The University of Ottawa and Institut du Savoir Montfort

Chair in family medicine

Annual report

– Year 1 (2021) –

by

Dr. Lise M. Bjerre, MDCM, PhD, CCFP

Chair in family medicine

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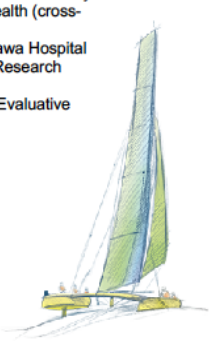
uOttawa
Faculté de médecine
Faculty of Medicine

Département de médecine familiale
Department of Family Medicine

Savoir Montfort

Fondation Montfort Foundation



Ottawa, May 2022

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Executive summary

The University of Ottawa and Institut du Savoir Montfort Chair in family medicine has completed its first year (calendar year 2021). The focus has been on funding acquisition and growing the team. It has been a successful year, with over $209,275 in additional funding obtained during the course of the year, in addition to over $200,244 in active grant funding which Dr. Bjerre brought at the start of the Chair, for **a total of $409,519 in active funding** as of December 2021.

Research has been consolidated into four main themes: **Medication appropriateness, Access to care** (including virtual care as a means of increasing access to care for rural, remote and underserved populations), **Impact of language on care** and **Novel tools for primary care and population health research and evaluation.** These include the use of AI in large populations health data repositories, and geo-mapping as a tool to support access to care.

Flagship projects that are under way in these areas include: the **Statins Deprescribing Guideline**, the **"Getting ahead of the curve" AI predictive modeling project** to predict the occurrence of COVID at the population level, and the **Linguistic factors and inappropriate use of antipsychotics** study, and the **Family Physician travel burden by language** study, and the related output "Interactive Family Physician Geolocation map for Ottawa and Renfrew County".

The team has also grown significantly, from a total of two people (including the Chair) at the start of the year 2021, to a team of 8 at the end of the year. Starting with one research coordinator, the team has been strengthened by the addition of a new post-doctoral fellow, as well as several undergraduate and medical students who have worked on various projects as part of the team.

Tools to enhance efficiency and collaboration were introduced. These include using the cloud-based Google Workspace for document sharing, structuring meetings in different ways to make efficient use of everyone's time, setting and reviewing annual and quarterly goals, developing tracking sheets for manuscripts and project activities, and implementing structures for regular financial tracking and reporting. Numerous external collaborations were established, including at the national and international level, with contributions from other investigators to Dr. Bjerre's projects, and contributions by Dr. Bjerre to other external projects.

Goals for the year ahead include continued growth of the team and funding acquisition, consolidating newly established work and team management tools and processes, and a focus on knowledge dissemination and publication. Long-term goals of the Chair include the establishment of a Centre for Primary Care Studies, Innovation and Improvement, and the creation of a Model Clinical Primary Care Centre.

Finally, none of this would be possible without the great team we have become. In the year ahead, we will continue to strive to exemplify what has become our team motto: 'Together, we're better'.

Respectfully submitted,

Dr. Lise M. Bjerre, MDCM, PhD, CCFP,
University of Ottawa and Institut du Savoir Montfort Chair in family medicine

Introduction – The uOttawa and Institut du Savoir Montfort Chair in family medicine: Expectations and annual review

The University of Ottawa and Institut du Savoir Montfort Chair in family medicine is an endowed research chair whose activities started in January 2021. The major funders of the Chair are the University of Ottawa Department of Family Medicine, the Fondation Montfort, and the Institut du Savoir Montfort. The inaugural chairholder is Dr. Lise Bjerre.

As stated in the terms of reference, the overarching goal, and therefore, the mission of the Chair is as follows:

Mission – the purpose of the Chair

"The overall objective of the Chair is to increase primary health care research that improves healthy living and health of the community in Canada and beyond, including Francophone communities living in a minority context."[1] *(from the Terms of Reference of the Chair).*

More specifically (from the Terms of reference of the Chair):

> *The Chair will play a pivotal role in building Primary Health Care research capacity within the ISM by conducting rigorous, relevant, and innovative health services research that drives knowledge to action in the area of healthy living and health of the community with a focus on vulnerable and Francophone communities living in a minority context. The presence of the Chair will attract high-caliber investigators, fellows, postdoctoral and graduate students to the Institut du Savoir Montfort and will help foster its strategic vision and positioning as a leader and as a center of research excellence in Canada and abroad in primary health care.*
>
> *The Chair research activities will contribute to the enhanced quality of life of patients through discipline-specific and inter-disciplinary collaborative research specifically related to primary health care in areas that align with and build upon mandates of Institut du Savoir Montfort and the Department of Family Medicine.*
>
> *The Chair's planned scope of research will encompass:*
> 1. *Health promotion and disease prevention*
> 2. *Improved primary health care service delivery, especially for patients with multiple chronic diseases (body and mind)*
> 3. *Evaluation of health outcomes within the context of a life cycle*
> 4. *Improving the health of our patients and their families and our communities*

Vision – what the Chair endeavours to achieve and establish

The vision of the Chair is to establish the *University of Ottawa and Institut du Savoir Montfort Chair in family medicine* as an internationally recognized **leader and expert in primary care research, evaluation and improvement**, with a particular focus on the following themes: **Medication appropriateness** in primary care; **access to care**, including virtual care, particularly (but not only) for vulnerable populations including linguistic minorities, rural, remote, and underserved populations; **impact of linguistic factors** on care quality and patient outcomes; and **using innovative tools and methods,**

[1] All quotes are from the *Terms of Reference* of the Chair, unless otherwise specified.

including AI and geo-mapping techniques to improve primary care practice and research. This will be achieved by developing a program of research characterized by strong mentorship and collaboration, community and patient engagement, interdisciplinary cooperation, and patient- and provider-relevant outputs.

Expectations of the Chair

The Chair is expected to fulfill the following expectations (excerpt from the Terms of reference of the Chair):

> *The Chair's scope of research will align with DFM's and ISM's strategic plan. The Chair will provide leadership in the field of improved Community Care and will:*
> 1. *Promote new collaborative research opportunities and knowledge transfer*
> 2. *Influence greater collaboration with a cadre of researchers from the disciplines of primary care health services to determine research initiatives*
> 3. *Provide an environment that promotes and facilitates interdisciplinary collaborative research*
> 4. *Promote discipline-specific and inter-disciplinary collaborative research on the processes of community-based health care delivery*
> 5. *Support practitioners, researchers, decision maker and students in contributing to enhancing primary health care, including a focus on vulnerable populations and Francophone communities living in a minority context*
> 6. *Collaborate with university faculty, community-based organizations, policy and decision makers, national and international institutes to stimulate teaching and health services-oriented research*
> 7. *Increase dissemination of information through publication on issues related to community health services and health service delivery*
> 8. *Recognize and acknowledge the major funders in all publications, oral presentations and other such work*
> 9. *Provide support mechanisms for healthy living and primary care health delivery to other institutions, community agencies, health care professionals, informal caregivers and health care consumers*
> 10. *Enhance specialized knowledge and skills required to conduct relevant research*
> 11. *Act as a mentor to support junior researcher in establishing their research program*
> 12. *Supervise graduate students, postdoctoral fellows and trainees (Hereinafter "HQP")*
> 13. *Gain recognition through peer-reviewed publications, presentations and external grant funding acquisition*
> 14. *Position the University, the DFM and the ISM as an international leader in primary health care research.*

Annual Review

As specified in the Terms of Reference of the Chair, the performance of the Chair is to be reviewed on an annual basis, as follows:

> *The Chair's performance will be reviewed annually by a Review Committee. The Chair will prepare and deliver a written annual report to the members of the Review Committee summarizing the year's activities, including:*
> - *Description of activities to demonstrate level of productivity (to be evaluated based on peer-reviewed publications and peer-reviewed grant-funded projects)*
> - *Scope of research underway*
> - *Criteria established in section 3. Expectations (see above)*
> - *Detailed work plan for the year ahead*

The present report was prepared in partial fulfillment of these requirements; highlights of the report will be presented at the Chair Review Committee meeting on May 31st, 2022.

Activities of the Chair in 2021

Funding acquisition

Funding obtained/active grants

During the first year of tenure of the Chair (calendar year 2021), the following funding was acquired/brought into the Chair as active grants, **for a total of $409,519** (including $200,244 in existing funding from ongoing grants brought into the Chair, and $209,275 in new funding acquired in 2021):

Table 1. Chair research funding in 2021

Operating Grants	Name	Holding organization	Amount awarded	Notes
TOHAMO – OHRI	COVID AI	TOHAMO	$96,844	Active grant brought into Chair
SOSCIP Cloud Computing	SOSCIP cloud computing	SOSCIP	$30,000	In kind/Active grant brought into Chair
UO AI Seed Funding	UO AI Seed funding	ISM	$10,000	Active grant brought into Chair
UO DFM	ECT Wait Times (In kind)	DFM	$5,000	In kind/New funding
ISM – HM - DFM	Research Chair	ISM	$18,000	New funding – unrestricted funds
TOHAMO - OHRI	Deprescribing	TOHAMO	$98,400	Active grant brought into Chair
CFNS - UO	CNFS Antipsychotique	ISM	$39,900	New funding
OSSU - COFFRE	Ottawa access to care and travel burden by language	ISM	$9,375	New funding
Total			**$307,519**	

Through collaboration with and mentorship of Dr. Jonathan Fitzsimon of Renfrew County, the following additional funds were acquired for purposes of evaluating innovative virtual care services set up by Dr. Fitzsimon and colleagues in Renfrew County to address the challenges of the COVID-19 pandemic in this rural and underserved region:

Table 2. Research funding for Renfrew County projects

Operating Grants	Name	Holding org	Amount awarded	Notes
VTAC evaluation	Arnprior Regional Health	ISM	$48,000	New funding
	Applied Health Research Question program	ICES/AHRQ	$23,000	New funding
	Inspire	ISM	$16,000	In kind/New funding
IVC	Petawawa	ISM	$5,000	New funding
Geospatial mapping Renfrew County	Phoenix centre	ISM	$15,000	New funding
Virtual care	DFM	ISM	$30,000	New funding
Total			**$137,000**	

As a result, **an overall total of $409,519 in active funding** ($170,275 in new funding, $200,244 in existing funding brought in by the Chair at the start of tenure, and $137,000 for Renfrew County projects) was available to the team at the end of the year 2021.

Table 3. Total research funding 2021 summary – Chair program of research

Type of funding	Amount
Active funding at start of Chair	$200,244
New funding Chair	$72,275
New funding Renfrew County projects	$137,000
TOTAL Chair funding 2021	**$409,519**

Funding applications submitted

The following funding applications were prepared and submitted in the year 2021:

- CNFS uOttawa: linguistic factors and antipsychotics grant (*Prescription potentiellement inappropriée (PPI) d'antipsychotiques : L'impact de la discordance linguistique entre les médecins et les patients francophones en Ontario)* – **funded** ($39,900)
- CIHR grant application (fall 2021): CLOSM: Linguistic variables in Canadian health databases – *Une communauté de recherche pour améliorer les services de santé pour les communautés francophones en situation minoritaire au Canada* ($100,000) – decision due March 2022
- OSSU-COFFRE: "*Patient and provider satisfaction with docmapper interactive map"* – **funded** ($7,500)
- uOttawa Bureau of Francophone affairs: Geomapping francophone physicians in Alberta – *Géocartographie des gradués du volet francophone et de l'accès aux soins primaires, et développement d'un outil pour le public* – **funded** ($9,500)
- Summer student applications: 3 summer students (2 faculty ($7,000) and 1 DFM ($8,000)) – **all funded:**
  - Farhin S. *"The Impact of Electroconvulsive Therapy (ECT) Wait Times Prior to and During the COVID-19 Pandemic on Patients with Mental Health Disorders: A Scoping Review."*
  - Buchanan S. *"Investigating Patient Satisfaction of Integrated Virtual Care (IVC)."*
  - Patel K. *"Investigating Provider Satisfaction with the Virtual Triage and Assessment Centre (VTAC)."*
- Student research bursary (DFM; $1,000) for Mondor, E. "*Healthcare Access and Social Inequity in Renfrew County: Renfrew County Healthcare Access and Social Inequity Visualization Platform"* – **funded**

Project execution

Research themes and projects

The various projects of the Chair's program of research fall broadly into one of four categories: **Medication appropriateness**, **access to care** (including virtual care), impact of **linguistic factors** on care quality and patient outcomes, and **innovative tools** for population health and primary care research (including **AI in population health databases** and **geo-mapping techniques**).

The projects falling under each of the themes are as follows:

Table 4. Chair program of research – themes and projects

Medication appropriateness	❖ Statins Deprescribing Guideline ❖ Inappropriate Prescribing of antipsychotics and linguistic factors (overlapping themes)
Access to care	❖ Ottawa access to care and travel burden by language (overlapping themes) ❖ Ottawa family physicians geo-mapping patient and provider satisfaction evaluation ❖ Assessing the clinical and economic impact of a COVID-19 Virtual Triage and Assessment Centre (VTAC) in a Canadian rural setting ❖ Virtual care patient satisfaction ❖ Virtual care provider satisfaction ❖ ECT Wait Time Scoping Review
Linguistic factors	❖ Access to care and travel burden by language (overlapping themes) ❖ Inappropriate Prescribing of antipsychotics and linguistic factors (overlapping themes)
Innovative methods and tools	❖ AI in Primary Care – Getting Ahead of the Curve (COVID-19) ❖ Access to care and travel burden by language (overlapping themes) ❖ Renfrew County: Healthcare Access and Social Inequity Visualization Platform ❖ Valhallidation (geo-mapping methods)

The following provides a brief description of each project. Some projects may fit under two or more themes, but are described below under only one theme.

Medication appropriateness theme

❖ Statins Deprescribing Guideline

Using the validated approach of the OPEN deprescribing initiative (deprescribing.org) and building on Dr. Bjerre's experience as lead of the Antipsychotics Deprescribing Guideline (Canadian Family Physician, 2018; and deprescribing.org), this project focuses on the development of a clinical deprescribing guideline for statins (cholesterol lowering agents), the most frequently prescribed class of medication in Canada. A scoping review of more than 7,000 titles, abstracts, and articles is currently underway, supported by a diverse cadre of experts (see Collaborations section). Completion of the guideline is expected in 2023. Funder: Ministry of Health of Ontario, through the Innovation Fund Provincial Oversight Committee (IFPOC) ($100,000).

❖ Inappropriate Prescribing of antipsychotics and linguistic factors (overlapping themes)

This study aims to examine the disparities in the use of antipsychotics among patients belonging to different language groups (francophone, anglophone, allophone) receiving long-term care in Ontario nursing homes, and to assess the impact of patient-physician language discordance on indices of care utilization and quality of care. The study makes use of Ontario's rich population health databases ('ICES data'). Funder: Consortium National de Santé en Français – uOttawa chapter ($39,900).

Access to care theme

❖ Ottawa access to care and travel burden by language (overlapping themes – linguistic factors and innovative methods)

STUDY: While language concordance between patients and primary care physicians results in better quality of care and health outcomes for patients, little research has been done to measure inequities in travel burden to primary care physicians for linguistic minorities in Canada. This study measured travel burden for all residents in Ottawa, Ontario to primary care physicians (family physicians in community practice), and compared it to the travel burden for French-only speakers to language-concordant primary care. Our results indicate that there are neighbourhood-level travel burden inequities for official language minorities in Ottawa, ON. These inequities are generally smaller, however, in neighbourhoods with a larger proportion of French-only speakers. Our methods use open-sourced data and algorithms and can be replicated for other geographical regions in Canada. A manuscript is in preparation for submission for publication as of December 2021.

MAP: A tool to support patients in finding language-concordant care was developed as a result of this project. It is an interactive map that enables patients to look for family physicians in Ottawa and Renfrew County based on the patient's location and on the language spoken by the physician. The map is publicly available at: docmapper.ca and trouvezunmedecin.ca. Funder: SPOR-Francophone work group (OSSU- IF-COFFRE) ($9,375).

Further geo-mapping visualizations of family physicians by language are planned; interest is high for this type of tool, and funding is being sought for further analyses.

- ❖ Assessing the clinical and economic impact of a COVID-19 Virtual Triage and Assessment Centre (VTAC) in a Canadian rural setting

At the start of the COVID-19 pandemic, a collaboration of local health care providers in Renfrew County, Ontario, established the Virtual Triage and Assessment Centre (VTAC) to provide rapid COVID-19 assessment for Renfrew County's mainly rural residents while also reducing unnecessary emergency department visits. Residents access VTAC by calling a toll-free number. Community Paramedics provide testing at drive-through sites and in-home. Family Physicians provide assessment by virtual means for any urgent health concerns. This project provides an impact analysis of VTAC based on health-administrative data from ICES, Ontario's population health data steward, including patient-level information about contacts with the health care system. This data was analyzed to compare pre-pandemic and intra-pandemic use of emergency departments, family physician services, and hospital admissions. Analyses are ongoing as of December 2021. Funder: Various Renfrew County health care provider organizations, ICES/AHRQ and DFM (see Funding section, Table 2, for details) ($137,000).

- ❖ Virtual care patient satisfaction

A companion project to the VTAC assessment project described above, this project aims to assess one of the aspects of the Quadruple aim of health care, namely patient satisfaction with the provision of care via VTAC. A survey has been designed and conducted, preliminary results presented at the Faculty of Medicine research day, and a manuscript in preparation as of December 2021. Funding: DFM/Faculty of Medicine support for a summer student ($5,000).

- ❖ Virtual care provider satisfaction

A companion project to the VTAC assessment project described above, this project aims to assess one of the aspects of the Quadruple aim of health care, namely provider satisfaction with the provision of care via VTAC. A focus group has been designed and conducted, preliminary results presented at the Faculty of Medicine research day, and a manuscript in preparation as of December 2021. Funding: DFM/Faculty of Medicine support for a summer student ($5,000).

- ❖ ECT Wait Time Scoping Review

The purpose of this summer student project was to conduct a scoping review on the clinical and economic impacts of current wait times for ECT among depressed and catatonic patients, and the impact of service disruptions caused by the COVID-19 pandemic. This helped lay the groundwork for a funding application to conduct a study of this using Ontario's population health databases. Funding: DFM/Faculty of Medicine support for a summer student ($5,000).

Linguistic factors theme

- ❖ Access to care and travel burden by language (overlapping themes – see Access to care section above for project description)

- ❖ Inappropriate Prescribing of antipsychotics and linguistic factors (– see Medication appropriateness section above for project description)

Innovative methods and tools theme

- ❖ AI in Primary Care – Getting ahead of the curve: Predictive COVID-19 case identification using an iterative propensity score modelling and AI approach.

The ability to predict who is most likely to be infected is key for immediate isolation and targeted testing of asymptomatic/presymptomatic carriers, which is necessary to curb the COVID-19 pandemic and other future pandemics. We hypothesized that this can be done by developing 'Predictive case identification' using available demographic, occupational, medical, social networking and geolocation data and applying Artificial Intelligence/Machine Learning (AI/ML) approaches. This project, which was conceived and funded in the first year of the pandemic, has broken new ground in many respects: it entails collaboration between academia and private industry, applying AI/Machine Learning techniques to population health databases, and linking publicly available 'crowdsourcing' data with individual population health data. Accordingly, there have been innumerable hurdles to surmount. The analyses for the first part of the project, comparing classical regression methods with AI/ML methods for predictive modelling with population health data, have been completed, and as of December 2021, a methodological manuscript was under preparation. Funder: Ministry of Health of Ontario, through the Innovation Fund Provincial Oversight Committee (IFPOC) ($98,400).

- ❖ Access to care and travel burden by language (overlapping themes – see Access to care section above for project description)

- ❖ Renfrew County: Healthcare Access and Social Inequity Visualization Platform

Using novel geo-mapping and visualization tools (including bivariate choropleths), an interactive online tool was created to visualize factors affecting access to healthcare and social determinants of health. This was the result of a collaboration with researchers at Carleton University (Dr. Paul Peters, Department of Demography). The tool can be found here: http://www.rural-data.com/renfrew-mapping/ Funder: DFM support for a student stipend ($1,000), through an unrestricted grant to Dr. J. Fitzsimon.

- ❖ Valhallidation (geo-mapping methods)

Which neighbourhoods have the best access to family physicians, emergency rooms, or public parks? These questions are answered using *network analysis*, a data-driven process that uses geographic information system (GIS) software to calculate travel times and distances along digitized road networks. This study will endeavour to answer the following question: how reliable is the Valhalla routing engine when compared to industry-standard network analysis tools at computing travel times relevant for health-policy research? This project arose as a methodologic offshoot of the Access to care and travel burden by language project described above. Funding is through the postdoctoral fellowship awarded to Dr. Christopher Belanger, our resident geospatial analyst.

Knowledge dissemination

Presentations

- ❖ **Bjerre, L.M.** (2021, November 5). *A year of new beginnings and opportunities: Improving primary care through research and community outreach* [Oral Presentation]. Department of Family Medicine departmental assembly, University of Ottawa, Ottawa, Ontario, Canada.
- ❖ **Bjerre, L.M.** (2021, October 18). *Clinic of the future contest: the Best Medical Primary Care Centre* [Dragon's Den, finalist]. Department of Family Medicine, University of Ottawa, Ottawa, Ontario,

Canada.

- **Bjerre, L.M.** (2021, October 7). *Unconventional sources of research funding* [Invited Speaker]. Community of Research practice meeting, Department of Family Medicine, University of Ottawa, Ottawa, Ontario, Canada.
- Buchanan, S., **Bjerre, L.M.**, Peixoto, C., Archibald, D., & Fitzsimon, J. (2021, September 24). *Investigating Patient Satisfaction of Integrated Virtual Care (IVC)* [Oral Presentation]. Annual Student Research Day, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada.
- Farhin, S., Peixoto, C., & **Bjerre, L.M.** (2021, September 24). *The Impact of Electroconvulsive Therapy (ECT) Wait Times Prior to and During the COVID-19 Pandemic on Patients with Mental Health Disorders: A Scoping Review* [Oral Presentation]. Annual Student Research Day, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada.
- Patel, K., Peixoto, C., Fitzsimon, J., & **Bjerre, L.M.** (2021, September 24). *Investigating Provider Satisfaction with the Virtual Triage and Assessment Centre (VTAC)* [Oral Presentation]. Annual Student Research Day, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada.
- **Bjerre, L.M.** (2021, April 15). *Comment trouver un médecin de famille francophone à Ottawa: Analyse de l'offre et de la demande de services de médecine familiale en français à Ottawa (étude en cours)* [Oral Presentation]. Journées Montfort 2021, Ottawa, Ontario, Canada.
- **Bjerre, L.M.** (2021, April 15). *La Chaire en médecine familiale, Université d'Ottawa et Institut du Savoir Montfort* [Oral Presentation]. Journées Montfort 2021, Ottawa, Ontario, Canada.
- **Bjerre, L.M.** (2021, January 20). *Chaire en médecine familiale, Université d'Ottawa et Institut du Savoir Montfort – University of Ottawa and Institut du Savoir Montfort Chair in Family Medicine* [Chair launch presentation]. Ottawa, Ontario, Canada.
- **Bjerre, L.M.** (2021, January 18). *Getting ahead of the curve: Predictive COVID-19 case identification using an iterative propensity score modelling and AI approach* [Oral Presentation]. Canadian Tracking and Fusion Group (CTFG) workshop 2020+ , Ottawa, Ontario, Canada. ***(The premier Canadian conference on AI predictive analytics)***

Publications (peer reviewed) and reports

- Taher, M.K., Crispo, J.A.G., Fortin, Y., Moog. R., McNair, D., **Bjerre, L.M.,** Momoli, F., Mattison, D., & Krewski, D. (2022). Systemic quinolones and risk of retinal detachment III: a nested case-control study using a US electronic health records database. *European Journal of Clinical Pharmacology*, *78*(6), 1019-1028. doi: 10.1007/s00228-021-03260-4
- Taher, M.K., Alami, A., Gravel, C.A., Tsui, D., **Bjerre, L.M.**, Momoli, F., Mattison, D., & Krewski, D. (2022). Systemic quinolones and risk of retinal detachment I: analysis of data from the US FDA adverse event reporting system. Expert Opinion on Drug Safety, 21(2), 269-276. doi: 10.1080/14740338.2022.1993187
- Taher, M.K., Habsah, M., **Bjerre, L.M.**, Momoli, F., Mattison, D., & Krewski, D. (2021). Systemic Quinolones and Risk of Acute Liver Failure II: Systematic Review of Clinical Trials. *Clinical Medical Reviews Open Access and Case Reports, 8*(8), 361. doi: 10.23937/2378-3656/1410361
- Taher, M.K., Alami, A., Gravel, C.A., Tsui, D., **Bjerre, L.M.**, Momoli, F., Mattison, D., & Krewski D. (2021). Systemic quinolones and risk of acute liver failure I: Analysis of data from the US FDA adverse event reporting system. *Journal of Gastroenterology and Hepatology, 5*(7), 778-784. doi: https://doi.org/10.1002/jgh3.12585
- Taher, M.K., Crispo, J.A.G., Fortin, Y., Moog, R., McNair, D., **Bjerre, L.M.**, Momoli, F., Mattison, D., & Krewski, D. (2021). Systemic quinolones and risk of acute liver failure III: a nested case-control study using a US electronic health records database. J*ournal of Gastroenterology and Hepatology*, *36*(8), 2307-2314. doi: https://doi.org/10.1111/jgh.15504

- Fitzsimon, J., Belanger, C., Mahdavi, R., Plumptre, L., Peixoto, C., & **Bjerre, L.M.** (2021, December 31). *Renfrew County Virtual Triage and Assessment Centre (VTAC) Evaluation.* Report submitted to Arnprior Regional Health https://drive.google.com/drive/folders/1jXvfmWat0wa493pHgydGe_8aWBH-HsTv
- Belanger, C., Fitzsimon, J., **Bjerre, L.M.** (2021, September 30). *Access to Primary Care and Mental Health Care in Renfrew County.* Submitted to the Phoenix Centre, Arnprior. https://drive.google.com/drive/folders/1T2zmc4X46JbfbacwlJFzFsQSEru-7XXC
- Health Quality Ontario (2021, January). *Quality Standard: Medication Safety.* https://www.hqontario.ca/Portals/0/documents/evidence/quality-standards/qs-medication-safety-quality-standard-en.pdf

Online publications, visualization platforms and tools

- Docmapper.ca – trouvezunmedecin.ca – *Online interactive map of Ottawa and Renfrew County family physicians.* Created by C. Belanger, with input from K. , J. Fitzsimon, and **LM Bjerre** (project lead).
- E. Mondor, with the Renfrew County Access and Inequity Geomapping Group: Dr. J. Fitzsimon, Dr. P. Peters. Dr. C. Belanger, **Dr. LM Bjerre**. *Healthcare Access and Social Inequity in Renfrew County: Healthcare Access and Social Inequity Visualization Platform.* http://www.rural-data.com/renfrew-mapping/

Media appearances

Broadcast Interviews

- **Bjerre, L.M.** (2021, December 29). Interviewed by Mathieu Cordeau (at 8:19). Le point sur la COVID-19 en Ontario et au Québec. In Radio-Canada (prod.), *Matins sans frontières.* https://ici.radio-canada.ca/ohdio/premiere/emissions/matins-sans-frontieres/episodes/593565/rattrapage-du-mercredi-29-decembre-2021/11
- **Bjerre, L.M.** (2021, December 23). Interviewed by Philippe Marcoux (at 17:30). Différence dans la stratégie de 3e dose en Ontario et au Québec. In Radio-Canada (prod.), *Sur le vif.* https://ici.radio-canada.ca/ohdio/premiere/emissions/sur-le-vif/episodes/592900/rattrapage-du-jeudi-23-decembre-2021/16
- **Bjerre, L.M. (**2021, December 22). Interviewed by Gabrielle Sabourin. Tests rapides et masques: Québec invité à se mettre au diapason de la science. In Radio-Canada (prod.), *Le Téléjournal/Ontario.* Le Téléjournal / Ontario
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Research processes

Research team

One of the key activities of the Chair in this first year has been to focus on the development and growth of the team, which is one of the key drivers of the Chair's program of research. The team was initially composed of Dr. Bjerre, and two staff members she brought in to the Chair, both funded by a project for which Dr. Bjerre obtained funding shortly prior to starting the Chair position in January of 2021. Since then, the following people joined the team in 2021:

- 1 post-doctoral fellow (Dr. Chris Belanger, PhD)
- 2 undergraduate students (Yasmeen Choudrhi and Sara Francoeur)
- 4 medical students in 2021 (Sohana Farhin, Emma Sypes, Samantha Buchanan, Kush Patel)

- ❖ 1 mentee and junior clinician-investigator (Dr. Jonathan Fitzsimon, MD)
- ❖ Supporting Dr. Bjerre since the fall of 2020 (hired initially for the Statins deprescribing project in October 2020) is Research coordinator Cayden Peixoto, MSc.
- ❖ Consultants have also been hired to contribute targeted expertise in various fields (setting up Google Workspace; AI consulting).

Research tools

Google Workspace

To enhance efficient collaboration among team members, the team shifted from email-based sharing of documents to using the Google Workspace cloud-based platform. This transition was made in the late summer and early fall of 2021, and was facilitated by hiring a consultant with expertise in setting up research work environments on Google Workspace.

Finance tracking sheets

To support the management of multiple projects with a variety of funding sources, both monetary and in-kind, it became necessary to develop tracking sheets and to hold regular financial meetings (monthly) with Research Associate Steve Levesque, who is a core staff member tasked with supporting the Chair in matters relating to finances and HR staff.

Manuscript tracking sheet

A manuscript tracking sheet has been developed to keep track of the manuscripts currently in various stages of development.

Research management

Monthly team meetings

Initially, when the team was still quite small, meetings were held weekly with everyone on the team attending. As the team and the number of projects grew over the year, it became clear that a new structure was needed. We shifted to holding monthly team meetings, with project meetings for specific projects being held every 2 to 3 weeks, as needed depending on the nature of the project.

Annual and quarterly goal setting

To help focus efforts and track progress, the team has started setting quarterly and annual goals. These are established during the monthly meetings, and reviewed periodically, usually at the end of each monthly meeting. Goals are set according to the SMART goals approach: goals are Specific, Measureable, Achievable, Relevant and Time-based. This approach is proving itself to be very motivating for the team, and progress and goals achieved can be tracked and celebrated.

Happiness reviews

Instead of the usual 'performance reviews', Dr. Bjerre has started holding 'happiness' reviews: the focus is on work satisfaction, both for the employee or trainee, and for the supervisor. The discussion focuses on whether each is happy with the work environment, pace, productivity, etc. This is done in an informal way, and is meant as a way to take stock, identify potential opportunities for improvement, and develop strategies to do better – and to celebrate what is going well.

Mentoring meetings

Dr. Bjerre holds regular, monthly, mentoring meetings with Dr. Jonathan Fitzsimon. Dr. Bjerre has an 'open door' policy, and other trainees are invited to contact Dr. Bjerre if they would like to discuss

anything of concern to them. Dr. Bjerre herself has sought mentoring/peer support, and has been meeting regularly on an approximately bi-monthly basis with Dr. Peter Tanuseputro and, separately, with Dr. Declan Rowan.

Research collaborations

Dr. Bjerre's projects usually involve collaborators from diverse backgrounds. They are chosen and invited to join a project due to their specific expertise in a given area. A list of collaborators for each project, together with their institutional affiliation, can be found below:

Table 5. Collaborators on Chair program of research projects, by research theme

5a. Medication appropriateness

Project	Name	Institution	Role
Statins deprescribing guideline	Dr. Barbara Farrell	Bruyère Research Institute	Pharmacist
	Dr. Lisa McCarthy	University of Toronto	Pharmacist
	Dr. Jean Grégoire	Université de Montréal	Cardiologist
	Dr. Geneviève Lemay	The Ottawa Hospital and the Montfort Hospital	Geriatrician
	Dr. Celeste Fung	St-Patrick's Home of Ottawa (long-term care home)	Long-term care Physician
	Dr. Arden Barry	University of British Columbia	Pharmacist
	Dr. Rita McCracken	University of British Columbia	Family Physician
	Dr. Wade Thompson	University of British Columbia	Methodologist
	Dr. Dar Dowlatshahi	The Ottawa Hospital	Neurologist
	Dr. Ruth Martin-Misener	Dalhousie University	Nurse Practitioner
	Johanna Trimble	Canadian Patient Safety Institute	Patient Representative
	Jaegar (Dave) Jones		Patient Representative (Indigenous representative)
	Francine Tremblay		Patient Representative (Francophone representative)

5b. Access to care and virtual care

Project	Name	Institution	Role
Integrated Virtual Care (IVC) Implementation and Evaluation	Dr. Jonathan Fitzsimon	University of Ottawa, Department of Family Medicine	Medical Lead at Renfrew County Integrated Virtual Care (IVC)
	Cayden Peixoto	Institut du Savoir Montfort (ISM)	Research Coordinator
	Lisa Hawkins	Renfrew County Integrated Virtual Care (IVC)	Data Custodian and Quality Improvement Decision Support Specialist at IVC
	Rick Glazier	ICES	Co-investigator/Senior advisor
	Michael Green	Queen's University and ICES	Co-investigator/Senior advisor
Investigating Patient Satisfaction of Integrated Virtual Care (IVC)	Samantha Buchanan	University of Ottawa, Faculty of Family Medicine	Student Researcher
	Cayden Peixoto	Institut du Savoir Montfort (ISM)	Research Coordinator
	Dr. Douglas Archibald	University of Ottawa, Department of Family Medicine	Director of Research and Innovation
	Dr. Jonathan Fitzsimon	University of Ottawa, Department of Family Medicine	Medical Lead at Renfrew County Integrated Virtual Care (IVC)
VTAC Provider Satisfaction Evaluation	Kush Patel	University of Ottawa, Faculty of Family Medicine	Student Researcher
	Cayden Peixoto	Institut du Savoir Montfort (ISM)	Research Coordinator
	Dr. Jonathan Fitzsimon	University of Ottawa, Department of Family Medicine	Medical Lead at Renfrew County Virtual Triage and Assessment Centre (VTAC)
Assessing the clinical and economic impact of a COVID-19 Virtual Triage and Assessment Centre (VTAC) in a Canadian rural setting	Dr. Jonathan Fitzsimon	University of Ottawa, Department of Family Medicine	Medical Lead at Renfrew County Virtual Triage and Assessment Centre (VTAC)
	Dr. Chris Belanger	Institut du Savoir Montfort (ISM)	Postdoctoral Researcher
	Roshanak Mahdavi	ICES	Research Analyst
	Dr. Lesley Plumptre	ICES	Staff Scientist
	Dr. Rick Glazier	ICES	Senior scientist
	Dr. Michael Green	Queen's University, Department of Family Medicine	Department Head; Family Physician
	Cayden Peixoto	Institut du Savoir Montfort (ISM)	Research Coordinator
ECT wait times	Dr. Kiran Rabheru	University of Ottawa	Professor of Psychiatry/ECT content & operational expertise
	Dr. Mark Kaluzienski	The Ottawa Hospital	Medical Director/Clinical

			expertise
	Dr. Lisa McMurray	Royal Ottawa Mental Health Centre	Director -Electroconvulsive Therapy Service
	Dr. Kim Corace	Royal Ottawa Mental Health Centre/ University of Ottawa	Vice President of Innovation & Transformation/Associate Professor
	Dr. Daniel Myran	Canadian Institute of Health Research (CIHR)	Public Health physician & CIHR Fellow
	Dr. Kednapa Thavorn	Ottawa Hospital Research Institute (OHRI)	Senior Scientist at OHRI/Methodologic support for the economic analysis
	Sohana Farhin	University of Ottawa, Faculty of Medicine	Student Researcher
	Mark Hayman	—---	Patient/Family representative
	ICES analyst (will be assigned when funding is secure)	ICES	Programming & generation of results/Designing of methods and interpretation of results

5c. Linguistic factors

Project	Name	Institution	Role
Linguistic factors, potentially inappropriate prescribing, and antipsychotics	Dr. Peter Tanuseputro	Ottawa Hospital Research Institute	Family Physician/Health Services Researcher
	Dr. Ricardo Batista	Institut du Savoir Montfort	Associate Researcher/Experience with ICES data
	Dr. Roland Halil	Bruyère Research Institute/ University of Ottawa	Pharmacist/Design and interpretation
	Dr. Kednapa Thavorn	Ottawa Hospital Research Institute (OHRI)	Senior Scientist at OHRI/Methodologic support for the economic analysis
	Dr. Colleen Webber	Ottawa Hospital Research Institute (OHRI)	Senior Research Associate/Epidemiology and quantitative methods
	Dr. Claire Kendell	Bruyère Research Institute/ University of Ottawa	Senior Research Investigator/Experience with ICES data
	Dr. Josette-Renée Landry	Institut du Savoir Montfort (ISM)	Senior Scientist and CEO at ISM/Methodological support, design and results interpretation
	Dr. Denis Prud'homme	University of Moncton	President and Senior Researcher

	Dr. Marie-Helene Chomiene	Institut du Savoir Montfort (ISM)	Clinician Investigator/Chair in Francophonie Internationale
	Dr. Barbara Farrell	Bruyere Research Institute	Pharmacist/Design and interpretation of results

5d. Innovative tools and methods

Project	Name	Institution	Role
Getting ahead of the curve (AI for predictive COVID modeling in population health data)	Rob Talarico	ICES	Research Analyst
	Cayden Peixoto	ISM	Research Coordinator
	Dr. Rami Abielmona	Larus Technologies	VP Research and Engineering
	Dr. Rawan Alkurd	Larus Technologies	Data Scientist
	Alex Teske	Larus Technologies	Data Scientist
	Dr. Emil Patriu	University of Ottawa	Co-investigator
	Dr. Kumanan Wilson	University of Ottawa	Co-investigator
	Dr. Gary Garber	Public Health Ontario	Co-investigator
	Dr. Margaret Wilson	University of Strathclyde, Scotland	Collaborator
	Dr. Marion Bennie	University of Strathclyde, Scotland	Collaborator
	Dr. Patrick Redmond	King's College London, UK	Collaborator
	Dr. Berit Lavik	Nygart Hospital, Denmark	Collaborator
	Dr. Stephania Rodella	Italian Epidemiological Association	Collaborator
	Dr. Mauro Venegoni	University of Verona, Italy	Collaborator
	Dr. Polo Friz	Vimercate Hospital, Azienda Socio Sanitaria di Vimercate, Vimercate (MB), Italy	Collaborator
Ottawa Access to care and travel burden by language	Kaitlyn Carr	University of Ottawa, Ottawa Neighbourhood Study	Program Manager
	Cayden Peixoto	Institut du Savoir Montfort (ISM)	Research Coordinator/Results interpretation and writing
	Dr. Chris Belanger	Institut du Savoir Montfort (ISM)	Postdoctoral Researcher
Online interactive map of Ottawa and Renfrew	Dr. Chris Belanger	Institut du Savoir Montfort (ISM)	Postdoctoral Researcher

County family physicians	Dr. Jonathan Fitzsimon	University of Ottawa, Department of Family Medicine	Co-investigator
Access to Primary Care and Mental Health Care in Renfrew County	Dr. Chris Beleanger	Institut du Savoir Montfort (ISM)	Postdoctoral Researcher
	Dr. Jonathan Fitzsimon	University of Ottawa, Department of Family Medicine	Co-investigator
Healthcare Access and Social Inequity in Renfrew County: Renfrew County Healthcare Access and Social Inequity Visualization Platform	Eli Mondor	Carleton University	Student and geospatial programmer
	Dr. Jonathan Fitzsimon	University of Ottawa, Department of Family Medicine	Co-investigator
	Dr. Chris Belanger	Institut du Savoir Montfort (ISM)	Postdoctoral Researcher
	Dr. Paul Peters	Carleton University, Department of Health Sciences	Co-investigator
Valhallidation (Comparative Geo-mapping Methods)	Dr. Chris Belanger	Institut du Savoir Montfort (ISM)	Project lead, R programmer, Geographic information system (GIS) analyst
	Dr. Mike Sawada	University of Ottawa	Associate Professor/GIS and health geography expert

Likewise, Dr. Bjerre has been invited to collaborate on other projects, including international ones. A list of collaborations in which Dr. Bjerre is involved can be found below:

Table 6. Projects on which Dr. Bjerre is a collaborator

Project	Name of lead/PI	Institution	Role
Rural Research: Information, Statistics, and Knowledge (Social Sciences and Humanities Research Council of Canada (SHERCC) grant application submitted)	Paul Peters - Spatial Determinants of Health Lab	**Carleton University**	**Dr. Bjerre and Dr. Fitzsimon** are co-PIs on this project; other co-PIs are from **Sweden** (Umeå Universitet, Arctic Research Centre; and Swedish University of Agricultural Sciences), **Austria** (Human Geography, University of Salzburg), and **Australia** (School of Business and Law, Brisbane)
Variation in COVID-19 infection rates across different linguistic groups in Long-term care homes in Ontario	Peter Tanuseputro	Ottawa Hospital Research Institute and Institut du Savoir Montfort, **University of Ottawa**	**Dr. Bjerre is a co-investigator** on this project, in collaboration with **Doug Manuel, Amy Hsu, Ricardo Batista Moliner, Claire Kendall, Michael Fitzgerald, Marie-Hélène Chomienne, Louise Bouchard (uOttawa-affiliated researchers) and Denis Prud'homme (Moncton University)**

The Causes and Impact of Trauma Overtriage in Ontario	Dr. Avery Nathens, supervisor to Dr. Bourke Tillman, PhD candidate in Clinical Epidemiology	Institute of Health Policy, Management, and Evaluation **University of Toronto** and Sunnybrook Health Sciences Centre, Department of Critical Care Medicine	**Dr. Bjerre** is supporting Dr. Tillman in his PhD work by providing expertise on the application of the STOPP-START and Beers criteria to a population health data project on inappropriate prescribing in trauma patients.
Primary care reform and medication appropriateness for seniors: A comparative study of two provinces	Principal Investigators: David Rudoler, Sara Allin, Agnes Grudniewicz, Elisabeth Martin, Erin Strumpf	Institute of Health Policy, Management, and Evaluation, **University of Toronto**	**Dr. Bjerre** is co-investigator and supporting Dr. Rudoler and team with the application of the STOPP-START and Beers criteria to a population health data project in both Ontario and Quebec
Cost Outcomes of Potentially Inappropriate Prescribing (PIP) in Middle-Aged Adults: A Cross-Sectional Database Study	Patrick Redmond (PI) and Ryan Jayesinghe (PhD candidate)	King's College London, London, **UK**	**Dr. Bjerre** contributed insight as both a knowledge producer (researcher) and user (clinician) to establish alternatives to potentially unsafe or ineffective prescribing scenarios.

Networking

Dr. Bjerre has established new connections and strategic collaborations over the course of the year, including with the following partners:

- **Dr. Paul Peters**, Spatial Determinants of Health Lab, **Carleton University** – Demographer with focus on spatial distribution of social determinants of health, particularly for rural communities.

- **Jacinthe Desaulniers**, Chief Executive Officer, **French Language Health Services Network of Eastern Ontario** – Francophone organization that engages the Francophone community in all its diversity and the healthcare community to improve the active offer and the access to a continuum of quality health care services in French.

- **Julie Lanteigne**, Chief Executive Officer, **French Health Network of Central Southwestern Ontario**, and advisor to the Minister of Health on health services to linguistic minorities.

- **Normand Glaude**, Director, **Réseau OZi** and COO at the French Language Health Services Network of Eastern Ontario – Ozi is a Pan-Canadian non-profit organization with a focus on data collection about official language minority health services across Canada.

- **Dr. Kevin Pottie**, inaugural Ian McWhinney Chair in Family medicine, **Western University** (formerly at uOttawa)

- **Dr. Manon-Denis Leblanc**, Vice-Dean, Francophone affairs, Faculty of Medicine, University of Ottawa

- **Dr. Peter Tanuseputro**, Centre for Personalized Medicine, University of Ottawa – Multiple collaborations on projects related to linguistic factors and their impact on patient outcomes; mutual mentoring.

Academic and other activities

- **2021 – present** Scientific advisor, **CFPC Scientific Advisory Committee on AI in Family medicine**

- **2021 – present** Member, **Research Executive Committee,** Department of Family Medicine, University of Ottawa

- **2021 – present** Member, **Research Community of Practice Committee,** Department of Family Medicine, University of Ottawa

- **2021 – present** Member, **Women University Research Chairs,** University of Ottawa

- **2021 External examiner, Tenure/Promotion review**, Department of Epidemiology and Biostatistics, **McGill University**

- **2017 – present** Member, **CIHR College of Reviewers, Canadian Institutes of Health Research (CIHR)** – actively reviewed in 2021

- **2020 – present** Member, **Ontario SPOR SUPPORT Unit, Working Group on Francophone Communities in Ontario**, ("IF-COFFRE")

- **2021** Member, **Translational research grant evaluation committee**, Faculty of Medicine, University of Ottawa

- **2020 – 2021** Member, **Ontario Health, Medication Safety Quality Standard Advisory Committee** Member (sundowned) https://www.hqontario.ca/Evidence-to-Improve-Care/Quality-Standards/View-all-Quality-Standards/Medication-Safety/Advisory-Committee.

- **Winter 2021 term** Co-instructor/presenter, Master's course EPI 6283 **Pharmacoepidemiology**, School of Epidemiology and Public Health, University of Ottawa

- **December 2021** Co-host/mentor, CIHR pan-canadian Drug Safety and Effectiveness Cross-Disciplinary Training (DSECT) program book club – discussion of "Selling sickness" by Ray Moynihan, co-host.

Awards and recognitions

- **Physician Leadership Development Grant recipient**, The Ottawa Hospital ($1,500), to fund participation in a leadership course or training program. Awarded on a competitive basis.

- **Finalist,** DFM Dragon's Den **'Clinic of the future'** contest (October 2021).

SWOT analysis – Strengths, Weaknesses, Opportunities and Threats

With input from team members, a SWOT analysis was conducted:

Strengths	Weaknesses
❖ Growing team, engaged team members ❖ Good team dynamics despite almost entirely virtual work to date ❖ Multi-disciplinary team ❖ Embedded in clinical practice, with access to funding from health care organizations (through Jonathan's position as Medical Lead of VTAC) ❖ Largely bilingual team, ability to work in French and English ❖ Collaborative team members; willingness to provide feedback and to learn from each other ❖ Diverse, yet coherent program of research, with potential to attract trainees and junior investigators from different disciplines	❖ Publications – many in the pipeline, but need to be finalized and published; protecting time for this is a challenge; writing weeks are one way to tackle this ❖ HR – slow and unresponsive; chain of communication is unclear ❖ Finance – difficulty in obtaining required information in a timely fashion; also challenges with multi-institute transactions (OHRI, uOttawa) ❖ IT: difficulty integrating team, with members having different affiliations and uneven access to IT resources (uOttawa vs ISM); need for streamlining processes and integration that allows for seamless multi-institution collaborations ❖ Long period of time without an admin assistant; lots of support/organizational tasks on backburner as a result ❖ Difficulty for medical students to liberate themselves from clinical duties; need a group/departmental approach to this
Opportunities	**Threats**
❖ Leveraging clinical and health policy connections (Jonathan; Lise) ❖ Excellent alignment with priorities of DFM (focus on access and the unattached patient) ❖ Applying for a foundation CIHR grant (large, multi-project grant) as a means to secure program-level funding, as opposed to piecemeal, project-based funding ❖ Capitalizing on strengths of our bilingual team	❖ Capacity limits with team for specific skills – e.g. geo-mapping, AI, infographics – need to tap into external expertise/attract trainees or staff with these skills – and the need to secure funding to do this ❖ Working in a bilingual environment (additional work, delays and challenges) ❖ Lise being NPI/co-I on projects where most of staff is from another team (Dr. Tanuseputro) and where a key post-doc is leaving; need to make sure Cayden/Research coordinator is involved and able to keep an overview of these projects

Planning for the year ahead (2022), and beyond

Goals for the year ahead include continued growth of the team and funding acquisition, consolidating newly established work and team management tools and processes, and a focus on knowledge dissemination and publication.

Annual goals for 2022

- Grow the team in size and skill – add 1 post-doctoral fellow, 1 summer student, 1 master's student, 1 admin assistant
- Increase research funding by at least $200K new money in 2022
- Prepare for programmatic funding application in 2023/24
- Publish at least 4 papers with team member as 1st or senior author
- Improve team processes:
  - Quarterly goals – define, track, update regularly, and review at least quarterly
  - Retreats – 2-3 per year
  - Writing weeks – 1 per quarter/bimonthly
  - Implement finance tracking using new and improved templates
  - Integration of administrative assistant to support team processes, including ongoing tracking of activities
  - Standardize/streamline approach to hiring/remunerating students
- Increase/maintain team members' work satisfaction
- Work with ISM to improve IT, HR and finance support
- Dr. Bjerre to complete leadership course for which she was granted funding by the Ottawa Hospital
- Establish support for professional development of team members (courses, certifications, etc.)

Ongoing projects – expected milestones in 2022

Medication appropriateness	Statins Deprescribing	Scoping review Q1-3, completion of scoping review in Q3, GDT meeting in Q3, writing of guideline in Q4
Access to care	ECT Wait Time Scoping Review	Completion of scoping review in Q3 (summer student),, manuscript writing in Q4
	Virtual patient satisfaction	Submission for publication in Q3
	Virtual provider Satisfaction	Submission for publication in Q3
	Assessing the clinical and economic impact of a COVID-19 Virtual Triage and Assessment Centre (VTAC) in a Canadian rural setting	Submission for publication in Q3
	IVC Implementation and Evaluation	Ongoing patient recruitment in Q1-2-3; baseline evaluation of data in Q3; manuscript writing (#1) in Q4
Linguistic factors	Access to care and travel burden by language (overlapping themes)	Submission for publication in Q1
	Inappropriate Prescribing of antipsychotics and linguistic factors (overlapping themes)	Data analysis in Q2-3

Innovative tools	AI in Primary Care – Getting Ahead of the Curve (COVID-19)	Manuscript #1 writing in Q2-3, submission for publication in Q4; data analysis paper #2 in Q3-4
	Ottawa family physicians geo-mapping patient evaluation	Survey design in Q1-2; conduct of survey in Q3-4; data analysis in Q4.
	Valhallidation (Geo-mapping methods)	1-pager draft and analyses in Q3; start drafting manuscript in Q4

Long term vision

Long-term goals of the Chair include working towards the establishment of a **Centre for Primary Care Studies,** and the creation of a **model Primary Care Clinical Centre**.

The Centre for Primary Care Studies is envisioned as a centre of excellence in primary care research, evaluation, innovation and improvement. It would be interdisciplinary in outlook, but anchored in family medicine as the core discipline of primary care. The Centre would be led by the uOttawa-ISM Chair in family medicine. One of the raisons d'être of the Centre would be to provide support and perennity to primary care studies beyond the specific program of research of the Chair. The Centre would support other researchers and trainees whose work is relevant to the betterment of primary care.

The model Primary Care Clinical Centre is envisioned as a place of care for all services pertinent to primary care. One of its mandates would be to demonstrate how primary care can be provided in an optimal fashion in an entirely community-based setting, with a focus on optimal patient outcomes, as well as on patient and provider satisfaction, while also ensuring economic efficiency and sustainability of this endeavour. The Primary Care Clinical Centre would be independent of university and hospital structures to maximize its relevance to community settings, and to support nimbleness and adaptability. Its processes and structures would be transparent and publicly accessible, so that other interested communities across Canada could adopt and adapt this approach to meet their local needs.

Epilogue

In concluding this report, I would be remiss to not mention the difficult conditions under which all of this work has been conducted. The team was assembled, worked and grew virtually. As of December 2021, most had not yet met in person. For the first half of 2021, those with children had to compose with schooling being almost entirely virtual and from home. Over the course of the year, some team members got COVID, thankfully none with serious or long-term consequences. There were lockdowns and stay-at-home orders. Team members working clinically were also affected by staff shortages due to illness and outbreaks, overflowing hospital wards, and colleagues falling ill.

Despite all this, we were able to build a cohesive, supportive and productive team. This is reflected in our new-found team motto, which is both descriptive and inspirational: "Together, we're better". For 2022, we look forward to a year with – hopefully – fewer trials and tribulations, and with more in-person interactions.

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