



Annual Report 2020-21

Manitoba Centre for Health Policy

Data | Insight | Informing Solutions



University
of Manitoba

Rady Faculty of
Health Sciences

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Director's Message

This year has been like no other in MCHP's 30-year history. We started the recognition of our 30th anniversary intending to hold a celebration towards the end of the year. We initiated a blog where veteran staff shared memories of our history. These are stories that bring smiles to our faces and some that stimulate awe at what our founders achieved. Unfortunately, we have not been able to share the celebration in person, either within MCHP or with the wider public. But this was of course not the big story of the year.

In March 2020, we shut down like the rest of Manitoba and the world. As the streets of Winnipeg became deserted, we completed a remarkably successful transition to remote functioning. Despite the fact that many of our staff had children to support through home schooling and others had minimal private space to work at home, we managed to continue to function with the help of some herculean efforts on the part of our IT professionals, and those doing double duty at home. We managed to find equipment for remote communication as Zoom™ and then Microsoft Teams™ meetings became the norm. The most frequently heard phrase in meetings became, "You're on mute!" We worked hard to maintain contact with each other beyond the communication for direct work through weekly Zoom™ staff meetings. During the lull in the pandemic last summer, we even held two outdoor staff lunches. The joy at seeing our colleagues in Assiniboine Park was palpable. I am so proud of how we all responded and am eternally grateful for the huge effort that resulted in the successful transition.

Elsewhere in this report, you can read about our research response to the pandemic. We are fortunate that our data partners at Manitoba Health responded to our request for COVID-19 specific data and for more frequent updates on some of the other databases. These changes allowed us to submit grant applications for pandemic-specific research and to join multi-jurisdictional teams applying for funds. So not only did we learn to work from home, but we also have responded by doing research to support efforts to respond to the pandemic challenges.

While our infrastructure has proven to be resilient to the impact of the pandemic, thanks to the planning and efficiency of our IT team, our whole team needs to be recognized for their commitment to their work. MCHP's strength is the people who work so diligently to address our mandate. Despite the uncertainty associated with COVID-19, we have all demonstrated a remarkable ability to respond to the changes.

I doubt I could have completed this year as Director without the support of many people. In particular, the Executive team who have worked so hard to lead their respective teams while supporting me with their wise advice and counsel. I thank all of those who have supported us over the last year and look forward to being able to write a very different report next year.



Dr. Alan Katz MBChB, MSc, CCFP, FCFP

Director

**“MCHP's strength
is the people who
work so diligently to
address our mandate”**

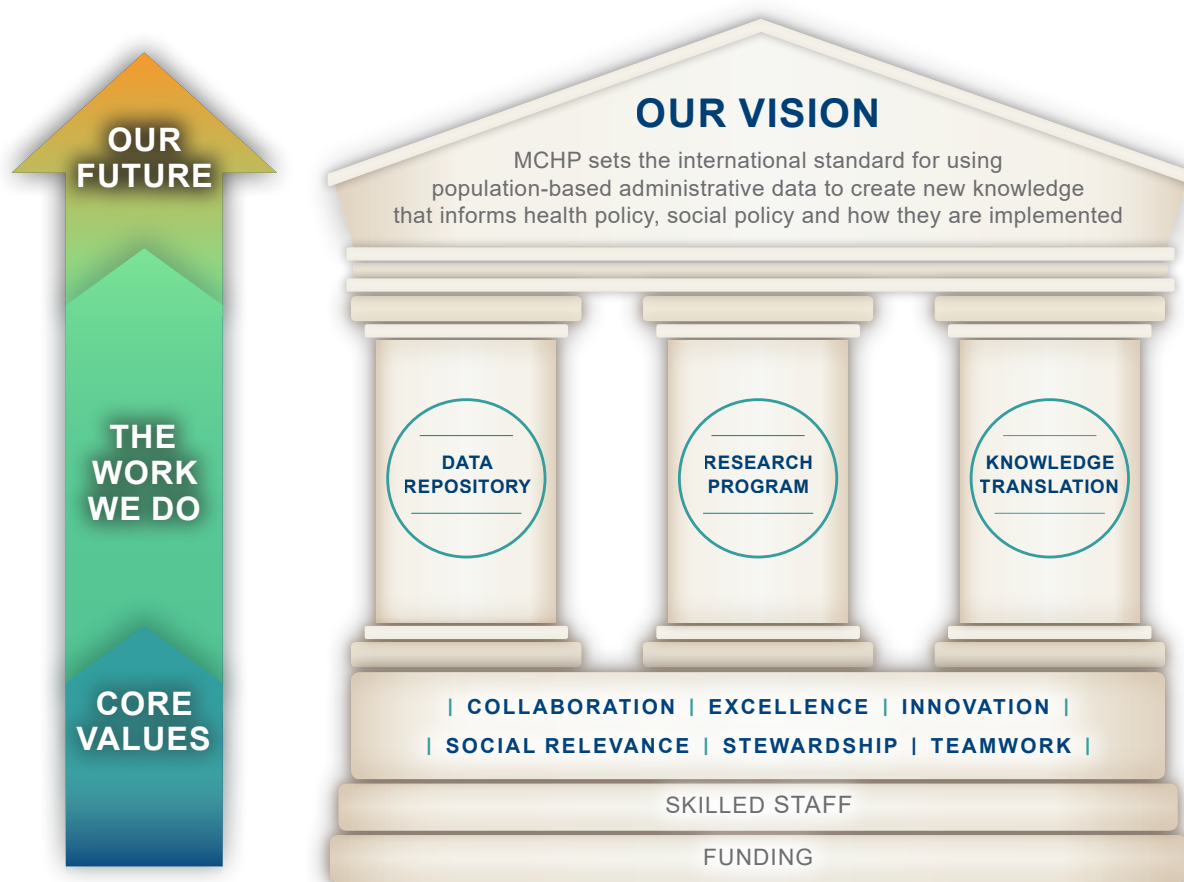
About the Manitoba Centre for Health Policy

What makes Manitobans healthy? The Manitoba Centre for Health Policy (MCHP) is a research unit within the Department of Community Health Sciences, Max Rady College of Medicine, Rady Faculty of Health Sciences at the University of Manitoba. Our work focuses on the health and the determinants of health of Manitobans. The Centre was set up in 1990 to manage a Population Data Repository and to use it for research into how factors like healthcare, health programs and policies impact health outcomes.

The Manitoba Population Research Data Repository is a comprehensive collection of administrative, registry, survey, and other databases primarily comprising residents of Manitoba. It was developed to describe and explain patterns of healthcare and profiles of health and illness, and, more recently, to facilitate inter-sectoral research in areas such as healthcare, education, and social services. The administrative health database, for example, holds records for

virtually all contacts with the provincial healthcare system (the Manitoba Health Services Insurance Plan), including physicians, hospitals, personal care homes, home care, and the pharmaceutical prescriptions of all registered individuals.

The Repository data are de-identified. Research is subject to a rigorous approval process to ensure compliance with the Personal Health Information Act and other applicable legislation. MCHP provides the infrastructure to support researchers' access to the data and analytic services. MCHP has approximately 50 full-time staff: researchers, data managers, data analysts, research coordinators and support staff. Our researchers benefit from collaboration with peers across Canada, the United States, Europe, and Australia. We also have an advisory board bolstered by high-profile representatives from research, healthcare, business, and government. MCHP acts as a steward of the data.



Mission and Objectives

The University of Manitoba's mission is *to create, preserve, communicate and apply knowledge, contributing to the cultural, social and economic well-being of the people of Manitoba, Canada and the world*. MCHP works within the 'Integrative Research in Health and Well-being' theme within the University of Manitoba's Strategic Research Plan, and is a key component of the signature area on 'Population and Global Health'.

Our strategic objectives, detailed in our strategic operational plan, cover the following areas:

1

To maintain and enhance a population-based data repository (Repository) that meets the needs of researchers, graduate students, and analysts in a privacy-compliant environment;

2

To advance the research capacities of the Centre and its affiliated researchers, to support research which is relevant, and uses the most appropriate methodologies;

3

To integrate knowledge translation within our work, to measure the impact of our research on policy and practices, and engage the public in our research, where relevant;

4

To maintain the strong foundation needed for a centre of excellence by securing adequate funding, supporting skilled staff, and being accountable for our funding.

Highlights of MCHP Activities 2020-21

In Numbers

124

Publications



10

Public Engagement
Group members

4

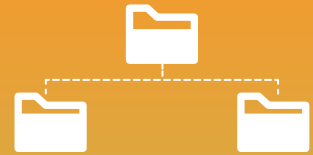
Post-doctoral
Fellows

11

PhD
Students

15

MSc
Students



Manitoba Population
— Research Data —
Repository supports
— Studies Including —

23

MSc
Theses

17

PhD
Theses

MCHP is contracted to work on five deliverables each year for Manitoba Health, Seniors and Active Living which take on average approximately 2 years to complete. Over the past year, we released seven government deliverables, discussed below. MCHP researchers lead these projects, with input from clinicians, policy makers, and other partners as co-investigators or on advisory groups. This engagement has enriched the reports we produce. Our researchers are also highly successful in getting grants for their own individual programs of research, and they (and their students) have published peer-reviewed publications this year (13 as first author) and contributed to more than presentations (43 as first author/presenter).

Adapting for COVID19

This year MCHP was able to support the COVID19 research across the province. The Centre had to adapt quickly to support the rapid calls for proposals, and the short timelines for projects. In collaboration with Manitoba Health and Shared Health we have two specific COVID19 datasets available for research:

- COVID19 Lab testing and results
- COVID19 Surveillance data

We have supporting datasets updated more frequently too (monthly), including medical claims, intensive care use data, prescriptions and vaccinations. Our data managers and data providers have learned a lot through this process and was able to automate some processes which will support more frequent updates to Repository data in the future.

Current COVID19 Projects

The following projects are using the Manitoba Population Research Data Repository:

1. **Projection of COVID19 pandemic and possible interventions in Manitoba (Mahmoud Torabi)**

In the conventional infectious disease models, an underlying assumption is that the infection rate will stay constant during the epidemic, which may not be true. In particular in the case of COVID19, infection rates may change over time and may also depend on the characteristics of infected people. The research goal is to better understand the behaviour and pattern of COVID19 pandemic in Manitoba to be able to inform policy makers for possible interventions.

2. **Evaluating the impact of the response to the COVID19 pandemic on Manitobans diagnosed with cancer (Kathleen Decker)**

This project will evaluate the impact of interventions implemented in response to the COVID19 pandemic on cancer incidence, patterns of cancer care, how long it takes to receive treatment, as well as survival of individuals diagnosed with cancer. The project will identify any shift in stage at diagnosis for individuals with breast, colorectal and cervical cancer, and determine the average cost per patient during COVID19. The project will describe the coordination of care and information provided to patients and identify what is helpful and unhelpful for patients receiving virtual care.

3. **Deferred care outcomes in Canadian children and youth: Measuring and mitigating risk during COVID19 (Marni Brownell)**

To provide timely analyses using population-based data from Ontario and Manitoba on the impact of deferred care through examination of all pediatric health care service use, time sensitive primary care visits (early new-born follow up, immunizations and developmental assessments) and severe presentations of pediatric illness to inform health system mitigation strategies as the pandemic continues. We include both aims that are largely descriptive in nature and amenable to policy relevant reporting for local health authorities but also analytic ones to test hypotheses that can be used to target populations at risk of poor outcomes and inform identification of potential inequities during ongoing surveillance.

4. **A distinction-based study on equity in COVID19 testing and associated outcomes for Manitoba First Nations, Metis and Inuit (Nathan Nickel)**

This project aims to provide real-time, whole population evidence on COVID19 diagnostic testing among First Nations, Metis and Inuit in Manitoba, and inform the up-scale of public health responses in these priority populations. The project will examine the geographic distribution of testing, testing rates, and will predict the number of tests required for the First Nations, Metis and Inuit populations as the pandemic progresses. The project will also develop tools to auto-monitor testing rates.

5. **Predictors of COVID19 incidence and severity: A population-based case-control study (Salah Mahmud)**

This project will assess the association between socio-demographic factors, comorbidities, and use of drugs and vaccines and the risk of COVID19 incidence and severe outcomes. This project looks at the use of hypertensive drugs, comorbidities, frailty, respiratory or systemic infection and assesses whether they increase the risk of COVID19 diagnosis, hospitalization, intensive care admission and death.

6. **Evaluating the differential impact of what we have done, as we prioritize what to do next: a multi-provincial intervention modeling study using population-based data (Alan Katz)**

This project aims to support epidemic responses through detailed investigation of the sources and epidemic consequences of heterogeneity in acquisition, spread and severity. The project will model COVID testing, diagnoses and severity (hospitalization, death) within and between provinces.

7. **Evaluating the impact of COVID19 on health care utilization psychotropic drug use, and mortality among individuals living with mental illness: A population-based study using administrative data (Christina Leong)**

This project aims to determine if the rates of dispensing of psychotropic and non-psychotropic medications increased during the pandemic in the general population and those with a mental health diagnosis. The project also looks at adherence to medication and the rate of discontinuation, and changes to rates of physician visits, hospitalizations, emergency visits, and mortality during the pandemic.

8. **Developing strategies to support First Nation Communities' decision-making during COVID19 Outbreaks (Josie Lavoie)**

This project mobilizes First Nations leadership, Indigenous health research, modeling, health services research and health economic expertise to support First Nations planning and decision-making on COVID19 management in their communities and at the provincial level. The project team will construct detailed community profiles of acute respiratory infections, community size, remoteness, access to health care, risk factors associated with severe COVID-19 infection, and local infrastructure limitations impacting communities' ability to respond (safe drinking water, crowding, existing facility to be used for isolation), to support First Nation-centric model developments. A web-based tool will be developed to model community outbreaks. The financial and social burden on First Nation communities will be estimated.

9. **The impact of population-level physical distancing during COVID19 pandemic on health care services in Manitoba: a focus on vulnerable populations (Sherif Eltonsy)**

This project will examine trends in health care utilizations and the clinical impacts of physical distancing measures implemented during the COVID19 pandemic with a special focus on vulnerable populations such as older adults, pregnant women, persons with disabilities, remote communities and low socioeconomic status groups.

30 YEARS

at the MANITOBA CENTRE FOR HEALTH POLICY



1973

Data Explored

Noralou Roos explores Manitoba Health Services Commission (MHSC) data with Paul Hentleff, Assistant Executive Director for Health Services, MHSC

1977

First Papers Published Using the Data

Tonsillectomy papers published in the *New England Journal of Medicine* and *Medical Care*

1979

Tonsillectomy Papers Grab Attention

Initially talked about in the Manitoba legislature, picked up by media

1989

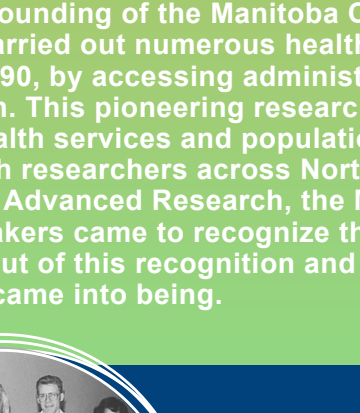
Policy Centre Discussed

The creation of a policy centre discussed among key stakeholders, and proposed to the Manitoba Government

1990

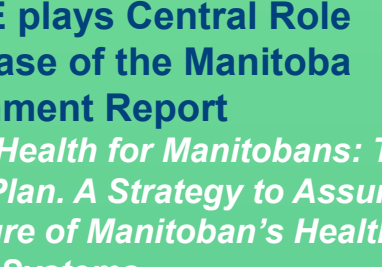
Creation of a \$3.5 Million Centre for Health Research Announced

The Manitoba Centre for Health Policy and Evaluation (MCHPE) funding announced by the Manitoba Government



Laying the Groundwork 1973-1990

Before the founding of the Manitoba Centre for Health Policy (MCHP), Drs. Noralou and Les Roos carried out numerous health services and population health studies between 1973 and 1990, by accessing administrative data from the Manitoba Health Services Commission. This pioneering research was also a game changer in how data was linked between health services and population health research. Through the Rooses' efforts, working with researchers across North America as part of Fraser Mustard's Canadian Institute for Advanced Research, the Manitoba Government and health care system decision-makers came to recognize the benefits that this type of research could hold for Manitoba. Out of this recognition and effort, the Manitoba Centre for Health Policy and Evaluation came into being.



1991

Manitoba Centre for Health Policy and Evaluation Officially Opened

- Dr. Noralou Roos, Director of MCHP
- Dr. Les Roos, Director of the Population Health Research Data Repository

1993

Workshop 1st

Rural and Northern Healthcare Day, precursor to E2A (Evidence to Action) workshop

1995

Concept Dictionary Goes Online

of Concepts in 2021: 373
of Glossary Terms in 2021: 2665

1992

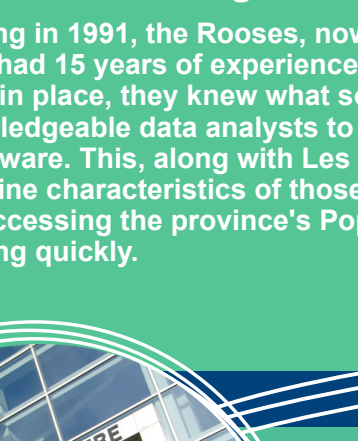
MCHPE plays Central Role in Release of the Manitoba Government Report

Quality Health for Manitobans: The Action Plan. A Strategy to Assure the Future of Manitoban's Health Service Systems

1994

Communication 1st

4-page summaries, website, op-eds
(Prompted by Advisory Board Member Arthur Mauro)



30 YEARS

143 REPORTS PUBLISHED

OVER 1000 PEER-REVIEWED PUBLICATIONS

106 DATASETS ADDED

1999

\$2.7 million CFI (Canada Foundation for Innovation) Grant

Hitting the Ground Running 1991-2000

At MCHPE's opening in 1991, the Rooses, now the co-Directors of MCHPE, and their team already had 15 years of experience with the data and their analysis. The infrastructure was in place, they knew what software worked for this type of research, and they had knowledgeable data analysts to use it, as well as develop new standalone record linkage software. This, along with Les Roos' understanding that it would be possible to determine characteristics of those who didn't have procedures, and those who did through accessing the province's Population Health Registry, allowed MCHPE to be up and running quickly.



2001

New Name

Manitoba Centre for Health Policy

Move to Brodie Centre

Funded by the CFI Grant

State-of-the-art Data Laboratory Opened

Funded by the CFI Grant

Need to Know Team Funded

Innovative collaborative partnership with members from MCHP, Manitoba Health, Regional Health Authorities, and other partners

Noralou Roos Awarded Tier 1 Canada Research Chair

2003

Workshop 1st

- Manitoba Health Day
- WRHA (Winnipeg Regional Health Authority) Day

\$750,000 RBC (Royal Bank of Canada) Grant

To research children's health

2002

Groundbreaking First Nations Atlas

The Health and Health Care Use of Registered First Nations People Living in Manitoba: A Population-Based Study done in partnership with the Assembly of Manitoba Chiefs

Data Added

Family services, education, and social assistance data come to Repository

Publication

Seasonal patterns of hospital use in Winnipeg: implications for managing winter bed crises

Study Impact

Credited by Ontario and British Columbia governments for justifying expansions of flu immunization efforts

2004

MCHP Report

Patterns of Regional Mental Illness Disorder Diagnoses and Service Use in Manitoba: A Population Based Study

Study Impact

Province to invest \$40 million to improve quality of care in Manitoba's personal care homes, to help with the 83% of nursing home residents who have at least one mental illness

MCHP Report

How Do Educational Outcomes Vary with Socio Economic Status?

Study Impact

Led to the development of the Community School Investigators (CSI) summer enrichment program and the Community Schools Partnership Initiative (CSDI)

2009

\$3.6 million CFI Grant

Repository Access Sites set up and acquisition of additional datasets including clinical data



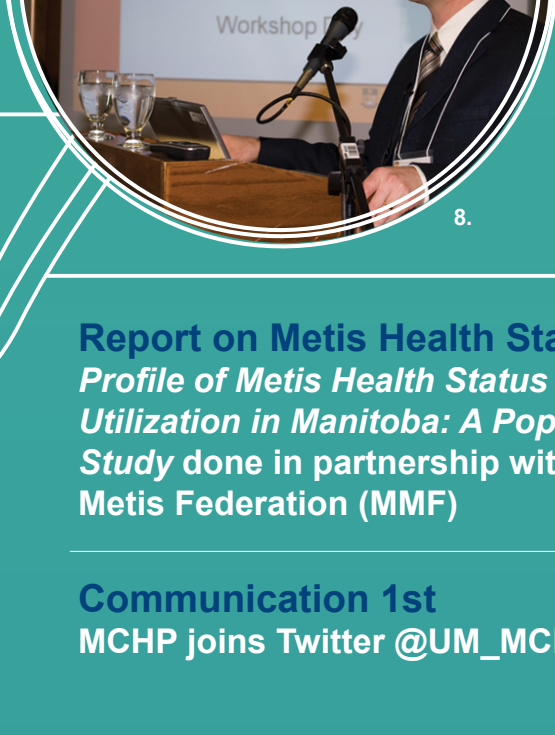
2005

Pat Martens

Director of MCHP

Les Roos Awarded

\$625,000 Lupina Grant To support web-based research knowledge translation through concept dictionary



2010

Report on Metis Health Status

Profile of Metis Health Status and Healthcare Utilization in Manitoba: A Population-Based Study done in partnership with the Manitoba Metis Federation (MMF)

Communication 1st

MCHP joins Twitter @UM_MCHP

Consolidation and Innovation 2001-2010

Funding from the CFI grant allowed MCHP to amalgamate its team to one campus at the new Brodie Centre. A new name, the Manitoba Centre for Health Policy was also adopted. MCHP built a state-of-the-art data laboratory and data from the ministries of Education and Family Services were added. This meant that the scope of research done at MCHP could now extend further into social policy research. Knowledge translation was also on the radar, with the implementation of the Need to Know team allowing research to be informed by the Regional Health Authorities. Change was also in the air this decade when Dr. Pat Martens took over as Director of MCHP.

2011

Data Added

Provincial Lab and Manitoba Housing data come to the Repository

CNodes Grant

Canadian Network for Observational Drug Effect Studies created by \$17.5 million CIHR (Canadian Institutes of Health Research) grant - MCHP established as Manitoba Node

\$2 million CIHR Grant

PATHS Equity for Children established. Applied innovative methods for using the repository data for program evaluations, resulting in over 2 dozen peer-reviewed publications, and dozens more conducted using the PATHS Data Resource

MCHP Report

Population Aging and the Continuum of Older Adult Care in Manitoba

Study Impact

Contributed to the development of the Manitoba Government initiatives:
- Advancing Continuing Care - A Blueprint to Support System Change
- Manitoba's Framework for Alzheimer's Disease and Other Dementias

2013

MCHP Report

Social Housing in Manitoba Part II: Social Housing and Health in Manitoba: First Look

Study Impact

Government of Manitoba increased shelter benefits through introduction of the Rent Assist Program, allowing low-income families to use more of their budget on other necessities like food and health

2015

MCHP Report

The Educational Outcomes of Children in Care in Manitoba

Study Impact

Task force on Education Outcomes for Children in Care created by the Manitoba Government, focused on improving lives of kids in care

MCHP Report

The Cost of Smoking: A Manitoba Study

Study Impact

Manitoba Government launched Social Impact Bond to help Manitobans quit smoking, leading to healthier lives, and creating savings for the healthcare system

Communication 1st

Infographics and videos

2018

Public Engagement Group Initiated

Building relationships with the public to ensure their needs and priorities are considered in MCHP research

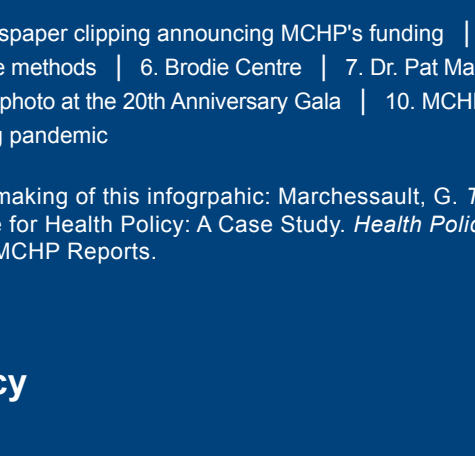
Research-Lab Initiated

MCHP support unit that assists MCHP researchers with the process of applying for grants, also providing project management for grants once awarded

2020

30th Anniversary

Communication 1st MCHP on Instagram



Dynamic Evolving Centre 2011-2020

Under the new Director, Dr. Alan Katz, the creative and innovative use of data at MCHP has allowed relationships to expand from traditional routes, and carve out new paths beyond health, and beyond Manitoba. MCHP's third decade has seen relationships strengthen with other governmental departments besides Health. Collaboration across Canada to link data nationally through the SPOR-Canadian Data Platform grant allows MCHP to take part in inter-provincial and territorial research. MCHP has expanded and strengthened relationships with Manitobans through public engagement groups, as well as working in partnership with Indigenous organizations, to ensure that the needs and priorities of Manitobans are considered in research conducted at MCHP.

Photo Captions

1. Drs. Noralou & Les Roos ca. 1972 | 2. Newspaper clipping announcing MCHP's funding | 3. MCHP Data Analysts 1990s | 4. MCHP Staff 2000s | 5. Pat Martens and past data storage methods | 6. Brodie Centre | 7. Dr. Pat Martens | 8. Dr. Randy Fransoo at the 7th annual MB Health Workshop | 9. MCHP group photo at the 20th Anniversary Gala | 10. MCHP Researchers 2010s | 11. Dr. Alan Katz | 12. First Instagram post; zoom meeting during pandemic

The following materials were reviewed in the making of this infographic: Marchessault, G. *The Story of the Manitoba Centre for Health Policy*; Marchessault, G. *The Manitoba Centre for Health Policy: A Case Study. Health Policy*. 2011 Jan; 6 (Sp):29-43; MCHP Annual Reports; MCHP Website; In-House Records; MCHP Reports.

Developed by:

Manitoba Centre for Health Policy

Data | Insight | Informing Solutions



University of Manitoba

Rady Faculty of Health Sciences

Research at MCHP

Contract Use of Manitoba Population Research Data Repository

MCHP is contracted to work on five deliverables each year for Manitoba Health, Seniors and Active Living (MHSAL) which take on average approximately two years to complete, and result in published reports and peer-reviewed publications. Over the past year, we released the three government deliverables, discussed below. MCHP researchers lead these projects, with input from clinicians, policy makers, and other partners as coinvestigators or on advisory groups. This engagement has enriched the reports we produce.

Deliverables for Manitoba Health, Seniors and Active Living

Innovating MCHP Deliverables

Randall S, Mahar A, Green C, Soodeen RA

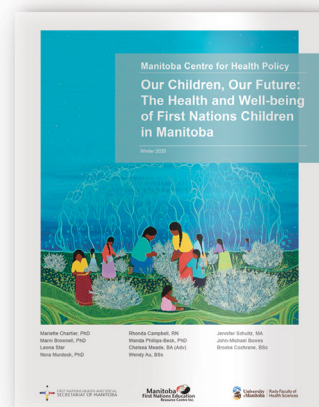
This project looked at the processes for deliverables and considered ways to improve them. This included options to develop a more collaborative approach for determining the deliverable descriptions and solutions to more fully engage end-users throughout the life of the deliverable and through to use of the new knowledge. It also explored the options for new deliverable products and ways of presenting information. This report makes recommendations for Manitoba Health, Seniors and Active Living and the Manitoba Centre for Health Policy to develop further for a redefined process.



Our Children, Our Future: The Health and Well-being of First Nations Children in Manitoba

Chartier M, Brownell M, Star L, Murdock N, Campbell R, Phillips-Beck W, Meade C, Au W, Schultz J, Bowes JM, Cochrane B

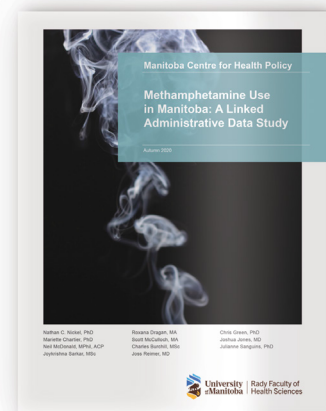
The purpose of this report is to provide a sound baseline measure of how First Nations children are doing in order to determine if children's lives are improving as a result of the Truth and Reconciliation Commission's Calls to Action. The present report was requested by the Healthy Child Committee of Cabinet to focus on First Nations children in Manitoba and to provide valuable information on their health and well-being – similar to Child Health Atlas reports previously prepared by Manitoba Centre for Health Policy (MCHP). The research team includes members from MCHP, First Nations Health and Social Secretariat of Manitoba (FNHSSM) and Manitoba First Nations Education Resource Centre (MFNERC). The analyses provide comparisons between First Nations children and all other Manitoba children, comparisons between on and off reserve First Nations, and regional comparisons by Regional Health Authority and by Tribal Council Areas. Large disparities between First Nations children and other Manitoba children were found in birth outcomes, physical health, mental health, health & prevention services, education, social services, justice system involvement and mortality. These results must be understood within the broader historical, social, legal and political context.



Methamphetamine Use in Manitoba: A Linked Administrative Data Study

Nickel NC, Chartier M, McDonald N, Sarkar J, Dragan R, McCulloch S, Burchill C, Reimer J, Green C, Jones J, Sanguins J

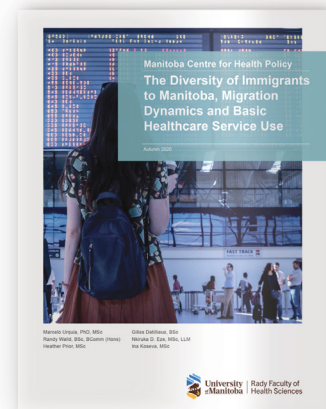
This study identified Manitobans who had their methamphetamine use documented in whole-population, administrative health data for the years 2013 to 2018. This was achieved using the following databases housed within the Manitoba Population Research Data Repository: Hospital Discharge Abstracts, Medical Claims, Emergency Department Information System (EDIS), Winnipeg Fire and Paramedic Service (WFPS), and Diagnostic Services Manitoba (DSM). The study results include demographic and geographic mapping information, prevalence and risk ratios for mental health comorbidities (e.g. mood or anxiety disorders, substance use disorders), and rates of health service use (e.g. fire and paramedic services, physician visits, emergency department visits).



The Diversity of Immigrants to Manitoba, Migration Dynamics and Basic Healthcare Service Use

Urquia M, Walld R, Prior H, Detillieux G, Eze N, Koseva I

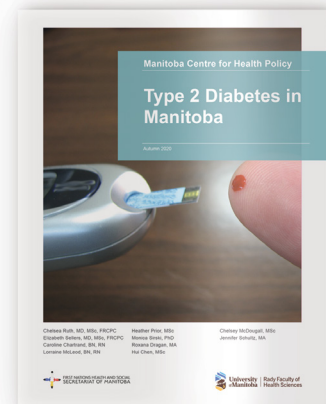
Immigration is a key part of the Canadian social fabric. However, little is known about the characteristics of immigrants to Manitoba, as well as their social and health needs. The addition of the Immigration, Refugees and Citizenship Canada (IRCC) permanent resident database into the Manitoba Population Research Data Repository (Repository) at MCHP is the first step in addressing these gaps. This deliverable describes the linkage and the characteristics of international and interprovincial migrants. It also compares their basic primary care use and mortality with those of non-immigrants.



Type 2 Diabetes in Manitoba

Ruth C, Sellers E, Chartrand C, McLeod L, Prior H, Sirski M, Dragan R, Chen H, McDougall C, Schultz J

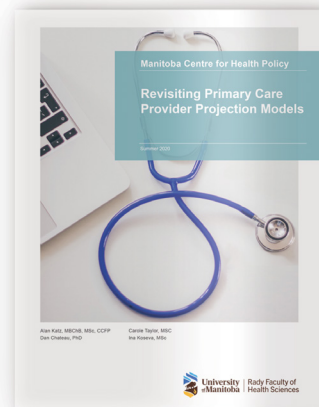
This deliverable, undertaken in partnership with The First Nation Health and Social Secretariat of Manitoba provides an analysis of trends in incidence and prevalence of for all types of non-gestational diabetes from the 1985 to 2017 allowing comparison to national and international statistics. Then, using the wealth of data within the Repository, especially the Diabetes Education Resource for Children and Adolescents (DER-CA) clinical database, Manitobans diagnosed with type 2 diabetes mellitus (T2DM) were identified and their outcomes over the last 6 years were described. This includes diabetes control, complications, mortality and health service use including hospitalizations, continuity of primary care and specialist care. Multiple analyses were undertaken to examine whether the care received by Manitobans living with T2DM met current guidelines. There are also a number of special analyses in cohorts of people matched to those without diabetes for childhood onset T2DM, T2DM in pregnancy, and for mental health outcomes in adults. Information is presented for different age groups, by sex, by health region and by Tribal Council Area and results were compared between registered First Nation Manitobans and all other Manitobans.



Revisiting Primary Care Provider Projection Models

Katz A, Chateau D, Taylor C, Koseva I

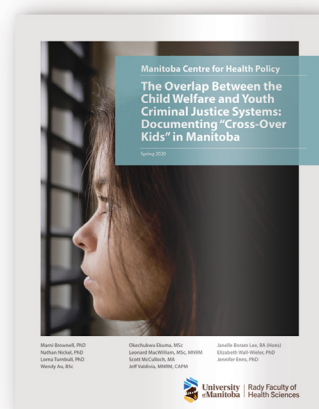
The 2009 MCHP Deliverable, Physician Resource Projection Models, developed a novel methodology for predicting resource needs for family doctors for Manitoba. The projections were based on previous patterns of services provided by family physicians over 30 years and population projections for Manitoba as a whole for 2015 and 2020. This deliverable validated the methodology by comparing the projections to the current reality. Updated analyses add nurse practitioners to the models as well as analyses at the local level with projections to 2025.



The Overlap Between the Child Welfare and Youth Criminal Justice Systems: Documenting “Cross-Over Kids” in Manitoba

Brownell M, Nickel N, Turnbull L, Au W, Ekuma O, MacWilliam L, McCulloch S, Valdivia J, Boram Lee J, Wall-Wieler E, Enns J

This study investigated the relationship between the child welfare and the youth criminal justice systems. It included analyses of characteristics of children and youth involved in both systems, such as mental disorders, developmental disabilities, and school achievement. The main objectives of the project were to: 1). Quantify the overlap between involvement with the child welfare system and the youth criminal justice system; and 2). Identify the characteristics associated with involvement in both systems. For most analyses a 1994 birth cohort was followed to describe child welfare system involvement, youth justice system involvement, and health and social outcomes into young adulthood. Recognizing the over-representation of Indigenous children and youth in both systems, the report provides context on a description of that over-representation.



Quick Turnaround Projects for Manitoba Finance

Over the past three years, MCHP analysts have supported Government of Manitoba to access and analyse their own datasets to support policy analysis and program decision-making. This work has supported programs delivered by departments of Education, Families and Justice. We use the Manitoba Population Research Data Repository, and the work has supported development of new methods which will be useful for future research, but this area of work does not result in published reports. In 2020, this work also supported the development of plans for COVID19 vaccination.

Industry-funded Research

Over the past three years, MCHP has developed processes to support research using the Manitoba Population Research Data Repository to support industry-funded research. These projects involve some analyses and support to researchers on interpreting the data findings. These projects look at treatment patterns, prevalence of conditions, and more.

Grant-funded Research

Researchers at MCHP carry out research into the health and wellbeing of Manitobans across a broad spectrum of issues, funded through a variety of sources including federal and provincial funding bodies, foundations and research trusts.

Dr. Noralou Roos Retired

This year, one of our founding Directors, Dr. Noralou Roos, retired in March after five decades of research. Dr. Roos is a ground-breaking researcher and a Tier 1 Canada Research Chair. She has pioneered population health research through the examination of the social determinants of health. Dr. Roos' contributions to health services and population health research have been recognized by numerous awards including YWCA Manitoba Woman of the Year award in 1988, the Order of Canada in 2005, membership in the prestigious Academy of Science of the Royal Society of Canada in 2009, winner of the inaugural Population and Public Health Research Milestone Award from the Canadian Institutes of Health Research and the Canadian Public

Health Association in 2011, and promotion to Officer in the Order of Canada, 2016. Dr. Roos continues to be engaged with MCHP activities in her retirement. We are highlighting just a few of her significant impacts that have improved the health of people in Manitoba, Canada and across the world.

Founding the Manitoba Centre for Health Policy

Over 50 years ago, Dr. Noralou Roos, working with Dr. Leslie Roos and Dr. Jack Wennberg (Dartmouth College), pioneered the use of routinely collected administrative data (e.g., health insurance claims) for research purposes. As relatively new PhD graduates,



U of M, SBGH and Province unite to examine health care options



The Honourable Donald W. Orchard, (left), Dr. Nick Anthonisen, Mr. Frank Maynard and Dr. Noralou Roos exchange gavels in the symbolic establishment of the Manitoba Centre for Health Policy and Evaluation.

Drs. Noralou and Les Roos worked together with the Manitoba Health Services Commission to begin to build what would later become the Manitoba Population Research Data Repository – a de-identified collection of administrative datasets for research that was developed to describe and explain patterns of service use, and profiles of health for all Manitoba residents. Dr. Roos recognized the numerous other factors that contribute to health, besides health care (i.e., the social determinants of health) and tirelessly negotiated with multiple government departments to bring “non-health” administrative data (i.e., education, families, justice) into the Repository.

Working with these new cross-sector data in the mid-2000s, Dr. Roos’ work on inequalities in children’s health and education outcomes was part of the impetus for the Ministry of Education in Manitoba to develop the community-schools pilot project which recognized the need to address multiple challenges experienced by families living in low income areas in order to improve student outcomes. This program eventually led to the Community Schools Act that ensures funding to over three dozen Manitoba schools to serve as community hubs where cross-sector services and resources can be mobilized to support families and ultimately boost student achievement.

The Repository has become a model for research data centres across Canada (e.g., ICES in Ontario, PopData BC) and around the world (e.g., Data Management and Analysis Centre, Adelaide Australia). Dr. Noralou Roos was the Founding Director of the Manitoba Centre for Health Policy (MCHP) in 1991. In 2001, under her directorship, MCHP received the prestigious Canadian Health Services Research Foundation Health Services Research Advancement Award. In honoring MCHP, the selection panel noted: “This centre has a much broader perspective on health than the norm. It has opened up a frontier by making databases practical and useful and by increasing the level of healthcare monitoring in Manitoba. It has become a leader in its field by showing that so much more can be done with data.”

Translating Research Evidence for Policy and Public

Along with her trail-blazing research, Dr. Roos is recognized as a pioneer in the field for communicating: a) across the academic/policy interface, so that the evidence produced can be put into action; and, b) with media so that the evidence is accessible to the public. While Director at MCHP, Dr. Roos developed strong relationships with policy-makers from various sectors in government, to help to ensure that the

research evidence produced at MCHP would be useful and useable. A review panel, including among others, Sir Donald Acheson (president of the British Medical Association), Lisa Berkman (Harvard University) and Matt Spence (Alberta Heritage Fund), noted that “the group in Manitoba has developed the best approach to synthesizing and communicating their research findings on questions of direct interest to provincial policy makers. Indeed, their approach is a model for health services researchers.” Dr. Roos’ summary of how she has worked with policy makers on key issues was published in the *Milbank Quarterly* (2010) and was nominated for the Seventeenth Annual National Institute for Health Care Management (NIHCM) Foundation Health Care Research Award.

After stepping down as Director of MCHP, Dr. Roos obtained funding from the Canadian Institutes of Health Research (CIHR) and the Manitoba Health Research Council to work with the media to ensure evidence on high profile health policy issues was accurately communicated. As Founding Director of EvidenceNetwork.ca in 2009, she networked more than 70 high profile academics across the country to provide timely responses to reporters’ questions. Working with a communications consultant and a media service, during her tenure as director (2009–2017), EvidenceNetwork.ca experts had over 2000 original articles and Op-Eds published in the major newspapers across the country, as well as in regional and niche media outlets, along with 80 YouTube videos that garnered tens of thousands of hits. Since the founding of EvidenceNetwork.ca, other organizations connecting academic researchers with media have developed (e.g., The Conversation Canada) but Dr. Roos was truly a trailblazer in the effort to move research evidence into public discourse.

The Drug Safety and Effectiveness Network

After stepping down as Director of MCHP in 2004, Dr. Roos put her considerable leadership ability into organizing a research network focused on using administrative data to monitor drug safety and effectiveness after pharmaceuticals come to market. This involved mobilizing a large group of academics to work with Health Canada and provincial governments across Canada and resulted in establishing the Drug Safety and Effectiveness Network (DSEN). In January 2009, the federal Minister of Health committed \$32 million for the first 5 years and \$10 million/year ongoing to fund the DSEN at CIHR. (<http://www.cihr-irsc.gc.ca/e/51200.html>)

Tackling Poverty in Manitoba

In 2011, Dr. Roos and EvidenceNetwork.ca worked with Dr. Gary Bloch, a family physician in Ontario, to publish an Op-Ed in which he encouraged healthcare providers to diagnose and treat poverty by connecting patients to benefits to which they were eligible; in the Op-Ed Dr. Bloch stated “this time of year I prescribe filing taxes to my patients.” Dr. Roos introduced Dr. Bloch’s ideas to a number of different groups in Manitoba including researchers, healthcare providers, government policy-makers, community organizations and non-profit agencies and from these formed a coalition whose focus is ensuring that Manitobans living in poverty get

access to the many benefits they are entitled to. The Winnipeg Foundation supports this work and the project has developed the Get Your Benefits! resource booklet, the Get Your Benefits website (www.getyourbenefits.ca), and promotes several programs including free income tax clinics, access to free books for children, and the Canada Learning Bond (which provides low income children with up to \$2000 in federal funding to support post-secondary education). Over 110,000 Get Your Benefits booklets have been distributed to Manitobans. As of 2018, 95 community agencies helped 27,800 Manitobans living on low incomes receive \$87.7 million in refunds and benefits.

Community Volunteer Income Tax Program



Manitoba
Canada.ca/taxes-help
Canada.ca/taxes-volunteer

* This data is as of June 9, 2018 and subject to change

** This data is as of August 30, 2018 and subject to change. It applies exclusively to the 2017 tax return year and to benefits administered through the CRA during the 2018-2019 benefit year.

Dr. Roos’s accomplishments highlighted here are included in ‘*The Manitoba 150 Trailblazers*’, a book to be launched later in 2021 from www.nelliemclungfoundation.com

Dr. Elizabeth Wall-Weiler joined MCHP

A graduate who completed her PhD at MCHP, Dr. Elizabeth Wall-Weiler joined the research scientists thanks to the University of Manitoba’s investment in Data Science. Dr. Wall-Weiler was awarded a Canada Research Tier II Chair in Population Data Analytics and Data Curation. Dr. Wall-Weiler uses linked administrative data to conduct research on maternal and child health, child welfare and mental health. She is also interested in developing more efficient, structured approaches to population data analytics and data curation.



Education

MCHP researchers teach a number of courses in Rady College of Medicine. Drs. Dan Chateau, and Alan Katz teach courses in the undergraduate population health program; Drs. Marni Brownell, Malcolm Doupe, Randy Fransoo, Nathan Nickel, Leslie Roos and Noralou Roos all teach graduate courses in Community Health Sciences. MCHP staff support educational and technical tutorials and workshops. We offer online tutorials through our website and provide workshop materials as well as detailed explanations of structural equation statistical modeling techniques. Our data analysts also deliver in-person 20-hour SAS tutorials for beginner to intermediate SAS-users. MCHP researchers are supervising, co-supervising or on committees for 4 post-doctoral fellows, 11 doctoral and 15 master's students. Over the past year the MCHP Student Engagement Committee has actively worked to build the MCHP student body and to optimize the graduate school experience for MCHP students. Along with increasing student participation in MCHP research and social activities, we held a virtual MCHP Student Open House in October. MCHP offers a number of awards to graduate students, including the Evelyn Shapiro Award for Health Services Research and the Roos Prize for Best Publication in Population Health.

Evelyn Shapiro Award for Health Services Research

Financial support up to \$5,000 is provided through this award to students who are enrolled in the graduate program at the University of Manitoba (preferably in the Faculty of Health Sciences) and whose thesis research uses the Manitoba Population Research Data Repository. To qualify, applicants must demonstrate academic achievement (min. cumulative 3.75 GPA) and show strong research potential in the field of health services. This award was established by the late Dr. Evelyn Shapiro, a renowned health services researcher, and founding member of MCHP, whose contributions include the development of Manitoba's home care program. Winners of this award in 2021 were: Alexandra Anderson for her research identifying potential cancer disparities for people living with HIV in Manitoba; and Alekhya Lavu for her research looking at antiepileptic treatments during pregnancy and neonatal outcomes.



Alexandra Anderson

2020/21 recipient: Evelyn Shapiro
Award for Health Service Research

Roos Prize for Best Publication in Population Health

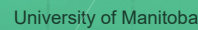
The Roos Prize is given to a recent full or part-time graduate student (min. 3.5 GPA) who published a paper incorporating research results using the Manitoba Population Research Data Repository. This prize was created to honour the pioneering work of Drs. Leslie and Noralou Roos in the use of administrative data for research, their extensive publication and knowledge sharing reputations, and their role in the creation of the Manitoba Centre for Health Policy (MCHP). Roos Prize for Best Publication in Population Health was not awarded this year.



Alekhya Lavu

2020/21 recipient: Evelyn Shapiro
Award for Health Service Research

Over the past couple of years we have transformed our Remote Access Sites (RAS) which enable data analysts and researchers access to the Repository from locations outside of the physical MCHP environment. Virtual Private Network access keeps the data and applications within MCHP but enable authorised users to access the Repository from anywhere in Manitoba. This has been vital to supporting research through COVID19 as we work from home.



Knowledge Translation

In keeping with our integrated approach to KT, we want to make sure that our research is focused on addressing problems that Manitoba's policy planners and service providers need answers to. Close involvement of policy staff in our project teams and advisory groups helps us to shape the questions early on and keeps our research focused on providing answers that can lead to improvements on the ground.

Our *Need to Know Team*, led by Dr. Randy Fransoo and Dr. Nathan Nickel, with membership from Manitoba Health, Seniors and Active Living, Regional Health Authorities and other partners, has been meeting for more than 15 years, and continues to evolve. This group is essential for planning our interactive workshop days with staff of key organizations in Manitoba.

This year our new Public Engagement Group moved to online meetings. This has enabled our more distant members to attend but has led to challenges for those with rural internet. The group meets regularly and acts in an advisory capacity, working in partnership with MCHP researchers to ensure that the needs and priorities of the public are considered in our research.

Government and Stakeholder Workshops

The Manitoba Centre for Health Policy brings government departments and rural health agencies together to exchange information about research in

the province. These have grown over the years from focused days for health authorities, Department of Health, other government departments to a multi-department, multi-organization, multi-sectoral single Evidence to Action Workshop attended by in excess of 250 people. In September 2020 we took our event online offering three webinars and two group discussions in online 'rooms'. The focus was Indigenous health. We offered a webinar presented by Dr. Alan Katz and Leona Star on our report *The Health Status of and Access to Healthcare by Registered First Nation Peoples in Manitoba*, as well as one presented by Dr. Mariette Chartier, Leona Star and Dr. Nora Murdock on our report *Our Children, Our Future: The Health and Well-being of First Nations Children in Manitoba*. A third webinar was presented by Dr. Marcia Anderson and Leona Star on the use of data and information to prepare for COVID19 outbreaks in First Nation communities on and off reserve.

Social Media and Publication Tools

Over the past few years, MCHP has been promoting the release of its government research reports using a range of social media and publication tools. This includes making key message graphics to post findings on social media in an easy to share format.

We share public and media friendly infographics through press briefings, our website, Facebook and Twitter.



People

MCHP is fortunate to have a team of about 50 highly skilled staff who all contribute to the work of the Centre, including:

Research Scientists who design and implement research projects, including deliverables for Manitoba Health, Seniors and Active Living and for the Healthy Child Committee of Cabinet, as well as studies funded through peer reviewed research grants. Our research scientists also teach undergraduate and graduate courses and mentor students.

Research Coordinators who coordinate deliverable project activities.

Research Assistants who are students carrying out a variety of support tasks for research coordinators and our research support team.

Data, Documentation and Access team who support the development and use of the Population Research Data Repository.

Data Analysts who provide data analysis and statistical support for research projects.

Information Technology specialists who manage all our information technology services within MCHP and for researchers accessing our Remote Access Sites.

Graphic Designer who designs layouts for reports, ensures outputs look professional and polished, and creates infographics to support interpretation of data.

Knowledge Broker who plans and implements communications and knowledge translation strategies for research projects.

Finance Grant Accountants who set up and administer grants, ensure we all get paid on time, and monitor our finances.

Research Support who provide administrative, research and clerical support to researchers in the completion of deliverables and peer-reviewed journal articles.

Below is a list of all staff who worked at MCHP at any point between April 1, 2020 and March 31, 2021. Those who joined us during the year or were promoted are listed in *italics*, and those who we said goodbye to are underlined.

Executive

Dr. Alan Katz, Director, Professor, Senior Research Scientist

Charles Burchill, Associate Director (Data Access and Use)

Dr. Marni Brownell, Associate Director (Research), Professor, Senior Research Scientist

Dr. Nathan C. Nickel, Associate Director (Deliverables), Assistant Professor, Research Scientist

Dr. Selena Randall, Associate Director (Planning and Development)

Kara Dyck, Executive Assistant / Office Manager

Researchers

Dr. Alan Katz, Director, Professor, Senior Research Scientist

Dr. Marni Brownell, Associate Director, Research; Professor; Senior Research Scientist

Dr. Mariette Chartier, Assistant Professor, Research Scientist

Dr. Dan Chateau, Assistant Professor, Research Scientist/Statistician

Dr. Malcolm Doupe, Associate Professor, Senior Research Scientist

Dr. Jennifer Enns, Research Associate

Dr. Randy Fransoo, Assistant Professor, Senior Research Scientist

Dr. Lisa Lix, Professor, Senior Research Scientist

Dr. Alyson Mahar, Assistant Professor, Research Scientist

Dr. Nathan C. Nickel, Assistant Professor, Research Scientist

Dr. Leslie Roos, Founding Director, Distinguished Professor, Senior Research Scientist

Dr. Noralou Roos, Founding Director, Professor, Senior Research Scientist

Dr. Chelsea Ruth, Assistant Professor, Research Scientist

Dr. Marcelo Urquiza, Assistant Professor, Research Scientist

Dr. Elizabeth Wall-Weiler, Assistant Professor,
Research Scientist

Dr. Thekla Brunkert, Post-doctoral fellow

Dr. Andree-Ann Faford St Germain, Post-doctoral fellow

Dr. Heather Finnigan, Post-doctoral fellow

Dr. Kate Kenney, Post-doctoral fellow

Research Lab Support

Dr. Elaine Burland, Research Manager

Lindsey Dahl, Research Project Coordinator

Nkiru Eze, Research Coordinator

Dr. Amy Freier, Research Project Coordinator

Farzana Quddus, Research Project Coordinator

Lisa Zhang, Research Project Coordinator

Research Coordinators

Ruth-Ann Soodeen, Lead Research Coordinator

Nkiru Eze, Research Coordinator

Ina Koseva, Research Coordinator

Scott McCulloch, Research Coordinator

Jennifer Schultz, Research Coordinator

Dale Stevenson, Research Coordinator

Data Acquisition

Say Hong, Data Management Analyst

Sathi Rani Saha, Data Management Analyst

Dave Towns, Data Acquisition Officer

Repository Access and Documentation

Theresa Daniuk, Repository Access Assistant

Kara Dyck, Repository Access Coordinator

Emily Jones, Repository Access Assistant

Ken Turner, Repository Data Analyst

Program and Analysis Systems

Heather Prior, Lead Data Analyst

Alexandrea (Lexy) Anderson, Data Analyst

Wendy Au, Data Analyst

Matt Dahl, Data Analyst

Shelley Derksen, Data Analyst

Gilles Detillieux, Data Analyst

Roxana Dragan, Data Analyst

Oke Ekuma, Data Analyst & Statistical Consultant

Joykrishna Sarkar, Data Analyst

Monica Sirski, Data Analyst

Angela Tan, Data Analyst

Carole Taylor, Data Analyst

Randy Walld, Data Analyst

Marina Yogendran, Data Analyst

Graphic Design and Communications

Cara Jonasson, Graphic Designer

Jennifer Pepneck, Knowledge Broker

Information Technology

Rod McRae, Information Technology Manager

Darrin Halabuza, Information Technology Support

Finance

Sophie Buternowsky, Senior Grants Accountant

Jeannie Chen, Grants Accountant

Richard Salas, Finance and HR Assistant

Osaretin Edegbe, Finance and HR Assistant

Research Support

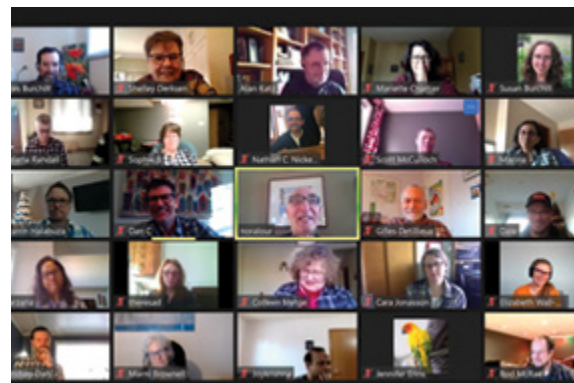
Eileen Boriskewich, Research Support

Research Assistants

Susan Burchill, Research Assistant

John-Michael Bowes, Research Assistant

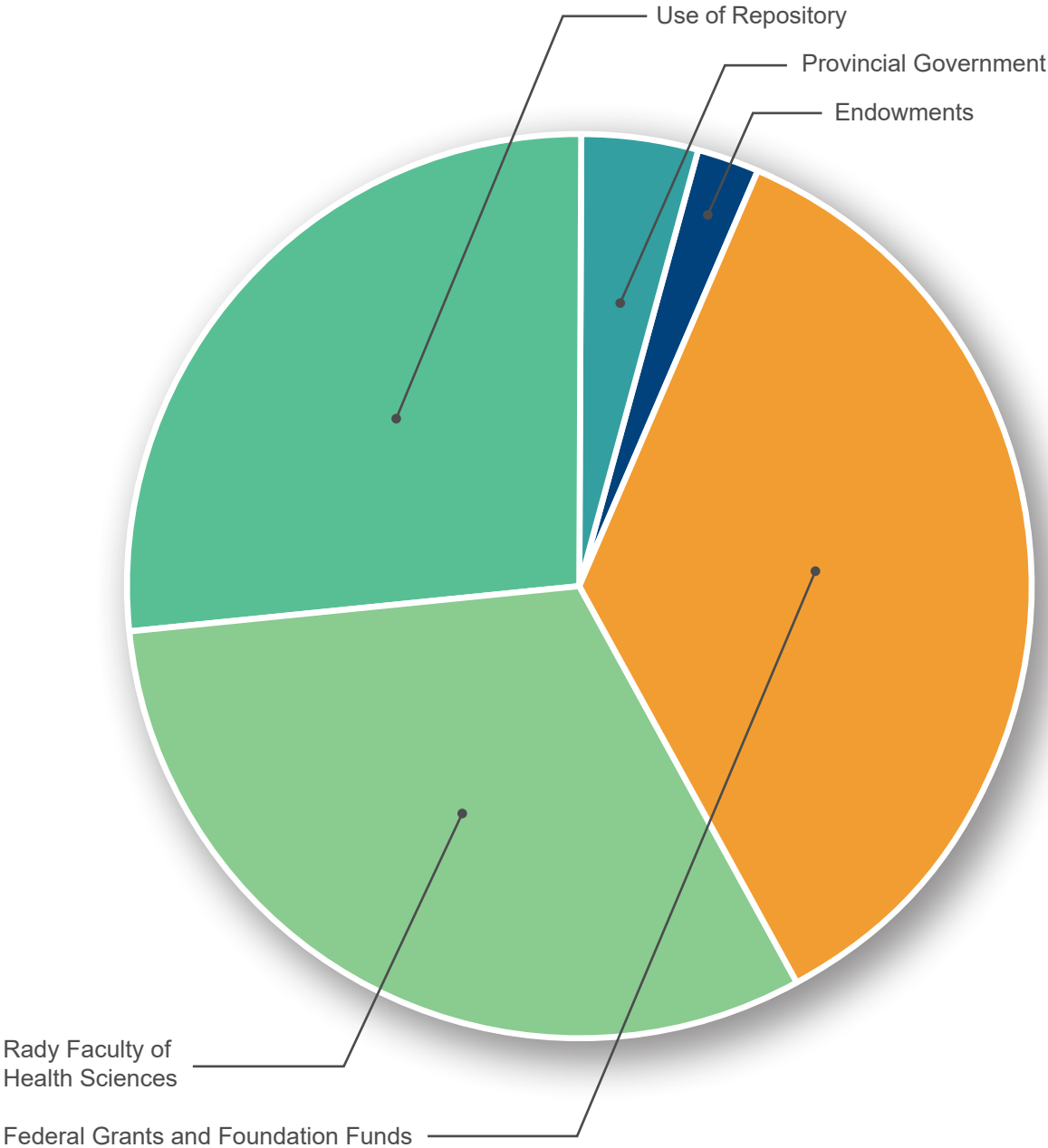
Andrew Lyons, Research Assistant



Financial Report

MCHP is funded from a diverse range of sources including individual and multi-year project grants and career awards from federal grant-funding bodies, support from Rady Faculty of Health Sciences at University of Manitoba as well as contracts and grants from Manitoba Government. MCHP also generates revenue in the form of repository access and remote access fees paid from externally administered research grants. In 2020/21, new funds from these sources totaled approximately \$6.7M.

MCHP Funding Sources



Advisory Board

MCHP is supported by an advisory board made up of members representing:

- MCHP
- Manitoba Health, Seniors and Active Living
- Other government departments sharing data with us
- the University of Manitoba.

The advisory board meets twice a year to hear about MCHP's activities and to provide advice on areas of development for the Centre.

Below, are the current members of the Advisory Board, we thank departing members David Dyson, Tareq Al-Zabet, John Leggat, for their service to the Advisory Board over the past few years.

Members by Position

- Dr. Peter Nickerson (Board Chair): Vice-Dean Research, Rady Faculty of Health Sciences, University of Manitoba
- Dr. Sharon Bruce, Head
- Dr. Sharon Bruce: Head, Departments of Community Health Sciences, Rady Faculty of Health Sciences, University of Manitoba
- Dr. Alan Katz: Director of the Manitoba Centre for Health Policy
- Ms. Karen Herd: Deputy Minister of Health, Seniors and Active Living
- Drs. Noralou Roos and Leslie Roos: Founding Directors
- VACANT – Member of the Treasury Board

Appointed Members: Up to seven appointees of Manitoba Health Seniors & Active Living

1. Mr. Dave Wright, Deputy Minister, Justice and Deputy Attorney General
2. Ms. Dana Rudy, Deputy Minister, Education
3. Mr. Richard Groen, Deputy Minister, Finance
4. VACANT
5. VACANT
6. VACANT
7. VACANT

Appointed Members: Up to seven appointees of the University of Manitoba

1. Dr. Todd Mondor, Deputy Provost, Academic Planning and Programs, University of Manitoba
2. Dr. Digvir Jayas, Vice-President, Research and International, University of Manitoba
3. Dr. Terry Klassen, Academic Director, George and Fay Yee Centre for Healthcare Innovation
4. Reg Toews, Member of the Community
5. Connie Walker, President and CEO, United Way of Winnipeg
6. Michael Schull, President and CEO, Institute for Clinical Evaluative Sciences
7. VACANT

Ex Officio Members

- Mr. Phil Jarman, Executive Director of Information Management & Analytics, MHSAL
- Mr. Dan Skwarchuk, CFO & ADM, Administration & Finance, MHSAL
- Dr. Marni Brownell, Associate Director of Research, MCHP
- Dr. Selena Randall, Associate Director of Planning and Development, MCHP
- Dr. Nathan Nickel, Associate Director Deliverables, MCHP
- Mr. Charles Burchill, Associate Director Repository, MCHP

MCHP Staff Support to Advisory Committee

- Ms. Kara Dyck, Executive Assistant