SPECIAL REPORT

Research Manitoba

PARTNERSHIPS FOR HEALTH

MANITOBA RESEARCHERS AIM TO HELP BUILD A BETTER HEALTH-CARE SYSTEM

Advances in the delivery of health care come about in many different ways.

In some cases, improvements can occur through the development of new drugs or surgical techniques. In other cases, they can be attributed to changes in the systems used to deliver care.

The Canadian Institutes of Health Research and Research Manitoba understand that both of these approaches can make important contributions to the ongoing effort to improve care.

As a result, they have joined forces through the Partnerships for Health System Improvement (PHSI) program. Launched in 2007, the program is designed to support researchers and decision-makers interested in conducting applied and policy-relevant health systems and services research that strengthens this country's health-care system.

Manitoba researchers eligible for the program are supported by grants from the Canadian Institutes of Health Research, Canada's primary funding body for health research, and Research Manitoba, which supports provincial researchers working in the fields of health, natural sciences, social sciences, engineering and the humanities.

This special report, sponsored by Research Manitoba, highlights some of the work being carried out by provincial researchers under the Partnerships for Health System Improvement program.

NEWS YOU CAN TRUST

EVIDENCENETWORK.CA PROVIDES INSIGHT INTO CANADA'S THORNIEST HEALTH POLICY QUESTIONS

By Joel Schlesinger

There was a time, a few years back, when Noralou Roos would find herself becoming frustrated by media coverage of important health policy issues such as fee-for-service care or childhood obesity.

"For years, my basic job was a researcher in health policy, and I would read things in the newspaper that would be completely counter to what the research on a topic actually stated," says Roos, a co-founder of the Manitoba Centre for Health Policy.

So one day Roos decided to do something about it.

Over lunch with a colleague, she was encouraged to apply for a grant from the Partnerships for Health System Improvement program, funded by the Canadian Institutes of Health Research (CIHR), to develop a mechanism to get the latest health policy research in the hands of media to ensure reporting was based on peer-reviewed, scientific evidence.

"At the time, I thought it sounded a little crazy because I'd never done anything like it, but then I thought, 'Why not?'" says Roos, who is a professor in the Faculty of Health Sciences at the University of Manitoba and an internationally recognized researcher on health policy.

In 2010, with funding from CIHR and Research Manitoba, she assembled a small editorial team and launched EvidenceNetwork.ca – a website dedicated to producing backgrounders and commentaries on a range of health policy topics. In addition to publishing these articles online, the website also distributes them to newspapers and other media outlets across the country. It also serves as an information clearing house where reporters can quickly find helpful, accurate information on a wide variety of health policy topics or connect with experts in a particular area. As a result, researchers now have multiple ways to spread the word – the right word – on a variety of topics ranging from mental health to health-care spending.

"The people that we have invited to work with us are some of the most highly respected scientific researchers in Canada," says Roos. "Many are research chairs – leaders in their field. And, in addition to writing articles for us, they are also available to answer questions from journalists who are pursuing their own stories."

Working behind the scenes to ensure their work is read by as many people as possible is an editorial team that includes Managing Editor Kathleen O'Grady, of Ottawa, journalist intern Melanie Meloche-Holubowski, of Montreal, and website Editor Eileen Boriskewich, who is based in Winnipeg. Other contributors include Nanci Armstrong and Carolyn Shimmin, both from Winnipeg.

Roos has also tapped a number of journalists to advise her on the project. Former *Winnipeg Free Press* Comment Editor Gerald Flood advised Roos on the website from the beginning, and her advisory board includes *Free Press* reporter Mary Agnes Welch and *National Post* reporter Tom Blackwell, among others.

EvidenceNetwork.ca's main weapon in the battle against misinformation is the commentary. In addition to being published on the website with a creative commons licence (which means anyone can reprint the content), these columns, which generally run about 650-words, are made available at to newspapers across the country through individual agreements or via Troy Media Service at no cost.

"We tried to do things in a way that is interesting because we realized that editors won't publish our commentaries otherwise," Roos says.

Manitoba researchers have been active contributors, writing about a number of controversial topics.

For example, Michelle Driedger, a professor and Canada Research Chair in Environment and Health Risk Communication in the Department of Community Health Sciences at the University of Manitoba, wrote on the importance of getting her family vaccinated against influenza. Dr. Harvey Chochinov, Director of the Manitoba Palliative Care Research Unit with CancerCare Manitoba, tackled the controversial issue of assisted suicide, discussing the difficult challenges of implementing this policy in the health-care system.

These articles and others have been well-received by newspaper publishers across the country. The number of commentaries published in all newspapers across Canada has grown from 171 in 2011 to 781 in 2014. Major newspapers, including the *Free Press, The Globe and Mail,* and the *Toronto Star,* published more than 200 of their articles in 2014.

Among the more important issues addressed by EvidenceNetwork.ca early on was the impact of aging on our health-care system. This was of particular interest to Roos, who thought media had been greatly exaggerating the problem, referring to the large demographic of boomers – now entering retirement – as an "aging tsunami" that would overwhelm the health-care system.

"You couldn't pick up the newspaper without reading that the whole health-care system was going to be destroyed because of a wave of aging boomers."

The editorial team at EvidenceNetwork.ca got to work organizing their experts to write commentaries and backgrounders based on the latest research, all in an easily digestible format for news media. One of the articles was co-written by Roos and former *Free Press*

Editor Nicholas Hirst.

"We really laid out what the evidence was on this," Roos says. "And the main message was yes, a larger percentage of the population is aging, and yes, this will have an impact on health care, but the evidence shows it's about a one per cent increase a year, which is not a tsunami."

In that sense, EvidenceNetwork.ca has proven to be a valuable information highway for knowledge translation – ensuring that research does have an impact on public debate about various issues, according to Kristy Wittmeier, Director of Knowledge Translation at the Winnipeg-based George and Fay Yee Centre for Healthcare Innovation.

"Carefully written (commentaries) promoted through EvidenceNetwork.ca have been referenced by provincial health ministers, have been used to help inform provincial inquiries, and have had ongoing larger health policy impacts," she says.

For example, after researcher Marni Brownell's article about Manitoba's high rates of taking children into protective care was published in the *Free Press*, the author was invited to testify before the provincial Commission of Inquiry into the death of Phoenix Sinclair – a five-year-old girl who died of abuse while in the care her mother and boyfriend.

"The recommendations made in the Honourable Edward (Ted) Hughes' report reflected Dr. Brownell's testimony, and the recent commitments made by the Government of Manitoba to focus on supports to avoid taking children into care also reflect Dr. Brownell's work," says Wittmeier. It's likely none of that would have happened without EvidenceNetwork.ca, she says.

Feedback from media has been positive. If anything, editors want the site to expand its breadth of offerings. Videos and podcasts, for example, were added only recently. "We have been told by the media that we needed to be doing these things because many newspapers need video for their websites."

Another measure of the website's success is the popularity of an annual e-book containing articles from the previous year. About 10,000 copies have been downloaded in each of the last two years. "To be considered a bestseller in Canada, you need to sell 5,000 books, so we're quite pleased with the reception the work of our team is getting."

Perhaps the greatest indication of the website's value has been continued backing from research funding agencies, including Research Manitoba. "One of the reasons Research Manitoba is so supportive of what we're doing is because it's been a pretty unique and effective approach to getting research into the media, and having policymakers and the public get a better understanding of very high-profile health topics."

With its second round of funding from the CIHR and the provincial agency set to run out next year, EvidenceNetwork.ca stands at a crossroads. "Many are supportive of what we have been doing, so now we're in the process of trying to work with the National Association of Provincial Research Organizations and the CIHR to develop an ongoing funding system."

Roos says continued support from Research Manitoba has helped keep the EvidenceNetwork.ca based in Winnipeg, and keeping it in her backyard remains the intention.

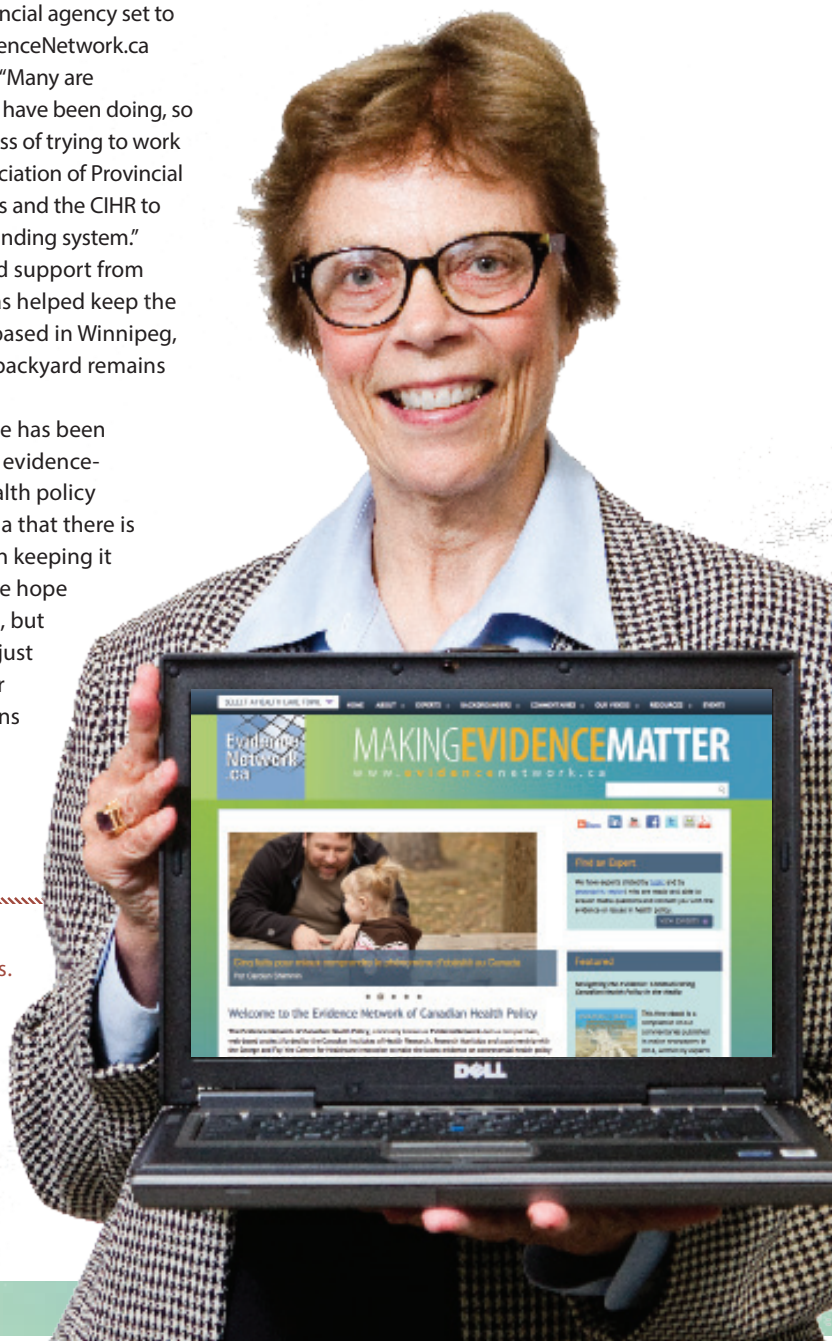
"Fortunately, the site has been so effective in getting evidence-based research on health policy into mainstream media that there is tremendous interest in keeping it going," she says. "So we hope to keep it in Manitoba, but at the end of the day, just keeping it going is our top priority – Canadians need the evidence."

PROJECT PROFILE

PRINCIPAL INVESTIGATOR: Noralou Roos

PROJECT: Injecting Evidence into Health Policy Coverage

FUNDING: 2009 to 2015: Canadian Institutes of Health Research, $768,121; Research Manitoba, $191,000.
2014, 2015: The George and Fay Yee Centre for Healthcare Innovation, $192,765.



EvidenceNetwork.ca founder Noralou Roos.

LINES OF COMMUNICATION

BUILDING BETTER PERSONAL CARE HOMES THROUGH SHARING INFORMATION

By Joel Schlesinger

Manitoba researcher Malcolm Doupe tells a story about an effort to improve the quality of care at a personal care home in British Columbia a few years ago.

It started when a research team met with the staff at the home to learn more about what they thought about what could be done to make things better for residents.

After some discussion, the staff identified a number of challenges, including the prevalence of pressure ulcers on patients. Pressure ulcers are an issue at many personal care homes in Canada. They occur when skin is continuously pressed or rubbed against something. Personal care home residents will sometimes develop pressure ulcers if they are bed-ridden.

In short order, the health-care aides at the home started to talk about the need to come up with a system to ensure residents were moved often enough to avoid developing pressure ulcers. One idea was to create a wall chart that would specify exactly when each resident at the home was moved, thereby allowing everyone on the floor to make sure no resident remained immobile for too long.

The creation of a wall chart is a simple thing, to be sure. But it is simple things that can dramatically improve the lives of personal care home residents. The real question is what happens to the knowledge that is gained in various ways at personal care homes like the one in B.C.? How do these facilities share knowledge to ensure everyone can benefit from one personal care home's success?

To help answer those questions, Doupe is participating in a multi-province study funded through the Partnerships for Health System Improvement (PHSI) program. The program is funded by the Canadian Institutes of Health Research, but also receives support from various ministries health regions and agencies across Canada, including Research Manitoba.

As the name suggests, the program was established to fund teams of researchers and decision-makers interested in looking at ways to enhance patient outcomes by improving the operations of health-care systems.

In addition to Doupe, the Manitoba team includes Jennifer McArthur, Program Co-ordinator for Translating Research in Elder Care (TREC); Lorraine Dacombe Dewar, Executive Director, Continuing Care Branch, Manitoba Health, Healthy Living and Seniors; Gina Trinidad, Chief Operating Officer, Deer Lodge, Winnipeg Health Region; Hana Forbes, Director of Long Term care for the Winnipeg Health Region; Malcolm Smith, a researcher in the Faculty of Management at the University of Manitoba; and Genevieve Thompson, a researcher in the Faculty of Nursing at the University of Manitoba.

Essentially, the team's goal is to work in partnership with many of the 125 personal care homes in the province to explore how they grapple with issues of care and how they communicate with each other.

"It's really about trying to figure out what type of communications strategies exist amongst the personal care homes in Manitoba," says Doupe of the work being funded through PHSI. Having that information will reveal whether there is an existing framework to share important information among PCHs or whether a new communication system has to be established.

And there is much to communicate.

At any given time, there are dozens of research projects taking place in personal care homes across the country. Many of these projects, like the pressure ulcer research in B.C., are undertaken through TREC, which includes research teams in British Columbia, Alberta, Ontario, Manitoba and Atlantic Canada. Led by principal investigator Carol Estabrooks, of the Univesity of Alberta's Faculty of Nursing, TREC researchers partner with personal care home staff and administrators to explore common challenges that all personal care homes face, including:

* Behaviour – This can involve patients who wander, putting them at risk of falling and other dangers;

* Pain management – Many residents suffer from chronic illnesses that also cause chronic pain. Because of their frail health, they often cannot safely be medicated using traditional pain management drugs like opiates or non-steroidal anti-inflammatory drugs;

* Pressure ulcers – These can arise when residents are persistently bed bound, which is often the case for those who are very ill, unable to get in and out of bed without help;

* Palliative care – How to care for a resident, particularly in the last month of life.

Dacombe Dewar says the research underway through TREC plays a pivotal role in shaping the delivery of services in personal care homes. "We get very relevant information and

evidence (from the researchers)," she says. This ensures that changes or improvements to service delivery are evidence-based.

TREC researchers have also looked at the culture of personal care homes, says Doupe. So the question becomes how do health-care aides operate within the environment of their facility? Do they have a high level of job satisfaction, even if they are feeling burned out? And how does a staff with high level job satisfaction affect the quality of care for residents? Is there a correlation?

As Doupe explains, health-care aides provide 80 per cent of the care in personal care homes, but don't often get to make key decisions. "One of the things TREC is doing is saying, 'No, if health-care aides are spending all this time with residents, they are going to know them very well, and they should be involved in some of the decision-making process.'"

The lessons being learned through research in these areas couldn't be more timely. Canada's population is quickly aging, and when individuals come to personal care homes today, they're often facing tremendous health challenges.

"The concept of a personal care home is unique. It's not like a hospital where you stay for a while and go home," says Doupe, an assistant professor at the College of Medicine in the Faculty of Health Sciences at University of Manitoba. "This is a person's home. In the vast majority of instances, it's their last home. It's really tricky to balance this philosophy of a person's home coupled with the complexity of medical needs a person might have."

A major problem for many personal care homes in striking this balance is that they tend to work in isolation from each other. As a result, some may be doing things well in some areas, but this expertise may not be shared with others. Which is where the PHSI project comes into play.

"One of the cool things about TREC is that it develops expertise (within a personal care home) that stays there after the project. The PHSI (research) is kind of a step back (from the TREC research). Let's say we had a facility that figured it out in terms of behaviour management. The question is, does that just stay the best-kept secret? How does that wonderful knowledge get spread?"

The logical question that comes out of PHSI, says Doupe, is how often do directors of care in facilities talk to each other and ask advice from each other? "If you draw a map outlining connections… you might find that there are three or four directors who everyone goes to for advice. What we need to do is make sure that this wonderful knowledge that's being collected gets to those facilities because those people are opinion leaders."

Decombe Dewar says that from the province's perspective, understanding these kinds of connections could be invaluable in rolling out new initiatives or training programs for staff. Trinidad agrees, adding: "The information there will help us determine what the best way is to communicate and who the leaders are, especially when we are trying to spread innovation and implement best practices."

Doupe says the PHSI research is only half complete. Much of what has been done to this point has involved meeting with stakeholders and gathering information. "A fundamental part of any reform strategy is to first understand where we're at," he says.

The next step is bringing people together, and establishing regular communication between stakeholders.

While it's a straightforward, common-sense approach, it's addressing an incredibly complex aspect of the health-care system that will become progressively more important with each passing year.

"The challenge is the complexity of care will continue to rise over the next two decades, so this whole job of trying to provide a high level of care to someone who is really very sick in the midst of what has also become their home will become more and more difficult."

Although it is likely government will have to invest more resources, building more homes and hiring more staff, that is only part of the answer, Doupe says.

The other part involves understanding what's happening on the ground, and ensuring that the secrets to excellent care taking place at individual facilities are secrets no more.

"The demand and need for personal care homes is rising, and there is no infinite amount of resources to meet this increasing need," Doupe says. "So figuring this out now is really important because the issues that may not seem as huge today will become really big challenges in the future when the system is under much more strain."

Gina Trinidad (left), Malcolm Doupe and Lorraine Decombe Dewar are teaming up to help improve care in personal care homes.

PROJECT PROFILE

PRINCIPAL INVESTIGATOR (MANITOBA): Malcolm Doupe

PROJECT: Seeking Networks in Residential Long Term Care

FUNDING: 2013 to 2016: Canadian Institutes of Health Research, $400,000; Research Manitoba, $50,000.

MDs ONLINE

RESEARCH UNDERSCORES VALUE OF ELECTRONIC MEDICAL RECORDS

By Sharon Chisvin

Dr. Alex Singer had only a single complaint when he began his family medicine residency at St. Boniface Hospital in 2007: Why was the department still using pen and paper to chart patient care when EMRs had proved to be so much more efficient?

That complaint, voiced repeatedly during his first few months of residency, led Singer to become one of the province's leading experts in the field of electronic medical records (EMR).

"When I was a resident in the Department of Family Medicine, I complained bitterly that we didn't have an EMR," Singer recalls good-naturedly. "This was in 2007 to 2009, and I thought it was crazy we were using paper and pen for the most part, and there were charts everywhere. I complained about it and I did a research proposal around that, and then when I was hired as a staff physician, they said, 'Okay, big shot, you run the implementation of our EMR.'"

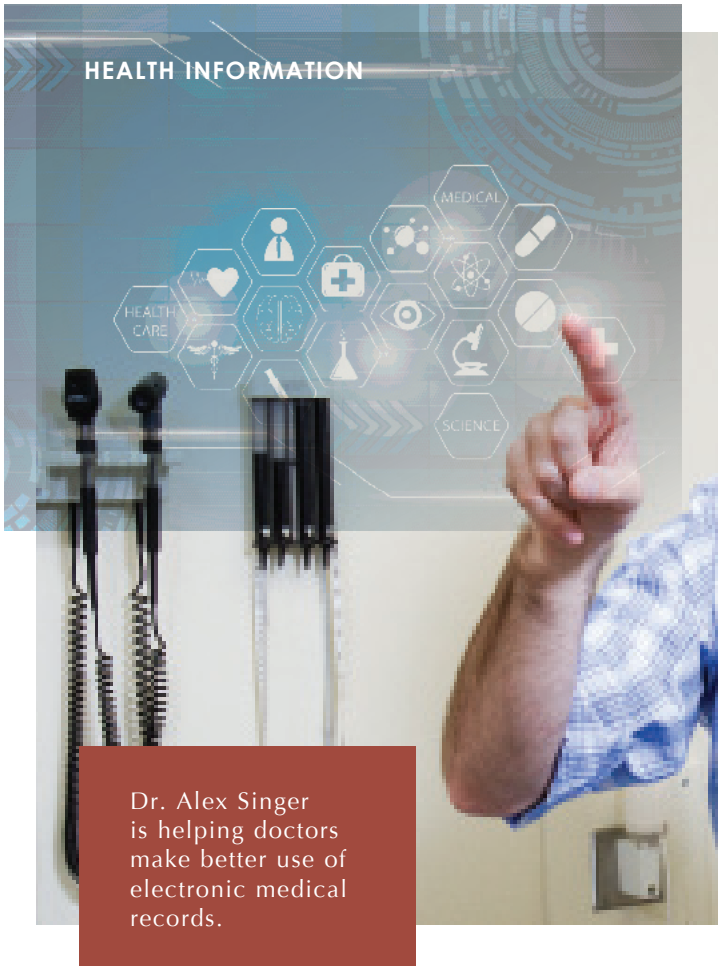
An EMR is a computer-based office system that is used by health-care practitioners to record and track all patient information. Among many other tasks, an EMR can be used to make patient appointments and referrals, keep track of test results, prescribe medications and do billings. They make it easier for health-care providers to share information about their patients with other practitioners and to access their patients' complete health records.

Singer, who was raised in Toronto and studied medicine at University College Dublin, happily accepted the challenge to co-chair EMR implementation for his department's three urban teaching clinics. At the time, Singer says, only about 25 per cent to 30 per cent of primary health-care physicians in Canada were using EMRs, and most were using them only for the most basic functions.

"Manitoba had identified that there was a gap in understanding how EMRs were actually being used," Singer explains. "Funding was going to pay for people to actually adopt EMRs to start using them, but there was a lot of grey area about how they were using them and were they using them in meaningful ways."

With the support of Manitoba Health, Singer began studying how to assess and improve the effectiveness of EMRs. While doing that, he stumbled upon similar research being conducted by family physician Dr. Morgan Price at the eHealth Observatory at the University of Victoria. Price had recently received a Partnerships for Health System Improvement (PHSI) grant to assess EMR adoption.

Singer reached out to Price, and Price, in turn, invited Singer to join his research project. Price then came to Manitoba and together the two physicians



Dr. Alex Singer is helping doctors make better use of electronic medical records.

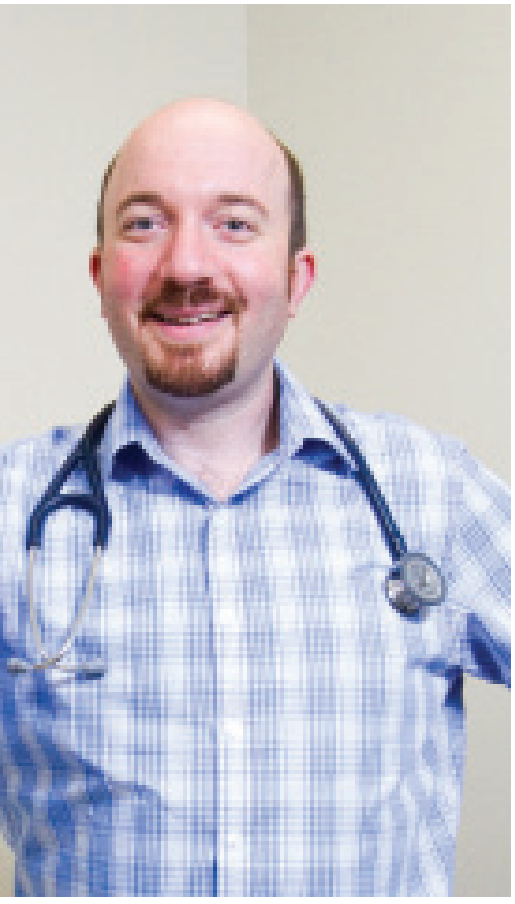
drove across the province, visiting primary health-care clinics to talk about EMR adoption and the ways in which health-care providers were using, or not using, the system.

"We went to a bunch of rural sites, mostly in southern Manitoba, and also to some sites in the (Winnipeg Health Region), and we did the research using surveys and focus groups," Singer explains. "We then presented the research back to the clinics, and published our findings in the *Canadian Family Physician* journal."

Among other outcomes, the journal article noted that physicians were not taking advantage of useful EMR features, including:

Decision support: This function is designed to help physicians provide better care and enhance patient safety. It incorporates a variety of functions, among them health maintenance alerts and reminders. These alerts and reminders, which usually appear as screen pop ups, notify physicians of vital information such as new lab results, allergies, unusual diagnostic readings and potential adverse drug interactions.

Patient support: This feature emphasizes functions that open up communication between patients and physicians, and increase patients' understanding of their conditions and care. Among other things, it provides physicians with easy access to resource materials that they can share with



their patients, and facilitates electronic communication between physicians and their patients, families and caregivers.

Practice reporting: This tool serves as a safety net of sorts for physicians. It provides them with the means to internally review the nature and nuances of their practices, and, in so doing, identify both strengths and areas in need of enhancement. Practice reporting helps physicians ensure that they are following protocol and meeting guidelines, and helps them recognize patient trends.

It was around the time that the *Canadian Family Physician* article was being pubished that Singer's own clinic, the Family Medical Centre at St. Boniface Hospital, went live with its EMR. His co-worker, primary-care nurse Michele Allard, immediately recognized the benefits of the advancement. "I do a lot of telephone medicine in my role as a primary-care nurse, whether it be triage or answering a wide assortment of questions from patients," she explains. "With the old paper chart system, there was always a delay in my responding to their concerns as I would have to track down the paper chart. Now, the second they start speaking on the phone I am typing in their name and have immediate access to their file and personal health information."

Allard's confidence and mastery of the system, however, was not duplicated at most of the other clinics that Singer and Price surveyed. Their findings revealed that clinicians were mainly using their EMRs to reproduce paper processes, like billing, and were not taking full advantage of the system's many other functions.

"A lot of it was a lack of knowledge," says Singer. "They didn't know they could do it this way or that way, and there were inconsistencies within clinics. There was a definite need for improvements."

Once the PHSI study was completed, Singer began working with Manitoba eHealth to put some of those improvements in place. He helped the agency create an optimization program and develop tips and tools to increase health-care providers' usage of EMRs.

"We built the optimization program on the back of the protocol and the PHSI study," Singer explains. Singer then moved on from the optimization program to researching EMR data quality. "Looking at data quality is the first step towards being able to do other kinds of research," he explains. "If data is of a higher quality, we can use it to look at how patients interact with the health system, how their diseases are managed, and all sorts of other things."

"As a clinician," he adds, "my real interest is to be able to potentially use the EMR data for secondary purposes, to better understand the health of a larger population."

Towards this end, Singer now manages a practice-based research and surveillance network that collects data from 35 Manitoba clinics, representing about 180,000 patients. "Understanding data quality is the foundation for being able to use the EMR for things like public health," he says. "It can be used for figuring out the prevalence of a certain disease and figuring out how a particular disease is being managed on a population level, and potentially improving that management and having a greater impact."

For Singer, this data quality research has reinforced what he learned from his involvement in the PHSI study and the eHealth optimization program: EMRs are tremendous tools for managing patient care and improving patient outcomes, both on a small and large scale.

Thanks in part to his efforts, EMR adoption in Manitoba now stands at more than 75 per cent. "Having electronic medical records is all about access to information," Singer emphasizes. "By having better access to the information, you're able to provide, in my opinion, better care, as opposed to having to be caught in the unenviable position of having some level of ignorance about what happened in other parts of the health system, or not having the complete record available," he explains.

"The other aspect is that we have dramatically increased the efficiency of many of the tasks that we do." he adds. "Because we're not spending time looking for charts, if I need to ask somebody to participate in a patient's care in a certain way, I can do it immediately and they have full access to the same records that I have at the same time. It is a much more efficient way to provide care. "

Allard agrees. "The EMR has definitely made my job and workflow more efficient with enhanced access to patient information," Allard says.

"One day I called one patient to advise him about his MRI result (and) he laughed because he had literally just got home from having had the MRI done that morning. From time of test to receiving the result in our office was less than three hours!"

PROJECT PROFILE

PRINCIPAL INVESTIGATOR: Dr. Morgan Price

PRINCIPAL INVESTIGATOR (MANITOBA): Dr. Alex Singer

PROJECT: Developing and Assessing an EMR Educational Program Designed to Optimize EMR Use and Improve Clinical Care

FUNDING: 2011 to 2014: Canadian Institutes of Health Research, $350,000; Research Manitoba, $99,500.

Vanessa Boyer, pictured here with son Jaxyn, appreciates the prenatal care she was able to receive through the PIIPC project.

HEALTHY MOM, HEALTHY BABY

PRENATAL CARE PROGRAM MAKES A DIFFERENCE IN THE INNER CITY

By Sharon Chisvin

First-time mom Vanessa Boyer's voice brims with pride and love as she speaks about her one-and-a-half-year-old son, Jaxyn. That pride and love turn to extreme gratitude when she speaks about the midwives who helped her bring Jaxyn into the world.

The midwives work at Mount Carmel Clinic, where Boyer was a client of the Partners in Inner-City Integrated Prenatal Care project, better known as PIIPC.

"It was a wonderful experience for me," Boyer says candidly. "The midwives showed me so much kindness."

PIIPC is a collaborative project focused on reducing inequities in access to and use of prenatal care in Winnipeg's inner city. The project, which began in September 2012, was funded by the Canadian Institutes of Health Research and Research Manitoba through the Partnerships for Health System Improvement program (PHSI). The Winnipeg Health Region and Healthy Child Manitoba also helped fund the project.

The study's principal investigator is Maureen Heaman, a

professor in the College of Nursing in the Faculty of Health Sciences at the University of Manitoba, who has devoted her career to the enhancement of maternal and child health.

"The research project was built on previous research and a few years of different projects, starting out with one that looked at regional variations in use of prenatal care across the province," Heaman explains. "What I found in that project was that there were high rates of inadequate prenatal care in Winnipeg's inner city. Many of the women who had inadequate prenatal care living in these neighbourhoods identified as Aboriginal or of First Nation descent."

Prenatal care is critical for a healthy pregnancy and birth, as it gives health-care providers the opportunity to identify and monitor risks that can affect both mother and child. Among other benefits, prenatal care can help decrease incidences of preterm birth and low birth weight.

Heaman determined that in order to improve the rates of prenatal care in three inner city communities – Downtown, Inkster and Point Douglas – it was necessary to first find out what women living in those areas saw as the barriers, motivators and facilitators to prenatal care. Her team spent the next three years conducting that research, and then invited 70 stakeholders to a workshop to consider ways to reduce those barriers and make it easier and more desirable for inner city women to access prenatal care. Following that workshop, an inter-disciplinary steering committee was formed and the PIIPC project was born. Its mandate included four major initiatives that were designed to:

* Add midwifery care to some of the inner city Healthy Baby/Healthy Start community support programs;

* Strengthen the link for pregnant women who access the Street Connections mobile van service with care providers (obstetricians, family physicians, nurses, social workers) at the out-patient department of Health Sciences Centre's Women's Hospital or with the midwives at Mount Carmel Clinic;

* Develop a flexible program of access to prenatal care at Women's Hospital and Mount Carmel Clinic for women referred from a variety of sources including Sage House, HIV clinic, Mothering Project, public health nurses and community physicians;

* Launch a social media marketing campaign called "This Way to a Healthy Baby" to increase awareness about the importance of prenatal care and where to obtain it.

The shared intent of these initiatives – all of which have been implemented – was to integrate prenatal care services in the inner city and develop a collaborative approach towards providing that care among front-line health providers, clinics and Women's Hospital. This approach, in turn, would make it easier and more likely for at-risk pregnant women to get the care they needed.

Lisa Merrill, a clinical nurse specialist at Women's Hospital, which is a major player in PIIPC, says the project has created positive changes in the health-care system: "It has brought our teams together to work more collaboratively. The team at Women's Hospital included social workers, nurses, obstetricians, family physicians and support staff. The development of close inter-professional partnerships between programs and sites has been another successful outcome of the project."

Kelly Klick, who co-chaired the PIIPC community-based working group and co-ordinated the involvement of Mount Carmel Clinic's midwives in the project, says PIIPC focuses on women who face barriers to care, such as living in a hotel and having no income, or who are at high risk for having unhealthy and/or apprehended babies.

"Women who did not have a provider for their prenatal care were offered services," explains Klick, who was also one of the midwives involved with Boyer's care. "If they lived in the target postal codes and were at risk of inadequate care, we invited them to be in the study."

A total of 281 women have enrolled in the program, including 219 who have consented to participate in the research component. Merrill says many of the women had risk factors such as poverty, addictions, smoking, family violence, Child and Family Services involvement, and homelessness, and many of them mistrusted the health-care system. "The women were identified as PIIPC clients," explains Heaman, "which helped get them access." Clinics and care providers knew to be a little more flexible about trying to see them when they showed up and getting them additional services.

Boyer became involved in the PIIPC study after a friend told her about the midwives at Mount Carmel Clinic who had helped her when she gave birth. She approached the clinic in the first few weeks of her pregnancy and, because she lived downtown and was at risk for inadequate care, was invited to join the program.

Boyer admits to being nervous throughout her pregnancy and worried about the health of her unborn child, but says that the midwives were always accessible, kind, supportive and reassuring. "I would go to the clinic maybe every two weeks and sometimes they would come and see me at my residence," Boyer says. She usually would walk to her appointments, and be given bus tickets for her trip home.

In addition to monitoring a woman's pregnancy, the prenatal care also involves providing information about health and nutrition, healthy life choices, preparing for birth, and the importance of breastfeeding. Women in the program are also connected to resources, including housing, financial support, and food banks to assist with their needs as required. Women also receive extra emotional support to help reduce barriers and empower them to reach their goals.

Heaman stresses that PIIPC came about through the work of a lot of people. "It's been a very big community-based initiative and a lot of people have been devoted to the project and spending time on it," she says. "The project is unique in involving a wide range of decision-makers and care providers from the Winnipeg Health Region, Healthy Child Manitoba, Manitoba Health, and First Nations Health and Social Secretariat of Manitoba working together with researchers from the University of Manitoba."

Lynda Tjaden, Director of Public Health with the Region, says the project underscores the value of enhancing health equity efforts throughout the health-care system. "Maureen's previous research shows that despite having a universal health-care system, gaps exist and some women are not accessing prenatal care," she says. "The

PIIPC project is an example of how we can address the inequitable social factors that are experienced by women as barriers in accessing prenatal care. This initiative promotes conditions in which mothers and babies can achieve their best possible outcomes."

Heaman's research team is now evaluating the program by reviewing hospital charts and analyzing interviews and questionnaires completed by PIIPC clients. Although the results are still preliminary, they appear to be very positive. "We compared the women in our study to the women in the previous study who had had inadequate prenatal care… and we are able to show that among similar types of women we have improved their access to and use of prenatal care," says Heaman.

As a result of PIIPC, women are initiating their prenatal care earlier in their pregnancies and having more prenatal visits than similar women in similar circumstances have in the past. As well, the results indicate that women who have had previous pregnancies received more prenatal care through PIIPC for their recent pregnancies and this has been associated with a reduction in pre-term births.

The next step for the team is to visit the Manitoba Centre for Health Policy to review data on rates of inadequate prenatal care in the inner city, and see if those rates have been reduced on a population health level because of PIIPC.

Heaman is hopeful that will prove to be the case, but the reality is that neither Heaman nor the many dedicated people on her team need to see the data to know that PIIPC has made a difference in Winnipeg's inner city. They already know that, because of PIIPC, 281 of women who would not have received adequate or even any prenatal care, received compassionate and supportive care throughout their pregnancies and, as a result, had healthy pregnancies and healthy deliveries.

Vanessa Boyer knows it too. She just needs to look at her son Jaxyn to appreciate the impact that the PIIPC program has made.

PROJECT PROFILE

PRINCIPAL INVESTIGATOR: Maureen Heaman, RN, PhD, professor in the College of Nursing in the Faculty of Health Sciences at the University of Manitoba.

PRINCIPAL KNOWLEDGE USER: Lynda Tjaden, Director of Population and Public Health, Winnipeg Health Region.

PROJECT: Reducing Inequities in Access to and Use of Prenatal Care in the Winnipeg Health Region through Health System Improvement.

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Some members of the PIIPC team, from left: Darlene Girard, Maureen Heaman, Lynda Tjaden and Zorina Marzan Chang.