer registry compliant with North American Association of Central Cancer Registries standards. The Minnesota Department of Health (MDH) requires Regions to maintain this database and submit periodic extracts. The researchers wanted to know if they could populate the Institute’s virtual data warehouse with data from these extracts.

They learned that they would not need to rely on the data extracts that Regions Hospital prepares for the MDH. Instead, Institute programmers can access the data directly through the electronic registry system like they do any other data source.

As a result of this project, HealthPartners data on tumors is now part of the virtual data warehouse tumor table, according to Flottemesch. “Because the VDW tumor table is a resource available to HMO Cancer Research Network researchers as they examine feasibility of potential projects such as the number of cancer cases and data elements available, the outcome of this study puts the Institute in a better position to not only conduct internal cancer research but also to participate in multisite studies,” he says.
Can physicians reliably rule out high-impact trauma injury without CT?

Experts have been debating the utility of computed tomography (CT) scans in trauma patients who have been in a high-speed car accident or significant fall but who are otherwise alert and have no physical complaints or findings. While CT scans are indisputably useful in the evaluation of life-threatening injuries in these patients, the scans do subject patients to relatively high doses of ionizing radiation.

In a pilot study funded by a $25,000 Discovery Grant, “Agreement between Physician and CT Scan in High-Energy Mechanism Stable Trauma Patients,” Michael Zwank, MD, and colleagues sought to evaluate the routine use of CT in trauma patients who show no obvious signs of injury. The study, which was conducted between June and October 2010, enrolled 150 patients with a mean age of 43.

The results of his study showed that physicians are able to identify a subset of “unreliable” patients—most often those who are intoxicated or have other obvious injuries—as more likely to have major injuries identified by CT.

However, after history and physical exam, physicians did not suspect the presence of 15 of the 90 major injuries that were detected by CT scan. The rate of unsuspected major injuries was identical in the unreliable group of 73 patients and a group of so-called “reliable” patients (those not in the unreliable subset) of 77 patients.

“While the clinical significance of these missed injuries is open to interpretation,” Zwank says, “the study did raise concern as to how reliably clinicians can detect injuries in this subset of trauma patients.”

Zwank says that further study is needed, because one can’t conclude from the study results that CT is always called for, although they would support a more liberal CT scan algorithm. While a number of injuries were classified as “major,” some were tiny brain bleeds that required no treatment, and a couple of injuries were so major that they raise the question of whether the provider filled out the survey tool correctly.

Zwank’s coinvestigators included Institute biostatistician Chris Anderson, MPH; Eric Gross, MD, of Hennepin County Medical Center, Minneapolis; and Mary Hughes, DO, of Sparrow Hospital at Michigan State University, East Lansing.
Quality-improvement training for residents and fellows

The Accreditation Council for Graduate Medical Education (ACGME) competency of “Practice-based Learning and Improvement” requires that residents perform practice-based improvement activities using a systematic methodology. There are many benefits for residents who get involved in performance-improvement activities; not only do they feel they are an integral part of patient care, but they gain life skills that can be used in multiple settings. Most importantly, residents gain a sense of ownership in their own education.

The Institute’s residency programs participating in quality-improvement (QI) teaching at Regions Hospital are Emergency Medicine, Occupational Medicine, Psychiatry, Pediatrics, and Toxicology. After completion of a one-year training, residents are able to demonstrate: 1) knowledge and appreciation for the need to improve quality in health care and how continuous quality improvement (CQI) methodology contributes to the health care system and its “customers,” and 2) knowledge and skills necessary to effectively participate as a contributing member or leader of a CQI effort.

Results of training indicate that residents and fellows know how to apply quality-improvement tools and find them useful as they transition to a practice. The Institute created a Quality Fellowship for those who want to advance their knowledge in quality-improvement while doing an MBA at the Carlson School of Management, University of Minnesota. The first Quality Fellow, Kara Kim, MD, completed her fellowship in December 2012 and was recruited by Regions Hospital for the position of Emergency Medicine Quality Director.
Physician resilience and safe patient care

Every spring, the Institute organizes a Core Competencies Conference to address one or more of the six Accreditation Council on Graduate Medical Education (ACGME) core competencies. The six competencies include: patient care; systems-based practice; medical knowledge; practice-based learning improvement; professionalism and interpersonal communication skills. Medical residents and faculty are involved in all stages of the planning.

The Institute’s 2012 Core Competencies Conference extended the message of physician well-being, presenting a workshop with J. Bryan Sexton, PhD, Director of Patient Safety Operations, Duke University, and inviting conference attendees to the Guthrie Theater performances of “Play What’s Not There.”

Quality-improvement efforts frequently ignore the need to ensure that caregivers are ready for the next big initiative, and rarely do they first build the resilience of staff before expecting even higher levels of quality and safety to be delivered. For some, jumping into innovation is a reasonable first step. But many individuals need a focus on the caregivers and their needs to build capacity and bounce back from burnout before providing the training and the tools to improve quality in a sustainable way. Dr. Sexton’s presentation was designed to meet the needs of our patient safety and quality-improvement communities. It was a very positive experience for all participants. Two webinars designed by Dr. Sexton were held for conference participants in July and November.
Around the Institute

300+ active research studies

• The dental research team, led by William Rush, PhD, received a $1.76 million RO1 [Grant #DE022332] from the National Institute of Dental and Craniofacial Research early in 2012. Team members on the “An Innovative Approach to Disseminate Dental Research” study are Brad Rindal, DDS; Jim Fricton, DDS; Steve Asche, MA; Chris Enstad; Neil Johnson, DDS, PhD; and Deepa Appana.

• On June 15, the Centers for Medicare & Medicaid Services awarded the Institute for Clinical Systems Improvement and nine health care partners a three-year, $18 million Innovation Cooperative Agreement to conduct the improvement project “Care Management of Mental and Physical Co-morbidities: A Triple Aim Bulls-eye.” This project, which builds on the DIAMOND project, investigator Leif Solberg, MD, helped create, takes the collaborative care-management model for adult primary care patients with depression plus either diabetes or heart disease and expands it to seven states. [Cooperative Agreement #1C1CMS331048]

• Elyse Kharbanda, MD, MPH, and coinvestigators received a five-year, $2.97 million grant award from the National Heart, Lung, and Blood Institute to conduct the project “EHR-Based Clinical Decision Support to Improve Blood Pressure Management in Adolescents.” Coinvestigators include Steve Asche, MA; Lauren Crain, PhD; Pat Fontaine, MD, MS; Michael Maciosek, PhD; Jim Nordin, MD; Patrick O’Connor, MD, MPH, MA; Nancy Sherwood, PhD; Jerry Amundson and Alan Sinaiko, MD, of the University of Minnesota. [Grant #GK115082]

• HealthPartners announced the formation of a joint venture with VitalSims to market SiMCare Diabetes, software that was developed by investigators JoAnn Sperl-Hillen, MD, and Patrick O’Connor, MD, MA, MPH. The joint venture is called SiMCare Health. SiMCare Diabetes consists of Web-based accelerated learning simulations to help physicians improve the diagnosis and treatment of diabetes. Its development was funded by the National Institutes of Health and the Agency for Healthcare Quality and Research and was conducted in collaboration with the University of Minnesota.

• The Institute held its first Celebration of Education and Research as a merged organization in September. The evening of posters and presentations drew nearly 200 people to Bloomington to learn about the latest achievements in research and health professional education.
• The Institute received the 2013 Award for Outstanding Live Continuing Education Activity from the Alliance for Continuing Education in the Health Professions. This recognition was awarded for the EBAN Experience™: An Equitable Health Collaborative, which concluded in 2012. The EBAN Experience was designed to connect care teams and community members through dialogue, experiential education and quality-improvement projects. More information about the outcomes of this initiative is available on ebanexperience.com.

• In July 2012, Regions Hospital Medical Library hosted the National Library of Medicine travelling exhibit “Binding Wounds, Pushing Boundaries: African Americans and Civil War Medicine.” HealthPartners employees and members of the community viewed the exhibit and attended the accompanying lecture by Jennifer Gunn, PhD.

• In October 2012, Regions Hospital Medical Library, in partnership the Equitable Care Team, organized and hosted a Human Library Event. This unique learning experience gave Regions Hospital and HealthPartners employees the opportunity to “check out” a human book and learn about different cultures and lifestyles.

• The Institute’s 2012 regional and national level continuing medical education conferences offered extensive opportunities for clinicians to address their personal learning needs. Health care professionals from multiple disciplines chose from breakout sessions tailored to emerging issues in care delivery, hands-on simulation training, maintenance of certification learning sessions, CPR recertification and more. Participants praised the high quality and rigor of the conferences.

• To respond to a changing environment for education funding and learner expectations, Health Professional Education implemented changes in organizational priorities in 2012. These changes included increasing our capacity to deliver online learning, expanding our partnerships with care teams to improve patient outcomes, increasing the emphasis on quality improvement in education and establishing a Maintenance of Certification (MOC) program.
Stewardship
Ensuring significant contributions to knowledge

Improving know-how

Since 1992, the Regions Hospital Nursing Department has offered scholarships to employees pursuing their associate’s, bachelor’s, master’s or doctoral degrees in nursing. The scholarship is named after Gloria Fox, a respected and exceptional Regions Hospital nurse who died unexpectedly in 1990.

In 2012, the Institute dedicated Sharing at Work contributions to support six Gloria Fox scholarships. Successful applicants demonstrated their commitment to Regions Hospital and how receiving the degree would shape them and their future contributions to the organization. The degrees sought by recipients included bachelor of science in nursing, critical care nurse specialist, masters in nursing leadership and doctorate of nursing practice.

Gloria Fox Scholarship Recipients (left to right)
Beckie Langenbach; Janet Quarshie (Ancker Scholarship);
Angela Thomas; Chris Boese; Aline Niehues; Nebiyu Eguale;
Megan Koenig; Amanda Bettencourt; Lisa Bird
(Not pictured: Lisa Hosch)
Statement of activities

Total operating revenue   $20,174,000  
Total investment revenue   1,104,000  
Total expenses  20,523,000  

Net income $755,000

Statement of financial position

Assets
Cash/Cash Equivalents $8,516,000  
Other receivables  805,000  
Research project receivables  2,988,000  
Investments  13,074,000  
Investment in SiMCare  33,000  
Property/equipment  596,000  

Total assets $26,012,000

Liabilities
Accounts payable $944,000  

Total liabilities $944,000

Net assets
Unrestricted
   Undesignated $17,270,000  
   Board-designated  5,747,000  
Total unrestricted  23,017,000  
Temporarily restricted  2,051,000  

Total net assets $25,068,000

Total liabilities + net assets $26,012,000
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Mission
Improve the health of our members, our patients and the community.

Vision
Outstanding health, experience and affordability outcomes through discovery and continuous learning.