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At the George and Fay Yee Centre for Healthcare Innovation (CHI) we work with patients, families, clinicians, researchers, policy and decision makers to ensure that the latest research and evidence lead to improvements in health care and outcomes for Manitobans. In practice, this means blending health research, quality improvement, and engagement with people, families and communities with lived experience to produce new knowledge to help transform practice at the bedside and provide evidence to drive policy decisions.

As Manitoba’s SUPPORT (Support for People, Patient-Oriented Research and Trials) Unit, we respond to researchers, policy makers and other stakeholders to support them in resolving key questions and challenges in health care and implementing solutions. During this past year, we’ve continued to steadily build relationships and to date, have worked with over 650 clients across a number of institutions. Our staff have been busy with over 300 consultations, projects and capacity development initiatives over the last 12 months. These are often complex endeavours that cross multiple institutions and programs such as the Misericordia Health Centre’s project (featured on page 20) to improve patients’ experience through the stages of a cataract surgery. Here, quality improvement and health research were driven by patient and family priorities. The result? Better patient experience and a projected savings of $1.1 million annually due to the elimination of unnecessary testing.

In a complex adaptive environment such as health care, priorities can shift and staff must commit time to multiple competing initiatives. It takes exceptional and committed leadership to steer through these realities and for that we thank all those with whom we work.

We would very much like to thank our CHI staff whom, with our partners, invest incredible energy and demonstrate leadership across multiple domains to help these initiatives succeed.

This is evidenced by breakthroughs in methods, such as our work in the development of new Pediatric Growth Charts (page 10) and the refinement of Patient Reported Outcome Measures (PROMS) to ensure what is important to patients is reported and informs standards of quality (page 14). It’s difficult to showcase our staff’s many successes in a few sentences. You’ll see a section in the report on publications, awards and presentations (page 22) that not only benefit Manitobans, but create an impact nationally and internationally.

Our team embraces its mandate as an incubator for health innovation. And while each of CHI’s seven Platforms are committed to delivering value to researchers, clinicians, policy and decision makers, we are at our best when we pull together expertise across Platforms. Such opportunities for interdisciplinary collaboration were given a meaningful boost when, thanks to significant investments from our funders and the University of Manitoba, all members of our team moved into our new space in the Chown Building on the University of Manitoba’s Bannatyne Campus (feature begins on page 5).

Of course, none of our work is relevant without ensuring there are strong connections to people with lived experiences of health conditions – patients, families, communities and in particular, voices that are traditionally less heard in health research when it comes to planning and improving healthcare programs and services. Our goal is to inform the future development of a set of tools and concrete strategies to assist researchers and the public to enter into inclusive, safe, meaningful and authentic engagement partnerships.

To that end, we invite you to contact us anytime through Frank Krupka, Executive Director, at FKrupka@wrha.mb.ca to discuss how together, we can continue to positively transform healthcare for all Manitobans.
CHI STAFF COMING TOGETHER UNDER ONE ROOF
Opening Our Doors...

On November 5th, 2015, the George and Fay Yee Centre for Healthcare Innovation (CHI) hosted a Grand Opening event in its new office space on the third and fourth floors of the Chown Building on the University of Manitoba’s Bannatyne Campus.

CHI welcomed approximately 200 individuals from our many partners and health-related organizations, the province, as well as guests from outside Manitoba. The event featured an airline trip theme. Guests arrived on the main floor of Chown and proceeded through the ‘Check In’ process. Each guest received a boarding pass and pen. These boarding passes included information on CHI and served as a pocket folder to collect information handouts from each Platform. The back of each boarding pass featured a map of key destinations within the new office space.

Each destination highlighted the work of CHI’s seven Platforms and the Manitoba Primary & Integrated Healthcare Innovation Network (MPN). As guests visited each station, they were greeted by subject matter experts from CHI with whom they could discuss their own projects and explore opportunities for future collaborations. Stations also featured interactive exhibits, presentations, posters, videos and handouts highlighting past and present work being done at CHI.

CHI Chown Facts

The Chown Building was named after H.H. Chown, one of the early professors of the newly formed Manitoba Medical College in 1885. He held the position of Dean of Clinical Surgery from 1900 to 1917 and was associated with the Winnipeg General Hospital for over 30 years.

Spread across 16,000 square feet on the 3rd and 4th floors of the Chown Building, CHI’s new office space features over 30 private offices, 80 workstations, and one remote access site that allows our staff to access the Population Health Research Data Repository housed by the Manitoba Centre for Health Policy.

Our new office space has a large classroom for training and workshops, and six meeting rooms with a total of 48 seats.

Staff, originally located throughout the Bannatyne Campus, began moving into their new offices in the Chown Building on August 13, 2015. Those located at the Concordia Hip and Knee Institute moved the following week, on August 18.
To go along with the theme of the day, upon arrival each guest proceeded through the ‘Check In’ process and received a boarding pass. These passes included information about CHI and served as a pocket folder to house information handouts.

Dignitaries participated in a ceremonial ribbon cutting (left to right) Mr. Real Cloutier, Vice President & COO, WRHA; Theresa Oswald, MLA for Seine River, Province of Manitoba; Dr. Lauren Yee, daughter of George & Fay Yee; Terry Klassen, Academic Director, CHI; Dr. Robyn Tamblyn, Scientific Director, CIHR; and Dr. Peter Nickerson, Vice Dean - Research, University of Manitoba.

Guests took advantage of the opportunity to engage with CHI’s Directors and staff at each destination, which led to academic discussions, renewed connections, and identifying new partnership opportunities.

The flight theme wouldn’t have been complete without a dedicated quintet of CHI staff members dressed as a flight crew, helping guests navigate their way between destinations. Wayfinding arrows guided guests to all of the important stops, including in-flight refreshment stations located in the kitchen on each floor.

In addition to presentations, posters and handouts, the Platforms also used innovative technology to showcase their work. The Knowledge Translation Platform also launched its blog; Knowledge Nudge.com.
Our Role & Our Work

CHI was founded in 2008 as an academic home for healthcare improvement science and system design. Further evolution of CHI began in 2011 as a shared vision between the Winnipeg Regional Health Authority, the University of Manitoba, and the Government of Manitoba – which has grown into a remarkable partnership. It’s under this shared vision that we engineered CHI to wholly align with the Strategy for Patient Oriented Research and serve as Manitoba’s SUPPORT Unit.

And because of that solid foundation, we’ve rapidly grown from two staff members in 2011 to over 80 a mere four years later, spread across seven Platforms: Project Management, Evaluation, Data Science, Knowledge Synthesis, Knowledge Translation, Clinical Trials, Health Systems Performance – and the SPOR Network in Primary and Integrated Health Care Innovations. The SPOR Network is a key CIHR initiative under the Strategy for Patient-Oriented Research and the Community-Based Primary Health Care Signature Initiative.

Embedded in the province’s health system, academic research environment and government, CHI is an incubator for positive change in Manitoba. With a single major urban centre where academic research is focused and all quaternary care is provided, we benefit from a collaborative environment that facilitates the integration of research, care and policy.”

As of March 15, 2016

325 ACTIVE PROJECTS

1151 PROJECTS TO DATE

A. CONSULTATIONS

A client (a research, policy or healthcare-affiliated individual or group) receives time with a CHI subject matter expert to discuss his or her project.

B. COLLABORATIONS

CHI leads or a client engages CHI to partner on a project to achieve a common research, policy or health metric goal.

C. TRAINING

Includes all activities (presentations, guest lectures, courses, etc) that provide information and/or education to all healthcare and research stakeholders.
The Clinical Trials (CT) Platform supports Manitoban researchers to engage in high quality, practice changing, patient-oriented research by supporting the implementation of clinical trials in Manitoba.

SERVICES INCLUDE:
- Methodological input into investigator-driven clinical research
- Project management support for large investigator-driven clinical trials
- Protocol and source documents/case report form templates
- A detailed road-map, outlining the steps required to conduct clinical trials in Manitoba
- Clinical research mentorship and orientation
- Services and staff to assist with planning and conducting clinical trials

Using Technology to Improve Mental Health Services in Manitoba

With the broad adoption of digital gadgets among patients and healthcare providers, and the mounting number of mobile health apps, a common question asked is whether (and to what extent) this trend impacts healthcare. This is why it is so important to evaluate digital health evidence. Funded by the Canadian Institutes for Health Research, a CHI team led by Drs. Xibiao Ye and Colleen Metge examined how digital health innovations improve mental health services for children and adolescents.

The team found that mental health interventions delivered online via digital devices is an acceptable intervention option for children and adolescents, their parents, and healthcare providers. Their study examined whether digital mental health interventions reduced mental health problems such as anxiety symptoms and alcohol consumption, while acknowledging that digital health trials face unique methodological challenges associated with online use behaviours. Preliminary results have been very favourable, suggesting:

1. Digital mental health interventions reduce mental health problems such as anxiety symptom severity by 50 per cent.
2. User satisfaction with this new type of intervention is moderate to high.

Investigating the Effect of Commonly Prescribed Medication on Cancer Prevention

A number of cancer cases are preventable. Some known ways of preventing cancer include: smoking cessation, physical activity, reducing environmental exposures, and chemoprevention or the use of medications, vitamins, and other agents in preventing cancer development, progression, and recurrence of cancer.

CHI researchers are contributing to this research topic. Research by Dr. Salah Mahmud showed that aspirin and nonsteroidal anti-inflammatory drugs (NSAIDs) can reduce prostate cancer risk. Nonsteroidal anti-inflammatory drugs are medications that relieve or reduce pain. The best-known examples of this group of drugs are aspirin and ibuprofen.

Further, CHI’s Dr. Xibiao Ye’s research suggests aspirin and statins can prevent certain types of lymphoma. Statins are drugs that can lower your cholesterol. They work by blocking a substance your body needs to make cholesterol. Studies suggest that statins could reduce cancer risk through both cholesterol-dependent and cholesterol-independent pathways. In an article featured in *Oncology Exchange*, Drs. Ye and Mahmud reviewed the scientific evidence accumulated on commonly prescribed medications (NSAIDs, statins, metformin and bisphosphonates) to date and discussed their possible mechanisms of action in preventing cancer development and progression.

Thanks to CHI’s support, they are working with collaborators to continue and expand their research in this area, using Manitoba data. The research will generate evidence to support cancer prevention and care innovations.
Charting the Way Towards Better Health for Children

In order to follow a child’s growth over time, pediatricians and health care providers use what is called a growth chart. These charts allow for the height, weight and head circumference of a child to be compared to the expected parameters of children of the same age and sex to determine whether the child is growing appropriately.

Growth charts have been constructed by observing the growth of large numbers of children over a period of time. For example, the World Health Organization (WHO) publishes growth charts for children and youth aged 5 to 19 years based on data from the US National Centre for Health Statistics on 22,917 children across the country, collected from 1963 to 1975.

In order to encourage the use of the Body Mass Index (BMI) (which looks at body weight in kilograms divided by height in meters squared) in older children, growth charts have typically omitted weight-for-age after the age of 10. But a survey of pediatricians revealed that there were several concerns with this omission — nearly 50 per cent of pediatricians felt that while the BMI was an important measurement from a public health standpoint, the lack of data in the growth charts for children over the age of 10 created difficulties in assessing weight fluctuations that could indicate the onset of acute and chronic illnesses. For example, if a child deviates from their previously established growth curve, further investigation might reveal that this decrease in growth indicates the onset of a chronic condition such as inflammatory bowel disease.

In order to address these concerns and help bridge this gap in evidence, CHI’s Data Science Platform, in collaboration with the Canadian Pediatric Endocrine Group (CPEG) and the University of Manitoba, developed complementary growth charts that extended the weight-for-age beyond the age of 10. Thanks to the thorough statistical analysis done by CHI’s Data Science Platform, CPEG was able to publish revised sets of growth charts in 2014. These charts were adopted by several provinces across Canada and have become the official growth charts endorsed by the Canadian Public Health Agency. The group continues to work on an international scale towards the adoption of these charts in countries around the world. Ultimately, these charts will lead to improved outcomes for children and youth around the globe because they may lead to earlier diagnosis of acute and chronic health conditions, enabling earlier intervention and care.
The Data Science (DS) Platform facilitates the development, management, analysis, and linkage of clinical, administrative, and other data resources for patient-oriented research.

**Services Include:**

- Collaborative opportunities in new & innovative research areas
- Research data management
- Biostatistical consulting
- Bioinformatics consulting

**A New Era of Statistical Microbiology**

There is a gradual deterioration of the immune system that occurs as humans age. The decreased gut inflammatory function results in a shift in the balance between protective symbionts and pathogenic organisms in favour of the latter. In the elderly, this is thought to be linked to a variety of factors, including diet. The National Microbiology Laboratory, in partnership with the University of Manitoba and local food producers, conducted a randomized controlled trial to determine whether the introduction of prebiotics into the diet could improve gut health, inflammation, and microbiome composition among the elderly. The Data Science Platform has partnered with the NML and is providing statistical analysis support for all aspects of the project, including the novel microbiome (genetic) data. This is a rare opportunity for CHI to engage in relationship building with a national research facility and to develop in-house capacity in the burgeoning field of statistical microbiology.

**Vitamin D is the New Approach to Healthy Teeth**

Taking care of teeth is a daily ritual – brushing, flossing and rinsing to ward off cavities. But according to a new study led by Dr. Robert Schroth from the University of Manitoba, kids may be required to do one more thing to ensure healthy teeth: take vitamin D supplements. This study found that school-age children with optimal levels of vitamin D are at 40 per cent lower risk of getting cavities compared to children without optimal vitamin D levels. Dr. Rasheda Rabbani, a CHI biostatistician, collaborated with Dr. Schroth to provide statistical expertise and conduct statistical analysis for the study.

**Wraparound Care for Youth Affected by Violence**

For most youth that come into an Emergency Department (ED) in Canada with a violence-related injury, their road to recovery is a painful and stressful journey. In Winnipeg alone, 20 per cent of youth who visit an ED with an injury due to violence have a second visit for a subsequent violent injury within one year. Most of these young individuals are often in need of support to recuperate from the incident, emotionally and mentally. EDs are often not the best place to achieve that reflective and receptive state of mind. Consequently, a multidisciplinary team from the Department of Emergency Medicine, CHRIM and many community organizations designed an intervention to assist youth affected by violence to get back on their feet. CHI has provided expertise with the evaluation of a pilot randomized control trial.

This protocol describes a wraparound care model delivered by a support worker with lived experience with violence, supported by social workers and links to multiple community partners. Support workers would be on call 24 hours a day, 7 days a week in order to start the intervention in the ED and take advantage of the ‘teachable moment.’ For the pilot trial, the team assessed recruitment, treatment fidelity, participant adherence and safety. The youth in the intervention program have received wraparound care initiated at the time of their visit for injury due to violence.

So far the pilot program has recorded favourable results such as substance use cessation, increased engagement in education, and decreased involvement in the justice system. Please visit, https://youtu.be/uxmns_Y-GUc to watch a short video on the project.

**Planning for the Future of Osteoarthritis Care**

With the current aging and obesity trends in Canada, researchers around the nation have predicted an increase in the occurrence of osteoarthritis among Canadians. Osteoarthritis is a type of degenerative joint disease that causes the breakdown of joint cartilages and bone.

An increase in its incidence will result in the need for more healthcare resources. Alberta was the first to recognize the importance of administrative health data in resource planning. Their research later became the foundation for a collaboration with Manitoba-based researchers to use the province’s health data, housed by the Manitoba Centre for Health Policy, to create simulation models of the potential impact of osteoarthritis, and subsequent joint replacement surgeries, on the healthcare system. The results of the study aim to improve care for osteoarthritis by estimating the incidence and prevalence of chronic illnesses for future Manitobans.

Dr. Lisa Lix of CHI is working with a research team led by Dr. Deborah Marshall of the University of Calgary to develop the simulation modeling data and methodology. The research is funded by the Canadian Institutes of Health Research.
The Community Health Assessment - Moving Evidence to Action in Health Policy

The Winnipeg Regional Health Authority (WRHA)'s Community Health Assessment (CHA), which takes place every five years, is described as an intensively-researched snapshot of where the community currently stands in relation to a broad range of key health indicators. The CHA describes population and community characteristics; health status; determinants of health; and health care access, utilization and quality across the Winnipeg Health Region.

The CHA provides health care organizations, practitioners, and policy makers with a solid foundation for making decisions based upon the best available evidence. It helps to: identify community health assets (i.e. the skills, knowledge, connections and potential in a community) and challenges. The CHA also helps set health objectives and monitor progress towards those objectives.

CHI’s Evaluation Platform plays a pivotal role in the CHA, and demonstrates leadership in: the development of CHA processes in collaboration with key stakeholders; the gathering of appropriate evidence to assess the health status of the population; the facilitation of appropriate use of data on socioeconomic and community-based factors that influence health and people’s experiences with healthcare; the development of partnerships across the region; the promotion of community engagement; and the building of capacity for interpreting and using data for the purposes of identifying health policy issues and planning.

The CHA is designed to be useful for ongoing regional health planning/operations, and to engage communities in the process. The continued and successful involvement of community members has helped to identify indicators of importance to residents of Winnipeg. For example, in the most recent 2014 CHA (published in 2015) report, community members were asked to identify key elements that they’d like assessed. Based on their answers, five key indicators were selected for assessment: health status; potential years of life lost due to cancer, circulatory and respiratory disease; and the top five causes of child mortality.

In 2015/2016, CHI’s Evaluation Platform began to hold consultations with members of the public from all 12 community areas in the Winnipeg region. These consultations provide invaluable insight from the people and communities with lived experience. Many agencies within the Winnipeg region refer to the results of the most recent assessment to better serve the community. Furthermore, the Platform has produced and distributed community profiles for each of the 12 community areas in the Winnipeg Regional Health Authority.
As part of the PATHS Equity for Children (MCHP & Brownell M, et al.) 5-year (2011-2016) CIHR Programmatic Research grant, CHI’s Evaluation Platform is leading a qualitative analysis on “Understanding the Mechanism of Inequity.”

The PATHS research program aims at understanding what works to reduce inequity in children’s outcomes, and includes collaborations with external partners. Multiple interventions are being evaluated to determine their impact on the health and well-being of children in terms of inequities in socioeconomic status, geography and sex at different points during childhood.

The Evaluation Platform has undertaken two case studies: one on the effect of In School Teen Clinics on the rates of pregnancy and sexually transmitted infections (STIs) and the other on the effect of the Healthy Baby Prenatal (HBP) Benefit. The Healthy Baby Prenatal Benefit allows families with low income to afford a healthy diet and lifestyle during pregnancy. The case studies will help us to understand how these two programs address socioeconomic gaps.

The Evaluation (EVAL) Platform helps to improve health services for Manitobans by offering healthcare leaders the evidence & solutions they need to move forward

SERVICES INCLUDE:

• Evaluation plans for research
• Research methodology consultations especially in the use of mixed methods
• Developmental evaluation for implementation of health services based on evidence
• Full research/evaluation assistance with: access to data, methodological support, health systems & services research support, knowledge synthesis (rapid, qualitative & quantitative), integrated KT support, and application of implementation science methods.

The International Year of Evaluation

The International Year of Evaluation took place in 2015. The year helped highlight the accomplishments of CHI’s Evaluation Platform over the 10 years of its existence. The Evaluation Platform has provided research, evaluation, knowledge synthesis and knowledge translation services to the Winnipeg Regional Health Authority and, at times, to the Manitoba government. The Evaluation Platform has produced over 200 evaluation and research projects; published over 190 articles and reports; and, presented over 120 times at local, provincial, national and international conferences.

In honour of the International Year of Evaluation, the Platform created and disseminated a recurring e-newsletter focusing on an interesting evaluation topic each month. The monthly e-newsletters are available on CHI’s website at chimb.ca.

Understanding the Mechanism of Inequity

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Better Health and Lower Costs

The Evaluation Platform, along with the Project Management Office, offers support for an Institute for Healthcare Improvement Collaborative which assists three teams in the WRHA to develop a service for patients with complex needs: hospital home teams (HHTs). The Evaluation Platform was appointed the “measurement lead” role early on in the collaborative. The Platform has taken a developmental evaluation perspective and has continued to produce evidence from service data to support improvements in such things as identifying the population of persons most likely to benefit and providing a care model which matches patients’ needs. In addition, the Evaluation Platform has been able to produce pre- and post-analysis of changes in the use of the healthcare system by individuals admitted to a HHT; the analysis of the effect of HHTs includes the production of a net benefit analysis.

The collaborative to improve the HHT service is a part of the Institute for Healthcare Improvement’s (IHI) Better Health and Lower Cost with patients with complex needs initiative. The goal of WRHA’s involvement is to achieve a standardized care model for persons with complex care needs based on IHI’s learning system. To date the HHT teams, with assistance from the Evaluation and Project Management Office Platforms, have been able to identify persons with complex medical, social and mental health needs who are most likely to benefit from access to community-based interprofessional outreach teams; identify appropriate interventions and available existing resources that will improve the patient experience and lower overall system cost; and, move towards a more sustainable service with embedded evaluation and monitoring.
Supporting a Patient-Centred Approach to Care with PROMs

Patient-reported outcome measures (PROMs) help us to better understand whether health care services and procedures make a difference when it comes to patients’ health status and quality of life. It provides health care providers and decision makers with the patient’s perspective — something that is essential when it comes to patient-centred approaches to care.

PROMs are measurement tools — such as questionnaires or surveys following a surgery — that patients fill out and complete, providing information about their quality of life, including symptoms, functionality and physical, mental and social health. These reported outcome measures can be used to inform clinical practices; health services programming; planning and policies; performance measurement; comparative effectiveness analysis; and quality improvement initiatives.

CHI’s Health Systems Performance Platform has been involved at the local, provincial and national level around the incorporation of PROMs into healthcare system measurement and reporting. Nationally, the Director of Health Systems Performance, Dr. Eric Bohm, is a member of the Canadian Institute of Health Information (CIHI) PROMs Advisory Committee which is collaboratively working on mobilizing and guiding the development of a common approach to PROMs in Canada, including the selection of appropriate tools. He also sits on CHI’s PROMs Working Group around Hip and Knee Replacements which focuses on the creation of a common approach to PROMs collection and reporting in hip and knee surgery across Canada. Currently, CIHI only reports on what is referred to as hard data such as life expectancy, hospital mortality, etc. across the provinces. The incorporation of PROMs will provide the patients’ perspectives on the outcomes of their care — which is important for quality assurance, quality improvement and outcomes in general.

On the regional level, CHI’s Health Systems Performance Platform has been investigating the effectiveness of PROMs reporting for hip and knee replacement surgery and how it drives improvement. The WRHA and the Manitoba Orthopaedic Association created the Winnipeg Regional Arthroplasty Registry in 2004 which captures data about hip and knee replacement surgeries, complications, and PROMs — including quality of life information, disease specific measures and patient satisfaction within one year of surgery. In a recent study by Dr. Bohm, in 2015, on comparability of hip replacement registries, they found annual registry reporting that included PROMs, as well as peer review audits, were associated with improved outcomes for Manitobans following hip or knee surgery.
The Health Systems Performance (HSP) Platform is committed to developing and implementing solutions that promote access to appropriate, effective, and safe healthcare for all Manitobans

SERVICES INCLUDE:
- Consultative services in health systems design, quality assurance and improvement, health leadership, and safety
- Offers workshops, courses, and one-on-one training
- Support and facilitate projects associated with central intake processes in the delivery of care, the use of indicators and reporting to improve patient care, patient flow, and primary care renewal

A STEPP Towards Providing Better Patient-Centred Care

Our commitment at CHI has always been to engage patients and get their input on healthcare systems and practices. Patient involvement is now being recognized as an essential part of patient-centred care. However, very little research has addressed the impact of such involvement.

In a paper published in the International Journal of Health Care Quality Assurance, CHI’s Dr. Sara Kreindler and Ashley Struthers presented their first-in-class tool to measure the concrete impacts of patient input on policy and services (“instrumental use”). The Scoresheet for Tangible Effects of Patient Participation (STEPP) comprises three items on which to score each recommendation or issue brought forward by patients: its magnitude, the extent of the organization’s response, and the degree of patient influence on this response.

After developing a prototype, the authors piloted the tool with five diverse involvement initiatives, making improvements on the basis of staff feedback and other data. Project teams praised the STEPP as easy to use and useful for monitoring and accountability purposes. The tool seemed most suitable for initiatives in which patients generated novel, concrete recommendations; less so for broad public consultations for which instrumental use was not a primary goal.

With additional research, the STEPP could make a valuable contribution to full mixed-methods evaluation of patient involvement. The authors hope other researchers and practitioners will trial it and share their experiences to support further learning.

Reducing Wait Times for Hip Fracture Related Surgeries

Almost 30,000 Canadians over the age of 50 are admitted to a hospital each year due to an osteoporosis-related hip fracture. And, each year, an estimated 7,000 deaths in Canada are related to hip fractures.

To reduce the morbidity and mortality rates associated with hip fracture, there are typically two interventions: 1) fracture prevention through falls reduction and osteoporosis treatment, and 2) improved timeliness of surgery. While there is general consensus among health care practitioners that delays in hip fracture surgery can result in poorer outcomes, literature to date offers weak evidence to support this conclusion.

Yet, a decade ago, a national benchmark was set for patients to have surgery within 48 hours of admission to hospital for a hip fracture. Manitoba had the lowest percentage of patients in the country meeting that benchmark. To address the issue, CHI, Manitoba Health and the WRHA mobilized an improvement initiative to reduce wait time to surgery within the Region. The audit identified seven sources of delay for patients. Solutions were implemented to address each in turn.

As a result, Manitoba currently enjoys some of the highest benchmark adherence rates in the country. Last year, 87 per cent of patients in Manitoba were treated within the 48-hour benchmark (up from 53 per cent ten years prior).

As for the evidence supporting the initiative, CHI’s Director of Health Systems Performance, Dr. Eric Bohm, and his team compared the pre- and post-intervention data to discern the effect of improved timeliness of hip fracture-related surgery. Their 2015 paper in “Reduced time to surgery improves mortality and length of stay following hip fracture: results from an intervention study in a Canadian health authority” supports the conclusion that having surgery within 48 hours appears to reduce length of stay and adjusted mortality in hospital and at one year post-surgery.
Understanding the Processes that Affect Health Policy and Decision Making

Even though we are in an era of evidence-informed decision making, health care policy makers often cannot await the results of a full review of the evidence (e.g., a systematic review) and must make decisions quickly. This is often the case with emergent diseases/outbreaks (e.g., Ebola epidemic) or the publication of new evidence that may radically change practice (e.g., new treatment available for cancer). Additionally, evidence may be required for making a purchasing, policy, or coverage decision, or as background information for meetings or guideline development. Rapid reviews, a kind of accelerated systematic review that is part of a continuum of methodologies in assessing evidence, are increasingly being used to synthesize the evidence with a shorter turnaround time.

A research team was established to study processes and methods that support healthcare and policy decision making. The study was a cross-Canada collaboration between researchers at CHI, the Ottawa Hospital Research Institute, and the Canadian Agency for Drugs and Technologies in Health, among others. The primary objective of this study was to describe the processes and methods used internationally to produce evidence briefs to support decision making.

The team was able to review, compare and contrast the methods used by 29 international healthcare rapid review programs. These programs reflected a broad sample of users including: academia, government, research institutions, and not-for-profit organizations. Most organizations noted that the purpose of conducting rapid reviews was to inform decision making with regards to funding health care technologies, services and policy, and program development. The study also confirmed that there is no standard approach to conducting rapid reviews and that these review methods and report styles are tailored to the needs and timelines of the requesting organization.

The publication has been viewed almost 2,000 times from all over the world. More importantly, it has given decision makers and methodologists an overview on what the state of evidence production is like in other healthcare organizations. Understanding both the similarities and differences between approaches has helped key groups update their methods, including the World Health Organization.
The Knowledge Synthesis (KS) Platform is focused on increasing Manitoba’s capacity to synthesize knowledge to inform public policy, improve service delivery, and optimize Manitobans’ health.

The Knowledge Synthesis (KS) Platform is focused on increasing Manitoba’s capacity to synthesize knowledge to inform public policy, improve service delivery, and optimize Manitobans’ health.

**SERVICES INCLUDE:**
- Peer-reviewed search strategy/reference list
- Evidence summary (brief or full)
- Rapid reviews
- Rapid review with external peer-review
- Overviews of reviews
- Systematic reviews (quantitative or qualitative)
- Diagnostic accuracy reviews
- Methodological reviews
- Economic reviews
- Expert advice
- Review registration
- Search strategies
- Literature screening
- Data extraction and management
- Data analysis
- Critical appraisal

### Investigating Which Medications Work Best for Children Living with Asthma

Asthma, a chronic inflammatory disease of the airways, affects over 13 per cent of Canadian children. There are two kinds of drugs that are used to treat persistent asthma: Inhaled Corticosteroids (ICS) and Long-Acting-Beta-Agonist (LABA). ICS are considered to be one of the most effective medications used to control asthma. These are anti-inflammatory and reduce inflammation in the airways (bronchial tubes) that carry air to the lungs and reduce the amount of mucus produced by these tubes, therefore, making it easier for the patient to breathe.

LABA are known to provide patients with rapid relief. These drugs work by stimulating the muscles surrounding the bronchial tubes to relax, thereby opening the airways wider. Most physicians recommend the use of LABA, in addition to ICS treatments, as a form of treatment provided to children with asthma. A multidisciplinary team from CHI, University of Manitoba, University of Montreal, Cork University Hospital and Lancaster University conducted a study on the benefits and safety of the combination of the two drugs in children with asthma when compared to the same dose or higher dose of just ICS.

The study revealed that in children with persistent asthma, the combination of ICS and LABA did not reduce the risk of worsening the symptoms. However, lung function was improved in children who used both LABA and ICS as opposed to those who only used ICS, either with the same dose or a higher dose. The combination of the two drugs was also known to better growth in children suffering from asthma. This study further promoted a trend towards the need for continuous monitoring and additional trials in children with asthma.

In another study, the KS Platform worked with a multidisciplinary team to understand which treatment works best for children with mild asthma. For children with a milder form of asthma, oftentimes than not, it is hard to predict when their asthma will get worse. A review conducted by a team from CHI, University of Manitoba and University of Auckland compared the use of Inhaled Corticosteroids (ICS) used intermittently at the start of an asthma episode with placebo treatment in children and adults with mild asthma (two trials representing 385 participants) and in preschool children deemed to be at risk of developing asthma symptoms in the future (four trials representing 490 participants).

A placebo treatment is a harmless pill, medicine or procedure given to patients. It holds more psychological benefits as opposed to physiological benefits. What all placebos have in common is that they do not contain an active substance meant to affect health. They simply help the patient feel as though they’re receiving medication for a certain illness, which eases their mind.

In this particular study, the team found that taking ICS intermittently reduced the number of people with the need for oral steroids to manage their asthma symptoms. This was also associated with an improvement in lung tests in adults. The greatest benefits were observed in adults who used a combined inhaler device and ICS when symptoms were developing. There were no increased safety concerns for ICS used in this way.

The study concluded that combining an ICS with a reliever medicine, like an inhaler device, may offer physicians and patients a new approach for milder symptoms if used appropriately.
Valuing All Voices: A New Innovative Approach to Patient Engagement

In the Spring of 2015, the George and Fay Yee Centre for Healthcare Innovation hosted a workshop titled, *Patients as Research Partners in Manitoba* that brought together 50 stakeholders (including patients, caregivers, community organizations, patient engagement experts, health researchers, health care practitioners and decision makers from across the province) for a one-day face-to-face meeting to: identify current barriers and facilitators to patient engagement in Manitoba health research; explore how Manitoba stakeholders conceptualize patient engagement; and develop and prioritize next steps for a provincial patient engagement strategy. It was here that concerns were raised around the current conceptualization of patient engagement, notably: the lack of inclusivity; that it entails a top-down approach that centres on the primacy of researchers’ needs over the needs of communities; and that it does not address the role of trauma and how it impacts the sharing of experiential knowledge within the dynamic of the researcher and patient co-researcher partnership.

With this incredibly valuable feedback in hand, we began to explore different practical and theoretical approaches that might help to build a more inclusive framework for the involvement of patients and the public in health research. What we realized was that patient engagement approaches that do not consider the simultaneous interactions between different social categories (e.g. race, ethnicity, Indigeneity, gender, class, sexuality, geography, age, ability, immigration status, religion) that make up social identity, as well as the impact of systems and processes of oppression and domination (e.g. racism, colonialism, classism, sexism, ableism, homophobia) exclude the involvement of individuals who often carry the greatest burden of illness — the very voices traditionally less heard in health research. In order to be a more inclusive and meaningful approach that does not simply reiterate existing health inequities, we recognized that it was important to re-conceptualize patient engagement through a health equity and social justice lens by incorporating a trauma-informed intersectional analysis.

We recently received a CIHR SPOR Patient Engagement Collaboration Grant to further validate this innovative new framework to patient engagement — which we have titled the *Valuing All Voices framework* — through discussion groups with various stakeholders including people living with mental health issues; as well as immigrant, refugee, First Nations, Metis and Inuit communities. The goal is for this framework to help: operationalize approaches that create opportunities for the involvement of voices traditionally less heard in health research by focusing on health equity, social justice, dignity and respect; and to help inform the future development of a set of tools and concrete strategies to assist researchers and the public to enter into inclusive, safe, meaningful and authentic engagement partnerships.
Knowledge Translation (KT) is the synthesis, exchange, application and dissemination of knowledge to improve health, the healthcare system, and health service delivery

SERVICES INCLUDE:

- Support to integrate evidence-based KT interventions to change practice & policy
- Strategies to facilitate involving members of the public throughout the research process
- Development of KT-related dissemination strategies and multimedia tools
- Advice on use of KT theories and frameworks to guide research
- Courses, workshops and one-on-one consultations

Partnering with EvidenceNetwork.ca

EvidenceNetwork.ca creates original media content on health policy topics for publication in the mainstream media and links journalists with health policy experts to provide access to credible, evidence-based information. Since 2011, they’ve had over 2,000 original articles and Op-Eds appear in every major newspaper across the country, as well as a wide range of regional and niche media outlets in English and French. Over the last year, the CHI KT Platform’s partnership with EvidenceNetwork.ca has continued to grow and evolve. Carolyn Shimmin and Dr. Kristy Wittmeier participated as part of the EvidenceNetwork.ca editorial team, and Carolyn wrote as an EvidenceNetwork.ca advisor on topics such as food insecurity, poverty and economic inequality. Her articles have been featured in the Toronto Star, The Globe and Mail, Huffington Post and several other local and national media outlets. The KT Platform, in partnership with EvidenceNetwork.ca, held several successful workshops (local and national), to train researchers in Op-Ed writing as a tool to share evidence with decision makers and the general public through the media.

TREKK: Improving Care for Children

In Canada, most acutely ill and injured children are treated in emergency departments (EDs) that are not part of a children’s hospital. Difficulties in getting the right resources and training have been cited as challenges to providing the best possible care to children in these types of settings. This has resulted in inconsistent levels of emergency care for kids across Canada.

Enter Translating Emergency Knowledge for Kids (TREKK), a national knowledge mobilization network with a single goal – to improve emergency care for children across Canada. Led by CHI’s Academic Director, Dr. Terry Klassen, TREKK aims to transform the speed at which the latest treatments and research are used for pediatric care in all EDs whether in urban, rural or remote settings. To achieve these goals, TREKK works with over 35 general EDs (TREKK sites) and 12 pediatric EDs (PERC sites), spanning nine provinces and one territory.

CHI continues to support TREKK — a growing national network of researchers, clinicians, national organizations and healthcare consumers – through the role of a TREKK Knowledge Broker and in-house access to media support and patient engagement expertise from within the KT Platform. The TREKK knowledge broker has been instrumental in achieving a number of key milestones and in building meaningful relationships and partnerships across the country.

The future looks bright for TREKK - after successfully completing their funding cycle with the Government of Canada’s Networks of Centres of Excellence (NCE), TREKK has been renewed for another three years. During this time, they will be focusing on developing tools to help families make informed pediatric healthcare decisions, the creation and dissemination of simulation-based training programs and point-of-care tools for emergency practitioners, and expanding their reach to more emergency departments throughout the country.

For more information on TREKK, visit their website at trekk.ca.

KT Launches KnowledgeNudge.com

The KT Platform launched its blog KnowledgeNudge.com early this year. Blog posts discuss all things knowledge translation, from synthesis to exchange, application & dissemination. With in-house knowledge and expertise from several guest bloggers, Knowledge Nudge answers questions you may have about the science and practice of KT.

Tummy Time for Play Time

In partnership with the Health Sciences Centre Physiotherapy Child Health program, and with funding from the Children’s Hospital Advisory Council; the CHI KT team developed a new patient education handout to promote supervised prone positioning, aka tummy time, for newborns. This evidence-based tool was developed with stakeholder input for use with expecting parents and parents of newborns. The aim is to increase awareness of the benefits of introducing tummy time early in the newborn period, in an effort to support infant development and prevent skull deformities (plagiocephaly) while still promoting safe sleeping positions. The two-sided handout features clear, easily photocopied and age-appropriate illustrations of recommended positions, as well as clear instructions for caregivers.
Patient Flow Improvement for Patients Undergoing Cataract Surgery

Generally, cataract surgeries have very low risks of complications or problems — the procedure does not take very long and a local anesthetic is often used to numb the eye with a medicine to relax the patient. Even so, what was found in Manitoba was that all patients undergoing cataract surgery were required to complete a three-page pre-operative questionnaire, a full history and physical exams and attend a pre-operative anesthesia clinic. This meant that many healthy Manitobans were having unnecessary testing which could not only lead to unneeded stress for patients and their families as well as delays in surgery, but also significant costs to the healthcare system due to family physician visits and pre-anesthesia clinic visits.

Realizing the importance and value of placing the patient experience at the centre of care, CHI’s Project Management Office, in partnership with the Misericordia Health Centre (MHC), helped bring together a working group consisting of ophthalmologists and anesthesiologists from the Winnipeg Health Region. This impressive working group collaboratively developed an innovative way to identify which patients were at low anesthetic risk (and therefore could proceed with cataract surgery without a history and physical exam without increasing their risk of intraoperative or post-operative complications in doing so), and which patients were at higher anesthetic risks, (and therefore would require additional pre-operative testing including a full history and physical exam before proceeding to surgery). Together, they developed a simple and straightforward two-page pre-operative questionnaire consisting of 12 questions, that, when combined with a patient’s BMI measurement, could detect who would require additional tests and who could move straight to surgery. The questionnaire was tested through the research project at the MHC.

The team used the questionnaire in 3,347 cataract surgeries — with 1,348 patients being identified as higher anesthetic risk and 1,999 being identified as lower anesthetic risk — with zero major and 26 minor complications.

Wanting to further improve the care received by Manitobans undergoing cataract surgery, CHI surveyed patients at the MHC’s Buhler Eye Care Centre, and identified ways to improve the patient journey — including providing more substantial snacks following surgery (patients having to fast for long periods before surgery often came out feeling rather ravenous) and recognizing that patients felt more comfortable wearing their own clothing versus needlessly having to change into hospital gowns for the procedure.

The results have been eye-opening and demonstrate how better patient outcomes can go hand-in-hand with cost savings for the healthcare system. Since January 2015, low-risk anesthesia patients are no longer required to have a history and physical exam. This unique way of reducing unnecessary testing and improving the patient experience through the lessening of stress — and not to mention the creation of a virtual central intake system — has led to a projected $1.1 million savings to the healthcare system since its inception in 2015.
The Project Management Office applies an integrated Project, Change and Process Improvement approach to improve quality and efficiency in the delivery of healthcare services. We move evidence to practice to improve patient outcomes, experiences and access to care.

SERVICES INCLUDE:
• Project management
• Education and training
• Process improvement
• Change management

InSixty Days or Less – Reducing Wait Times for Manitobans Living with Cancer

For Manitobans who are diagnosed with cancer, as well as their families, long wait times between the time of suspicion of cancer to treatment can often be challenging as it can cause emotional and psychological distress (including anxiety and uncertainty). What if there was a way to help reduce wait times and focus on providing timely care to patients diagnosed with cancer? The Cancer Patient Journey Initiative (CPJI) is seeking answers to that very question. CHI’s Project Management Office has been involved with the CPJI since its inception. The goal is to reduce the amount of time a patient and their family has to wait between initial high suspicion of cancer to their very first treatment, within 60 days or less.

CHI’s Project Management Office, in conjunction with multiple CPJI Working Groups and Disease Site Groups, has been crucial in facilitating the development of three significant initiatives in the past year: the Direct Referral process, the Out the Door in 24 plan and the Prostate and Lymphoma pathways. These initiatives aim to help patients go from high suspicion of cancer to first treatment in 60 days or less.

The Direct Referral process helps cut down the number of visits a patient has to make to their family physician to get test results. It allows radiologists to directly refer and set up appointments for patients requiring additional tests. The Out the Door in 24 initiative encourages primary care providers who suspect their patients may have cancer to complete a referral within 24 hours of the patient visiting their clinic. The last major deliverable was the introduction of the finalized Prostate and Lymphoma pathways. The pathways are a roadmap which help to lead healthcare providers through the InSixty journey, thereby ensuring their patients are able to achieve the target of 60 days or less.

CancerCare Manitoba’s Provincial Electronic Medical Reconciliation in the Ambulatory Oncology Clinic

Medication reconciliation is the process of creating the most accurate list possible of all medications a patient is taking — including drug name, dosage, frequency, and route — and comparing that list against the physician’s admission, transfer, and/or discharge orders. Ultimately, the goal is to provide correct medications to the patient at all transition points within the hospital.

According to a report on medication reconciliation by Accreditation Canada, communicating effectively about the medications a patient takes is a critical component of delivering effective and appropriate care. By understanding a patient’s medication requirements and discrepancies, we reduce the likelihood of the occurrence of adverse events.

A high proportion of adverse events are drug-related. The total cost of preventable, drug-related hospitalizations in Canada is about $2.6 billion per year. Twenty per cent of patients discharged from acute care facilities experience an adverse event, and of those, 66 per cent are drug-related. This is why medication reconciliation is important to help bring these numbers down.

In 2015, CancerCare Manitoba (CCMB) and CHI collaborated to implement a sustainable core process to support medication reconciliation in ambulatory oncology clinic. CHI’s Project Manager, Kevin Clarke, joined the project team established by CCMB to provide strategic direction to the project. A training plan for health care providers such as nurses, physicians and pharmacists was created. Over a course of nine months, 191 nurses, 82 physicians and 51 pharmacists were trained in the process of electronically documenting medication lists of new patients. This resulted in the creation of a province-wide sustainable electronic medication reconciliation process. Furthermore, the training facilitated an increase in the medication reconciliation of new patients undergoing oral chemotherapy from 62.5 per cent to 69.2 per cent.
Lyonel G. Israels Professorship in Hematology
Dr. Ryan Zarychanski
CHI’s Dr. Ryan Zarychanski, Director of Knowledge Synthesis, was awarded the first Lyonel G. Israels Professorship in Hematology. This professorship will be dedicated to researching hematology, benefiting treatments against blood diseases such as leukemia, and enhancing the training of Manitoba’s medical students in the field of hematology.

2015 CAPT Kris Schindel Award
Dr. Colleen Metge
Dr. Colleen Metge, Director of CHI’s Evaluation Platform, received the 2015 Canadian Association for Population Therapeutics (CAPT) Kris Schindel Award. The award recognizes CAPT members who have made an outstanding commitment to improving the organization.

CIHR Foundation Grant
Dr. Lisa Lix
CHI’s Dr. Lisa Lix, Manitoba Research Chair (2012 - 2017), was the recipient of a Canadian Institutes of Health Research (CIHR) Foundation Grant for her research “Advancing the Science of Data Quality for Electronic Health Databases: Applications to Chronic Disease Research and Surveillance.” She received funding support of more than $900,000 over seven years. The grant provides long-term support for Canada’s research leaders to undertake innovative and high impact programs of research.

2015 CFPC Continuing Professional Development Program Award
Dr. Ryan Zarychanski
This national prize is bestowed upon an educational program that has provided an exceptional learning experience to practicing or practice-eligible CFPC members. Dr. Zarychanski was awarded for his efforts related to Blood Day for Primary Care Providers.

Best Poster Award, KT Canada Annual Scientific Meeting
Dr. Kathryn Sibley & KT Platform
The winning poster, Patients as Research Partners in Manitoba, described the process, lessons learned, and key outcomes of a participatory workshop to inform the development of a provincial strategy for engaging patients and the public in health research.

2015 Health Innovation Conference/Lean Congress Health Innovation Award
Dr. Eric Bohm
The efforts of Dr. Bohm’s team to improve patient experience was commended by the Minister of Health through this award in the Tools, Methods and Approaches category for their project “Implementation of a Single Entry Model for Hip and Knee Replacement within the RHA.”

2015 Emerald Literati Award
Dr. Sara Kreindler
HSP’s Dr. Sara Kreindler was awarded the 2015 Emerald Literati Award for her paper “The Rules of Engagement: Physician Engagement Strategies in Intergroup Contexts” (Kreindler et al., 2014). The award is given to the year’s top four articles in the Journal of Health Organization and Management.

CIH-affiliated researchers hold $20.0M in grants as Principal Investigators, and are Co-Investigators on another $66.6M in grants. In total, our team is working alongside other researchers and organizations on a total of 95 grant-funded projects.

Members of CHI authored or co-authored 123 papers in a variety of esteemed journals, including JAMA, IJHCQA and CMAJ.
The pan-Canadian SPOR Network in Primary and Integrated Health Care Innovations (PIHCI) is a key CIHR initiative designed to support evidence-informed health system transformation. The Manitoba PIHCI Network (aka MPN) is embedded within the George and Fay Yee Centre for Healthcare Innovation. MPN received operational funding to launch its activities in June 2015.

MPN is led by a Tripartite Leadership Team representing Senior Leaders in Research (Dr. Alan Katz), Policy (Marcia Thompson) and Practice (Dr. Tamara Buchel) with a Director (Gayle Halas) and Administrative Assistant (Donna Anderson). Manitoba investigators are currently involved in several CIHR-funded “Quick Strike” projects, including:

1. Characterizing high system use across the primary-tertiary care continuum: parallel analyses of select Canadian health datasets

   Manitoba Team: Dr. Alex Singer, Dr. Alan Katz, Gayle Halas

   There are significant gaps in our understanding of high-use patients; there is a call for research that improves our understanding of patients with high system use.

   Objective: to explore the similarities and differences in the characteristics of high use patients across different health care settings.

   Data sources: electronic medical records and multiple administrative data sources from across Canada.

   This work will provide essential foundational information about high users across the health care continuum and will promote future interprovincial collaborative research and health policy development.

2. Evaluating the implementation and impact of an online tool used within primary care to improve the income security of patients with complex health and social needs in Ontario and Manitoba

   Manitoba Team: Dr. Alan Katz, Gayle Halas, Dr. Alex Singer, Kristin Anderson, Katelin McDermott

   A growing number of calls for evidence to inform interventions that address social determinants. This research will pilot a tool that addresses income security (six primary care clinics — three in Ontario and three in Manitoba).

   Project objectives: to conduct an implementation evaluation and to assess the short-term impact on patients.

   The tool prompts health providers to screen for poverty and to recommend benefits, financial resources, as well as local community resources where appropriate. Data is obtained immediately following use and one-month follow-up with patients.

Early Highlights

- Network support of 2 Quick Strike projects
- Collaboration on a total of five Quick Strike projects
- One Stakeholder consultation workshop
- One webinar with recordings
- Four external presentations
Reducing the Number of Unnecessary Vitamin D Tests in Manitoba

While vitamin D’s role in bone health has been known for some time, recently, other reported health benefits have further raised its profile – leading to significant increases in vitamin D (more specifically, 25-hydroxyvitamin D) testing internationally.

Manitoba is no exception, as its vitamin D testing rates have grown significantly over the past nine years, from approximately 5,000 tests completed in 2006 to 53,000 in 2015. Evidence-based guidelines advise against routine testing, however, it’s estimated that approximately 90 per cent of current vitamin D tests are completed on patients where there is no medical indication. Laboratory testing is appropriate for higher risk patients (such as those living with osteoporosis, chronic kidney disease, malabsorption, and obesity) when their results will be used to institute more aggressive therapy. For otherwise healthy patients living at higher latitudes (and thus, facing longer winters), as is the case of Manitoba, over the counter vitamin D supplements and increased summer sun exposure are sufficient. Unnecessary testing can lead to undue stress for these patients and their families, and results in an inefficient use of health care resources.

Following the lead of Choosing Wisely Canada, Diagnostic Services Manitoba (DSM) and CHI collaborated under the Choosing Wisely Manitoba (CWM) banner to reduce unnecessary vitamin D testing in Manitoba. Under the guidance of Jim Slater (DSM, CEO), Dr. Eric Bohm (CHI, Director of Health Systems Performance), and CHI’s Project Management Office, a multidisciplinary team was assigned the task of reducing vitamin D tests by 50 per cent.

The team developed and applied a three-phase strategic approach to influence change in clinical practice. Results from phase one are promising, showing significant decreases compared to baseline rates — with vitamin D test volumes over the first three months of measurement down 53 per cent, 65 per cent and 69 per cent, in February, March and April 2016, respectively.

CHI will continue building on the momentum gained, and its partnership with CWM, as we enter into phase two of the project.

More is not necessarily better when it comes to health care treatment. Unnecessary tests, treatments and procedures take away from care by potentially exposing patients to harm, which could lead to more testing to investigate false positives and contribute to stress for patients. These unnecessary tests also put increased strain on the resources of our health care system.

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As the main drivers behind the LEADS Provincial Leadership Initiative, the endorsement from the Health Senior Leadership Council (HSLC) has been invaluable in supporting the work initiated by the province. The focus of this work is the adoption of the LEADS in a Caring Environment leadership capabilities framework and to build a talent management strategy for the province based on its principles.

The Vision of LEADS in Manitoba

On November 24, 2015, sixty-eight of our province’s influential leaders in health care engaged in a daylong conference titled “Bringing LEADS to Life: Developing a Talent Management Strategy for Manitoba’s Health Care Sector.” The essential outcomes of the day were to clarify elements of a talent management strategy for the Manitoba health system, learn about the LEADS in a Caring Environment capabilities framework in the context of current and future challenges facing the same, and to brainstorm ideas and develop action plans to further incorporate LEADS into the province’s immediate and long-term talent management strategy. There were 12 key insights that arose from this day.

As an outcome of this pivotal day, 18 individuals from across the province are currently being trained and certified as LEADS In-House Facilitators. With representation from each of the Regional Health Authorities, DSM, CCMB and the University of Manitoba, groups are presently developing key workshops that will assist with the development of leaders and the alignment of the LEADS in a Caring Environment Framework within the province. The goal of this training is not only to develop these workshops, but to deliver LEADS based programming linked to their respective region or organization’s talent management/leadership development needs. Participants will begin delivery of the workshops beginning in Fall 2016.

12 Key Needs Identified on Nov. 24

1. Conduct an Organizational Needs Assessment and Talent Audit
2. Shared Vision and a Shift in Culture
3. Understand the Barriers to Change
4. Sustainable Overarching Strategy
5. Define the Talent We Are Looking For
6. Focused Recruitment
7. Talent Assessment
8. Provide Mentorship
9. Performance Assessment
10. Invest in Development
11. Engage Staff in LEADS
12. Empower Staff with Distributed Accountability
ON NOVEMBER 25, 2015, 39 individuals, including health system professionals, researchers, policy makers, and masters students, attended the Advocacy School Workshop: How the System Works and How to Work the System.

The objective of the interactive workshop was to learn key principles, strategies and practical tips for influencing decision-making bodies such as governments and Regional Health Authorities. Attendees were individuals wanting to increase their influence on the system, individuals thinking about how to engage in the provincial election, those seeking to inform policy or clinical leaders trying to influence their organization.

Academic Health Sciences Leadership (AHS) Program

The AHSL program is focused on developing participants’ skills to prepare them for leadership roles. This year, the group had a wide range of projects that touched many different areas of the health region. For example, Graeme Mitchell, a Community Team Manager with the Home Care Nursing Wound Clinic, began a project on “Change Management in the Healthcare Environment.” His project addressed resistance to change in healthcare delivery by incorporating evidence-based data and stakeholder engagement as part of a change management strategy.

How the System Works & How to Work the System

Physician Management Institute

Two Crucial Conversations Workshops

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PARTNERED WITH the Government of Manitoba, CHI hosts two workshops annually from the Physician Management Institute (PMI). This training is specifically geared for physicians in Canada’s healthcare system; it coaches physicians to be effective leaders. Courses are typically held in the fall and in the new year.

After finishing the course, individuals are able to identify when conversations become crucial as well as identify challenges that physician leaders face in the health care system. Practical tools are acquired to deal with these challenges and to steward the emotional and high-stakes conversations towards resolution and action.

EDUCATION & TRAINING
GRADUATE COURSES

THE MAIN GOAL of the course, run by the KS Platform, is to offer a series of interactive seminars regarding Systematic Reviews and Meta-Analysis. This course is structured to guide students through the process of systematically reviewing and meta-analyzing the evidence (from topic development to publication of the results). Dr. Rasheda Rabbani, a CHI Biostatistician, is collaborating with the Knowledge Synthesis Platform (Dr. Ryan Zarychanski and Dr. Ahmed Abou-Setta) to provide lectures on the Meta-Analysis portion of the course and provide statistical expertise to students.

**HSP’S DR. SARA KREINDLER**, the Manitoba Research Chair in Health System Innovation, developed a graduate course on systems change. Her course allows students to apply systems thinking to major healthcare challenges, including those related to patient access/flow and to the student’s own area of research. It also helps them understand the principles of realistic evaluation and realist review, to analyze the social dimension of system change and to critically assess proposals for micro- and macro-level system redesign.

**KT’s DR. KATHRYN SIBLEY** developed and teaches *Science and Practice of Knowledge Translation*, a graduate course at the University of Manitoba. This course provides students with an overview of the fundamental aspects and current state of knowledge translation science and practice in health research and care. The topics covered in the course equip students with the basic principles required to integrate knowledge translation science into health research and care. The topics covered in the course equip students with the basic principles required to integrate knowledge translation science into health research and care. The topics covered in the course equip students with the basic principles required to integrate knowledge translation science into health research and care.

**Systematic Reviews and Meta-Analysis**

This course has proven to be very beneficial to students for their prospective research publications. The recent publication “New modalities to deliver surfactant in premature infants: a systematic review and meta-analysis,” led by Dr. Ebtihal Ali, is one such paper that benefitted from the material taught in this year’s class.

**Health Systems and Systems Change**

**Science and Practice of KT**

The Clinical Research Information Networking Group (CRINGe) series features short clinical research presentations where you can hear from, and ask questions of, experienced researchers and meet others working in clinical research. Attendees typically consist of clinical research staff, investigators, managers, coordinators and assistants.

**KT Canada**

CHI hosts KT Canada’s live webinar series onsite. This expert-led seminar series is dedicated to current and emerging topics in KT. In 2015-2016, CHI hosted a total of nine sessions, two of which were live-streamed on site and broadcasted to participants across Canada:

September 2015: “Translating Emergency Knowledge for Kids (TREKK), a knowledge mobilization initiative to improve emergency care for all children in Canada”

March 2016: “A parent led initiative to determine priorities for Hirschsprung’s Disease (HD) research.”

**CHI Grand Rounds**

CHI hosts Grand Rounds each year, featuring special guests and in-house subject matter experts. Some of this year’s talks provided insights on “Trauma-Informed Intersectional Analysis” for patient engagement, “What the Federal and Upcoming Provincial Elections Could Mean for Health Research and Health Innovation,” and “Pipe, Irrigation, Funnel or Spray? A Novel Analysis of Strategies for System Change.” CHI rounds are accredited under The Royal College of Physicians and Surgeons of Canada.