Building on Excellence

Accelerating the Impact of Cross-Jurisdictional Primary Health Care Research in Canada

Joint Meeting of the Community-Based Primary Health Care (CBPHC) 12-Teams and the SPOR Primary and Integrated Health Care Innovations Network (PIHCIN)

December 6-7, 2018 | Omni Hotel, Montréal, QC

Sponsors

Canadian Foundation for **Healthcare Improvement**
Fondation canadienne pour **l'amélioration des services de santé**

MICHAEL SMITH FOUNDATION FOR HEALTH RESEARCH
BC's health research funding agency

CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

CBPHC 12-Teams

ACCESS MENTAL HEALTH

CHAP
Cardiovascular Health Awareness Program
Programme de sensibilisation à la santé cardiovasculaire

CanImpact®
Improving Cancer Care Together

LHIV Innovation Team

Aging, Community and Health
RESEARCH UNIT

Circumpolar Health System Innovation Team

TRANSFORMATION
www.transformationphc.ca @transformphc

FORGE AHEAD

PACE in MM
PATIENT-CENTRED INNOVATIONS FOR PERSONS WITH MULTIMORBIDITY

iCOACH

IMPACT
Innovative Models Promoting Access-to-Care Transformation

Nanaandawewigamig
First Nations Health and Social Secretariat of Manitoba

PIHCI Networks

Réseau sur les innovations en soins de santé de première ligne et intégrés
Primary and Integrated Health Care Innovations Network

Northwest Territories PIHCIN

PRIIME

BC Primary Health Care RESEARCH NETWORK

Alberta SPOR PIHCIN

Strategy for Patient-Oriented Research
SPOR
Primary & Integrated Health Care Initiative
SASKATCHEWAN

MPN
Manitoba Primary & Integrated Healthcare Innovation Network

BeACCoN
Better Access and Care for Complex Needs

Réseau-1 Québec
Réseau de connaissances en services et soins de santé intégrés de première ligne

New Brunswick SPOR Network
in Primary & Integrated Health Care Innovations
Réseau SRAP du Nouveau-Brunswick
dans les innovations en soins de santé de première ligne et intégrés

Research for Better Health
Primary and Integrated Health Care Innovations Network
Prince Edward Island
Réseau sur les Innovations en soins de Santé de Première Ligne et Intégrés
Île-du-Prince-Édouard

BRIC NS
Building Research for Integrated Primary Healthcare

Table of Contents

Welcome

On behalf of the planning committee, it is with great pleasure that we welcome you to this final meeting of the 12 Community Based Primary Health Care Teams and only time these teams will formally meet with the Strategy for Patient Oriented Research Primary and Integrated Health Care Innovation Network. This meeting is, in part, a demonstration of some of Canada's leadership in the area of primary health care research. While there is much to accomplish and strive towards in having our primary health care system meet the needs of Canadians, let us take a moment to celebrate what has been achieved by viewing the 70+ abstracts. We are excited to take all of this work to the next level of knowledge translation and exchange with patients, families, communities, and our stakeholder partners.

Sabrina Wong, chair

Bienvenue

Au nom du comité de planification, c'est avec grand plaisir que nous vous souhaitons la bienvenue à cette dernière réunion des 12 équipes en soins de santé communautaires de première ligne. Il s'agira aussi de la seule rencontre officielle entre ces équipes et le Réseau de la Stratégie de recherche axée sur le patient (SRAP) sur les innovations en soins de santé de première ligne et intégrés. Cette réunion est, en partie, une démonstration du leadership exercé par le Canada en matière de recherche sur les soins de santé primaires. Bien qu'il reste encore beaucoup à faire et de nombreux objectifs à atteindre pour que notre système de soins primaires réponde aux besoins de la population canadienne, faisons une pause pour célébrer les succès obtenus en prenant connaissance des résumés présentés – plus de 70 en tout. Nous nous réjouissons à la perspective de faire passer tout ce travail à la prochaine étape, celle de l'application et du transfert des connaissances auprès des patients et de leur famille, des diverses collectivités ainsi que de nos partenaires concernés.

Sabrina Wong, chaire

Meeting planning committee

Sabrina Wong (UBC, chair), Alan Katz (University of Manitoba), Walter Wodchis (University of Toronto), Martin Fortin (Université de Sherbrooke), Lynne Mansell (patient-partner, PIHCIN), Roger Stoddard (patient-partner, PIHCIN), Danielle Schirmer (Réseau-1), Kathryn Nicholson (Trainees representative, Western University), Bojana Petrovic (University of Toronto), Bahar Kasaai (CIHR-IHSPR), Meghan Sabean (CFHI), Kasra Hassani (12-Teams coordinator, UBC)

The planning committee is thankful to the **Planning Committee Patient Engagement Task Force** (co-led by Lynne Mansell and Roger Stoddard) for their crucial input to the planning of this meeting.

Contact: Kasra.Hassani@ubc.ca

Background

The 12 Community-Based Primary Health Care teams (12-Teams) were funded by CIHR in 2012 to conduct programmatic cross-jurisdictional innovative research. As the funding is now coming to an end, the 12-Teams will be gathering for a final meeting to share their findings and discuss the future of primary health care research in Canada. This will be a joint meeting between the 12-Teams and the SPOR (Strategy for Patient-Oriented Research) Primary and Integrated Health Care Innovations (PIHCI) Network. PIHCI is a network of networks focused on fostering an alliance between research, policy, and practice in primary health care. There are currently 11 PIHCI networks across Canada. PIHCIN will look to pursue the work of the 12-Teams.

Meeting objectives

Participants will:

1. Identify results from the past 5 years of community-based primary health care (CBPHC) research that can provide the basis for:
    (a) future cross-jurisdictional CBPHC research in Canada
    (b) informing the development and implementation of provincial/territorial primary health care transformation (e.g., models of primary health care, primary health care networks)
2. Learn successful strategies for conducting cross-jurisdictional research, building research capacity in communities, engaging patients, and measuring impact in primary health care research
3. Begin to identify a knowledge translation strategy for CBPHC results that have been produced over the past five years that can be acted upon by the PIHCIN.

Agenda

December 5th, 2018 – Omni Hotel, La Gallerie (Lower Level I)

From	To	Activity
5:00PM	**7:00PM**	Informal meet and greet with Rick Glazier, the new incoming Scientific Director of the Canadian Institutes of Health Research Institute for Health Services and Policy Research (CIHR IHSPR)

Day 1, December 6th, 2018 – Omni Hotel, Salon des Saisons (First Floor)

From	To	Activity	Notes
8:00	**9:00**	**Registration and Breakfast**	
9:00	9:15	**Welcome - Introductory comments**	Sabrina Wong (Joint Meeting Planning Committee Chair) Rick Glazier – CIHR IHSPR new Scientific Director
9:15	9:30	**12-Teams Common Indicators and Cross-team Work**	Sabrina Wong (12-Teams Indicator Working Group Chair)
9:30	10:10	**Poster Blitz Presentations* I**	**Presentations by the 12-Teams.** 5 min each 1. TRANSFORMATION 2. CanIMPACT 3. ACCESS-MH 4. CircHSIT 5. iPHIT 6. FORGE AHEAD
10:10	10:50	**Poster Session I (12-Teams Projects)**	**Salon Pierre de Coubertin** *Includes coffee-break*
10:50	11:40	**Poster Blitz Presentations II**	**Presentations by the 12-Teams.** 5 min each 7. LHIV 8. IMPACT 9. C-Champ 10. ACHRU 11. PACE in MM 12. iCOACH

From	To	Activity	Notes
11:40	12:30	**Poster Session II (12-Teams Projects)**	**Salon Pierre de Coubertin**
12:30	**1:15**	**Lunch**	
1:15	1:45	**Facilitated small table discussion** **Moderators:** Linda Piazza (CFHI), Meghan Sabean (CFHI)	**Discussion questions:** 1. From your perspective (researcher/clinician/decision-maker/trainee/patient) which innovations were most relevant to you and your stakeholder group? 2. How would this/these innovation(s) meet the needs in your region/community/context/jurisdiction? 3. What could you do to help support/implement these innovations in your community?
1:45	2:15	**Popcorn-style report back**	Representatives from tables "pop-up" in no particular order; each only add to what has been said.
2:15	2:55	**Panel of 12-Teams leads** Discuss strategies, next steps for the 12-Teams and CBPHC research. Begin KTE strategy discussion.	**Panelists:** Walter Wodchis (iCOACH, ON), Jenny Ploeg (ACHRU, ON), Jeannie Haggerty (IMPACT, QC), Eva Grunfeld (CanIMPACT, ON) **Moderator:** Moira Stewart (PACE in MM, ON)
2:55	3:10	**Q & A**	
3:10	**3:30**	**Afternoon break**	
3:30	4:10	**Panel of PIHCIN leads** Respond to 12-Teams panel. Continue KTE strategy discussion.	**Panelists:** Kevin Chan (clinician, NL), Lynne Mansell (patient-partner, AB), Victoria Schuckel (decision-maker, BC) **Moderator:** Onil Bhattacharyya (Co-chair of PIHCIN National Leadership Council, clinician, ON)
4:10	4:30	**Q & A**	
4:30	4:45	**Final words and wrap-up**	Tom Noseworthy (BC Academic Health Sciences Network)

Day 2, December 7th, 2018 – Omni Hotel, Salon des Saisons

From	To	Activity	Notes
7:30	9:00	*Group meeting of PIHCI network decision-makers [Salon Automne, 2nd floor]*	*Early breakfast will be available* Co-chairs: Tara Sampalli and Sabrina Wong
8:00	**9:00**	**Breakfast**	
9:00	9:05	**Welcome** - Today's focus	Sabrina Wong (chair)
9:05	9:45	**Panel of patient and clinician partners** What have been their key learnings from the past day and in their work with the CBPHC and PIHCIN research projects?	**Panelists:** Karina Prevost (patient-partner, QC), Nancy Schneider (patient-partner, SK), Cory Neudorf (clinician, SK), Fred Burge (clinician, NS) **Moderator:** Alan Katz (iPHIT, MB)
9:45	10:00	**Q & A**	
10:00	10:30	**Facilitated small table discussion** Scaffolding the 12-Teams/PIHCIN KTE strategy. **Moderators:** William Hogg (PIHCIN NCO), Sabrina Wong (Co-chair PIHICN National Leadership Council) [TRANSFORMATION team]	**Discussion questions:** 1. What should be the elements of the KTE strategy? 2. How should the strategy be implemented? Who should implement it? 3. What should the final products/toolbox of the work/innovations of the 12-Teams look like?
10:30	10:50	**Report-back and discussion**	
10:50	**11:05**	**Morning break**	
11:05	11:50	**Panel of decision makers** What have been their key learnings from the past day and in their work with the CBPHC and PIHCIN research projects? How can they support the KTE process?	**Panelists**: Marcia Thomson (MB), Denis Roy (QC), Lynn Edwards (NS) **Moderator:** Linda Piazza (CFHI)
11:50	12:05	**Q & A**	
12:05	**12:45**	**Lunch**	

From	To	Activity	Notes
12:45	1:45	**Poster session III** **(PIHCIN and CBPHC projects)**	**Salon Pierre de Coubertin**
1:45	2:15	**Keynote**	Tom Noseworthy (BC Academic Health Sciences Network)
2:15	2:30	**Q & A**	
2:30	**2:45**	**Afternoon break**	
2:45	3:45	**Next Steps and Wrap-up**	Rick Glazier (IHSPR – CIHR)
3:45	3:50	**Acknowledgements**	

*** Poster Blitz Presentation**. Very short presentation wherein the presenter highlights the posters that are to be viewed afterwards.

Panelist and keynote speaker biographies

Facilitated Small Table Discussion – Day 1

December 6th, 1:15PM – 2:15PM

Moderators: Linda Piazza (CFHI), Meghan Sabean (CFHI)

Linda Piazza is a Senior Director at CFHI and brings in-depth experience in health policy and health services administration, strategic planning, partnership development, and large-scale project leadership. Linda's experience includes developing and sustaining multi-jurisdictional partnerships for research funding and providing leadership for change management in complex organizations.
Linda was Director of Research at the Heart and Stroke Foundation of Canada, where she developed and implemented innovative funding processes, integrating knowledge translation into all aspects of the research process. She is a past Executive Director of the Canadian Nurses Foundation, where she launched the Nursing Care Partnership clinical nursing research program in collaboration with the Canadian Foundation for Healthcare Improvement. In addition, Linda has worked in nursing policy at the Canadian Nurses Association and in nursing and hospital administration at the Ottawa Hospital.

Meghan Sabean has worked with CFHI for the last 6.5 years and is an Improvement Lead with CFHI's Corporate Strategy & Development Department. In her time with CFHI, Meghan has played a crucial role in the Atlantic Healthcare Collaboration for Innovation and Improvement in Chronic Disease (AHC), the INSPIRED Approaches to COPD care collaborative and the ACE collaborative – she has tremendous expertise on what it takes to design and deliver a quality improvement collaborative. Meghan has done it all – working with faculty on curriculum design; supporting teams through the improvement process; leading collaborative communications and KT planning and development; managing collaborative partnerships – be they public (e.g., Canadian Frailty Network or the CEO-led Executive Committee in the AHC) or private (e.g., Boehringer Ingelheim Canada Ltd.) and informing the development of team/organizational and faculty/coaching agreements.

Discussion questions

1. From your perspective (researcher/clinician/decision-maker/trainee/patient) which innovations were most relevant to you and your stakeholder group?
2. How would this/these innovation(s) meet the needs in your region/community/context/jurisdiction?
3. What could you do to help support/implement these innovations in your community?

Panel of 12-Teams Leads

December 6th, 2:15 – 2:55

Panelists: Walter Wodchis (iCOACH, ON), Jenny Ploeg (ACHRU, ON), Jeannie Haggerty (IMPACT, QC), Eva Grunfeld (CanIMPACT)
Moderator: Moira Stewart (PACE in MM, ON)

Moira Stewart is a Distinguished University Professor Emeritus at the Centre for Studies in Family Medicine at Western University and formerly the Dr. Brian W. Gilbert Canada Research Chair in Primary Health Care Research. She is co-principal investigator of the PACE in MM Team. She has been a national leader in capacity building for research as the Principal Investigator of TUTOR-PHC, a CIHR-funded interdisciplinary primary health care research program.

Eva Grunfeld is a physician-scientist and Director of the Knowledge Translation Research Network, Health Services Research Program, at the Ontario Institute for Cancer Research. At the University of Toronto, she is the Giblon Professor and Vice-Chair (Research and Advocacy) at the Department of Family and Community Medicine, and a professor at the Institute of Health Policy, Management and Evaluation and the Dalla Lana School of Public Health. Her research focuses on evaluation and knowledge translation of cancer health services, covering the entire spectrum of cancer control activities.

Jeannie Haggerty holds the McGill Research Chair in Family and Community Medicine. Her domain of research is the measure of patient experience of patient-centered health care and measurement of access and continuity, and how these measures relate to changes in organizational and professional practices. She was the founding Scientific Director of the Québec Primary Healthcare Knowledge Network, (Réseau-1 Québec) and is Scientific Director of the McGill Practice-Based Research Network.

Jenny Ploeg is a Full Professor in the School of Nursing, Faculty of Health Sciences, and associate member in the Department of Health, Aging and Society, McMaster University. She is co-director of the Aging, Community and Health Research Unit, funded by the CIHR CBPHC Signature Initiative. The research unit is focused on development and evaluation of innovative interventions to optimize aging at home among older adults with multiple chronic conditions and to support their family caregivers.

Walter Wodchis is Professor at the Institute of Health Policy, Management and Evaluation at the University of Toronto and Research Chair in Implementation and Evaluation Science at the Institute for Better Health, Trillium Health Partners. His studies examine the complex needs of high cost patient groups, the implementation of integrated care programs to address those needs, and evaluations for a number of integrated care programs in Ontario.

Discussion questions

1. What would the interaction and KT strategy between PIHCIN and 12-Teams look like from your perspective?
2. What role do the research teams play in the spreading and scaling innovations?
3. Building on your experience with the 12-Teams and CBPHC research, what are your recommendations for building from past work and looking at the future?

Panel of PIHCIN Leads

December 6th, 3:30 – 4:10

Panelists: Kevin Chan (clinician, NL), Lynne Mansell (patient-partner, AB), Victoria Schuckel (decision-maker, BC)

Moderator: Onil Bhattacharyya ((co-chair, PIHCIN National Leadership Council, clinician ON)

Onil Bhattacharyya is the Frigon Blau Chair in Family Medicine Research at Women's College Hospital. He practices family medicine and is an Associate Professor in the Department of Family and Community Medicine and the Institute of Health Policy, Management and Evaluation at the University of Toronto. He has been a Harkness Fellow in Health Care Policy at the Commonwealth Fund in New York City and a Takemi Fellow at the Harvard School of Public Health. He is the national co-chair of the SPOR PIHCI Network, focused on developing and scaling new models of care for people with complex needs across jurisdictions.

Kevin Chan is the Chair of Pediatrics at Memorial University of Newfoundland and Clinical Chief of Children's Health at the Janeway Children's Health and Rehabilitation Centre in St. John's, Newfoundland where he also works as an emergency physician. He is the clinician lead for the Newfoundland and Labrador PIHCI Network (PRIIME). His current work focuses on global health, social pediatrics, navigating the healthcare system and healthcare economic analysis.

Lynne Mansell lives in Edmonton Alberta and is a member of the Alberta PIHCN family panel. She also serves as a Patient Advisor on the National Leadership Council of PIHCIN and is co-chair of its Patient Engagement Task Force. Her professional background is pharmacy and health management. She is mostly retired from Alberta Health Services, after a long career in seniors' health, still working as a senior consultant, Accreditation Canada surveyor and on the board of the Brain Care Centre in Edmonton. She was a caregiver for many years for her mother who had dementia and is now experiencing some of the challenges of aging herself and enjoying being a grandmother of three.

Victoria Schuckel is Executive Director, Research and Innovation, at the BC Ministry of Health, currently on a special assignment to increase research support to provincial primary and community care reform implementation activities. She is the MOH Project Lead for the BC SPOR SUPPORT Unit and for the Academic Health Science Network and has been a champion of the BCPHCRN since its inception.

Discussion questions

1. What are the opportunities for the PIHCIN to build from and spread the work of the 12-Teams? How can the PIHCIN take these ideas and innovations and move them forward?
2. What knowledge from the 12 teams work could be further spread by PIHCIN?
3. What should be the building blocks of the 12-Teams/PIHCIN KTE strategy?

Panel of Patient and Clinician Partners

December 7th, 9:05 – 9:45

Panelists: Karina Prevost (patient-partner, QC), Nancy Schneider (patient-partner, SK), Cory Neudorf (clinician, SK), Fred Burge (clinician, NS)
Moderator: Alan Katz (iPHIT, MB)

Alan Katz is a family physician and Health Services Researcher in Winnipeg Manitoba. He is a past research director in the Department of Family Medicine and currently serves as the Director of the Manitoba Centre for Health Policy. He built a partnership with the First Nations Health and Social Secretariat of Manitoba to launch the iPHIT CBPHC team grant.

Karina Prevost has a large spectrum of experiential knowledge of living with a sickness. Being born with Cystic Fibrosis more than 40 years ago, she navigated her whole life through the Quebec heath care system where she received extensive and specialized care. In 2014, she was the privileged recipient of a double lung transplant. Since 2014, she became a patient partner with the Quebec SPOR SUPPORT unit and different research teams as well as a patient trainer with the Université de Montréal. She was also Quebec's Provincial Director of the Canadian Transplant Association and is currently a patient co-lead for the QC PIHCI Network.

Nancy Schneider is co-chair of the CanIMPACT Patient Advisory Comittee. Nancy was diagnosed with genetic breast cancer at age 36, and had a double mastectomy as well as reconstructive surgery. After intensive chemotherapy she has enjoyed twenty two years of good health. Nancy worked rurally as an Executive Director for the Government of Alberta. She is an advocate of rural delivery of medical treatments, education and community supports. Nancy is retired and resides in northern Saskatchewan.

Fred Burge is a Professor of Family Medicine and Community Health and Epidemiology at Dalhousie University in Halifax. His research interests lie in health services research in primary healthcare and particularly improving primary care of those with advanced illness. He is co-lead of the Collaborative on Research in PHC (CoR-PHC), an interfaculty research initiative at Dalhousie University and is the science lead of BRIC-NS, Building Research for Integrated Primary Healthcare, the Nova Scotia CIHR SPOR PIHCIN.

Cory Neudorf is the Saskatoon area Lead Medical Health Officer with the Saskatchewan Health Authority, and Associate Professor at the University of Saskatchewan. He is a fellow of the Royal College of Physicians and Surgeons of Canada with Certification in the specialty of Public Health and Preventive Medicine. He has held various leadership roles in Public Health at the national level in Canada. He is the coordinator of the Urban Public Health Network of Canada and the clinical lead for the Saskatchewan SPOR – PIHCIN.

Discussion questions

1. What have been the key learnings/experiences for you about your role, during your work with the 12-Teams or PIHCIN research teams?
2. Reflecting on yesterday's discussions, what have been your learnings about how you could be involved in KTE?

Facilitated Small Table Discussion – Day 2

December 7th, 10:00 – 10:50

Moderators: Sabrina Wong (Chair), William Hogg (PIHCI Network Coordinating Office)

Sabrina Wong is a Professor at UBC School of Nursing and Centre for Health Services and Policy Research. She is a nurse, chair of the CBPHC 12-Teams common indicators working group, and co-chair of the SPOR PIHCI Network. She also is the co-chair of Primary Care Sentinel Surveillance Network and a principal investigator of the CIHR-funded TRANSFORMATION study. Her research examines the organization and delivery of health care services within the context of primary health care. Her work contributes to informing practice and system level interventions that seek to decrease health inequalities among Canadian residents, including people who face multiple disadvantages in accessing and using the health care system such as those who have language barriers and live in poverty.

William Hogg is a professor and the Senior Research Advisor at the Department of Family Medicine, University of Ottawa and interim executive director of the SPOR PIHICN national coordinating office. He recently served on the board of directors of the College of Family Physicians of Canada (CFPC) and chaired the CFPC Section of Researchers. He was President for the North American Primary Care Research Group (NAPCRG) and recent Chair of the Committee to Advance the Science of Family Medicine. His research centres on how to best deliver primary care services to patients. As a principal investigator of the TRANSFORMATION STUDY (funded by CIHR), he co-led the development of survey tools now used to measure and compare primary care performance across provinces.

Discussion questions

1. What should be the elements of the KTE strategy?
2. How should the strategy be implemented? Who should implement it?
3. What should the final products/toolbox of the work/innovations of the 12-Teams look like?

Panel of Decision Makers

December 7th, 11:05 – 11:50

Panelists: Marcia Thomson (MB), Denis Roy (QC), Lynn Edwards (NS)
Moderator: Linda Piazza (CFHI)

Denis Roy is currently the vice president of Science and Clinical Governance at INESSS (Institut national d'excellence en santé et en services sociaux / Institute for Excellence in Health and Social Services). INESSS's mission is to promote clinical excellence and the efficient use of resources in the health and social services sector. Dr. Roy specializes in public health.
His work history includes a series of leadership roles within the health environment, including that of vice president of Scientific Affairs at the Institut national de santé publique du Québec (Quebec's public health institute) and director of Information and Knowledge Management at the Montérégie health and social services agency.

Lynn Edwards is the Senior Director of Primary Health Care, Family Practice and Chronic Disease with the Nova Scotia Health Authority. Since the inception of the one provincial Health Authority in 2015, she has led the development of a provincial vision and plan for the primary health care system and continues to build a high performing team that works to transform primary health care in NS, while enhancing quality in the system.

Marcia Thomson has been an Assistant Deputy Minister with Manitoba's Department of Health, Seniors and Active Living since 2000. During this time, she also worked in a cross departmental role for several years with Health, Family Services and Consumer Affairs, as well as with Housing and Community Development. Currently, Marcia is responsible for the Division known as Mental Health and Addictions, Primary Health Care and Seniors. Marcia has had front line experience with interdisciplinary service delivery and supports the objectives of primary care and the coordination of service on behalf of patients, clients, families and caregivers.

Discussion questions

1. What have been the key learnings/experiences for you about your role, during your work with the 12-Teams or PIHCIN research teams?
2. Reflecting on yesterday's discussions, what have been your learnings about how you could be involved in KTE?
3. What structural or system-level supports can you provide in facilitating KTE and scale and spread?

Keynote Speaker

Tom Noseworthy

Moving towards a knowledge translation and exchange strategy

Tom Noseworthy, CM, MD, MSc, MPH, F.R.C.P.C., F.A.C.P., FCAHS
BC Academic Health Science Network
Chief Executive Officer

A critical care physician and graduate of the Harvard School of Public Health, Dr. Tom Noseworthy's record of leadership spans numerous health innovation, academic and health care delivery settings. He has previously served as Associate Chief Medical Officer for Alberta's Strategic Clinical Networks; head of the Department of Community Health Sciences in the University of Calgary's Faculty of Medicine; chair of Public Health Sciences at the University of Alberta; and CEO & President of the Royal Alexandra Hospital in Edmonton.

Tom is highly recognized for his numerous contributions to the field. He was appointed to the Order of Canada in 2007, has been named one of the "100 Physicians of the Century" in Alberta, and is a recipient of the Alberta Centennial Award. He received the Leadership Award while he was at the Royal Alexandra Hospital in Edmonton, where he was the CEO and President.

Background on the CBPHC Signature Initiative, the SPOR PIHCIN and the CBPHC Teams

CIHR's Community-Based Primary Health Care Signature Initiative

Community-based primary health care connects Canadians to the care they need to achive optimal health, and as such, is a crucial part of our country's health system. CBPHC research is about improving access to services, engaging patients as partners in their own care, and finding innovative new models to deliver better care. CBPHC is about using the very best research available to transform our health care system for the benefit of all Canadians. CBPHC connects Canadians to the care they need to support optimal health and help citizens lead healthier and active lifestyles in their neighbourhoods. CBPHC research is about helping people get the care they need, including prevention services. It is about improving access to services, engaging patients as partners in their own care, and finding innovative new models to deliver better care. CBPHC is about using the very best research evidence available to transform our health care system, for the benefit of Canadians.

In January 2012, the Government of Canada (CIHR) launched a CBPHC Roadmap Signature Initiative. The aim was to transform healthcare for the next generation by supporting improved delivery of appropriate, high-quality CBPHC to Canadians. As part of the large umbrella initiative, a number of over-arching funding tools were launched, each with their own objectives, including but not limited to:

CBPHC – 12 Innovation Team Grants whose objectives are to:

- Develop and compare innovative models for CBPHC across jurisdictions within Canada and/or internationally
- Identify the conditions and strategies that would be necessary for scaling-up innovative models of CBPHC if they are successful;
- Build inter-disciplinary and inter-professional capacity for the generation, synthesis and application of CBPHC research including training and mentoring
- Evaluate and improve the impact of Team innovations by reporting on a common set of outcome measures and collaborating to form the Patient-Oriented CBPHC Network; and
- Improve the competitiveness of CBPHC investigators by increasing the quantity and quality of funded applications and publications.

Embedded Clinician Researcher Salary Awards whose objectives are to:

- Contribute to generating a strong cadre of clinician researchers across the country that will play a role in transformative change and act as role models and mentors for a cadre of new health professional scientists.

SPOR Network in Primary and Integrated Health Care Innovations whose objectives are to**:**

- Foster a new alliance between research, policy and practice to create dynamic and responsive learning networks that develop, evaluate and scale up new approaches to the delivery of integrated and cost-effective services across and beyond sectors of health care; and contribute to improved health, health equity, and health system outcomes. The Network's overall goal is to support evidence-informed transformation and delivery of more cost-effective and integrated health care to improve clinical, population health, health equity, and health system outcomes

Applied Public Health Grants whose objectives are to:

- Focus on **programs of population health intervention research to promote health and health equity as it relates to CBPHC**. Population health interventions can include policy, programmatic and resource distribution approaches

New Investigator Salary Awards whose objectives are to**:**

- Support New Investigators in the area of CBPHC that have a primary focus on innovative models for chronic disease prevention and management in CBPHC and/or improving access to appropriate CBPHC for vulnerable populations.

SPOR PIHCIN

The Strategy for Patient Oriented Research Network in Primary and Integrated Health Care Innovations (SPOR PIHCI) involves 11 provincial and territorial networks funded as part of the Canadian Institutes for Health Research Community Based Primary Health Care (CBPHC) Signature Initiative. The PIHCI Network is meant to foster: alliances between practice, research and policy; learning healthcare systems; development, evaluation and scaling up of new approaches to the delivery of primary and integrated care; synergies in provincial and territorial investments in the transformation of CBPHC; and pan-Canadian and international competitive innovation in CBPHC.

There is a local member network in every Canadian province as well in the Northwest Territories. Each member network is co-led by clinical, research and policy leads. The National Leadership Council, composed of tripartite leads from across the country, identifies national research priorities and oversees the Network's research strategy. The Network Coordinating Office is responsible for facilitating the Network's research strategy, performance measurement and reporting, enhancing information exchange and collaboration across member networks and building international partnerships.

Since 2015, the PIHCI Network has supported 38 inter-jurisdictional research projects, which have involved over 500 collaborators and attracted more than 24 million dollars in funding from CIHR, provincial health research agencies, health ministries, regional health boards, and private foundations.

To learn more about the PIHCI Network, visit http://spor-pihci.com/

CBPHC 12-Teams and the Common Indicators Working Group

Team Composition: In year 1 of the funding, an indicator working group (chair and representatives from each of the teams) was formed. Together, the teams supported a research coordinator to facilitate their cross-team work.

Background: Initiated in 2012, as part of the Community Based Primary Health Care Signature Initiative, 12 Innovation teams were funded to undertake research that was programmatic, cross-jurisdictional and interprofessional by design.
In order to facilitate collaboration across the 12 teams, funding was embedded within each team that could only be spent on cross-team collaboration. Most of the funds were used to collect data on common indicators across the teams. Some of the funding was used for cross-team capacity building of trainees.

Goal: The goals for this cross-team work were to:

1) advance the science of comparative research;
2) examine the impact of community based primary health care (CBPHC) innovations on outputs (access to care, acceptability, comprehensiveness, coordination) and outcomes (effectiveness and health equity);
3) describe structures (e.g. governance, financing, etc.) and context that influence implementation, spread and scale-up of CBPHC; and
4) examine the impact of alternative models of chronic disease prevention and management in CBPHC on patient and system outcomes (e.g., health outcomes, cost, access, equity).

Target Population: The 12 CIHR funded CBPHC Innovation teams

Methods: Mixed methods using qualitative and quantitative data

Outcomes: The working group agreed upon a set of common indicators as well as an authorship process and guidelines for conducting cross-team studies. The common indicators endeavor has allowed for creation of some of the largest datasets in Canadian primary care settings; the 12 teams have the largest dataset on team functioning and quality of life and functional health status of patients in primary care. Completed cross-team projects include work documenting stakeholder (e.g., patients, decision-makers) engagement, efforts in trainee capacity building, lessons learned from working with Indigenous communities, contextual factors affecting their work, and strategies for scale and spread of CBPHC interventions.

TRANSFORMATION

Transforming CBPHC delivery through comprehensive performance measurement and reporting

Team Composition: Sabrina Wong (nominated principal applicant), co-principal investigators Sharon Johnston and Fred Burge, and the TRANSFORMATION team is comprised of health care providers, student trainees, and staff from our partner organizations across Ontario, Nova Scotia, and British Columbia. Team leads include: William Hogg, Ruth Martin-Misener, Jeannie Haggerty, and Kim McGrail. Our funders are the Canadian Institutes of Health Research and the Michael Smith Foundation for Health Research.

Background: A key part of improving the primary health care system is to measure how it performs. Measuring the performance of the primary health care system involves collecting, analyzing, and reporting information about how it carries out its functions and meets targets. TRANSFORMATION is a multi-provincial research project to refine and improve performance measurement of the primary health care system in Canada. The sites include: Fraser East, BC; Eastern Ontario, ON; and Central Zone, NS.

Goal: The goal of our research program is to improve both the science of performance measurement and the ways those results are reported to clinicians, decision-makers, and the public to encourage improvement within the system.

Target Population: Our target population includes primary care clinicians and patients, and decision-makers who can influence primary health care. We seek to determine what information is most important to each group and how it should be reported.

Methods: Four interrelated studies are being conducted to:
- Compare performance on primary health care measures and healthcare equity between regions;
- Examine regional policies and other contextual factors that may explain regional variation;
- Develop and evaluate an approach to pan-Canadian reporting of primary health care performance based on priorities and optimal reporting formats;
- Identify innovations of service delivery associated with better primary health care performance and healthcare equity

Data sources include case studies, health administration data, patient-citizen dialogues, and surveys completed by patients, clinicians, practice team members, and organizational leads.

Outcomes: When this research program concludes, we will have designed, implemented and tested an innovative approach to primary health care performance measurement and reporting that is relevant and credible to patients, clinicians, and decision-makers. The tools we create can be used by practices throughout Canada to ensure primary care delivery that is patient-centred, accessible, and focused on quality.

CanIMPACT

The Canadian Team to Improve Community-Based Cancer Care along the Continuum

Team Composition: The Canadian Team to Improve Community-Based Cancer Care along the Continuum (CanIMPACT) is a pan-Canadian group of researchers, primary care providers (PCPs), cancer specialists, patients and caregivers. The team members have expertise in epidemiology, biostatistics, knowledge translation, qualitative methods, and community-based pragmatic trials.

Background: Cancer patients rely on good coordination of care between their PCPs and cancer specialists throughout their cancer journey from diagnosis to survivorship. However, there are often problems of communication, continuity, and coordination of care that can lead to suboptimal care and anxiety for patients and their families, as well as inefficiency within the healthcare system.

Goal: The goal of CanIMPACT is to identify factors associated with poor continuity and coordination of cancer care in seven provinces, engage patients and caregivers, and develop an intervention aimed at improving care coordination for patients with cancer.

Target population: Patients, PCPs and cancer specialists.

Methods: The CanIMPACT program of research is divided into two phases. In Phase 1, we conducted mixed methods research including: 1) analysis of administrative health data; 2) qualitative interviews with patients, PCPs, and cancer specialists; 3) focus groups with primary care teams focusing on personalized medicine; 4) an environmental scan and systematic review of initiatives designed to improve care integration. We then conducted a consultative workshop to obtain recommendations from stakeholders about the intervention for Phase 2. The stakeholders voted for eConsult as the most practical and scalable approach, with the aim of facilitating communication and coordination of care between PCPs and cancer specialists. Phase 2 involves the implementation of a cancer-specific modification of eConsult (referred to as eOncoNote) in two jurisdictions (a randomized controlled trial in the Ottawa region, and an implementation study in Newfoundland and Labrador). We are also examining the use of eConsult for personalized medicine.

Outcomes: From Phase 1, we published 15 papers in two journal issues dedicated to CanIMPACT, including Canadian Family Physician and Current Oncology. In Phase 2, 113 patients (61%) are currently enrolled in the Ottawa trial. The Newfoundland and Labrador study launched recently and 8 patients (20%) are enrolled so far.

ACCESS-MH

Atlantic Canada Children's Effective Service & Strategies in Mental Health

Investigators: Marshall Godwin, Rick Audas Memorial University of Newfoundland, Jacques Richard, Scott Ronis, Kate Tilleczek, Michael Zhang, Bronwyn Davies, Colleen Simms, Roger Chafe, Olga Heath, Don McDonald, William Montelpare, Weiqui Yu, Reid Burke, Julie MacDonald.

Team: Our project team includes primary health care physicians, policy makers and researchers from across Atlantic Canada with the aim to compare the experiences and outcomes of individuals across four different jurisdictions.

At Issue: Child and youth mental health – Children and youth with mental health and oppositional behavioural problems and their caregivers are among the most vulnerable members of Canadian society. Their conditions are complex and require an interdisciplinary and inter-sectoral approach to provide treatment and care.

Aim: Support improved access to, and experience of, child/youth mental health services in Atlantic Canada

Focus: Five highly prevalent or serious child and youth mental health conditions: Autism Spectrum Disorder (ASD), Conduct Disorder, Eating Disorders, Anxiety and Depression

Jurisdiction: Atlantic provinces

Approach: We take a broad social sciences approach to each of the these conditions, using Patient Journeys/Process Mapping, Operations Research and statistical analysis of large and complex databases to develop a comprehensive overview of how children and youth access and experience treatment and services across both the health and education (and potentially other) systems. Best-practice guidelines and a series of tools for service providers will be developed to facilitate better management and outcomes of this vulnerable population.

Highlights: Created a website, conducted an environmental scan of general mental health services in Atlantic Canada, developed an innovative patient journeys approach to interviewing that incorporates semi-structured interview questions with a visual mapping process and photo-voice elements. A parallel Francophone Patient Journeys project has been established in New Brunswick. Partnered with SEAK (Socially and Emotionally Awards Kids Project) to host the Atlantic Summer Institute on Healthy and Safe Communities symposium Investing in Child and Youth Mental Health – Mobilizing Atlantic Canadians for a Positive Future. The symposium brought together key stakeholders and decision makers in education, justice and health sectors from across the Atlantic provinces around the issue of addressing child and youth mental health. Conducted a needs assessment and produced a report for the Autism Society of NL called,

Outcomes: Needs Assessment Survey Autism Community, Newfoundland and Labrador. The team has produced numerous publications, conferences presentations/posters and various team members have been interviewed.

CircHSIT

The Circumpolar Health System Innovation Team

Team Composition: Researchers in public health, health policy and management, architecture, and geography from 4 universities (Alberta, Toronto, McGill, Manitoba); clinicians and decision-makers from health agencies/ministries in the Northwest Territories (NWT), Nunavut and Labrador; 2 northern-based research centres in Yellowknife and Iqaluit; and guidance from an elder council.

Background: There are severe challenges to health care delivery in Canada's North despite substantially higher per capita expenditure. Health disparities continue to exist between north and south, and within the north, between Indigenous and non-Indigenous people.

Objectives:

- Review and compare innovative PHC models;
- Develop northern health system performance metrics;
- Plan, implement and evaluate PHC interventions and technology innovations;
- Design and adapt culturally and environmentally responsive health architecture and infrastructure;
- Build and sustain northern capacity in planning and evaluation;
- Foster respectful relationships and collaborations with communities and decision makers in health care;
- Train the next generation of northern-based researchers and practitioners in PHC-relevant research.

Target Population: Residents of Canada's northern regions and comparable remote settings in circumpolar regions and elsewhere where there are small, scattered and isolated communities.

Methods: CircHSIT focuses on regions, populations and health systems. CircHSIT's 21 projects fall under 4 themes: (1) comparative health policies and health system performance; (2) emergency response and search-and-rescue services; (3) delivery of primary care in the communities; (4) culturally responsive health architecture and infrastructure. Multiple qualitative and quantitative methods were used. Projects were guided by Indigenous values and responsive to priorities of northerners.

Outcomes: While no single major innovation has been adopted and scaled up, we filled important evidence gaps, and established the technical feasibility and community acceptability of some interventions. Our major achievement is building and consolidating relationships with communities, organizations and governments, with modest successes in influencing policy and practice. Regarding capacity building, we supported 9 graduate and postdoctoral trainees and strengthened the two partner northern-based research centres with both directors appointed faculty members. CircHSIT helped develop the SPOR-PIHCIN network in NWT which will continue some of the research.
To date, 25 journal articles have been published. Four major international conferences and workshops were organized. Media coverage of research projects include CBC, *Globe and Mail*, *National Geographic*, and *Nunatsiaq News*.

iPHIT

Innovation in Community-based Primary Healthcare Supporting Transformation in the Health of First Nations and Rural/remote communities in Manitoba

Core iPHIT Team Composition: Alan Katz, Kathi Avery Kinew, Josée Lavoie, Wanda Philips, Stephanie Sinclair, Grace Kyoon-Achan, Naser Ibrahim. Project Partners consisted of the following 8 First Nations communities: Fisher River Cree Nation, Nelson House Northlands FN, Berens River, Cross Lake, Pinaymootang FN, Ebb and Flow, Birdtail Sioux.

Background: We focused on community-based primary healthcare in First Nations (FN) communities. Previous work had highlighted a grave need for CBPHC transformation due to multiple challenges in providing care such as the small size of communities, geographical isolation and the operation of healthcare services funded by and operating across multiple jurisdictions: federal, provincial, regional health authorities (RHAs), private for profit and self-governing FN communities. The complex multi-jurisdictional system for CBPHC funding and delivery in FN communities has failed to clearly define the specific responsibilities of each jurisdiction and fails to address the impacts of colonization and the residential school system on primary care in these communities.

Goals:

- Describe CBPHC service provision in FN communities.
- Explore the understanding of FN living on reserve of primary healthcare
- Compare the models of governance, community engagement, strengths and CBPHC service delivery across communities
- Build collaborative relationships with communities and decision-makers to support the implementation of CBPHC innovations

Target Population: eight First Nation rural/remote communities in Manitoba

Methods: We employed a mixed method and multi-study approach including:

- Qualitative community-based participatory research to explore local perspectives of primary care;
- Retrospective longitudinal studies using administrative data to explore hospitalizations for ambulatory care sensitive conditions over time;
- Cross-sectional surveys describing current models of CBPHC in FN communities; and
- Surveys to further understand mental health in FN communities.

Outcomes:

1. We implemented a community centered engagement approach with our FN partners through the entire research project from data collection, analysis and interpretation of results.
2. We returned the data to the communities in bi-annual community workshops.
3. We supported communities in implementing innovations based on the results
4. We brought participants from all 8 communities to annual research workshops with decision and policy makers from provincial and federal departments.
5. We have either supported or documented local initiatives in our partner First Nation communities to move toward in making system improvement or unique arrangements to improve access to PHC in their respective communities.

FORGE AHEAD

TransFORmation of IndiGEnous PrimAry HEAlthcare Delivery Research Program

Team Composition: FORGE AHEAD has a multi-disciplinary program team across seven provinces which include: First Nations community representatives, Indigenous and allied healthcare providers, academic researchers, and policy/decision makers.

Background: FORGE AHEAD is a five-year program aimed at developing and evaluating community-driven, culturally relevant, primary healthcare models that enhance chronic disease management and appropriate access to available services in First Nations communities across Canada. The program ensures culturally appropriate implementation and integrates knowledge translation by involving relevant stakeholders throughout the entire program. The research program incorporated a series of 10 inter-related and progressive projects designed to foster community-driven initiatives with type 2 diabetes mellitus as the action disease. Projects include: community & clinical readiness consultations, development of a diabetes registry & surveillance system, quality improvement activities, cost-analysis, and development of a scale-up toolkit.

Goals: The main goal of the FORGE AHEAD research program is to develop and evaluate community-driven, culturally relevant primary healthcare models that enhance chronic disease management and appropriate access to available services in First Nations communities across Canada.

The FORGE AHEAD research program has five main objectives:

1. Assess the current healthcare delivery, funding models, and best practices used in First Nations communities in Canada.
2. Assess community and clinical readiness to address and adopt chronic disease care.
3. Enhance patient access to available community resources for chronic disease care.
4. Implement and evaluate community and clinical quality improvement initiatives, including a cost analysis of activities to improve chronic disease management.
5. Develop sustainment strategies and a scale-up toolkit to improve chronic disease management in First Nations communities.

Target Population: Community members and clinical teams providing prevention and clinical management healthcare services to patients with type 2 diabetes.

Methods: Mixed-methods analysis using case-study methodology, and costing analysis potentially looking at health care payer and societal perspectives.

Outcomes: Changes in clinical outcomes and process measures; local-level capacity building; linkages between readiness change and clinical outcomes/process measures; scalability of the FORGE AHEAD quality improvement program; and improved collaboration between prevention and clinical management programs and services at the community level.

LHIV

The Living with HIV Innovation Team

Team Composition: The LHIV Innovation team was composed of five Principal Investigators, 28 Co-investigators, and 14 Knowledge Users including three Community Scholars across three provinces (Manitoba, Ontario and Newfoundland and Labrador).

Background: HIV has become a chronic condition and now people living with HIV (PLWH) are aging, often on multiple medications for multiple conditions. The best care for patients such as these uses a community-based approach, with family physicians being fully involved. However, health services in Canada have not kept pace with patients' needs, and there are gaps in care.

Goals: Our first goal was to understand the causes of gaps in HIV care by researching where care is delivered, who delivers it, and how. Using this foundation, our second goal was to show that most HIV care can be shifted to the primary healthcare community while maintaining essential ties to specialist care.

Target Population: There are an estimated 75,000 people living with HIV in Canada. The majority have been diagnosed and are in treatment.

Methods: We used the Expanded Chronic Care Model to understand how principles of chronic disease management can be applied to PLWH. We constructed provincial cohorts of PLWH, and conducted surveys and interviews with clinics providing care for PLWH. We introduced an electronic-consultation system to improve access to specialist care. We are conducting a SPOR-funded patient engagement project, "Citizen-Informed HIV Health System Change," with the McMaster Health Forum. We engaged patients throughout our research, and developed a Community Scholar program to make that possible.

Outcomes: We put together a national team of researchers to determine how HIV care is delivered and who delivers it. We developed comprehensive indicators of the quality of care provided to PLWH. We found that family physicians play an important role in providing care, and that HIV care in Canada shows many of the best practices in chronic disease care. However, there are some gaps, such as in mental health care and in supporting PLWH to manage their conditions themselves. We improved the primary care-HIV specialist interface. Citizen panels will allow patient values and preferences about HIV care to directly impact health care policy.

IMPACT

Innovative Models Promoting Access-to-Care Transformation

Team Composition: IMPACT is an international collaboration with three sites in Canada (Quebec, Ontario, Alberta) and three sites in Australia (New South Wales, Victoria, South Australia). Each site is headed by a research lead and a local coordinator.

Background: Canada and Australia are grappling with the challenge of making healthcare more affordable, inclusive and fair. IMPACT is a participatory action research program bringing PHC researchers together with communities of practice to identify, refine and trial best practice innovations to improve access to primary healthcare (PHC) for vulnerable populations.

Goals: The IMPACT program has four objectives: 1) establish a network of partnerships between PHC researchers, providers and consumers, 2) identify organisational interventions to improve access to appropriate care for vulnerable populations, 3) support the selection, adaptation and implementation of interventions; and 4) evaluate the effectiveness and efficiency of the interventions and the IMPACT program.

Target Population: Vulnerable populations were broadly defined as groups whose demographic, geographic, economic and/or cultural characteristics impede or compromise their access to PHC services.

Methods: Local innovation partnerships (LIPs) involving decision makers, researchers, clinicians and members of vulnerable communities were developed in each region. Priority access issues were identified using deliberative processes. Scoping reviews informed intervention selection and rapid realist reviews supported the adaptation and implementation of selected interventions. Mixed-methods analyses are used to evaluate interventions at the local and international levels. Longitudinal interviews with researchers and non-researcher partners were conducted in all regions to assess the IMPACT approach.

Outcomes: Six interventions were implemented:

1) in Quebec, volunteer guides discussed health and social needs with unattached patients before their first appointment;
2) in Ontario, lay bilingual navigators supported individuals to reach community-based PHC resources;
3) in Alberta, pop-up health and social service events brought services into an under-served community;
4) in New South Wales, a web portal provided health information and service referrals to patients with type 2 diabetes;
5) in South Australia, the team partnered with the Dandelion project supporting residents of Eldercare Residential Aged Care Facilities; and
6) in Victoria, a health brokerage service matched patients from social service organisations to PHC providers.

C-ChAMP

Canadian chronic disease awareness and management program

Team Composition: Janusz Kaczorowski (NPI, Université de Montréal), Gina Agarwal (McMaster University), Lisa Dolovich (McMaster University), Marie-Thérèse Lussier (Université de Montréal), Tamara Daly (York University)

Background: To combat the chronic diseases epidemic, the Cardiovascular Health Awareness Program (CHAP) addresses common risk factors by raising awareness of relevant health and community resources available to encourage self-care and appropriate management of chronic disease. According to evidence produced to date, CHAP can identify adults with undiagnosed or uncontrolled high blood pressure, significantly reduce participants' blood pressure, optimize drug regimens, and reduce cardiovascular-related hospitalization rates and health care system costs in the communities where it is implemented.

Goals: The C-ChAMP team has been actively working toward reaching its goals of adapting the CHAP to different populations and settings, and working toward identifying the optimal conditions for the program's sustainability and scalability.

Target Population: CHAP was originally developed for seniors living in small to medium-sized communities. Current work has expanded its reach to younger adults (Laval in Quebec, and Ottawa and Markham in Ontario), immigrant communities (South-Asians in Markham, Ontario), older adults living in subsidized housing (Niagara region in Ontario and the Montérégie region in Quebec), and individuals in large urban and suburban communities in Alberta, Ontario and Quebec.

Methods: We are currently conducting a pragmatic randomized controlled trial where we deliver CHAP to seniors in subsidized housing in Ontario and Quebec. We also conducted a series of projects to test the feasibility of implementing the program in various settings: interdisciplinary primary care clinics, in CLSCs (Quebec), in community pharmacies, in community organizations, libraries and places of worship for a South-Asian community.

Outcomes: The current RCT wants to assess whether CHAP for seniors living in social housing can optimize the use of health services (hospitalizations, ER visits, 911 calls, etc.). It will also look at quality of life (QoL), QALYs, cost consequences and health experience perceptions. Other projects demonstrated that community-based programs such as CHAP can be adapted and implemented in various settings, include various risk assessment tools (cardiovascular disease, diabetes, atrial fibrillation), complement primary care practices, assist in developing strong links with community pharmacists and provide accessible cardiovascular health management services to patients.

ACHRU

Aging, Community and Health Research Unit

Team Composition: Ploeg, J., (NPA), M. Markle-Reid (PI), Akhtar-Danesh, S. Baptiste, D. Bender, W. Duggleby, A. Emili, S. Feldman, D. Forbes, K. Fraser, A. Gafni, R. Ganaan, A. Garnett, S. Ghosh, L. Griffith, A. Gruneir, S. Hirst, S. Kaasalainen, J. Keefe, N. Matthew-Maich, C. McAiney, C. Patterson, S. Peacock, Sadowski, J. Triscott, R. Upshur, R. Valaitis, A. Williams

Background: New models of health care are needed to address the complex health and social care needs of community-living older adults with multiple chronic conditions.

Goals: The goal of the ACHRU is to work together with older adults with multiple chronic conditions and their family caregivers to promote optimal aging at home. To this end, ACHRU designs, evaluates and translates new and innovative interprofessional community-based interventions to improve access to health care, health-related quality of life, and health outcomes in this population, while reducing costs. One of the interventions designed and evaluated by ACHRU was a Community Partnership Program (ACHRU CPP) that involved a client-driven, customized self-management program for older adults with diabetes and multimorbidity. This program integrates primary, home and community care to improve Quadruple Aim outcomes: 1) population health, 2) patient/caregiver experience, 3) provider experience, and 4) cost.

Target Population: Older adults aged 65 years and older who have diabetes and at least one other chronic condition, living in the community, and their family/friend caregivers

Methods: We used a pragmatic randomized controlled trial in four sites in Ontario and three sites in Alberta.

Outcomes: The Ontario trial resulted in improved client outcomes: improved health-related quality of life and self-management, and decreased depressive symptoms at no additional cost, from a societal perspective.

We have received funding from the Canadian Institutes of Health Research, Strategy for Patient-Oriented Research (SPOR) - Primary and Integrated Health Care Innovations (PIHCI) Network: Programmatic Grants, Diabetes Action Canada, and the McMaster Institute for Research on Aging to test this intervention in diverse primary care settings, with diverse populations and across jurisdictions, assess the potential scalability of the program, and plan for scale-up.

PACE in MM

Patient-Centered Innovations for Persons with Multimorbidity

Team Composition: The team is predominantly a Quebec-Ontario (QC-ON) bilingual partnership with involvement of three additional provinces: British Columbia (BC), Manitoba (MB) and Nova Scotia (NS). The 20 Team members represent nine disciplines. The two named decision-makers are leads of their regional health authority and are highly respected for their innovations.

Background: The team proposed innovations in Chronic Disease Prevention and Management (CDPM) that reoriented care from a single disease focus to a multimorbidity focus; centred on not only disease but also the patient in context; and realigned the health care system from separate silos to coordinated collaborations in care. These innovations were built on the current realities of naturally occurring initiatives in CDPM and Primary Care reform.

Goals: The overall goal was to improve patient-centered care for patients with multimorbidity. Objective 1 was to identify factors responsible for success or failure of current CDPM initiatives linked to the PC reform, by conducting a Realist Synthesis of their quantitative and qualitative evaluations. Objective 2 was to transform consenting CDPM initiatives identified in Objective 1, by aligning them to promising innovations on patient-centred care for multimorbidity patients, and testing these new innovations in at least two jurisdictions and compare among jurisdictions. Objective 3 was to foster the scaling up of innovations informed by Objective 1 and tested in Objective 2.

Target Population: The target population patients with 3+ chronic conditions.

Methods: The research was conducted with one selected transformed program in QC (DIMAC02) and one in ON (TIP/IMPACT Plus). Two parallel randomized controlled studies with mixed methods (one in QC and one in ON) compared two groups of the target population: the intervention group; and the control group. The patient outcome measures included: the Health Education Impact Questionnaire (HeiQ), the Self Efficacy questionnaire, and the Quality of life questionnaire. The team assisted in the transformation through face-to-face meetings with each initiative.

Outcomes: The QC innovation has been spread to another region (Bas-Saint-Laurent). The ON innovation has spread throughout Toronto, ON. NS has experienced several workshops and collaborates with the team on a PIHCIN grant based on Objective 1.

iCOACH

Implementing Integrated Care for Older Adults with Complex Health needs

Team composition: Our team includes over 30 member from three jurisdictions (Quebec, Ontario and New Zealand). The study team members include experts representing disciplines of health policy, organizational behavior and change management, health economics, quality and performance measurement, epidemiology, ethics, and includes clinical expertise in primary health care, mental health, geriatrics, nursing, physiotherapy, home and social care, or are decision-makers with leadership roles in implementing changes in the health system. The team is enhanced by engagement with patient and family carers, academic consumer advocates and indigenous advisors.

Background: Ideal models of integrated CBPHC (ICBPHC) are comprehensive, person-oriented, inclusive of carers and family, health promoting, strengths-based, and without a singular disease focus. They also address problems of inequity in health and risk across population sub-groups. Specific cases of ICBPHC have been implemented internationally, including in New Zealand and in some of Canada's provinces, however the spreading and scaling up of these models of care is generally weak and many initiatives have proved unsustainable. It is therefore important to gain a better understanding of what makes ICBPHC possible and successful in different contexts, and to develop strategies for scaling them up to other populations or implementing them in other jurisdictions.

Goals: The final output of the program will be a systematic guide to the design, implementation and scaling-up of innovative models of ICBPHC.

Target population: Older adults with co-existing, multiple chronic conditions, including socially and economically vulnerable populations.

Methods: The core research program involves multi-method case studies of each of the selected exemplar models encompassing macro (system), meso (organization and provider) and micro (patient and family carer) levels. Attention is given to the attributes and workings of each model, the context in which it was developed, and the context into which a successful model might be spread.

Outcomes: Our first outcome is a one-day masterclass on implementing integrated care which was launched as a pre-conference workshop at the International Federation of Aging conference in 2018. Future editions are planned. The course materials will be published as a guide to the design, implementation and scaling-up of innovative models of ICBPHC.

List and synthesis of abstracts

List of abstracts

Abs No.	Group	Team	Title	First Author
1	**12-Teams**	Cross-Team	Cross-jurisdictional research in Canada: developing common indicators across 12 CBPHC teams	Sabrina T. Wong
2	**12-Teams**	Cross-Team	Contextual Factors Influencing Innovation Implementation in Community-Based Primary Health Care	Jenny Ploeg
3	**12-Teams**	Cross-Team	The CBPHC Innovation Teams' patient and stakeholder engagement experience	Claire Kendall
4	**12-Teams**	Cross-Team	Engaging with Indigenous Communities: Lessons from three CBPHC Teams in Canada	Michael E. Green
5	**12-Teams**	Cross-Team	Describing the capacity building activities and cross-team outcomes for the 12 CBPHC Teams.	Kathryn Nicholson
6	**12-Teams**	Cross-Team	Potential for scale up of evidence-based innovations in community-based primary health care	Ali Ben Charif
7	**12-Teams**	Cross-Team	Applying commonly collected data by CBPHC Teams to study the MM20 multimorbidity questionnaire.	Kathryn Nicholson
8	**12-Teams**	Cross-Team	Measuring Team Functioning in Canadian Primary Care Settings	Sabrina T. Wong
9	**12-Teams**	Cross-Team	Comparative analysis of EQ-5D data collected as part of common indicators by the 12-Teams	Alan Katz
10	**12-Teams**	TRANSFORMATION	Measuring and reporting what matters: regional portraits of patients' medical homes	Sabrina Wong
11	**12-Teams**	TRANSFORMATION	Moving towards a learning healthcare system: stakeholder feedback on implementing regional performance portraits	Ruth Martin-Misener
12	**12-Teams**	TRANSFORMATION	Practice characteristics associated with regional variation in primary care performance across three Canadian provinces.	Sharon Johnston
13	**12-Teams**	TRANSFORMATION	Moving towards a learning healthcare system: stakeholder feedback on implementing regional performance portraits	Ruth Martin-Misener
14	**12-Teams**	CanIMPACT	Implementing eOncoNote in Two Jurisdictions in Canada	Bojana Petrovic
15	**12-Teams**	CanIMPACT	Patients & Family Caregivers as Co-creators of CanIMPACT's Cancer Journey Visual Synthesis Maps	Nancy Schneider

Abs No.	Group	Team	Title	First Author
16	**12-Teams**	CanIMPACT	It Takes a Village to Understand Inter-Sectoral Care Using Administrative Data	Patti Groome
17	**12-Teams**	ACCESS-MH	Common Indicators of Primary Health Care - NL	Richard Audas
18	**12-Teams**	CircHSIT	From Drugs to Drones: two trainee projects from CircHSIT	Kue Young
19	**12-Teams**	CircHSIT	Communities of practice in the Northwest Territories. A model for patient engagement in health system transformation.	Kimberly Fairman
20	**12-Teams**	iPHIT	Beyond Care: Validating a First Nations (FN) mental wellness framework.	Grace Kyoon-Achan
21	**12-Teams**	iPHIT	Integrating Indigenous Traditional Health Knowledge in the Health System: Issues, Opportunities and Recommendations of Manitoba First Nations	Grace Kyoon-Achan
22	**12-Teams**	iPHIT	Where the dice stops: understanding and confronting racism and discrimination in community-based healthcare in Manitoba First Nations communities	Grace Kyoon-Achan
23	**12-Teams**	FORGE AHEAD	Taking Community Context into Consideration: FORGE AHEAD Clinical Readiness Consultation Tool (CRCT)	Mariam Naqshbandi
24	**12-Teams**	FORGE AHEAD	First Nations Diabetes Registry and Surveillance System: A Critical QI Companion Tool	Mariam Naqshbandi
25	**12-Teams**	FORGE AHEAD	The Role of Local Champion in Advancing QI Research and Program Objectives	Harsh Zaran
26	**12-Teams**	FORGE AHEAD	QI Workshops: Connecting QI Teams across Jurisdictions	Harsh Zaran
27	**12-Teams**	LHIV	Primary health care for people living with HIV	Claire E Kendall
28	**12-Teams**	LHIV	Clinical cohorts in Manitoba and Newfoundland and Labrador	Esther S Shoemaker
29	**12-Teams**	LHIV	CBPHC's role in supporting the expansion of eConsult BASE™ across Canada	Claire E Kendall
30	**12-Teams**	IMPACT	The IMPACT Approach	Cathie Scott
31	**12-Teams**	IMPACT	Outcomes of Interventions to Improve Access to Primary Health Care for Vulnerable Populations	Jeannie Haggerty
32	**12-Teams**	IMPACT	Data collection in interventions for vulnerable populations: Balancing rigour & adaptability	Jillian Barnes
33	**12-Teams**	IMPACT	Navigation to Improve Access to Primary Health Care for Vulnerable Population	Darene Toal-Sullivan

Abs No.	Group	Team	Title	First Author
34	**12-Teams**	IMPACT	A case study of an innovative multi-stakeholder partnership in intervention development: Ottawa Local Innovation Partnership (LIP)	Simone Dahrouge
35	**12-Teams**	IMPACT	Cross-jurisdictional collaboration for an intervention-driven research program	Émilie Dionne
36	**12-Teams**	IMPACT	Cross-sectoral collaboration for participatory action research in primary healthcare	Stephanie Perrin
37	**12-Teams**	IMPACT	Group facilitation: a winning strategy for stakeholder engagement	Mélanie Ann Smithman
38	**12-Teams**	C-ChAMP	Pragmatic Cluster Randomized Controlled Trial of the Cardiovascular Health Awareness Program (CHAP) in Subsidized Social Housing Research Protocol	Gina Agarwal
39	**12-Teams**	C-ChAMP	Finding the optimal conditions to scale up and sustain the Cardiovascular Health Awareness Program	Janusz Kaczorowski
40	**12-Teams**	C-ChAMP	Comparing Demographics and Risk Factors Profiles of Older Adults in Social Housing in Ontario and Quebec	Gina Agarwal
41	**12-Teams**	C-ChAMP	Roles of volunteers in program delivery and evaluation of a cardiovascular awareness program	Marie-Thérèse Lussier
42	**12-Teams**	C-ChAMP	The Cardiovascular Health Awareness Program's Unique Partnership with a Canadian Humanitarian Charitable Organization	Gina Agarwal
43	**12-Teams**	ACHRU	Engaging Stakeholders in the Evaluation of Complex Community-Based Interventions: ACHRU	Maureen Markle-Reid
44	**12-Teams**	ACHRU	ACHRU Community Program Improves Quality of Life and Self-Management in Older Adults with Comorbidity	Jenny Ploeg
45	**12-Teams**	PACE in MM	Benefits to Patients, Family Physicians, and TIP Healthcare Team members	Judith Belle Brown
46	**12-Teams**	PACE in MM	Effective Patient-Centered Care for Complex Patients with Multimorbidity: A Synthesis of Existing Evidence	Martin Fortin
47	**12-Teams**	PACE in MM	Assessing the implementation fidelity of an interdisciplinary intervention for multimorbidity in primary care	Patrice Ngangue
48	**12-Teams**	PACE in MM	Social vulnerability in patients with multimorbidity	Tu Nguyen

Abs No.	Group	Team	Title	First Author
49	**12-Teams**	PACE in MM	Making sense of patient outcomes in multimorbidity chronic disease management.	Maxime Sasseville
50	**12-Teams**	PACE in MM	A Communicating Health Care System: Top Down Meets Bottom Up in Ontario's Health Links	Moira Stewart
51	**12-Teams**	PACE in MM	A Cross Provincial Application of the PACE in MM Framework to Compare Programs for Patients with Multimorbidity in Interprofessional Collaborative Family Practice Teams in Primary Care	Ruth Martin-Misener
52	**12-Teams**	iCOACH	What is Important to People with Multimorbidity and their Caregivers? Identifying Attributes of Person Centred Primary Health Care from the User Perspective	Kerry Kuluski
53	**12-Teams**	iCOACH	Using novel qualitative analytic techniques in the iCOACH project: Managing large data sets to better understand Information Communication Technology use.	Carolyn Steele Gray
54	**12-Teams**	iCOACH	Building insights for the scale and spread of integrated care: Early findings and future directions in the iCOACH project	James Shaw
55	**PIHCIN**		Prevalence and Demographics of CKD in Canadian primary care practices: A retrospective cohort study	Julia Kurzawa
56	**PIHCIN**		Current State of CKD Care in Canadian Primary Care: A retrospective analysis of CPCSSN database	Mohamed Osman
57	**PIHCIN**		Lessons Learned from the Children's Health Profile and Birth Cohort Initiative in New Brunswick and Prince Edward Island	Carole Tranchant
58	**PIHCIN**		Case management in primary care for frequent users of healthcare services with chronic diseases and complex care needs: protocol on an implementation and realist evaluation	Catherine Hudon
59	**PIHCIN**		The PREFeR (PRioritiEs For Research) Project: Results from a multistage patient priority setting project for primary care research in British Columbia	Alexandra Warren
60	**PIHCIN**		Ongoing policymaker engagement and knowledge exchange in primary care research: example of study on centralized waiting lists for unattached patients across seven provinces	Mylaine Breton
61	**PIHCIN**		The SPARK Study: identifying and addressing health inequities in primary care	Andrew D. Pinto
62	**PIHCIN**		Integrating primary care and community-based services in Canada: In-Depth Analysis of Innovative Programs for children and youth (0-25) with complex care needs	Émilie Dionne

Abs No.	Group	Team	Title	First Author
63	**PIHCIN**		Integrating primary care and community-based services in Canada: A cross-provincial analysis of structures and policies that govern multi-sector integration	Émilie Dionne
64	**PIHCIN**		The Development of a Centre for Children with Complex Care Needs: When Research Informs Practice	Shelley Doucet
65	**PIHCIN**		Integration through primary health care teams: Early results with strategies for policy analysis and engagement of stakeholders	Nelly D. Oelke
66	**PIHCIN**		Paramedics Providing Palliative Care at Home Program: Spread and Scale-up Considerations	Connie Kekwaletswe
67	**PIHCIN**		SPIDER: A Research-QI Collaboration in Improving Care for Complex Elderly Patients	Michelle Griever
68	**PIHCIN**		Evaluation of the organizational attributes of primary care integration strategies for adults with chronic health conditions: A systematic review	Joan Tranmer
69	**PIHCIN**		Applying case management functions to community-based palliative care; A realist review	Grace Warner
70	**CBPHC**		Preliminary validation of the French-Canadian version of the NHS Sustainability Model Questionnaire	Marie-Hélène Savard
71	**CBPHC**		Acute Care for Elders Strategy evaluation: Montfort Hospital Case Study	El Kebir Ghandour
72	**CBPHC**		Diabetic Soles: from isolation to care.	Tracey Rickards
73	**International**		The HRB Primary Care Clinical Trial Network Ireland: Successes and Challenges	Nikita N Burke

Synthesis of abstracts submitted by the 12 CBPHC teams

[Reference numbers correspond to abstract numbers, listed in previous section]

The 12 community based primary health care (CBPHC) Teams present highlights from outcomes of their work over the past 5 years, in line with the Canadian Institute for Health Research funding program's two main goals: (i) improving access to care for vulnerable populations and (ii) novel ways to prevent and manage chronic disease. Below is a thematic summary of the teams' submitted abstracts (with references to the abstract numbers provided). The purpose of this synthesis is to provide meeting participants with an overview of the outcomes across the teams in order to help prepare participants for our highly interactive meeting.

Interventions. Teams carried out community based interventions to test out their innovative models. ACHRU implemented a community program for older adults with type 2 diabetes (44), C-Champ implemented a program for improving cardiovascular health for those living in social housing (38) and IMPACT carried out a series of interventions, such as pop-up clinics, practice facilitators, and patient navigators (31, 33). PACE in MM evaluated an interdisciplinary patient-centered intervention for patients with multimorbidity (45) and CanIMPACT's trialed eOncoNote, an eConsult program to improve communication between primary care providers and cancer specialists (14).

Tools, frameworks, and knowledge translation. Teams worked with their stakeholders to develop products, such as frameworks and toolkits to improve research and knowledge translation. iPHIT worked with First Nations partners to validate a First Nations mental wellness framework (20) and to integrate traditional knowledge into the health system (21). FORGE AHEAD and its First Nations community partners created a tool to assess community readiness for quality improvement programs (23) and a registry of type 2 diabetes patients (24). PACE in MM worked with patients to identify relevant patient outcomes in multimorbidity chronic disease management (49), and explored the alignment of care provided in two Atlantic provinces with their framework of care care for patients with complex needs (51). iCOACH also interviewed older adults to identify their perspective on person-centered attributes of primary care (52). TRANSFORMATION created a set of surveys, patient reported experiences and outcomes, organizational and provider surveys that can be used to fill the information gap in what is measured in primary health care (12).

Health data and the primary health care sector. The teams collected diverse types of data and created primary health care portraits, datasets, etc. to inform future research and decision-making. C-Champ studied the demographic health profile and risk factors of older adults living in social housing (40), PACE in MM studied social vulnerability in people with multimorbidity (48), and iCOACH studied how to better use information communication technology in CBPHC (53).

TRANSFORMATION collected patient, provider, and organizational data to create regional primary health care portraits across three provinces (12), and also studied how to report this information in a way that aligns with the patient medical homes (10) and learning health systems (13). In another portrait, PACE in MM looked at communication within and between the different levels of Ontario's health system (50). iPHIT worked with First Nations partners to understand how racism and discrimination impact the delivery of CBPHC to First Nations (22), and LHIV worked to understand what CBPHC should look like for people living with HIV (27).

Commonly collected indicators. The 12-teams also collaborated and collected data from a set of commonly agreed indicators (1). Three cross-team studies have emerged looking at multimorbidity (7), primary care team functioning (8), and quality of life (9). ACCESS-MH utilized the 12-teams common indicators to generate a health profile and identify gaps in services in Newfoundland and Labrador (17). Some other projects that stemmed from the cross-collaboration of the teams include an analysis of the contextual factors affecting the work of the teams and their strategies to address them (2), a study of their stakeholder engagement strategies (3), and the capacity-building activities of the 12-teams trainees (5).

Research context and methodology. Each team developed strategies to address contextual factors in implementing their innovations. These factors and strategies are studied in a cross-team project (2). Some examples presented by the teams include CanIMPACT's implementation of eOncoNote (14), and IMPACT's participatory and multi-jurisdictional model (30, 35).

As all of the research studies were cross-jurisdictional, many teams developed methods to link cross-jurisdictional data and make them more understandable. For example, LHIV linked clinical cohorts of HIV patients across two provinces (28) and CanIMPACT examined intersectoral care for breast cancer patients across five provinces using administrative health data (16).

Stakeholder engagement. The CBPHC teams were highly collaborative and cross-disciplinary. All teams engaged groups of stakeholders at different levels (e.g. local, regional, provincial, pan-Canadian) and stages over the course of their projects. The overall experience of the teams is described in two cross-team studies (3, 4). CanIMPACT's patient advisory committee co-created a synthesis map representing the patient's journey across the cancer care continuum (15). ACHRU engaged stakeholders, including patients in evaluating their community-based intervention (42). In planning and implementing projects, FORGE AHEAD (25, 26), C-Champ (41), CircHSIT (19), IMPACT (34, 36, 37), and TRANSFORMATION (11) each describe their models for engaging stakeholders such as local champions, patient-partners, volunteers, northern communities, policy-makers, and clinicians.

Scale and spread of innovations. A third goal of the 12-teams, and an objective of this meeting, was to explore the strategies for scale and spread of innovations. In a cross-team project, the teams evaluated the scalability of their innovations (6). The teams themselves also studied, explored, and engaged in scale and spread. C-Champ is filling the knowledge gaps for bringing its cardiovascular health awareness program into new contexts (39, 42). LHIV has taken a CBPHC approach to scale-up an eConsult program across Canada (29). PACE in MM has looked at implementation fidelity and adaptation to different contexts (47).
ICOACH conducted a literature review to synthesize the conditions needed for scale and spread of innovations in integrated care (54). PACE in MM took a similar approach with focus on scaling up interventions for patients with multimorbidity (46).

Summary. The teams employed a diverse range of study designs and methodologies, ranging from participatory action research to observational studies to clinical trials. Outcomes of their work include studies of the community based primary health care sector, new research methodologies, implementation of interventions that could be both scaled and spread, and products such as data collection and knowledge translation tools.

Abstracts

Abstract Number: 1

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Cross-jurisdictional Research in Canada: Developing Common Indicators across 12 CBPHC Teams

Sabrina T. Wong[1], Julia M. Langton[2], Alan Katz[3], Martin Fortin[4], Marshall Godwin[5], Michael Green[6], Eva Grunfeld[7], Kasra Hassani[1], Claire Kendall[8], Clare Liddy[8], Jenny Ploeg[9], Walter P. Wodchis[10], and Jeannie L. Haggerty[11]

1. University of British Columbia, 2. Michael Smith Foundation for Health Services Research, 3. University of Manitoba, 4. Université de Sherbrooke, 5. Memorial University of Newfoundland, 6. Queen's University, 7. University of Toronto and Ontario Institute for Cancer Research, 9. C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute, McMaster University, 10. University of Toronto, 11. McGill University

Background: A Pan-Canadian mechanism for common measurement of the impact of primary care innovations is lacking. CIHR and its partners funded 12 teams to conduct research and collaborate on development of a set of commonly collected indicators.

Aim: To describe the process of 12 teams working together to foster cross-jurisdictional collaboration, including collection of common indicators with the goal of using the same measures and data sources.

Methods: A working group representing the 12 teams undertook an iterative process to consider existing primary care indicators identified from literature and by stakeholders. Indicators were agreed upon with the intention of addressing three objectives across the 12 teams: (1) describing the impact of improving access to CBPHC; (2) examining the impact of alternative models of chronic disease prevention and management in CBPHC; (3) describing the structures and context that influence the implementation, delivery, cost, and potential for scale-up of CBPHC innovations.

Results: Nineteen common indicators within the core dimensions of primary care were identified: access, comprehensiveness, coordination, effectiveness, and equity. We also agreed to collect data on health care costs and utilization within each team. Data sources include surveys, health administrative data, interviews, focus groups and case studies.

Conclusion: Collaboration across these teams sets the foundation for a unique opportunity for new knowledge generation, beyond any knowledge developed by any one team. Keys to success are each team's willingness to engage and commitment to working across teams, funding to support this collaboration, and distributed leadership. Reaching consensus is challenging but achievable.

Abstract Number: 2

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Contextual Factors Influencing Innovation Implementation in Community-Based Primary Health Care

Jenny Ploeg[1], Sabrina Wong[2], Kasra Hassani[2], Martin Fortin[3], Claire Kendall[4], Clare Liddy[4], Maureen Markle-Reid[1], Bojana Petrovic[5], Walter Wodchis[5], Marie-Lee Yous[1], on Behalf of the CIHR CBPHC 12 Teams Common Indicator Group

1. McMaster University, 2. University of British Columbia, 3. University of Sherbrooke, 4. University of Ottawa, 5. University of Toronto

Background: Identifying and addressing contextual factors that impact community-based primary health care (CBPHC) research is important to ensure the success of innovative projects and to seamlessly transfer knowledge from one setting to another. Existing barriers to implementing innovations in primary health care continue to present challenges as researchers and decision-makers may not fully consider contextual factors before and throughout the implementation of innovations.

Purpose: To identify contextual factors that impact the implementation of innovative CBPHC projects of 12 Canadian research teams, and describe strategies used to address these factors based on the experiences and recommendations of the teams.

Methods: A qualitative descriptive study was used with self-administered questionnaires and follow-up semi-structured individual and group telephone interviews with representatives of 12 CIHR-funded CBPHC teams.

Results: Teams implemented projects nationally and internationally with diverse populations, communities and primary care practices. Contextual factors impacting research were categorized as: (a) diversity of jurisdictions, (b) complexity of interactions and collaborations, (c) policy, and (d) the multifaceted nature of PHC. Strategies used by the 12 teams to address contextual factors in primary care included: maintain engagement among partners and stakeholders, implement knowledge translation approaches, be flexible in modifying research programs, anticipate delays and need for additional resources, and foster research capacity among stakeholders.

Conclusion: Findings provide a comprehensive overview of contextual factors impacting the implementation of CBPHC innovations among multi-jurisdictional teams. The strategies provide guidance for researchers interested in implementing large scale CBPHC projects across different jurisdictions.

Abstract Number: 3

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

The CBPHC Innovation Teams' Patient and Stakeholder Engagement Experience

Claire Kendall[1, 2, 3, 4, 5], Michael Fitzgerald[1], Rachel Seoyeon Kang[5], Sabrina Wong[6], Alan Katz[7], Martin Fortin[8, 9], Emilie Dionne[10], Kerry Kuluski[11, 12], Mary Ann O'Brien[12], Jenny Ploeg[13], Lois Crowe[1], Clare Liddy[1,2]

1. C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute, 2. University of Ottawa 3. Institute of Clinical and Evaluative Sciences, 4. Li Ka Shing Knowledge Institute, 5. Ottawa Hospital Research Institute, 6. University of British Columbia, 7. University of Manitoba, 8. Université de Sherbrooke, 9. Centre Intégré Universitaire de Santé et de Services Sociaux du Saguenay-Lac St-Jean, 10. St. Mary's Hospital Research Centre, 11. Lunenfeld-Tanenbaum Research Institute, 12. University of Toronto, 13. McMaster University

Background: There is limited evidence of the impact of patient and stakeholder engagement in research. In 2013, the Canadian Institutes of Health Research funded 12 Community Based Primary Health Care teams to research innovative approaches to primary health care involving engagement with patients, communities, decision-makers, and clinicians across jurisdictions in Canada. Our study examined the extent of this engagement and the factors that affected it.

Methods: We conducted a web-based survey of the 12 CBPHC Innovation Teams, in which we were also participants, using a data collection tool developed by the U.S. Patient Centered Outcomes Research Institute.

Results: CBPHC Innovation teams have engaged with diverse stakeholders at different levels and in different stages of research. Almost all teams engaged with policymakers, most with clinicians and health system representatives, and more than half with patients, mostly at the level of consultation or collaboration. There were very few instances of stakeholder-led research. There was near universal recognition of the importance of communications processes/tools, whereas time was the most commonly identified challenge. Engagement was contextualized by factors such as the jurisdictions and geographic scope of the project, the number and type of stakeholders engaged, and their level of involvement. These intersected with the researchers' motivations for engagement, to give rise to diverse experiences, but ones that the CBPHC teams assessed positively as an approach to research.

Conclusions: Primary health care researchers in Canada have actively pursued patient and stakeholder engagement and are well-positioned to contribute to understanding the impact on health care outcomes.

Abstract Number: 4

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Engaging with Indigenous Communities: Lessons from three CBPHC Teams in Canada

Michael E. Green[1], Alan Katz[2], Kasra Hassani[3], Kathi Avery Kinew[4], Joelle Emond[5], Danna Lyngard[6] , Harsh Zaran[7], Stewart B. Harris[7] , T. Kue Young[8]

1. Queen's University, 2. University of Manitoba, 3. University of British Columbia, 4. Nanaandawewigamig, First Nations Health and Social Secretariat of Manitoba, 5. Kateri Memorial Hospital Centre, 6. Ts'ewulhtun Health Centre, 7. Western University, 8. University of Alberta

Background: Ethical approaches in research involving Indigenous peoples can work as tools for Indigenous communities to practice their rights of self-determination and for researchers to honor them. These include but are not limited to seeking early engagement, respecting cultures and traditions, applying collaborative and participatory approaches, and honoring privacy and confidentiality. Three of the 12 Community-based Primary Health Care (CBPHC) Innovation teams focused on the PHC needs of Indigenous communities and populations.

Purpose: To share the experiences of these teams in successfully partnering with Indigenous peoples and communities.

Methods: After forming a working group, each team developed case studies of their engagement experience. Summaries were shared within the group and with partners. The working group then reviewed the summaries and engaged in discussions to establish shared learnings. These were shared again with partners before finalization.

Results: The teams engaged at different levels and ways as required. All teams recognized and incorporated Indigenous worldviews and protocols and incorporated into projects. Careful composition of the research teams, working groups, and steering committees to include the Indigenous partners in effective numbers helped avoid tokenism. Commitment to continuous engagement and learning at every step of the project was essential for success. The teams found lack of provision of support for capacity building and continued community-engagement and inadequate communication throughout the project to impede success.

Conclusion: Working with Indigenous communities can be done and can be done well. Such work requires time, thoughtful reflection, and examination of values, leading to development of true partnerships.

Abstract Number: 5

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Describing the Capacity Building Activities and Cross-team Outcomes for the 12 CBPHC Teams

Kathryn Nicholson[1], Ali Ben Charif[2], Sue Bookey-Bassett[3], Rebecca Ganann[4], Lisa Garland-Baird[5], Anna Garnett[3], Anum Irfan Khan[6], Grace Kyoon-Achan[7], Zack Marshall[8], Melissa Northwood[3], Melissa Pirrie[3], Marie-Ève Poitras[9], Maxime Sasseville[10], Kasra Hassani[11], Moira Stewart[1]

1. Western University, 2. Université Laval, 3. University Health Network, 4. McMaster University, 5. Veterans Affairs Canada, 6. University of Toronto, 7. University of Manitoba, 8. McGill University, 9. Université du Québec à Chicoutimi, 10. Université de Sherbrooke, 11. University of British Columbia

Background: The 12 CBPHC Teams (12-Teams) aimed to build cross-team capacity while creating and implementing their research programs. A trainee-led Cross-Teams Capacity Building Working Group was established in 2015 to support collaboration amongst a pan-Canadian network of interdisciplinary research trainees.

Purpose: To describe capacity building activities employed and cross-team outcomes gained by trainees through this collaborative initiative.

Methods: An online needs assessment survey conducted in 2015 informed training and mentorship activities initiated to engage trainees and address identified needs. In 2017, an online semi-structured mentorship survey explored experiences of CBPHC trainees with capacity development/mentorship and future expectations pertaining to engagement in the CBPHC Signature Initiative. Descriptive and thematic analyses of the survey responses were conducted.

Results: Twenty-seven trainees (41.5%) responded to the mentorship survey. Respondents identified tacit, research and team-related activities that they had experienced or would like to experience to build capacity. Trainees identified three key areas of benefit from involvement with the 12-Teams: skills training, networking and academic productivity. Trainees identified four knowledge and experiential gaps to be addressed: ethical considerations in research; experiences in participant, patient and broad stakeholder engagement; and experience in interdisciplinary grant writing.

Conclusions: The CBPHC Signature Initiative facilitated the exposure of trainees to innovative research, extended their collaborative networks and fostered synergies and constructive relationships between these junior researchers. Enhanced understanding of capacity building and mentorship interests of trainees will inform strategies that are more likely to meet their needs and in turn advance the overall mandate and productivity of the CBPHC initiative.

Abstract Number: 6

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Potential for Scale Up of Evidence-based Innovations in Community-based Primary Health Care

Ali Ben Charif[1], Kasra Hassani[2], Sabrina T Wong[2], Hervé Tchala Vignon Zomahoun[1], Martin Fortin[3], Adriana Freitas[1], Alan Katz[4], Claire Kendall[5], Clare Liddy[5], Kathryn Nicholson[6], Bojana Petrovic[7], Jenny Ploeg[6], France Légaré[1]

1. Université Laval, 2. University of British Columbia, 3. Université de Sherbrooke, 4. University of Manitoba, 5. University of Ottawa, 6. McMaster University, 7. University of Toronto

Background: Over the past five years, the Canadian Institutes of Health Research have funded 12 research teams (“12-Teams”) to conduct programmatic research and develop evidence-based innovations (EBIs) in community-based primary health care. We took an in-depth look at the scalability of these EBIs.

Methods: In this cross-sectional study, we invited the 12-Teams to rate their EBIs for scalability. Based on a systematic review, we developed a self-administered questionnaire with 16 scalability assessment criteria grouped into five dimensions (theory, impact, coverage, setting, and cost). The teams completed distinct questionnaires for each of their EBIs. We analyzed data using simple frequency counts and a hierarchical cluster analysis to rank EBIs by their scalability. We calculated mean number and standard deviation (SD) of EBIs that met criteria within each dimension including more than one criterion. The analysis unit was the EBI.

Results: Eleven responding teams evaluated 33 EBIs (median=3, range=1-8 per team). Most EBIs were health interventions (n=21), followed by analytical methods (n=4), conceptual frameworks (n=4), measures (n=3), and research capacity building strategies (n=1). Most EBIs met criteria in the theory dimension (n=29), followed by impact (mean=22, SD=6), setting (mean=22, SD=9), cost (mean=18, SD=2), and coverage (mean=14, SD=4). On average, EBIs met 10 of the 16 criteria. Adoption was the least assessed criterion (n=9). Most EBIs were highly ranked for scalability (n=20).

Conclusions: Scalability varied among EBIs, suggesting that readiness for scale up was suboptimal for some EBIs. Coverage remained largely unaddressed; future evaluations of the teams’ activities should investigate this critical dimension.

Abstract Number: 7

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Applying Commonly Collected Data by CBPHC Teams to Study the MM20 Multimorbidity Questionnaire

Kathryn Nicholson[1], Tu Nguyen[2], Kasra Hassani[3], Martin Fortin[2]

1. Western University, 2. Université de Sherbrooke, 3. University of British Columbia

Background: As part of their cross-collaboration, the 12 CBPHC Teams agreed to collect data on a set of common indicators. This set included the MM20 questionnaire, which has been developed by the PACEinMM Team to define multimorbidity and lists 20 common chronic conditions.

Purpose: To determine the feasibility of reducing the number of chronic conditions included in the MM20 questionnaire without a significant impact on the overall estimate or description of multimorbidity, in order to make the questionnaire easier to complete.

Methods: Phase 1: After identifying teams that used the MM20 questionnaire, we requested summary data on sample characteristics and multimorbidity estimates. The teams conducted the analyses using pre-specified steps to ensure consistency and privacy. Phase 2: We reviewed the aggregated results to determine the low prevalence chronic conditions to be removed. Phase 3: To assess the impact of removing selected chronic conditions from the original list on definition and prevalence of multimorbidity.

Results: To date, the first and second phases of the project have been completed with 4 teams across 6 jurisdictions. The number of chronic conditions included in the MM20 can be potentially reduced to 16. We are currently completing the third phase.

Conclusions: The MM20 is a questionnaire that can be operationalized using self-reported, clinical or health administrative data. This strategy will encourage the use of this tool in different research settings by shortening the required number of conditions to include in the measure of multimorbidity. This study also showcases multi-jurisdictional research while respecting regional privacy regulations.

Abstract Number: 8

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Measuring Team Functioning in Canadian Primary Care Settings

Sabrina Wong[1], Walter Wodchis[2], Jenny Ploeg[3], Kasra Hassani[1], Selam Mequanint[4], Stewart Harris[4]

1. University of British Columbia, 2. University of Toronto, 3. McMaster University, 4. Western University

Background: Team-based care approaches could contribute to better performance, improved practice environments, and promote readiness for change and innovation. Little is known about team composition in primary care in Canada and how it is associated with team functioning.

Purpose: To identify the association between composition of primary care teams and team functioning, using the Team Climate Inventory (TCI) Instrument

Methods: TCI is one of the commonly collected indicators across the 12 CBPHC teams. Four of the 12-Teams collected TCI data from 7 different jurisdictions in 4 provinces. Anonymized data for overall TCI scores, scores on each TCI dimension (Participative safety, support for innovation, vision/team objectives, task orientation), and overall team composition was collected from the partnering research teams as per pre-specified analysis steps to ensure consistency.

Results: Together, these teams have amassed the largest comprehensive dataset on team functioning in primary care across Canada. The most common composition for teams included family physicians, nurse practitioners, and registered nurses. Mean scale scores in the team climate measure included: Participative safety, ranging from 4.0 to 6.5; Support for innovation, ranging from 3.8-6.3; Vision/team objective, ranging from 5.2-6.4; and Task orientation, ranging from 5.2-6.4. Primary care team size and composition are diverse. No team was consistently scoring at the highest level of collaboration (above 7).

Conclusion: Team-based primary care in Canada is growing. However, these results suggest there is much room for growth in working as a team. These results have implications for practice and education.

Abstract Number: 9

Group: CBPHC 12-Teams

Team: CBPHC 12-Teams Common Indicators working group (Cross-Team)

Comparative Analysis of EQ-5D Data Collected as Part of Common Indicators by the 12-Teams

Alan Katz[1], Sabrina Wong[2], Gina Agarwal[3], Kasra Hassani[2]

1. University of Manitoba, 2. University of British Columbia, 3. McMaster University

Background: Patient-reported outcome measures (PROMs) provide insight on socio-economic characteristics and effectiveness of care from patients' perspectives. The EQ-5D questionnaire, developed by EuroQol Research Foundation, is a widely used generic preference-based health-related quality of life questionnaire. It consists of five dimensions (mobility, self-care, usual activities, pain or discomfort, and anxiety or depression). This instrument is among the list of indicators commonly collected by the CBPHC 12-Teams.

Purpose: To compare the EQ-5D data collected by different CBPHC teams, in different settings and provinces across Canada, to understand the utility of this instrument in Canadian primary care context

Methods: Having identifying teams that used the EQ-5D questionnaire, we will compare descriptive summary data on socio-economic variables and all dimensions of the EQ-5D. We will conduct analyses using pre-specified steps to ensure consistency and privacy. Aggregate data will be compiled and compared across samples, including sample demographics including age, sex, income, education, location and having a family doctor. Results will also be compared with national Canadian normative data.

Results: Four of the 12-Teams have used the EQ-5D instrument. Together they have collected approximately 4,000 entries from 7 different jurisdictions in 5 provinces, accounting for one of the largest sets of EQ-5D data collected in a North American primary health care context.

Conclusion: This is the first large-scale multijurisdictional study of the EQ-5D tool in Canadian primary care. Its outcomes will have important implications for the utility of this instrument at baseline for primary care trials, PROMs in primary care and the relationship between EQ-5D and socio-economic factors.

Abstract Number: 10

Group: CBPHC 12-Teams

Team: Transforming CBPHC delivery through comprehensive performance measurement and reporting (TRANSFORMATION)

Measuring and Reporting What Matters: Regional Portraits of Patients' Medical Homes

Sabrina Wong[1], Fred Burge[2], Sharon Johnston[3, 4], Jeannie Haggerty[5], Ruth Martin-Misener[2], Bill Hogg[3, 4, 6]

1. University of British Columbia, 2. Dalhousie University, 3. University of Ottawa, 4. C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute, 5. McGill University, 6. Montfort Hospital Research Institute

Background: There has been little evaluation of the impact of strategies to improve performance of primary care in Canada. The TRANSFORMATION team developed a methodology that could inform the monitoring of progress at a regional level using the Patient Medical Home (PMH) framework. The PMH is a care delivery model where patient treatment is coordinated through their primary care clinician.

Purpose: To identify the degree of variation at a regional level in attaining goals set by the PMH.

Methods - Study Design: Concurrent descriptive design using practice-based surveys, administrative data, case studies.

Setting: Three regions meant to have similar population characteristics based on Statistics Canada peer groups: Fraser East, British Columbia; Eastern Ontario, Ontario; Central Zone, Nova Scotia.

Participants: 1206 patients linked to 87 unique primary care practices; 25 decision-maker and clinician interviews, 6 focus groups (n=3: patient; n=3 clinician)

Intervention/Instrument: Practice-based surveys; document review; interviews and focus groups

Results: The TRANSFORMATION study collected the most comprehensive collection of primary care data in Canada using patient, clinician and organizational surveys; administrative data; and case studies. There is regional variation across pillars of the Patient's Medical Home. There is also regional variation across different dimensions within each pillar. Case study data provide insights into these variations.

Conclusion: The portraits provide information about regional level variation in attaining PMH goals. TRANSFORMATION provides foundational work to inform a health information infrastructure in moving towards PMH and a learning healthcare system.

Abstract Number: 11

Group: CBPHC 12-Teams

Team: Transforming CBPHC delivery through comprehensive performance measurement and reporting (TRANSFORMATION)

Moving Towards a Learning Healthcare System: Stakeholder Feedback on Implementing Regional Performance Portraits

Ruth Martin-Misener[1], Cathie Scott[2], Sabrina Wong[3], Fred Burge[1], Sharon Johnston[4, 5], William Hogg[4, 5, 6,] Stephanie Blackman[1]

1. Dalhousie University, 2. Policy Wise, 3. University of British Columbia, 4. University of Ottawa, 5. C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute, 6. Montfort Hospital Research Institute

Background: Initiatives to measure primary care performance are now being developed in the Canadian context. However, a dearth of information exists on how regional primary care performance reports should be implemented to inform learning health care systems.

Purpose: To obtain stakeholder priorities on attributes of primary care important to performance reporting, using sample comprehensive primary care performance portraits drafted to show cross-regional context and performance results.

Methods - Study Design: Multiple comparative embedded case study.

Setting: Cases are three comparable health regions in British Columbia, Ontario, and Nova Scotia. Data sources: 1) In-depth interviews (n=18-24) with purposively selected clinicians, health care administrators, and policy makers (e.g. primary care decision-makers, physician leads, regional directors, regulators).

Analysis: NVivo (v.11) will be used to manage the data. Using content analysis we will identify themes within and across cases. The code book and coding process will be developed by the research team using inductive and deductive processes in a series of iterative discussions.

Results: Common themes across cases about stakeholder priorities for content and format in regional primary care performance reports are anticipated.

Conclusions: Results from this study will be combined with previous patient engagement work (two full-day citizen-patient dialogues in each case) to further shape a primary care performance portrait that multiple stakeholders can use to inform improvements in primary care.

Abstract Number: 12

Group: CBPHC 12-Teams

Team: Transforming CBPHC delivery through comprehensive performance measurement and reporting (TRANSFORMATION)

Practice Characteristics Associated with Regional Variation In Primary Care Performance Across Three Canadian Provinces

Sharon Johnston[1], Sabrina Wong[2], Fred Burge[3], William Hogg[4], Ruth Martin-Misener[3]

1. Bruyère Research Institute, 2. University of British Columbia, 3. Dalhousie University, 4. Montfort Hospital Research Institute

Background: Primary care performance varies across provinces and even regions within provinces on important elements such as timely access, continuity of care, and patient-centred care.

Purpose: This study examined how differences in primary care practices, including types of healthcare providers working together, payment methods, size of patient panels, and use of information technology are associated with differences across a range of performance dimensions.

Methods – Study Design: Mixed methods, cross-sectional study.

Setting: Three health regions: Fraser East, British Columbia; Eastern Ontario Health Unit, Ontario; and Central Zone, Nova Scotia.

Participants: Practice-based surveys administered to patients (n=400-800/region), clinicians, and organizational leads (n=20-40/region).

Outcome measures: Dimensions of performance on the pillars of the Patient-Centred Medical Home Model.

Analysis: Survey data were linked to administrative data. Regional case studies (policy analysis, focus groups, and interviews with clinicians and decision-makers) provided contextual understanding of performance variations. Regional performance scores on many aspects of care were derived from multi-level regression models adjusted for risk and clustering of patients, and the association of practice features with performance.

Results: Primary care practice features associated with variation in regional performance will be identified.

Conclusion: This information can help regional policy-planners, providers, and patients address local needs by examining how their primary care practices are organized.

Abstract Number: 13

Group: CBPHC 12-Teams

Team: Transforming CBPHC delivery through comprehensive performance measurement and reporting (TRANSFORMATION)

Moving towards a learning healthcare system: stakeholder feedback on implementing regional performance portraits

Ruth Martin-Misener[1], Cathie Scott[2], Sabrina Wong[3], Sharon Johnston[4], Fred Burge[1], William Hogg[4], Stephanie Blackman[1]

1. Dalhousie University, 2. PolicyWise for Children and Families, 3. University of British Columbia, 4. Bruyère Research Institute

Context: Initiatives to measure primary care performance are now being developed in the Canadian context. However, a dearth of information exists on how regional primary care performance reports should be implemented to inform learning health care systems.

Objective: To obtain stakeholder priorities on attributes of primary care important to performance reporting, using sample comprehensive primary care performance portraits drafted to show cross-regional context and performance results in the Transformation study. Study Design: Multiple comparative embedded case study.

Setting: Cases are three comparable health regions in British Columbia, Ontario, and Nova Scotia.

Data sources: 1) In-depth interviews (n=18-24) with purposively selected clinicians, health care administrators, and policy makers (e.g. primary care decision-makers, physician leads, regional directors, regulators).

Analysis: NVivo (v.11) will be used to manage the data. Using content analysis we will identify themes within and across cases. The code book and coding process will be developed by the research team using inductive and deductive processes in a series of iterative discussions.

Results: Common themes across cases about stakeholder priorities for content and format in regional primary care performance reports are anticipated.

Conclusions: Results from this study will be combined with previous patient engagement work (two full-day citizen-patient dialogues in each case) to further shape a primary care performance portrait that multiple stakeholders can use to inform improvements in primary care.

Abstract Number: 14

Group: CBPHC 12-Teams

Team: Canadian team to improve community-based cancer care along the continuum (CanIMPACT)

Implementing eOncoNote in Two Jurisdictions in Canada

Bojana Petrovic[1], Roanne Segal[2], Gerard Farrell[3], Kara Laing[3], Clare Liddy[4, 5], Amir Afkham[6], Jonathan Sussman[7], Eva Grunfeld[1, 8] for CanIMPACT investigators

1. University of Toronto, 2. University of Ottawa, 3. Memorial University, 4. Bruyère Research Institute, 5. University of Ottawa, 6. Champlain Local Health Integration Network, 7. McMaster University, 8. Ontario Institute for Cancer Research

Background: In Phase 1 of CanIMPACT, we conducted mixed methods research that indicated persistent problems in communication between primary care providers (PCPs) and cancer specialists, leading to stress and anxiety for patients, and confusion about provider roles.

Purpose: To describe the implementation of the eOncoNote system in two jurisdictions in Canada (Ottawa region, and Newfoundland and Labrador).

Methods: Following Phase 1 mixed methods research, we conducted a consultative workshop that brought together Canadian and international stakeholders, including researchers, PCPs, cancer specialists, knowledge users and patients. The aim of the workshop was to gather feedback on developing an intervention to address gaps in care, which would be tested in Phase 2.

Results: Based on the recommendations from our consultative workshop, we worked with the Champlain BASE™ eConsult team to develop a cancer specific modification of eConsult. This modification, referred to as eOncoNote, involves cancer specialists sending an invitation to PCPs to communicate online. We partnered with The Ottawa Hospital Research Institute to carry out a pragmatic randomized controlled trial examining the use of eOncoNote in diagnosis, treatment and survivorship phases. In St. John’s, we are collaborating with the Dr. H. Bliss Murphy Cancer Centre to assess implementation of the eOncoNote system for cancer survivors after they have completed primary treatment for breast cancer.

Conclusion: We will report accrual to date, and describe the experience of CanIMPACT in implementing the eOncoNote system and lessons learned which might benefit future research related to e-health communication in primary care.

Abstract Number: 15

Group: CBPHC 12-Teams

Team: Canadian team to improve community-based cancer care along the continuum (CanIMPACT)

Patients & Family Caregivers as Co-creators of CanIMPACT's Cancer Journey Visual Synthesis Maps

Nancy Schneider[1], Mary Ann O'Brien[2], Margaret Fitch[1], Julie Easley[1], Sharon Matthias[1], Dawn Powell[1], Margaret Tompson[1], Bonnie Vick[1], Richard Wassersug[1], Peter Jones[3], Bojana Petrovic[2], Eva Grunfeld[2, 4]

1. CanIMPACT Patient Advisory Committee, 2. University of Toronto, 3. OCAD University, 4. Ontario Institute for Cancer Research

Background: CanIMPACT is a team of researchers, patients and caregivers, healthcare providers, and knowledge users working together to improve care coordination for patients with cancer.

Purpose: We describe patient and caregiver contributions to the creation of visual synthesis maps as part of CanIMPACT Phase 1.

Methods: CanIMPACT investigators and Patient Advisory Committee (PAC) members worked with OCAD University's Strategic Innovation Lab to create two synthesis maps for knowledge translation of the patient experience. PAC members contributed to the design of the maps through interviews and critique of preliminary maps.

Results: Two synthesis maps were created: one map illustrated the clinical cancer care continuum in Canada focusing on relationships to primary care; the second map, entitled 'Patient as Person in Relationship-Centred Care' described the cancer journey from the patient's perspective. Both maps follow the continuum from pre-diagnosis, through peri-diagnosis, diagnostic interval, diagnosis, treatment, after care and survivorship. Through the input of the PAC, two fictional patients were created to illustrate the patient synthesis map: 1) Beth an urban professional living with breast cancer; and 2) Colin, living in a rural area and diagnosed with colorectal cancer. The patient synthesis map illustrated the complex ways in which cancer impacted patients' lives including interactions with their family physician, oncologist, nurses and other healthcare providers, as well as with their family, friends, and broader social networks.

Conclusion: The PAC was instrumental to the creation of both synthesis maps and highlighted the importance of the patient/caregiver perspective in creating visual representations of the patient journey.

Abstract Number: 16

Group: CBPHC 12-Teams

Team: Canadian team to improve community-based cancer care along the continuum (CanIMPACT)

It Takes a Village to Understand Inter-Sectoral Care Using Administrative Data

Patti Groome[1], Mary McBride[2], Li Jiang[3], Cynthia Kendell[4], Kathleen Decker[5, 6], Eva Grunfeld[7, 8], Monika Krzyzanowska[9, 10], Marcy Winget[11] for CanIMPACT investigators

1. Queen's University, 2. BC Cancer Research Centre, 3. Critical Care Services Ontario, 4. Dalhousie University and Nova Scotia Health Authority, 5. University of Manitoba, 6. CancerCare Manitoba, 7. University of Toronto, 8. Ontario Institute for Cancer Research, 9. University Health Network, 10. Cancer Care Ontario, 11. Stanford University.

Background: The CanIMPACT team sought to provide data to enhance primary cancer care capacity and improve integration between primary and cancer specialist care, focusing on breast cancer. The CanIMPACT Administrative Health Data Group's (AHDG) role was to describe inter-sectoral care across five Canadian provinces: British Columbia, Alberta, Manitoba, Ontario and Nova Scotia.

Purpose: We present the process used and challenges faced in creating five parallel administrative health datasets, and provide guidance for future research based on 'lessons learned'.

Methods: The AHDG conducted population-based comparisons of care for breast cancer patients diagnosed from 2007-2011. We created parallel provincial datasets using knowledge from data inventories, our previous work, and ongoing bi-weekly conference calls. Common dataset creation plans ensured data comparability and documentation of data differences. In general, the data harmonization process had to be flexible and iterative as our understanding of the data and needs of the broader team evolved.

Results: Inter-sectoral data inconsistencies that we had to address occurred due to differences in: 1) healthcare systems, 2) data sources, 3) data elements and 4) variable definitions. Our parallel provincial datasets describe the breast cancer diagnostic, treatment and survivorship phases and address ten research objectives. Breast cancer patient demographics reflect inter-provincial general population differences. Across provinces, disease characteristics are similar but underlying health status and use of healthcare services differ.

Conclusion: Describing healthcare across Canadian jurisdictions assesses whether our provincial healthcare systems are delivering similar high quality, timely, accessible care to all of our citizens, and identifies gaps in care.

Abstract Number: 17

Group: CBPHC 12-Teams

Team: Atlantic Canada Children's Effective Service & Strategies in Mental Health (ACCESS-MH)

Common Indicators of Primary Health Care - NL

Richard Audas[1], Marshall Godwin[1], Sandra Parsons[1]

1. Memorial University of Newfoundland

ACCESS-Mental Health (ACCESS_MH) is one of twelve interjurisdictional community-based primary healthcare (CBPHC) teams funded by CIHR to implement cross-jurisdictional programs for improving access to CBPHC among vulnerable populations, and for chronic disease prevention and management. The 12 teams collaborated to develop a set of common indicators that could be used to measure the success of primary healthcare initiatives, and two data collection tools to help measure them: the provider survey and the patient survey. The surveys were rolled out in NL in 2017 and 2018. Results from the Provider Survey (response rate = 38%, n=203) indicate that the majority of physicians who responded work under fee-for-service models. Most work in clinics that provide reasonable accommodation to their patients and a broad scope of services, including systematic chronic disease management and follow-up. Gaps in accommodation include access to care outside of traditional office hours, with most physicians not offering appointment or walk-in services on evenings, nights, or weekends, and not participating in regional on-call systems. Results from the Patient Survey (response rate=36%, n=526) indicate that patients of the four academic family medicine clinics in St. John's are generally satisfied with their access to primary care, as well as the comprehensiveness and coordination of their primary healthcare services. Most reported feeling empowered to manage their health conditions and believing their main place of care is meeting all their healthcare needs. The patient sample reported being in general good health and experiencing high quality of life with minimal limitations.

Abstract Number: 18

Group: CBPHC 12-Teams

Team: Circumpolar health system innovation team (CircHSIT)

From Drugs to Drones: two trainee projects from CircHSIT

Kue Young[1], Dylan Clark[2], Sandra Romain[3]
1. University of Alberta, 2. McGill University, 3. University of Toronto

The poster presents an overview of team projects over the past 5 years. Specifically we highlight two studies by trainees which illustrate the diverse and interdisciplinary scope of our research and our focus on more upstream aspects of primary health care.

Project 1 – Backcountry Emergency Response by Dylan Clark (MSc geography, McGill University)

Background: residents of remote Arctic communities are poorly served by existing search-and-rescue services; climate change has increased vulnerability to backcountry incidents and injuries.

Purpose: Identify determinants of SAR incidents; assess community capacity and training needs; explore use of unmanned aerial vehicles in hazard mapping for backcountry travel.

Methods: SAR incidents databases, weather/ice data, gasoline sales to model travel patterns, interviews, focus groups, community workshops, UAV test flights.

Results: Behavioural, cultural, environmental and policy factors identified; UAVs technically capable in assisting search, rescue, emergency aid and route planning.

Outcomes: Researcher testified at Senate committee hearing, participated in multiagency policy group, organized community training program.

Project 2 – Policy and Practice of Pharmacy Services by Sandra Romain (PhD anthropology, University of Toronto)

Background: mix of private and government delivery systems; Nunavut language law requires services available in Inuit language.

Purpose: Evaluate existing practice, identify gaps, provide policy advice.

Methods: Interviews, participant observation.

Results: Poor inventory control with significant wastage, lack of professional translation of medication information for Inuit patients.

Outcomes: Language Commissioner took strong interest in research and recommended Minister of Health to create task force to address lack of health resources in Inuktitut; community pressure resulted in opening a retail pharmacy in one community.

Abstract Number: 19

Group: CBPHC 12-Teams

Team: Circumpolar health system innovation team (CircHSIT)

Communities of Practice in the Northwest Territories. A Model for Patient Engagement in Health System Transformation

Kimberly Fairman[1], Susan Chatwood[2]

1. Institute for Circumpolar Health Research, 2. University of Alberta

Background: Health care in Canada's North faces considerable challenges in the delivery of services. Despite per capita expenditures that are among the highest in the world, health outcomes continue to lag behind the rest of Canada, and health inequities continue to persist. While improving the health of northerners requires addressing underlying social determinants, transforming the health care system holds promise in the short and medium term. A key component of system transformation includes process for patient engagement

Methods: A community of practice model was used to guide the formation of community based patient groups in the Northwest Territories, Canada

Results: Community of practice groups were developed in the areas of indigenous values, life transitions, mental wellness, and chronic conditions.

Conclusion: The presentation will highlight the approach for community engagement, emerging themes, and key activities within community of practice groups.

Abstract Number: 20

Group: CBPHC 12-Teams

Team: Innovation in community based primary healthcare supporting transformation in the health of First Nations and rural/remote Manitoba communities (iPHIT)

Beyond Care: Validating a First Nations (FN) mental wellness framework

Grace Kyoon-Achan[1, 2], Wanda Phillips-Beck[1, 2], Stephanie Sinclair[1], Josée Lavoie[2], Naser Ibrahim[2], Kathi Avery Kinew[1, 2], Alan Katz[2]

1. First Nations Health and Social Secretariat of Manitoba, 2. University of Manitoba

Background: Community-based primary health innovation and transformation to support the health of Manitoba First Nations (FN).

Purpose: To explore the current state of mental health with eight FN communities in Manitoba; to further understand FN perspectives on the mental health crises in First Nations communities; and validate the mental wellness framework we previously created using qualitative interviews.

Methods: In a sequential mixed methods study, we triangulated data sources from 55 in-depth interviews and focus groups and over 250 surveys. Data was collected by local research assistants in eight First Nations communities and was integrated to create and validate a FN mental wellness framework in feedback sessions with First Nations community members. Participants included Elders, knowledge keepers, community-based health services workers, service users and community members.

Results: Preliminary survey data shows that communities' favor an expanded approach to mental wellness in the First Nation communities, supported by cultural and community-based practices. We outline factors that may best support mental wellbeing in FN communities: a validated FN mental wellness framework based on focused interviews, surveys and community feedback.

Conclusion: FNs attribute the mental health crises being experienced on reserves to broader historical, socio-economic, structural and environmental impacts. Responses show that the First Nations understand only they can adequately address the challenges through community-based processes with necessary supports.

Abstract Number: 21

Group: CBPHC 12-Teams

Team: Innovation in community based primary healthcare supporting transformation in the health of First Nations and rural/remote Manitoba communities (iPHIT)

Integrating Indigenous Traditional Health Knowledge in the Health System: Issues, Opportunities and Recommendations of Manitoba First Nations

Grace Kyoon-Achan[1, 2], Kathi Avery Kinew[1, 2], Josée Lavoie[2], Wanda Phillips-Beck[1, 2], Stephanie Sinclair[1], Naser Ibrahim[2], Alan Katz[2]

1. First Nations Health and Social Secretariat of Manitoba, 2. University of Manitoba

Background: Respect for Traditional Medicine and Healers is recommended as part of addressing the legacy and intergenerational impact of assimilative policies including Indian Residential Schools. The Truth and Reconciliation Commission of Canada in its Calls to Action calls for holistic and traditional healthcare approaches to be recognized and included in the healthcare system.

Purpose: To explore the integration of traditional knowledge in primary healthcare, elaborate on areas of opportunity for collaboration and highlight possible impact on both indigenous knowledge and biomedicine.

Methods: In-depth interviews were conducted including participants from eight First Nations communities. Grounded theory informed data analysis using Nvivo software.

Results: First Nations are clear that increased recognition and incorporation of traditional health knowledge must be part of a newly envisioned funded health system. Elders and healers must be meaningfully involved in the delivery of primary healthcare in First Nations communities. Respect and funding for traditional medicines and approaches to wellbeing, are necessary components of primary healthcare. An overall respect for indigenous health knowledge will aid transformation in community-based primary healthcare.

Conclusion: Traditional indigenous health knowledge is being used in First Nations communities as a parallel system of health care and prevention, but is not yet commonly recognized by the mainstream health system. While some support is currently being provided for individuals seeking traditional treatment options, change on a transformative scale would involve formal recognition, active support and protection of Traditional Healers and Medicines.

Abstract Number: 22

Group: CBPHC 12-Teams

Team: Innovation in community based primary healthcare supporting transformation in the health of First Nations and rural/remote Manitoba communities (iPHIT)

Where The Dice Stops: Understanding and Confronting Racism and Discrimination in Community-Based Healthcare in Manitoba First Nations Communities

Grace Kyoon-Achan[1, 2], Wanda Phillips-Beck[1, 2], Kathi Avery Kinew[1, 2], Stephanie Sinclair[1], Josée Lavoie[2], Alan Katz[2]

1. First Nations Health and Social Secretariat of Manitoba, 2. University of Manitoba

Background: Manitoba First Nations are underserved in terms of primary healthcare delivery. This is due in part to ongoing colonialism and governance issues in service delivery.

Purpose: The aim is to understand all ramifications of First Nations community-based primary healthcare landscape and to support existing strengths, propel innovation and highlight transformations.

Methods: A qualitative study was implemented using community-based participatory research approach. Participating communities collaborated in designing the study; providing valuable input to the questionnaire development, leading the data collection process and participating in the data analysis. Grounded theory guided the analysis which was completed using Nvivo 10 software.

Results: Racism and discrimination continue to define healthcare relations with First Nations communities. Incidences are reported both on-reserve with visiting healthcare professionals and off-reserve with professionals in healthcare facilities as well as in accommodations where patients stay while receiving care. Individuals leaving communities for care off-reserve are also poorly resourced further complicating care and threatening their wellbeing.

Conclusion: First Nations peoples' experience of healthcare is colored by ongoing experiences of racism and discrimination within the Canadian healthcare system. Racism compromises both access to and quality of healthcare which in turn have direct implications on the overall health of First Nations peoples

Abstract Number: 23

Group: CBPHC 12-Teams

Team: The TransFORmation of IndiGEnous PrimAry HEAlthcare Delivery (FORGE AHEAD)

Taking Community Context into Consideration: FORGE AHEAD Clinical Readiness Consultation Tool (CRCT)

Mariam Naqshbandi[1], Harsh Zaran[1], Stewart B. Harris[1]

1. Western University

Background: Barriers to providing optimal diabetes care in First Nations communities are different and sometimes more pronounced due to geographic isolation, cultural differences, and disjointed healthcare services. Effective intervention strategies need to take into account contextual factors in planning and implementation to increase likelihood of success. Readiness, as a contextual factor, has been identified as a critical measure of health interventions in Indigenous communities.

Purpose: To assess the clinical readiness of many aspects of the clinical healthcare delivery context in on-reserve Indigenous communities; and, develop knowledge for the Clinical QI Teams to use in planning and executing QI innovations.

Methods: The CRCT was implemented with the Clinical QI Team members during three time periods – pre/during/post intervention, and an aggregate report with mixed-methods data was developed and distributed back to the Clinical QI Teams. The experience of using the CRCT was assessed through semi-structured interviews with a sample of program participants.

Results: The aggregate results presented in a report back to the Clinical QI Teams for all three time periods were considered quite useful for planning QI innovations through Plan-Do-Study-Act cycles. The use of the report during the QI Workshops facilitated discussion, development of priorities, sharing ideas of gaps in programs and services. However, the length of the CRCT – 28 pages – was reported as too long and tedious to complete and some of the questions were unclear or seen as repetitive.

Conclusion: The CRCT was adapted and turned into a new questionnaire – Improving Diabetes Care Questionnaire (IDCQ).

Abstract Number: 24

Group: CBPHC 12-Teams

Team: The TransFORmation of IndiGEnous PrimAry HEAlthcare Delivery (FORGE AHEAD)

First Nations Diabetes Registry and Surveillance System: A Critical QI Companion Tool

Mariam Naqshbandi[1], Harsh Zaran[1], Stewart B. Harris[1]

1. Western University

Background: Successful QI initiatives include the development of a patient registry. Identification of patients with T2DM is a critical first step to target interventions for them and carry out follow-up surveillance of T2DM measures.

Purpose: The First Nations Diabetes Surveillance System (FNDSS) would assist the First Nations communities to understand extent of diabetes in their communities to allocate resources and target QI innovations.

Methods: Each community hired a Community Data Coordinator (CDC), who was trained by the Western Diabetes Team in chart review, data entry, and creating graphs and reports. The CDC developed a patient registry and then entered baseline and follow-up clinical data in FNDSS. The experience of using FNDSS was assessed through semi-structured interviews with a sample of program participants.

Results: FNDSS was a valuable tool but substantial resources were required for registry development and tracking clinical indicators. There were some challenges in terms of accessing and entering clinical data, and technical issues with the platform. However, the skilled time and work of CDCs resulted in healthcare providers being able to access more patient level data. An innovative use of FNDSS was using the charts and graphs for patient encounters to demonstrate clinical indicator trends.

Conclusion: FNDSS is a useful QI tool that needs to be updated to create data import/export easier with a better user interface to assist in decision-making. Use of graphs and reports needs to be prioritized in training modules, and development of a better risk-management strategy for clinical data entry challenges.

Abstract Number: 25

Group: CBPHC 12-Teams

Team: The TransFORmation of IndiGEnous PrimAry HEAlthcare Delivery (FORGE AHEAD)

The Role of Local Champion in Advancing QI Research and Program Objectives

Harsh Zaran[1], Mariam Naqshbandi[1], Joelle Emond[2], Stewart B. Harris[1]

1. Western University, 2. Kateri Memorial Hospital Centre

Background: QI Teams generally involve individuals working across multiple disciplines and systems. As the QI team engages in carrying out improvements through Plan-Do-Study-Act (PDSA) cycles, it is important to have an identified ‘champion’ who builds capacity and implements effective processes with the QI Team. The role of this ‘champion’ is to ensure that the QI team functions effectively.

Purpose: With two QI teams at each community level (Community QI Team & Clinical QI Team), it was important to train a local ‘champion’ as the Community Facilitator (CF) to ensure that both QI teams had the requisite local support for implementing PDSA innovations. The CF also acted as a bridge between both QI teams to create space for effective collaboration to overlap diabetes prevention and clinical management efforts.

Methods: The CFs received training by the Western Diabetes Team to implement QI tools, team facilitation skills, and QI coaching. The CFs experience and role was assessed through semi-structured interviews.

Results: The CFs played a critical role in supporting research and program activities. Due to a number of transitions in the role, and its critical importance to the program at the local level, remote training modules were developed to train the new CFs. The in-person and remote training for the CF role was received positively. The CFs noted that adding the facilitator workload on top of their professional responsibilities did constrain their abilities in the CF role.

Conclusion: The CF role needs modifications in terms of responsibilities.

Abstract Number: 26

Group: CBPHC 12-Teams

Team: The TransFORmation of IndiGEnous PrimAry HEAlthcare Delivery (FORGE AHEAD)

QI Workshops: Connecting QI Teams across Jurisdictions

Harsh Zaran[1], Mariam Naqshbandi[1], Stewart B. Harris[1]

1. Western University

Background: The Institute for Healthcare Improvement Breakthrough Series (IHI-BTS) Model for Improvement provides an accelerated structure for a QI intervention, which includes 3 QI Workshops, each followed by a corresponding Action Period to jumpstart QI innovations. The QI Workshops are a critical element to provide an opportunity for training, knowledge exchange, and improved collaboration.

Purpose: With multiple sites and QI Teams from across the country, the QI Workshops were important to build QI capacity, develop relationships, and create spaces for knowledge exchange between different First Nations communities.

Methods: 3 QI Workshops – First QI workshop (in-person/2 days); Second and Third QI Workshops (tele/video-conference/1 day). Workshops were assessed through participant evaluation forms and semi-structured interviews.

Results: The first in-person QI workshop was received very well as it allowed QI teams to work together in a dedicated way without work distractions. The focused breakout sessions were useful to plan and prioritize QI innovations with the support of Western Diabetes Team. Support by Western Team members also resulted in effective relationship building and understanding specific contextual factors impacting QI innovations. Participants also appreciated the other 2 QI workshops over tele/video-conference in terms of training content, support, access to expert presenters, and knowledge exchange with other QI Teams. The technical platform and sometimes unreliable internet access in some communities posed challenges.

Conclusion: The QI workshops were an excellent format for QI training, knowledge exchange, and development of QI innovations with support from Western Team members. A new tele/video-conference platform was tested to address technical challenges.

Abstract Number: 27

Group: CBPHC 12-Teams

Team: The Living with HIV Innovation Team (LHIV)

Primary Health Care for People Living with HIV

Claire Kendall[1,2,3,4,5], Marissa L Becker[6], Sean Rourke[5,7], Shabnam Asghari[8], Ron Rosenes[1], Christine Bibeau[1], Philip Lundrigan[1], Clare Liddy[1,2]

1. C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute, 2. University of Ottawa, 3. Institute of Clinical and Evaluative Sciences, 4. Ottawa Hospital Research Institute, 5. Li Ka Shing Knowledge Institute, 6. University of Manitoba, 7. University of Toronto, 8. Memorial University of Newfoundland

Background: With improvements in treatment and acute care, HIV has evolved to a chronic condition characterized by multiple co-morbidities, requiring a community-based, comprehensive approach.

Purpose: We aimed to conduct the foundational work required to shift the majority of HIV care to the primary healthcare community, while maintaining essential ties to specialist HIV care.

Methods: We used the Expanded Chronic Care Model (E-CCM) to understand how principles of chronic disease management can be applied to people living with HIV (PLWH). We constructed provincial cohorts of PLWH, and conducted surveys and interviews with clinics providing care for PLWH. We introduced an electronic-consultation system to improve access to specialist/sub-specialist care. We are conducting a SPOR-funded patient engagement project, “Citizen-Informed HIV Health System Change,” with the McMaster Health Forum.

Results: We developed comprehensive indicators of the quality of care provided to PLWH. We found that PLWH experience significant comorbidity, family physicians play an important role in providing care, PLWH have high levels of patient activation for self-management, and HIV care in Canada aligns with the E-CCM and the Patient-Centered Medical Home models, but with gaps in mental health care and prevention and management of chronic conditions. We improved the primary care-specialist interface in the care for PLWH. Citizen panels will facilitate the process for patient values and preferences to directly impact health care policy.

Conclusion: We confirmed that primary care plays an important role in care delivery for PLWH, particularly when reinforced with enhanced access to specialists. We also identified gaps for future research.

Abstract Number: 28

Group: CBPHC 12-Teams

Team: The Living with HIV Innovation Team (LHIV)

Clinical Cohorts in Manitoba and Newfoundland and Labrador

Esther Shoemaker[1,2,3,4], Marissa Becker[5], Clare Liddy[1,2], Leigh McClarty[5], Shabnam Asghari[6], Jillian Hurd[6], Sean Rourke[7,8], Souradet Shaw[5], Christine Bibeau[1], Ron Rosenes[1], Philip Lundrigan[1], Lois Crowe[1], Laurie Ireland[9], Carla Loeppky[10], Claire Kendall[1,2,3,4,7]

1 C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute, 2. University of Ottawa, 3. Institute of Clinical and Evaluative Sciences, 4. Ottawa Hospital Research Institute, 5. University of Manitoba, 6. Memorial University of Newfoundland, 7. Li Ka Shing Knowledge Institute, 8. University of Toronto, 9. Nine Circles Community Health Centre, 10. Manitoba Health

Background: High quality information and access to valid and reliable data are needed to make evidence-informed policy and public health decisions. In Canada, significant gaps remain with respect to comprehensive, population-level data that could guide resource allocation and healthcare delivery, including prevention, treatment and care for people living with HIV.

Purpose: The aim of this project was to create linked cohorts in two provinces to address data gaps.

Methods: We established new clinical cohorts of people living with HIV in Manitoba and Newfoundland and Labrador, and linked the data to provincial health administrative databases. We sought consent from patients during clinical encounters at HIV clinics and used already existing anonymized and de-identified clinical data in Manitoba and an iterative approach to extract variables using three different databases in Newfoundland and Labrador.

Results: Research funding has allowed the LHIV research team to develop clinical cohorts of people living with HIV in Manitoba and Newfoundland and Labrador, and has created platforms for linking these cohorts to provincial health administrative databases. Access to these data enabled researchers to conduct studies across provincial borders, to contribute to a national dialogue on HIV health system performance and to make evidence-based healthcare, health policy and public health recommendations.

Conclusion: Reliance on research funding to maintain cohorts compromises their sustainability. We support the establishment of a cross-jurisdictional approach to facilitate streamlined data collection and linkage without interruption and allow for meaningful analysis to inform national policies.

Abstract Number: 29

Group: CBPHC 12-Teams

Team: The Living with HIV Innovation Team (LHIV)

CBPHC's Role in Supporting the Expansion of Econsult BASE™ across Canada

Claire Kendall[1,2], Amir Afkham[3], Erin Keely[2,5], Lois Crowe[1], Clare Liddy[1,2]

1. C.T. Lamont Primary Health Care Research Centre, Bruyère Research Institute, 2. University of Ottawa, 3. Champlain Local Health Integration Network, 4. The Ottawa Hospital

Background: Support from the Community-Based Primary Health Care Team Grant "Advancing Primary Healthcare for People Living with HIV in Canada" has been pivotal in building national networks to expand eConsult services that improve communication between primary care providers and specialists, enhancing healthcare for people living with HIV.

Purpose: To describe how the CBPHC approach has supported the development of eConsult BASE™ in multiple jurisdictions in Canada and assess the impact of this novel service.

Methods: We provide an overview of the key steps taken to ensure equitable access for patients with HIV, highlighting its impact on patient care.

Results: The $2.5 million of funding to shift care for patients with HIV from specialists to the primary healthcare community has been instrumental in allowing us to build interjurisdictional partners on the provincial and national level, which facilitated scaling up an eConsult service into a multi-site project in three provinces (NL, MB, ON), beginning with HIV communities and expanding to include multiple specialty groups. We maintained a patient-centred approach throughout, ensuring opportunities for patients to contribute to the implementation process at every stage. We have generated a national network to support eConsult's expansion, exemplified by the Canadian Foundation for Healthcare Improvement's two-stage Connected Medicine eCollaborative, which selected eConsult as one of two supported innovations and facilitated its implementation in seven provinces across Canada.

Conclusion: We successfully leveraged a CBPHC grant to expand eConsult to new jurisdictions across Canada and build fruitful partnerships supporting better care for patients nation-wide.

Abstract Number: 30

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

The IMPACT Approach

Cathie Scott[1], on behalf of the IMPACT team

1. PolicyWise for Children and Families

Background: The IMPACT program applies an innovative approach to address gaps in "access to primary healthcare for vulnerable populations" (henceforth called "Access") that aims to be responsive to local needs and context.

Purpose: Describe the "IMPACT approach" and the lessons learned from its implementation in six international jurisdictions.

Methods: The IMPACT approach operates at two levels. A) Regional activities include: 1) establishing a partnership of stakeholders; 2) identifying the region's priority Access issues through deliberative processes; 3) selecting and adapting an intervention; and 4) implementing and evaluating the intervention. B) Centralized activities to support the regional activities include: 1) a governance structure and processes to manage the complexity of the program; 2) standardized protocols for all regional activities; 3) a global scoping review of Access interventions to inform intervention selection; and 4) rapid realist reviews to support adaptation and implementation of each of the proposed interventions. We have been evaluating the IMPACT approach as a multiple case study since 2014, conducting four waves of interviews with researchers and non-researcher partners.

Results: IMPACT sites are Canada (Quebec, Ontario, Alberta) and Australia (New South Wales, Victoria, South Australia). The way the IMPACT approach was implemented in each region varied. The evaluation data provide insight into the reasons for variation over time and the strengths and weaknesses of the IMPACT approach at both levels.

Conclusion: This six region case study allows us to understand the factors that support and challenge the implementation of this structured approach to conducting an international research program.

Abstract Number: 31

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

Outcomes of Interventions to Improve Access to Primary Health Care for Vulnerable Populations

Jeannie Haggerty[1], for the IMPACT team

1. McGill University

Background: This participatory action research program co-designed, implemented and evaluated innovations to improve access to primary health care (PHC) for vulnerable populations in three Canadian and three Australian regions. We describe community outcomes of the three Canadian interventions.

Purpose: The vulnerable populations and respective needs were: 1) in Alberta, a geographic area with few PHC services but high concentration of marginalized populations; 2) in Ontario, chronically ill PHC patients not receiving available community services for better management; 3) in Québec, problematic affiliation of unattached patients in socially deprived areas to newly assigned family physicians.

Methods: 1) In Alberta, pop-up events in community centres offering various PHC services; 2) in Ontario, practice facilitators inform clinicians about available services and patient navigators help referred patients prioritize health needs and access services; 3) in Québec, volunteers call patients prior to initial physician visits to explain access logistics and plan visits.

Results: In Alberta, pop-up attendees received four services on average, including dental care, medical checkups and social services. Strikingly, coordination and commitment among providers increased, resulting in new service provision. In Ontario, facilitation significantly increased use of community health services and improved independence finding services and perceived health status. In Quebec, attachment resulted in precipitous drops in unmet need for care, emergency room use and feeling abandoned in the health system, and significantly improved independence finding services.

Conclusion: This participatory action research resulted in successful implementation of locally relevant interventions. Decision makers in Canadian sites have committed to sustain them.

Abstract Number: 32

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

Data Collection in Interventions for Vulnerable Populations: Balancing Rigour & Adaptability

Jillian Barnes on behalf of the IMPACT team

Background: IMPACT is a participatory action research program to increase access to primary healthcare (PHC) in three Canadian and three Australian sites. The program involved different interventions with vulnerable populations, including recent immigrant, homeless, chronically ill, and unattached/poorly attached patients in deprived areas. For evaluation across sites, we used a common logic model and a rigorous pre-post mixed-method evaluation using validated indicators.

Purpose: Describe vulnerability-sensitive adaptations applied to data collection with vulnerable populations and highlight challenges.

Methods: Questionnaires included common mandatory questions, CBPHC indicators, and intervention-specific questions. They were administered in person to accommodate low-literacy respondents. In addition, we conducted semi-structured interviews with a purposively selected sample. Each site made adaptations to facilitate responses.

Results: A person-centred approach was used to accommodate patients. Key strategies included Integrating data collection into the design of each intervention. Telephone collection at respondents' convenience reduced burden and improved follow-up. Sensitive or awkward questions were often skipped to preserve relationships for follow-up. In some contexts, data collection interfered or competed with intervention delivery. One site ultimately abandoned quantitative data collection in favour of qualitative interviews and tools such as brief exit interviews to provide sufficient insight into impact and intervention improvement. In all sites, intervention participants exceeded those who were evaluated, making drawing conclusions from traditional comparative analyses difficult but generating internally coherent findings.

Conclusion: Traditional data collection methods pose major challenges to generating evidence of successful interventions for vulnerable populations. A person-centred approach and mixed-methods analyses are essential within the participatory action research paradigm.

Abstract Number: 33

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

Navigation to Improve Access to Primary Health Care for Vulnerable Population

Darene Toal-Sullivan[1], Christine Beaulieu[2], Ryan Mallard[3], Stephanie Perrin[4], Courtney Lundy[4], on behalf of the IMPACT team

1. Bruyère Research Institute, 2. St. Mary's Hospital Research Centre, 3. IMPACT, 4. PolicyWise for Children and Families

Background: As part of the Innovative Models Promoting Access-to-Care Transformation (IMPACT) research program, three primary healthcare (PHC) interventions were implemented in Quebec, Ontario, and Alberta, Canada. Each intervention was independently designed using participatory action research (PAR) methods to promote access to PHC for vulnerable populations. Navigation was common to these interventions, although how it was conceptualized and enacted varied.

Purpose: To identify the overlapping principles of navigation across different interventions and local contexts that aim to increase access to PHC.

Methods: Both the Ontario and Quebec interventions were implemented in primary care clinics, whereas the Alberta intervention was a mobile pop-up service offered in the community. Respectively in these interventions, navigation took the form of 1) a lay navigator working in primary care practices to assist patients accessing needed community resources, 2) volunteers helping guide patients in planning their first visit to a physician, and 3) service providers acting as navigators in assisting individuals to access services at pop-ups.

Results: Overarching principles for navigation were identified. These principles included the importance of fostering trusting relationships with service recipients; the need for adaptive and responsive navigation within complex primary health care systems, and engagement of stakeholders knowledgeable about PHC and their communities. Further, the practice of navigation has to be clearly taught and communicated to individuals assuming a navigator role, regardless of its disparate forms.

Conclusion: While navigation may manifest in different ways in complex, PHC interventions, these are guided by common principles to respond to access needs for vulnerable populations.

Abstract Number: 34

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

A case study of an innovative multi-stakeholder partnership in intervention development: Ottawa Local Innovation Partnership (LIP)

Simone Dahrouge[1], Divya Kanwar Bhati[1], Natacha Ndihokubwayo[1], Darene Anne Toal-Sullivan[1], Andrea Perna, Virginia Lewis[2], and Cathie Scott[3]

1. University of Ottawa and Bruyère Research Institute, 2. La Trobe University, 3. PolicyWise

Background: We undertook a research program to address the priority gap in access to primary healthcare in six regions (Canadian, Australian), and established a Local Innovation Partnership (LIP) of stakeholders in each to guide the process. The Ottawa (Ontario) region focused on improving equitable access to community resources.

Purpose: We report on the Ontario LIP collaboration in guiding this work.

Methods: Case study of the Ontario LIP. The LIP created in July/2015 included: 6 health planners/ home and community care leaders, 4 patients and 4 primary care providers. As the study evolved, 3 community service members were recruited. We met 9 times over 38 months.

Results: Meetings took place after-hours, lasted two hours and used deliberative processes to reach decision by consensus. Prominently displayed name tags and individual binders containing all meeting information were maintained throughout the study. Meetings started with a recap of the prior meeting's decisions/recommendations/actions taken, followed by other updates. Their input was solicited on key issues, usually discussed in small groups of the different stakeholder members, then as a large group for decisions. Examples of issues included: Intervention approach; Integrating navigator with existing services; Navigator's role; Target population; Appropriateness of patient research tools; Study primary endpoint; and Result interpretation. Patient partners' contribution was central to all, except integration. Knowledge translation is being planned.

Conclusions: Face-to-face partnership meetings involving multiple stakeholders led to well informed decisions because each member's contribution was equally informed by the other's views. The navigation model was successfully implemented, and the results encouraging.

Abstract Number: 35

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

Cross-Jurisdictional Collaboration for an Intervention-Driven Research Program

Émilie Dionne[1], on behalf of the IMPACT research team

1. St. Mary's Hospital Research Centre

Background: IMPACT is a Canadian-Australian participatory action research (PAR) program aiming to improve access to primary healthcare for vulnerable populations. IMPACT adopted a PAR approach to design, implement, and evaluate innovations in six regions.

Purpose: To share strategies to coordinate and ensure scientific rigor in a participatory action, multi-site research program.

Methods: Resources were invested to design and implement a structured approach, or "backbone organisation", to manage complex collaboration, contribute effective, scientifically rigorous implementation research, and make a collective impact. A backbone organisation is "dedicated to coordinating the various dimensions and collaborators involved in the initiative". The IMPACT team also relied on project management approaches and technology to build meaningful rapports and foster exchanges.

Results: Notwithstanding commonality and structural requirements, researchers need to be flexible. Fidelity of implementing the six designed community-based interventions was defined using the interventions' core principles, which included collective impact, capacity building, and mutual learning. A logic map approach helps to ensure rigour, clarity, pragmatism, and consistency in evaluative research. Bookkeeping is critical, and clear engagement guidelines from organisations facilitate vitality of partnerships when changes in membership happen. Well-delineated roles and responsibilities reduce conflicts, increase collaboration, and strengthen accountability.

Conclusion: Researchers are not usually project managers; project and risk management tools can help them meet their goals and stay true to their founding principles. Stakeholders are busy people; clear, systematic, and standardized communication mechanisms facilitate exchanges and minimize duplication. Technology generates new and innovative methods for participatory action-driven research.

Abstract Number: 36

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

Cross-Sectoral Collaboration for Participatory Action Research in Primary Healthcare

Stephanie Perrin[1], on behalf of the IMPACT research Team

1. PolicyWise for Children and Families

Background: IMPACT was a five year Canadian-Australian research program to enhance access to primary healthcare (PHC) for vulnerable populations. A Local Innovation Partnership (LIP) of key stakeholders including decision-makers, community members, health providers, health authorities, and patients was developed in each of the six project sites to guide and support the local intervention. Strategies were implemented for promoting and maintaining engagement of all members throughout project planning, implementation, evaluation, and knowledge mobilization.

Purpose: To share the participatory methods used to support cross-sectoral collaboration for effective partnerships in PHC.

Methods: Each LIP engaged stakeholders through a deliberative forum process in which they identified barriers and potential solutions to PHC access for vulnerable populations. LIPs then developed a local intervention to address the priority access gaps. As the project progressed, new partnerships were formed and existing partnerships evolved. Each LIP was purposeful about engaging in discussions with partners about emerging evidence from the implementation, needed actions, and how to support the sustainability of the intervention.

Results: Partnerships with diverse stakeholders were critical to the success of the intervention in each LIP. Diverse strategies to build and maintain partnerships over time were used, including effective leadership, building capacity, establishing clear partnership objectives, supporting ongoing learning, and promoting shared decision-making and collaboration at each stage of the research process.

Conclusion: Investing in purposeful partnership development strategies with a foundation in participatory research methods was critical to engaging communities in promising innovations to improve PHC access.

Abstract Number: 37

Group: CBPHC 12-Teams

Team: Innovative models promoting access-to-care transformation (IMPACT)

Group Facilitation: A Winning Strategy for Stakeholder Engagement

Mélanie Ann Smithman[1], on behalf of the IMPACT team

1. Université de Sherbrooke

Background: Innovative Models Promoting Access-to-Care Transformation (IMPACT) is a participatory action research program that aimed to design, implement and evaluate innovations to improve access to primary health care for vulnerable populations in Quebec, Ontario, Alberta and three Australian states. In each site, stakeholders, including decision-makers, researchers, health professionals and community representatives, established strategic orientations and codesigned an innovation. IMPACT invested in facilitator-training for project coordinators and applied group facilitation strategies to ensure meaningful dialogue and collective decision-making between different stakeholders.

Purpose: To share how IMPACT used group facilitation to engage diverse stakeholders.

Methods: Team members were trained in group facilitation by experienced facilitators. Facilitation strategies and tools were shared across the team throughout the study (e.g. storyboards, 1-2-4-All, fishbowl, after-action-review). Coordinators planned and facilitated both research team and stakeholder meetings and received feedback on their facilitation; some received additional facilitation training.

Results: Group facilitation with diverse stakeholders helped increase stakeholder participation in meetings and ensure different perspectives were heard. Principal investigators were able focus on collective decision-making rather than meeting management. Purposeful planning and specific facilitation activities helped achieve consensus, fruitful deliberations, collective decision-making and to maintain momentum. Investing in the development of facilitation capacities internally, rather than relying on professional facilitators, reduced costs, increased relevance and appropriateness of facilitation strategies to context, and, through continuity and consistency, contributed to developing trust and engagement among stakeholders.

Conclusion: Group facilitation has been a winning strategy to promote stakeholder engagement throughout our research program and is a novel form of capacity building.

Abstract Number: 38

Group: CBPHC 12-Teams

Team: Canadian chronic disease awareness and management program (C-ChAMP)

Pragmatic Cluster Randomized Controlled Trial of the Cardiovascular Health Awareness Program (CHAP) in Subsidized Social Housing Research Protocol

Gina Agarwal[1], Janusz Kaczorowski[2], Lisa Dolovich[3], Marie-Thérèse Lussier[4], Magali Girard[2], Martine Fournier[2], Francine Marzanek[1], Ricardo Angeles[1], Melissa Pirrie[1], Andrea Ziesmann[1], Jenna Parascandalo[1]

1. McMaster University, 2. Centre de recherche du Centre hospitalier de l'Université de Montréal (CHUM), 3. University of Toronto, 4. Centre intégré de santé et de services sociaux de Laval

Background: Older adults living in subsidized social housing units report poorer health status and suffer from a multitude of chronic illnesses, such as cardiovascular disease (CVD) and diabetes, compared to those living in unsubsidized housing units.

Purpose: The proposed study applies more than 15 years of work conducted as part of the Cardiovascular Health Awareness Program (CHAP) to the goal of improving cardiovascular health of seniors living in subsidized social housing of Ontario and Quebec. The primary research question is: Is there a difference in health care utilization (as measured by ED visits and hospitalization rate) in subsidized seniors' housing buildings receiving the CHAP program compared to matched buildings not receiving the program?

Methods: The trial is a parallel randomized controlled trial, open-label study. Residents in selected subsidized housing buildings in Ontario and Quebec forms a closed cohort. The unit of analysis are subsidized housing buildings (low income) for those aged 55 years and over. The intervention is an on-site drop-in, monthly, cardiovascular (blood pressure and diabetes) risk assessment program, followed by a community-led group health session that delivers education, and information about access to community health resources. Residents have the following risk assessments: Blood pressure, CVD and diabetes risk score (CANRISK). The program is delivered for one year. The control buildings do not receive any programming beyond their existing resources.

Results: Data will be extracted from provincial administrative datasets on health care utilization per building (identifiable due to unique postal codes). Comparisons will be made between intervention and control groups concerning the primary outcome (healthcare utilization rates: ED visits, CVD hospitalization rates, specialist and primary care visits) and secondary outcomes, during 1 year trial period and 1 year pre-trial.

Conclusion: By adapting and evaluating the effectiveness of CHAP in subsidized social housing, we will develop the tools and strategies needed to undertake further large scale Canadian and international implementations, and to produce a transformative change in healthcare delivery at all levels. The positive impact it will have on subsidized housing and communities is substantial; we anticipate improved collaboration between family physicians, their staff, and community organizations, and training of a new cohort of peer health educators.

Abstract Number: 39

Group: CBPHC 12-Teams

Team: Canadian chronic disease awareness and management program (C-ChAMP)

Finding the Optimal Conditions to Scale Up and Sustain the Cardiovascular Health Awareness Program

Janusz Kaczorowski[1], Gina Agarwal[2], Tamara Daly[3], Simone Darhouge[4], Lisa Dolovich[5], Marie-Thérèse Lussier[6], Magali Girard[1], Martine Fournier[1], Francine Marzanek[2], Ricardo Angeles[2], Melissa Pirrie[2], Andrea Ziesmann[2], Jenna Parascandalo[2]

1. Centre de recherche du Centre hospitalier de l'Université de Montréal (CHUM), 2. McMaster University, 3. York University, 4. University of Ottawa, 5. University of Toronto, 6. Centre intégré de santé et de services sociaux de Laval

Background: CHAP is a community-based, interdisciplinary, patient-centred cardiometabolic prevention and management program, based on Wagner's chronic care model. CHAP is implemented, refined and evaluated since 2000.

Purpose: The Canadian Chronic Disease Awareness and Management Program (C-ChAMP), based on the success of the Cardiovascular Health Awareness Program (CHAP), aims to significantly improve community and population-based prevention and management of chronic disease.

Methods: This program of research builds on 15 years of research around development, implementation and evaluation of CHAP in a variety of settings, and similar work conducted by our partners and collaborators. It is comprised of a series of interrelated research projects that will facilitate and accelerate the evolution of CHAP by filling important knowledge gaps and moving beyond the original program in terms of breadth and depth (coverage and content).

Results: The C-ChAMP team has been actively working toward reaching its goals of adapting the program to different populations and settings, and working toward identifying the optimal conditions for the program's sustainability and scalability. CHAP sessions have been offered to younger participants, ethnic minority populations (South-Asians), participants in large urban and suburban communities, and offered in a variety of new settings including Family Health Teams and community settings. We are now starting a RCT in subsidized social housing units in Ontario and Quebec. Sessions now include prediabetes, type 2 diabetes risk evaluations. In parallel, the volunteer training curriculum and tools have been adapted to fit each site target population, larger socioeconomic context and project scale.

Conclusion: With C-ChAMP, we are filling the outstanding knowledge gaps, identifying appropriate conditions for scaling up, establishing coalitions and leveraging resources with communities to enable CHAP to be more widely implemented, and cover a greater range of risk factors for cardiometabolic disease.

Abstract Number: 40

Group: CBPHC 12-Teams

Team: Canadian chronic disease awareness and management program (C-ChAMP)

Comparing Demographics and Risk Factors Profiles of Older Adults in Social Housing in Ontario and Quebec

Gina Agarwal[1], Melissa Pirrie[1], Ricardo Angeles[1], Francine Marzanek[1], Andrea Ziesmann[1], Jenna Parascandalo[2,], Magali Girard[2], Martine Fournier[2], Janusz Kaczorowski[2]

1. McMaster University Department of Family Medicine, 2. Centre de recherche du Centre hospitalier de l'Université de Montréal (CHUM)

Background: Older adults living in subsidized housing are a vulnerable population that is at increased risk of developing chronic diseases, have poorer health literacy and mental health, and more likely to be social isolated. The Health Awareness and Behaviour Tool (HABiT) is a validated, comprehensive, multidimensional questionnaire that measures health knowledge, self-reported health status, health-related quality of life, current health status and behaviours, healthcare utilization and access, health behaviour change (intent, self-efficacy), and health literacy in older adults.

Purpose: To compare the demographics and prevalence of cardiometabolic disease risk factors of social housing residents in Ontario and Quebec.

Methods: Cross-sectional study of 2 databases. Data was collected from Ontario (25 buildings, 5 municipalities) and Quebec (4 buildings, 1 municipality). HABiT survey was interviewer-administered to residents recruited via consecutive sampling.

Results: 1,181 residents completed the survey (1,101-Ontario; 80-Quebec). 67% of Ontario participants were female versus 87.5% in Quebec. Ages were similar at 72.4 (SD=8.8) and 73.2 (SD=8.8) years. All figures, except high alcohol intake, were higher in Quebec compared to Ontario: (ON vs. QC) risk of diabetes (50.1% vs. 73.0%); low fruits/vegetable intake (39.3% vs. 53.8%), low physical activity (49.6% vs. 63.7%), high alcohol intake (3.1% vs. 2.6%), and poor health literacy (82.8% vs. 90.0%).

Conclusion: Older adults in subsidized housing buildings in Quebec have a poorer risk factor profile compared Ontario. The risk factor profile from both study populations were much higher than the general older adult population indicating that older adults living in subsidized housing are vulnerable and require appropriate health promotion programming.

Abstract Number: 41

Group: CBPHC 12-Teams

Team: Canadian chronic disease awareness and management program (C-ChAMP)

Roles of Volunteers in Program Delivery and Evaluation of a Cardiovascular Awareness Program

Marie-Thérèse Lussier[1], Janusz Kaczorowski[1], Magali Girard[1], Emmanuelle Arpin[2], Martine Fournier[1]

1. Centre intégré de santé et de services sociaux de Laval, Centre de recherche du Centre hospitalier de l'Université de Montréal (CHUM), 2. Université de Toronto

Background: The contribution of volunteers in health promotion programs is well documented with regards to their capacity to support chronic disease management. However, they have been less frequently involved in health research studies. Drawing on the patient engagement literature, our research team involved volunteers in the data collection and evaluation of CHAP sessions as part of the program's implementation in Quebec.

Purpose: The aim of this paper is to report specifically on volunteers feedbacks on successive CHAP implementations in Quebec. We hypothesized that volunteers can be engaged and make a meaningful contribution to the research process, enabling the research team to gain important insights into the needs of the target community, and to modify the interventions accordingly.

Methods: The CHAP research team conducted a series of projects to test the CHAP model for the first time in Quebec. Volunteers were involved in the program delivery and evaluation of each of these projects. During CHAP sessions, volunteers : 1) assisted with accurate measurement of participants' blood pressure and completing a cardiometabolic risk profile, 2) provided participants with educational messages about lifestyle modifications, and 3) recommended locally available free or low cost resources. After each CHAP implementations, we sought volunteers' formal feedback and input through individual online and phone interviews and through focus groups for each of the four projects conducted in the province.

Results: We found that volunteers can provide valuable insight and important feedback on the research protocol as well as patient needs. Their feedback led to several modifications to the organisation of subsequent CHAP sessions. This included several logistical improvements to the delivery of CHAP sessions, and adding more modules and practice sessions during the volunteer training.

Conclusion: Having a unique perspective and a privileged link with participants in the research process, the volunteers will have made it possible to make several practical and applied innovations to CHAP projects. This information is useful to the research process to inform subsequent CHAP projects. In our case specifically, we were able to understand best practices for the volunteers training and program delivery and facilitation.

Abstract Number: 42

Group: CBPHC 12-Teams

Team: Canadian chronic disease awareness and management program (C-ChAMP)

The Cardiovascular Health Awareness Program's Unique Partnership with a Canadian Humanitarian Charitable Organization

Gina Agarwal[1], Melissa Pirrie[1], Ricardo Angeles[1], Francine Marzanek[1], Andrea Ziesmann[1], Jenna Parascandalo[1]

1. McMaster University

Background: The McMaster University Department of Family Medicine and the Canadian Red Cross (CRC) are collaborating to implement the Cardiovascular Health Awareness Program (CHAP) Randomized Control Trial in 7 intervention sites in Niagara, Ontario. A new model of CHAP has evolved with the development of an enhanced volunteer training program, and the additional support and expertise to effectively implement CHAP in a new setting.

Purpose: This unique partnership has the potential to enhance CHAP delivery, sustainability and increase awareness of the program. CRC volunteers will acquire an expanded skill set beyond basic First Aid training. This 1-year study allows CRC volunteers to observe the impact of their work on the health of older adults over time.

Methods: Development of a Memorandum of Understanding to establish a clear understanding of each organization's project role. Regularly scheduled meetings facilitate the collaborative role of the partnership.

Results: Roles and responsibilities of each partner have been established to ensure efficient and effective program planning, implementation and evaluation. CRC will lead the engagement, recruitment, First Aid training, management, coordinating, and ongoing support of CHAP volunteers. Volunteers will implement the program and collect data. The McMaster CHAP team will provide project oversight and materials, CHAP specific training, conduct a program evaluation, and ensure RCT methodology is applied with the established protocol.

Conclusions: With a shared vision, to improve the health and well-being of vulnerable populations, and complementary strengths and resources, this partnership intends to have a significant impact on seniors health and the health care system.

Abstract Number: 43

Group: CBPHC 12-Teams

Team: Ageing and Community Health Research Unit (ACHRU)

Engaging Stakeholders in the Evaluation of Complex Community-Based Interventions: ACHRU

Maureen Markle-Reid[1], Jenny Ploeg[1], Ruta Valaitis[1], Rebecca Ganann[1], on behalf of the ACHRU team

1. McMaster University

Background: The goal of the Aging, Community and Health Research Unit (ACHRU) is to promote optimal aging at home for older adults with multimorbidity (>2 chronic conditions) and to support their family/friend caregivers.

Purpose: The objective of this presentation is to describe the innovative strategies that were used in this cross-jurisdictional research program to: (i) co-design integrated and person-centred interventions with older adults, family/friend caregivers, and providers, (ii) examine the feasibility of newly designed interventions, (iii) determine intervention effectiveness on Quadruple Aim outcomes (health, patient/caregiver experience, provider experience, cost), (iv) examine intervention context and implementation barriers/facilitators, (v) use diverse integrated knowledge translation strategies to engage relevant stakeholders to enhance scalability and sustainability of effective interventions, and (vi) build patient-oriented research capacity.

Methods: The research program was informed by the Knowledge-To-Action Framework and the Complexity Model and uses three guiding principles: (1) the need for a collective impact approach, (2) the need for integrated person-centred interventions, and (3) the need for innovative research designs and methods. A variety of strategies tailored to audience were used to engage stakeholders (patients, caregivers, providers, researchers, decision-makers) throughout the research program.

Results: The research program advanced implementation science by identifying novel strategies to: (1) co-design interventions; (2) evaluate implementation and impact of these interventions; and (3) meaningfully engage stakeholders as research partners.

Conclusion: Knowledge generated from this research program will inform the development of effective and scalable person-centred interventions that are sustainable through inter-agency and inter-sectoral partnerships with community-based agencies and policy-makers.

Abstract Number: 44

Group: CBPHC 12-Teams

Team: Ageing and Community Health Research Unit (ACHRU)

ACHRU Community Program Improves Quality of Life and Self-Management in Older Adults with Comorbidity

Jenny Ploeg[1], Maureen Markle-Reid[1], Kimberly Fraser[2], Kathryn Fisher[1], Amy Bartholomew[1], Lauren Griffith[1], John Miklavcic[2], Amiram Gafni[1], Lehana Thabane[1], Ross Upshur[3]

1. McMaster University, 2. University of Alberta, 3. University of Toronto

Background: New models of health care are needed to address the complex health and social care needs of older adults who have diabetes and comorbidities.

Purpose: Compare the effectiveness of a 6-month community-based intervention with usual care in older adults with type 2 diabetes and 2 or more comorbidities. Outcomes included quality of life (primary) depressive symptoms, anxiety, self-efficacy, self-management, and healthcare costs.

Methods: This two-arm, parallel, pragmatic randomized controlled trial was conducted in four Ontario communities with 159 persons. The intervention was a client-driven, customized self-management program with up to 3 in-home visits from a registered nurse or registered dietitian, a monthly group wellness program, monthly provider team case conference, and care coordination and system navigation.

Results: Intention-to-treat analyses using analysis of covariance showed a group difference favoring the intervention for the Mental Component Summary score of the SF-12 (mean difference (MD) = 2.68, 95% CI = 0.28-5.09, P=.03), self-management assessed with the Summary of Diabetes Self-Care Activities (MD = 3.79, 95% CI = 1.02-6.56, P=.01), and depressive symptoms assessed with the CESD-10 (MD= -1.45, 95% CI= -0.13—2.76, P=.03). No group differences were seen in the SF-12 Physical Component Summary score, anxiety, self-efficacy, or total healthcare costs.

Conclusion: Participation in a 6-month community-based program improved quality of life and self-management and reduced depressive symptoms in older adults with diabetes and comorbidity without increasing total healthcare costs. Implementation of this intervention may be a promising model to address gaps in quality care delivery for this complex and underserved population.

Abstract Number: 45

Group: CBPHC 12-Teams

Team: The Patient-Centred Innovations for Persons with Multimorbidity (PACE in MM)

Benefits to Patients, Family Physicians, and TIP Healthcare Team Members

Judith Belle Brown[1], Pauline Boeckxstaens[1], Sonja Reichert[1], Moira Stewart[1], Martin Fortin[2]

1. Western University, 2. University of Sherbrooke

Background: Patients with multimorbidity (MM) require the expertise of multiple healthcare professionals which is often fragmented in delivery. The Telemedicine IMPACT Plus (TIP) is an innovative primary health care team (PHC) delivering a one-hour consultation, outside of usual care, for patients with MM.

Purpose: To explore the perceived benefits of participating in a TIP consultation as experienced by patients, family physicians, and the TIP healthcare team members.

Methods: A descriptive qualitative study using 45-60 minute semi-structured interviews. Interviews were transcribed verbatim and analyzed using an iterative and interpretative process. Through both individual and team analysis, key themes were identified. A total of 62 interviews were conducted including 14 patients; 20 allied healthcare professionals; 10 physicians; 9 decision makers; and 9 family physicians.

Results: All participants articulated specific benefits from participating in a TIP consultation. Patients expressed feeling heard and cared for by the TIP team. They appreciated receiving strategies to better manage their multimorbidity and described feeling like a member of the team. The family physicians described receiving reassurance and positive feedback about their patient care which helped them feel less isolated in caring for their patients. The TIP team expressed the benefit of practicing in an interdisciplinary team which promoted sharing of knowledge and skills that assisted them in understanding all aspects of the patients' life.

Conclusion: Each group expressed unique benefits, yet they all shared a common experience of enhanced communication and collaboration through the TIP consultation. These findings suggest the need for similar innovative teams in PHC.

Abstract Number: 46

Group: CBPHC 12-Teams

Team: The Patient-Centred Innovations for Persons with Multimorbidity (PACE in MM)

Effective Patient-Centered Care for Complex Patients with Multimorbidity: A Synthesis of Existing Evidence

Martin Fortin[1], Moira Stewart[2], and the PACE in MM Team Members

1. University of Sherbrooke, 2. Western University

Background: Evidence is growing on successful features of care for complex patients with multimorbidity but needs to be synthesized in order to prepare for implementation.

Purpose: Synthesize evidence on successful features of such care.

Methods: In Quebec and Ontario, secondary analysis and qualitative synthesis of two sources was conducted: 1) Scoping review of 51 papers on interventions on patient-centred care generally and on multimorbidity; and 2) Realist Synthesis of 12 selected chronic diseases prevention and management (CDPM) program evaluations. The CDPM programs selected addressed patient-centered care for persons with multimorbidity linked to primary care practices and have performed a rigorous evaluation. Findings from the two sources were searched for commonalities and importance.

Results: Five features of effective interventions emerged as the outcome from both sources: Shared philosophy of care among the stakeholders (with three successful elements including focus on the patient not on single disease); internal relations of the care team (with four elements including co-location of the team and a dedicated point person for the patient); external linkages of the care (with four elements for example a strong partnership with the decision makers and the local health care organizations); professional training (with four elements); and relations with patients (with seven elements including: unique individualized care, mutual agreement on goal setting, and sustain motivation).

Conclusions: Using a creative process, this synthesis identified five features and 22 elements providing guidance on the essential facets of patient-centered care for complex patients with multimorbidity that could be used for implementation and scaling-up.

Abstract Number: 47

Group: CBPHC 12-Teams

Team: The Patient-Centred Innovations for Persons with Multimorbidity (PACE in MM)

Assessing the Implementation Fidelity of an Interdisciplinary Intervention for Multimorbidity in Primary Care

Patrice Ngangue[1], Catherine Forgues[1], Martin Desmeules[1], Tarek Bouhali[1], Maxime Sasseville[1], Tu Nguyen[1], Maud-Christine-Chouinard[2], Frances Gallagher[1], Moira Stewart[3], Martin Fortin[1]

1. Université de Sherbrooke, 2. Université du Québec à Chicoutimi, 3. Western University

Background: Implementation fidelity is the degree to which a program is implemented as originally planned.

Purpose: To demonstrate how the assessment of fidelity can improve understanding of the implementation process of an interdisciplinary intervention for multimorbidity in primary care.

Methods: An interdisciplinary pragmatic intervention aimed at self-management of patients with single or multiple chronic diseases (multimorbidity) was implemented at three levels (organizational, healthcare professionals and patients) among eleven family medicine groups in the Saguenay-Lac-St-Jean region, Quebec. To assess fidelity, key intervention components were identified, and data (semi-structured interviews and documents) were analyzed using Carroll's implementation fidelity framework. Adherence (content, coverage, dose) and adaptations were assessed per intervention. Moderating factors (quality of delivery, intervention complexity, participant responsiveness and facilitation strategies) were also identified.

Results: No intervention component had been implemented without adaptations. The adherence ranged from low (e.g. functioning of communities of practice), moderate (e.g. relocation and integration of professionals in the FMG) and high (e.g. patient's initial assessment by the nurse). The degree of adherence varied with dose and coverage. All components required adaptations (e.g. recruitment of healthcare professionals). Several contextual factors prompted implementers, stakeholders, and healthcare professionals to deviate from the protocol (health system reforms, lack of human and financial resources, staff turnover, lack of interest and motivation of some patients).

Conclusions: No intervention component has been implemented with an optimal fidelity. Interventions implemented in the real world lead to adaptations influenced by contextual factors.

Abstract Number: 48

Group: CBPHC 12-Teams

Team: The Patient-Centred Innovations for Persons with Multimorbidity (PACE in MM)

Social Vulnerability in Patients with Multimorbidity

Tu Nguyen[1], Patrice Ngangue[1], Tarek Bouhali[1], Bridget Ryan[1], Moira Stewart[2], Martin Fortin[1]

1. Université de Sherbrooke, 2. Western University

Background: Social vulnerability is an emerging research topic. However, there has been little evidence about the relationship between social vulnerability and multimorbidity.

Purpose: To describe social vulnerability and its correlation with the number of chronic diseases in patients with multimorbidity.

Methods: A cross-sectional analysis from the baseline data of the PACEinMM Study. Participants were patients with multimorbidity (having 3 conditions from a list of 21 self-reported chronic diseases) attended primary health care settings in Quebec, Canada. A social vulnerability index proposed by Andrew et al in Canadian population studies was applied with some adaptations. From the baseline data of PACEinMM, a total of 19 self-reported variables relating to social factors was identified and grouped into 6 dimensions: Communication to engage in wider community, Living situation, Social support, Social engagement and leisure, Empowerment and life control, Socio-economic status. The social vulnerability index value ranges from 0 to 1, with 1 as the most vulnerable.

Results: N=301, mean age 61.0±10.5, 53.2% female. The mean number of chronic health conditions was 5.01±1.82, with the most common were hyperlipidemia (78.1%), hypertension (69.4%) and obesity (54.2%). The social vulnerability index has a median value of 0.13 (range 0.00-0.78). Social vulnerability level was associated with increased number of chronic diseases (beta-coefficient 0.28, p<0.001). Obesity (OR 2.74, 95%CI 1.43-5.27), depression/anxiety (OR 2.28, 95%CI 1.25-4.15), and cardiovascular diseases (OR 2.38, 95%CI 1.17-4.84) were independently associated with the most social vulnerable patients with multimorbidity.

Conclusion: There was a significant correlation between social vulnerability and the total number of chronic diseases.

Abstract Number: 49

Group: CBPHC 12-Teams

Team: The Patient-Centred Innovations for Persons with Multimorbidity (PACE in MM)

Making Sense of Patient Outcomes in Multimorbidity Chronic Disease Management

Maxime Sasseville[1], Marie-Christine Chouinard[2], Moira Stewart[3], Martin Fortin[1]

1. Université de Sherbrooke, 2. Université du Québec à Chicoutimi, 3. University of Western Ontario

Context: Although evidence exists of the positive effects of multimorbidity-oriented chronic disease management intervention on patients, the outcomes of these interventions are still difficult to address, partly due to a lack of measures adapted to multimorbidity. This study is part of an original ongoing research project on the development of an outcomes measure in a multimorbidity context.

Objective: From the perspective of patients and providers, to portray domains of outcomes of chronic disease management interventions for multimorbidity, in primary healthcare.

Setting: Six family medicine groups, Quebec, Canada.

Design: Qualitative interpretative description.

Participants: French-speaking adults and health professionals participating in interdisciplinary, integrated patient-centred chronic disease management interventions.

Methods: Semi-structured interviews with 10 people with multimorbidity, 15 healthcare professionals (nurses, physicians, nutritionists, physical activity therapists, respiratory therapists), all of which participated in chronic disease management interventions for people with multimorbidity. Open-ended interview questions, multiple interviewers with different backgrounds, research team debriefing and data saturation assessment ensured rigorous data collection and analysis.

Results: The 34 initially identified outcome themes were then reduced to 21 outcome dimensions using thematic analysis and grouped into seven outcome domains: Disease management, Functional status, Physical symptoms, Psychosocial health, Health-oriented behaviours, General health and Health services. The dimensions defined describe a wide range of possible outcomes: Self-management, Knowledge improvement, Awareness, Empowerment, Self-efficacy, Limitations in daily activities, Pain and physical symptoms, Energy, Weight, Anxiety, Emotional well-being, Social impact, Physical activity, Healthy eating, Smoking habits, Alcohol consumption, Quality of life, Feeling of being healthy, Life-changing feeling, Patient satisfaction and services use.

Conclusion: An accurate assessment of chronic disease interventions for people with multimorbidity is a critical effort to correctly assess the effectiveness and optimize the effort of multiple research teams trying to adapt intervention to the multimorbidity situation.

Abstract Number: 50

Group: CBPHC 12-Teams

Team: The Patient-Centred Innovations for Persons with Multimorbidity (PACE in MM)

A Communicating Health Care System: Top Down Meets Bottom Up in Ontario's Health Links

Moira Stewart[1], Rob Van Hoorn[1], Martin Fortin[2]

1. Western University, 2. University Sherbrooke

Background: Health care systems are complex adaptive systems in which communication may or may not occur from level to level: policy level, program level, provider level and patient level.

Purpose: To describe the four levels of Ontario's health care system; and to illustrate communication patterns among and between them.

Methods: We undertook a policy paper review to identify the issues pertinent to each of the four levels. To illustrate communication patterns among and between the levels, we undertook a qualitative inquiry of the health care system experiences of four key informants in one Health Links program.

Results: The four levels and their key issues were: policy level with its perceived need for a patient-centered system; the program level of Health Links in Ontario with its personalized care plans, the provider level with its key commitments to integrated/coordinated care; and the patient level with their message of the need for a responsive system. Three dynamic communication patterns were identified. The first, called "the patient voice", was mostly a top-down communication. The second communication pattern, called "active participation", was mostly a bottom-up communication. The third communication pattern, called "sustained and coordinated care", was a top-down and bottom-up set of communications.

Conclusion: The identified key issues at each level were shared in what can be called a communicating health care system.

Abstract Number: 51

Group: PIHCIN

A Cross Provincial Application of the PACE in MM Framework to Compare Programs for Patients with Multimorbidity in Interprofessional Collaborative Family Practice Teams in Primary Care

Ruth Martin-Misener[1], Tara Sampalli[2], Martin Fortin[3], Moira Stewart[4], Larry Baxter[5], K. Peacock, Fred Burge[1], Kris Aubrey[6]

1. Dalhousie University, 2. Nova Scotia Health Authority, 3. Université de Sherbrooke, 4. Western University, 5. Patient Advisor, Nova Scotia, 6. Memorial University

Background: Strong evidence for the essentials of care for patients with complex needs has been synthesized into five features: shared philosophy; internal relations of the care team; external linkages of the care; professional training; and relations with patients. These features are synergistic with the evolution of patient-centred interprofessional team-based care in Nova Scotia (NS) and Newfoundland (NL).

Purpose: To explore whether the care provided by selected primary care (PC) teams in NS and NL is in keeping with the five features of the Patient-Centered Innovations for Persons with Multimorbidity (PACE in MM) Framework described above.

Methods: Comparative case study with embedded units. Provincial environmental scans and primary data (value stream mapping, interviews, and patient experience survey) from 6-8 PC practices will be collected in NS and NL. Secondary data from the PACE in MM study will be used in Ontario and Quebec. Data will be analyzed using content analysis and descriptive statistics. Patients are engaged in all steps of the research process.

Results: Features of the PACE in MM framework that are present or missing will be revealed and the reasons for this better understood. Features not found but deemed to be necessary will be considered. The patient voice in PC team processes will be strengthened and promising MM programs identified.

Conclusion: Knowledge about what and how programs for patients with MM are being offered by PC teams will be advanced and opportunities for patient-centred improvements identified. Ongoing refinements to the PACE in MM framework will be enabled.

Abstract Number: 52

Group: CBPHC 12-Teams

Team: Implementing Integrated Care for Older Adults with Complex Health Needs (iCOACH)

What is Important to People with Multimorbidity and their Caregivers? Identifying Attributes of Person Centred Primary Health Care from the User Perspective

Kerry Kuluski[1, 2], Alexandra Peckham[1], Ashlinder Gill[1], Dominique Gagnon[3], Sophie Dumas[4], Nicolette Sheridan[5], Ann McKillop[6], Cecilia Wong-Cornall[6], John Parsons[6]

1. University of Toronto, 2 Lunenfeld-Tanenbaum Research Institute, 3 Université du Québec en Abitibi-Témiscamingue, 4. Université de Sherbrooke, 5. Massey University, 6 University of Auckland

Background: Health systems are striving to provide care that is ‘person centred’—aligned with the needs and values of those receiving it. Partnerships and linkages between care settings such as primary care and the community sector (i.e., community based primary health care) has the goal of enabling better care and outcomes for people. It is unclear, however, if within these models, patients and caregivers perceive their care to be person-centered. In this study we capture what matters most to people with complex care needs and their caregivers.

Methods: This qualitative descriptive study entailed one-to-one interviews with older adults with complex care needs receiving CBPHC in Ontario, Quebec and New Zealand as well as caregivers. The data were analyzed using inductive and deductive approaches to identify core categories.

Results: Outcomes of importance were: feeling heard, appreciated and comfortable; having someone to count on; understanding how to manage health and what to expect; being independent; feeling safe; and easily accessing health and social care. There were a number of activities associated with each outcome including (and not limited to): being treated like a friend; having the contact information of a responsive provider; being given clear explanations of different treatment options; having the opportunity to partake in meaningful hobbies; having homes adapted to support limitations; and being accompanied to health and social activities.

Conclusion: Through a large international collection of interviews of culturally diverse patients with multi-morbidity and their caregivers, we outline what person centered care means to people.

Abstract Number: 53

Group: CBPHC 12-Teams

Team: Implementing Integrated Care for Older Adults with Complex Health Needs (iCOACH)

Using Novel Qualitative Analytic Techniques in the iCOACH Project: Managing Large Data Sets to Better Understand Information Communication Technology Use

Carolyn Steele Gray[1], Jan Barnsley, Dominique Gagnon[2], Louise Belzile[3], Tim Kenealy[4], James Shaw[5], Nicolette Sheridan[6], Paul Wankah Nji[3], Walter Wodchis[7]

1. University of Toronto, 2. Université du Québec en Abitibi-Témiscamingue, 3. Université de Sherbrooke, 4. University of Auckland, 5. Women's College Research Institute, 6. Massey University, 7. Trillium Health Partners

Background: The iCOACH project explores implementation of 9 integrated community-based primary health care (iCPBHC) models across 3 jurisdictions; Ontario, Quebec and New Zealand. Engaging in comparative case analysis of diverse models across different contexts poses a unique methodological challenge. We adopted novel analytic approaches to guide a sub-study exploring information communication technology (ICT) use in these models.

Purpose: Two research questions were posed: 1) what functionality, use and role does ICT play to enable activities of integrated models of community-based primary health care? And 2) what are the implementation enablers and challenges in adopting ICT across different organizational contexts? Data from 137 interviews with providers and managers across the 9 cases were extracted, and posed a unique qualitative analytic challenge.

Methods: An embedded comparative multiple case study approach was adopted using Yin's word tables method to consolidate large qualitative data sets. A literature review was used to identify relevant theoretical frameworks adopted to guide construction of the word tables. Jurisdictional sub-teams were used to develop word tables for analysis, allowing for the integration of context specific knowledge held by researchers working on the ground across different cases.

Results: The theoretically driven world table method ensured standardization of analysis across a large team. This allowed for comparison of data across diverse cases, generating surprising findings of unexpected similarities and differences across cases.

Conclusion: The methods used to answer research questions supported both depth and breadth of analysis. Looking across diverse cases, enhances transferability of findings and potential impact of this sub-study.

Abstract Number: 54

Group: CBPHC 12-Teams

Team: Implementing Integrated Care for Older Adults with Complex Health Needs (iCOACH)

Building Insights for the Scale and Spread of Integrated Care: Early Findings and Future Directions in the iCOACH Project

James Shaw[1], Ross Baker[1], Carolyn Steele Gray[1], Mylaine Breton[2], Paul Wankaj-Nji[2], Tim Kenealy[3], Nicolette Sheridan[4], Ann McKillop[3], Agnes Grudniewicz[5], Elana Commisso[1], Walter Wodchis[1]

1. University of Toronto, 2. Universite de Sherbrooke, 3. University of Auckland, 4. Massey University, 5. University of Ottawa

Background: The iCOACH project involves 9 integrated models of community-based primary health care (CBPHC) in Ontario, Quebec and New Zealand. The primary goal of the project is to generate insights on the scale and spread of CBPHC.

Purpose: First, to outline insights regarding the ways in which activities of integrated care are implemented, and subsequently lead to improved outcomes from patients' perspectives. Second, to present advances in conceptualizing how these insights can be used to inform scale and spread.

Methods: This presentation highlights qualitative case studies and a literature review. Specifically: (1) Development of a codebook inductively; (2) Targeted literature review identifying existing reviews of key activities of integrated CBPHC; (3) Mapping the findings of the literature review to coded qualitative data; and (4) Identifying mechanisms and the relevant contexts in which activities are implemented and spread.

Results: We found 32 activities of integrated CBPHC in the literature that were present in our organizational case studies. These activities were implemented through a series of mechanisms by which health and social care providers were encouraged to work together to address the needs of patients. The activities, once implemented, in turn activated mechanisms that helped to achieve patient outcomes.

Conclusion: Although it is important to understand the activities that constitute integrated care, it may be more important to understand the mechanisms by which they are implemented and have their effects. Future work will further examine the relevance of the activities and mechanisms we identified through a larger survey in multiple international settings.

Abstract Number: 55

Group: PIHCIN

Prevalence and Demographics of CKD in Canadian Primary Care Practices: A Retrospective Cohort Study

Julia Kurzawa[1], Paul E. Ronksley[2], Navdeep Tangri[3], MA Osman[1], Alex Singer[3], Allan Grill[4], Dorothea Nitsch[5], John A. Queenan[6], James Wick[2], Cliff Lindeman[1], Larka Soos[2], Delphine Tuot[7], Soroush Shojai[1], Scott Brimble[7], Dee Mangin[8], Neil Drummond[1], Aminu K Bello[1]

1. University of Alberta, 2. University of Calgary, 3. University of Manitoba, 4. University of Toronto, 5. London School of Hygiene & Tropical Medicine, 6. Queen's University, 7. University of California, San Francisco, 8. McMaster University

Background: Like many other countries, Canada lacks a dedicated surveillance system for chronic kidney disease (CKD). However, data are available from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), a pan-Canadian system currently designed for certain other chronic diseases and neurological disorders.

Purpose: To study the epidemiology of CKD in the Canadian primary care context and describe its variation by geographic, demographic, and clinical factors.

Methods: A retrospective cohort study design was used. The base population was patients at least 18 years of age seen by a primary care provider within the CPCSSN network within five provinces across Canada (2010-2015). The CPCSSN database was then used to identify a cohort of patients with CKD, defined as having an estimated glomerular filtration rate (eGFR) <60 mL/min/1.73m2 with ≥2 measures over 3 months during the study interval. Descriptive statistics were used to report patient demographics, and prevalence of CKD was calculated per 1,000 individuals.

Results: A total of 559,745 patients met the inclusion criteria for this study, of which 41,501 (7.4%) had CKD stages 3–5. Overall prevalence of CKD stages 3–5 was 71.9 per 1,000 individuals. CKD varied by geography and was more prevalent in rural settings than in urban settings (86.2 vs 68.4 per 1,000). There was a high prevalence of CKD among patients with multimorbidity (defined by the presence of 3 or more chronic conditions) (281.7 per 1,000), particularly for comorbid dementia (303.3 per 1,000), both diabetes and hypertension (267.4 per 1,000) and Parkinson's disease (223.7 per 1,000).

Conclusions: To our knowledge, this is the first study to estimate the prevalence of CKD in primary care in Canada at a national level and highlights key geographic and demographic variability that may inform health care delivery for patients living with CKD.

Abstract Number: 56

Group: PIHCIN

Current State of CKD Care in Canadian Primary Care: A Retrospective Analysis of CPCSSN database

MA Osman[1], Paul E. Ronksley[2], Navdeep Tangri[3], Julia Kurzwa[1], Alex Singer[3], Allan Grill[4], Dorothea Nitsch[5], John A. Queenan[6], James Wick[2], Cliff Lindeman[1], Larka Soos[2], Delphine Tuot[7], Soroush Shojai[1], Scott Brimble[7], Dee Mangin[8], Neil Drummond[1], Aminu K Bello[1]

1. University of Alberta, 2. University of Calgary, 3. University of Manitoba, 4. University of Toronto, 5. London School of Hygiene & Tropical Medicine, 6. Queen's University, 7. University of California, San Francisco, 8. McMaster University

Background: There is no nationally representative information on the quality of care received by patients with chronic kidney disease (CKD) managed in Canadian primary care practices.

Purpose: To evaluate the proportion of patients in primary care with CKD receiving guideline-concordant care.

Methods: Using a retrospective cohort from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) (2010-2015), we explored whether people with CKD in primary care achieve guideline-concordant quality targets for CKD care. We examined a set of 12 quality indicators on the domains of: 1) recognition and screening, 2) testing and monitoring, 3) use of appropriate medications, and 4) level of risk factor control. We evaluated the proportion of patients meeting each indicator based on standard guideline recommendations.

Results: The baseline cohort comprised of 46,162 individuals identified with mild to moderate CKD (stages 3-5). Among these patients with CKD (defined as at least 2 eGFR values <60mL/min/1.73m2 over a period of at least three months but not more than 18 months), the majority (>70%) met the quality targets for monitoring of kidney function (follow up serum creatinine measurements), blood pressure and glycemic control. Only ~27% and 39% of patients with CKD received urine albumin test within 18 months of their qualifying eGFR and within six months of baseline abnormal urine test (UACR>2.5mg/mmol), respectively. Appropriate medications prescriptions (ACEi/ARB and statins) occurred in only 30.5% and 36.7% of individuals in the one year following the date of their qualifying eGFR value, respectively. The elderly and patients living in rural locations were less likely to have albuminuria tested.

Conclusions: In this Canada-wide retrospective analysis of routinely collected primary care data, we found that management of CKD in the primary care setting varied. While some key quality of care indicators for CKD were met (e.g. targets for monitoring of kidney function), albuminuria detection and management remained suboptimal. This finding has implication for population-level reduction in cardiovascular and renal risk associated with elevated urine protein excretion.

Abstract Number: 57

Group: PIHCIN

Lessons Learned from the Children's Health Profile and Birth Cohort Initiative in New Brunswick and Prince Edward Island

Carole Tranchant[1], William Montelpare[2], Mathieu Bélanger[1,3], Baukje Miedema[4], Martin Sénéchal[5], Danielle Bouchard[5], S. Sparks[1,2], P. Malinski[2], Caroline Jose[3], L. Dalpé[3], Douglas E. Barre[6], Melissa Rossiter[2], J. Bryanton[2], M. Holland[8], K. Rogers[8], J.T. McDonald[7,8], et al.

1. Université de Moncton, 2. Prince Edward Island, 3. Centre de formation médicale du Nouveau-Brunswick, 4. Dalhousie University, 5. University of New Brunswick, 6. Cape Breton University, 8. New Brunswick Institute for Research, Data and Training

Background: Health systems and other government organizations generally collect a large amount of data (administrative data) but administrative data are typically not analyzed to produce evidence on the effectiveness of primary prevention programs and strategies.

Purpose: This research aims to identify and evaluate select administrative databases (AD) from NB and PEI to create an intra-provincial Child Health Profile (CHP) and establish the foundation for a population-based birth cohort database in each province, using existing AD.

Methods: This initiative is a cross-jurisdictional collaboration between NB and PEI with an integrated knowledge translation approach that adheres to each province's unique data policies, procedures and data governance. Knowledge users and stakeholders in various roles are involved, including provincial government managers, policy-makers, data custodians, family physicians, parents and community organizations. Consultations were held to identify the AD of interest and develop a roadmap for the CHP.

Results: The AD identified are not equally complete and accessible to researchers. They have not been linked together to date. Data access, preparation and linkage are challenging in both provinces. Common and specific facilitating factors were also identified. Based on the AD currently accessible, which include the Healthy Toddler Assessment and NutriSTEP, the first CHP will focus on data at birth and 18 months. Other databases (e.g., preschooler assessments) may be included subsequently.

Conclusion: Select AD in NB and PEI are rich resources for establishing a comprehensive CHP and birth cohort database in each province, which can be used as monitoring and reporting tools. Continued relationship-building among stakeholders is needed to facilitate and maximize the use of existing AD in both jurisdictions.

Abstract Number: 58

Group: PIHCIN

Case Management in Primary Care for Frequent Users of Healthcare Services with Chronic Diseases and Complex Care Needs: Protocol on an Implementation and Realist Evaluation

Catherine Hudon[1], Maud-Christine Chouinard[2], Kris Aubrey-Bassler[3], Frederick Burge[4], Shelley Doucet[5], Vivian R. Ramsden[6], et al.

1. Université de Sherbrooke, 2. Université de Québec à Chicoutimi, 3. Memorial University Newfoundland and Labrador, 4. Dalhousie University, 5. University of New Brunswick, 6. University of Saskatchewan

Context: Evidence in the literature supports case management (CM) as an intervention to improve care for patients who frequently use healthcare services. However, little is known about the facilitators and barriers to CM implementation in primary care settings.

Objective: 1) To identify the facilitators and barriers to CM implementation; 2) To understand the influence of different primary care contexts and mechanisms on the outcomes of CM; 3) To identify the next steps toward scalability. Study design: Multiple-case embedded study with mixed data.

Methods: CM intervention will be implemented in 10 primary care clinics in five Canadian provinces for patients with chronic diseases and complex care needs that frequently use healthcare services. Objective 1: a mixed method implementation analysis will be used to collect qualitative (interviews) and quantitative (questionnaires) data. Objective 2: a realist evaluation will be conducted to explain how and why CM is effective, under what conditions and for which groups. Objective 3: a TRIAGE method will be used to reach consensus among all national stakeholders (patients/family, clinicians, policy makers and researchers).

Anticipated results: This project will generate new knowledge about: the facilitators and barriers to implementation of CM in primary care; a theory explaining how and why CM is effective among patients who frequently use healthcare services in primary care settings; and consensual and prioritized statements about next steps for scalability.

Conclusion: The project will result in a CM intervention that is evidence-based, optimized for implementation and scalable in primary care settings.

Abstract Number: 59

Group: PIHCIN

The PREFeR (PRioritiEs For Research) Project: Results from a Multistage Patient Priority Setting Project for Primary Care Research in British Columbia

Alexandra Warren[1,2], Louisa Edwards[1,3], Marilyn Parker[4], Sabrina T. Wong[1,2], Ruth Lavergne[1,3]

1. BC Primary Health Care Research Network, 2. University of British Columbia, 3. Simon Fraser University, 4. BC Primary Health Care Research Network Patient Advisory Panel

Background and Purpose: Patients are infrequently included in prioritizing research ideas. PREFeR identified patient priorities for primary health care research in British Columbia (BC) and compared patient and provider perspectives.

Methods: This descriptive work explored patients' experiences of primary care using a Dialogue Model approach and employing Nominal Groups Technique. With the other investigators, a 10-member Patient Advisory committee produced a province-wide online survey that collected patient and provider importance ratings of primary care topics identified by the committee. Horizon scanning researcher surveys and rapid literature reviews captured past, current and upcoming research. Importance ratings were compared between patients and providers, and socio-demographic predictors of topic importance were explored using multiple regression. A dialogue event brought patients and providers together to collaboratively interpret results.

Results: The Patient Advisory shared over 80 experiences of primary care in BC that were then grouped thematically into 18 topics. The top 10 of these were retained. Over four hundred (n=470) patients and 109 providers completed the survey. There was considerable patient-provider agreement in importance rankings. Top (Unable to find regular doctor) and bottom (Patient-centred care) topics were identical, and the rank order in between was similar. Collaborative interpretation of the findings identified reasons for both similarities and small differences from patient and provider perspectives. Literature reviews indicated variability in the extent to which these topics are researched in BC.

Conclusion: There was strong agreement between patients and providers on these topics. Topic importance, patient-provider alignment, and under-researched areas require consideration in shaping the patient-identified topics into research questions.

Abstract Number: 60

Group: PIHCIN

Ongoing Policymaker Engagement and Knowledge Exchange in Primary Care Research: Example of a Study on Centralized Waiting Lists for Unattached Patients across Seven Provinces

Mylaine Breton[1], Mélanie Ann Smithman[1], Sabrina T. Wong[3], Jalila Jbilou[5], Sara Kreindler[5], Emily Marshall[6], Jason Sutherland[3], Damien Contandriopoulos[7], Astrid Brousselle[1], Valorie A. Crooks[8], Jay Shaw[7], Audrey Vandesrasier[2], Martin Sasseville[2], Michael Green[8]

1. Université de Sherbrooke, 2. Centre de recherche Charles-Le Moyne - Saguenay–Lac-Saint-Jean sur les innovations en santé, 3. University of British Columbia, 4. Université de Moncton, 5. University of Manitoba, 6. Dalhousie University, 7. University of Victoria, 8. Simon Fraser University, 7. Women's College Hospital, 8. Queen's University

Background: Seven provinces have implemented centralized waiting lists (CWLs) to help attach patients with a primary care provider. Each province designed its own CWLs, with limited exchange across provinces. In our Quickstrike CIHR grant, we conducted a logic analysis comparing CWLs to each other and to scientific evidence to discuss strategies to improve their design.

Purpose: To share how policymakers were engaged in ongoing knowledge exchange in this study to support the improvement of their CWL.

Methods: The idea for our study came from policymakers in Quebec interested in learning about other provinces' CWLs. Policymakers were involved in defining the aim of the study, participated in interviews, validated our results early in the study and were invited to a pan-Canadian symposium to discuss results.

Results: During the study, policymakers were able to use our results in real time to support their work. For instance, in British Columbia, our results were used as the basis to discuss scaling-up regional pilot CWLs to a sustainable provincial program. In Nova Scotia, policymakers requested their CWL program be added to our study. They provided additional resources to collect and analyze data for their province. Nova Scotia and British Colombia were interested in improving their CWL based on our findings. Our study also served as a platform to create connections between policymakers facing similar challenges across provinces.

Conclusion: By sharing results in real time and supporting ongoing engagement in the study, policymakers were able to use our results to inform policy.

Abstract Number: 61

Group: PIHCIN

The SPARK Study: Identifying and Addressing Health Inequities in Primary Care

Andrew D. Pinto[1,2,3], Marjeiry Robinson, Kris Aubrey-Bassler[4], Frederick Burge[5], Lois Jackson[5], Nazeem Muhajarine[6,7], Cory Neudorf[8], Alan Katz[9]

1. Li Ka Shing Knowledge Institute, 2. St. Michael's Hospital, 3. University of Toronto, 4. Memorial University, 5. Dalhousie University, 6. University of Saskatchewan, 7. Saskatchewan Population Health and Evaluation Research Unit, 8. Manitoba Centre for Health Policy, 9. University of Manitoba

Numerous epidemiological studies confirm the central role of the social determinants in creating and maintaining health inequities. We lack evidence-based interventions to address social determinants through health settings, and lack the appropriate individual level data to target such interventions. This program of research builds on previous work by team members in Canada and in the United States. The SPARK Study involves patients, primary care and public health professionals, academics, community organizations and charities, and will engage clinics in Saskatchewan, Manitoba, Ontario, Nova Scotia and Newfoundland. Our objectives include: 1) systematically reviewing the literature to identify existing tools to collect data on sociodemographics and social needs and using a modified Delphi process to achieve consensus on a Canadian tool for use in diverse primary care settings; 2) evaluating the acceptability and feasibility of collecting such data and examining how primary care organizations use this information to adopt a population health perspective; 3) conducting a cluster RCT, after a pilot study, comparing a "modest" to an "intensive" intervention to address poverty when identified. This program of research will have national and international impact, ultimately advancing the ability of health providers, organizations and systems to "go upstream" and address the social determinants of health.

Abstract Number: 62

Group: PIHCIN

Integrating Primary Care and Community-Based Services in Canada: In-Depth Analysis of Innovative Programs for Children and Youth (0-25) with Complex Care Needs

Émilie Dionne[1], on behalf of the CPPHC team

1. St. Mary's Hospital Research Centre

Background: CPPHC is a pan-Canadian comparative policies and programs analysis that examines provincial policies and innovative programs integrating primary care and community-based services for patients and their families with complex care needs living in their communities.

Purpose: To identify, describe, analyze and diffuse innovative programs integrating primary medical care and health/social community-based services across Canadian provinces.

Methods: Drawing from the CPPHC innovative programs scan across Canadian provinces, selected forty programs for in-depth analysis. Criteria of selection include: i) programs with similar objectives of integration; ii) be in different jurisdictions; iii) have large enough scope to suggest potential for spread or scale up, and; iv) include both success and failures. Inspired by the facilitators and barriers of implementation of the Consolidated Framework for Implementation Research (CFIR), tailored a data collection tool and process to document programs and compose narratives of each program. Relevant experts were then asked to rate programs' integration inspired by Suter et al. (2009) principles of successful healthcare integration.

Results: Data collection and analysis are still in process. Presentation of early results for about two to four innovative programs addressing integration of care for children and youth (0-25) with complex care needs.

Conclusion: Innovative programs are being implemented and evaluated throughout the country but remain under known and findings are seldom diffused at pan-Canadian scale. Relying on potential of technologies of information and communication to spread the word about innovations and build bridges between key decision-makers to facilitate spread and standardization of integration of care.

Abstract Number: 63

Group: PIHCIN

Integrating Primary Care and Community-Based Services in Canada: A Cross-Provincial Analysis of Structures and Policies that Govern Multi-Sector Integration

Emilie Dionne[1], Amelie Quesnel-Vallée[2], Tara Stewart[3], Noushon Faramanara[2], on behalf of the CPPHC team

1. St. Mary's Hospital Research Centre, 2. McGill University, 3. University of Manitoba

Background: CPPHC is a pan-Canadian comparative policies and programs analysis that examines provincial policies and innovative programs integrating primary care and community-based services.

Purpose: To describe and compare the structures and policies across the 10 Canadian provinces that govern the process of integrating primary medical care and health/social community-based services.

Methods: Drawing on descriptive information from gray and published literature, government websites, and key informant interviews, we examine provincial-level primary health care policy structure and scope. Using a data collection template, we documented for each province: (i) the formal governance structure for primary medical care and community-based services, (ii) the main delivery and reform models for primary medical care, (iii) the degree of accountability between primary medical care providers and ministries of health, and (iv) the existence and scope of service coordination between primary medical care and other service structures.

Results: Updated provincial primary care reform landscape building on Hutchison et al.'s (2011) work. Granular analysis of policy instruments used to incentivize coordination of services and continuity of care for patients with complex care needs. Links between policy instruments and provincial contexts most promising for primary care to community services integration.

Conclusion: Policy information is difficult to locate; information is often not up-to-date. Key informants must be contacted and an evergreen process developed to ensure timely health policy analysis. Capturing degree of "shared governance" for primary care and essential services remain challenging, and differences in terminology and scope across provinces must be negotiated. Pan-Canadian team facilitates validation of findings.

Abstract Number: 64

Group: PIHCIN

The Development of a Centre for Children with Complex Care Needs: When Research Informs Practice

Shelley Doucet[1], Alison Luke[1], Krystal Binns[2], Rima Azar[3], William Montelpare[4], Patricia Charlton[4], Nicky Hyndman[4], Roger Stoddard[2], Daniel Nagel[1]

1. University of New Brunswick, 2. NB SPOR PIHCI Network, 3. Mount Allison University, 4. University of Prince Edward Island

Background: Childhood is a time of good health for most children; however, approximately 15% of North American children have complex health conditions that impact their health and causes limitations in their lives. Little is known about the needs of this population when accessing services and navigating the healthcare system in Canada.

Purpose: The four objectives of this NB and PEI led CIHR PIHCI Quick Strike project were to a) develop a conceptual definition for children with complex health conditions (CCHC); b) explore the needs of CCHC and their families; c) conduct an environmental scan of services for CCHC and their families; and, d) test a customized algorithm to extract data relevant to CCHC from administrative databases in two Canadian provinces.

Methods: A mixed-methods study design was used that comprised of three qualitative components and one quantitative component appropriate to each objective, including: (1) a concept analysis; (2) 121 interviews with CCHC, family members, and various stakeholders across sectors; (3) an environmental scan of services and programs; and, (4) adaptation, refinement and testing of a computerized algorithm on patient databases.

Results: Our findings identified a need for integrated service delivery models for CCHC and their families. We will describe how our Quick Strike research project informed the development and implementation of NaviCare/SoinsNavi, a patient navigation centre for children with complex care needs in NB.

Conclusion: Our findings will inform research, practice, and policy around new and existing integrated and innovative service delivery models for CCHC and their families.

Abstract Number: 65

Group: PIHCIN

Integration through Primary Health Care Teams: Early Results with Strategies for Policy Analysis and Engagement of Stakeholders

Nelly Oelke[1], Brenda Jagroop[2], Judith Birdsell[2], Shana Ooms[3], Darlene Arsenault[4], Shannon Berg[5], Phil Graham[6], François Dube[7], Stephanie Montesanti[8], Sharon Johnston[9], Mylaine Breton[10], Isabelle Gaboury[10], Lee Green[8], Karin Maiwald[1], Sara Mallinson[11], Ruth Martin-Misener[12]

1. University of British Columbia, 2. Patient Partners , 3. British Columbia Ministry of Health, 4. Interior Health, 5. Alberta Health, 6. Ontario Ministry of Health and Longterm Care, 7. Ministère de la Santé et des Services Sociaux du Québec, 8. University of Alberta, 9. University of Ottawa, 10. University of Sherbrooke, 11. Alberta Health Services, 12. Dalhousie University

Background: Team-based primary health care (PHC) models have been developed and implemented in diverse ways across Canada to improve patient experience, coordination of care, population health and reduce costs. Policy-makers have little evidence on what policies and structures facilitate, incentivize, or promote integrated service delivery, especially for complex patients. Engagement of patients and stakeholders in policy analysis processes can be challenging.

Purpose: To outline strategies being used to conduct policy analysis research across four jurisdictions including the engagement of patients, policy-makers, and decision-makers in the process.

Methods: Our study uses case study methods. In Phase 1, we have compiled provincial and regional level policy documents on PHC teams and integrated service delivery. Individual (by province) and cross-case analysis will be completed. In Phase 2, interviews and deliberative dialogue will be completed with patients/caregivers in each province to explore how they are and would like to be involved in policy development, implementation, and evaluation around PHC teams and integration. Co-created actions will be developed. Phase 3 will seek feedback on results from provincial and national stakeholders, including patients, through virtual discussions. Recommendations and actions will be developed.

Results: Preliminary themes from our provincial level case studies will be shared along with strategies for policy analysis and the engagement of patients and stakeholders in the process.

Conclusion: This timely research will provide a better understanding of policies and structures supporting integrated services delivery through PHC teams. Lessons learned in policy analysis and engagement strategies will benefit future research in PHC.

Abstract Number: 66

Group: PIHCIN

Paramedics Providing Palliative Care at Home Program: Spread and Scale-up Considerations

Connie Kekwaletswe[1], Alix Carter[2], Sabrina Wong[1], Michelle Harrison[2], Jennifer Kryworuchko[1], Grace Warner[2]

1. University of British Columbia, 2. Dalhousie University

Background: Seriously ill Canadians benefit from a palliative approach to optimize quality of life. Although primary care teams are well positioned to provide palliative support, they may be challenged after hours or during acute symptom crises. In a pioneering program, Nova Scotia's (NS) Paramedics Providing Palliative Care at Home Program, hereafter called "the Program", paramedics received palliative care training, a new clinical practice guideline specific to palliative care which allowed for care at home without transport to hospital, and access to the patients' goals of care.

Purpose: To identify essential elements for spread and scale-up of the Program, considering: (a) contextual and structural elements, and (b) needed resources, supports and modifications for the Program to work effectively in other jurisdictions.

Methods: Deliberative dialogues were held with Canadian emergency medical services (EMS), primary and palliative care leaders in NS and British Columbia to gather opinions from a system with, and one without, the Program. The dialogues were audio recorded, transcribed verbatim, and thematically analyzed.

Results: Paramedics and EMS systems are diverse, which has implications for supports needed for this approach to care. Broader professional structures that influence paramedic practice may need to be engaged early in adoption. Finally, scale-up of the Program should consider bidirectional communication between paramedics and the interprofessional team providing care.

Conclusion: Expansion of the Program in Canada will require local adaptations, but there are commonalities that can inform implementation. Paramedics can augment existing palliative care resources and enhance the palliative/end-of-life experience for patients and their families/caregivers.

Abstract Number: 67

Group: PIHCIN

SPIDER: A Research-QI Collaboration in Improving Care for Complex Elderly Patients

Michelle Greiver[1,2], Patricia O'Brien[2], Simone Dahrouge[3], Donna Manca[4], Marie-Therese Lussier[5], Jianmin Wang[1]

1. North York General Hospital, 2. University of Toronto, 3. University of Ottawa, 4. University of Alberta, 5. University of Montreal.

Background: There is a direct association between a greater number of medications and persistent complexity in elders. Polypharmacy increases the risks of poor health, reduced quality of life and high care costs. Choosing Wisely Canada and the Canadian Deprescribing Network advise wiser use of four medication classes considered Potentially Inappropriate Prescriptions (PIPs) in elders: Proton Pump Inhibitors, benzodiazepines, antipsychotics and sulfonylureas. We propose SPIDER (Structured Process Informed by Data, Evidence and Research), a QI - research collaboration to address this issue. SPIDER's elements include: participation in a Learning Collaborative; a QI coach for practices and use of validated and comparable EMR data for QI and research measurement. Strategies include a QI-research alliance and leveraging Practice Based Research Networks (PBRNs) for EMR data and practice recruitment.

Purpose: To evaluate the impact of SPIDER on reducing PIPs for patients 65+ years taking 10+ different medications.

Methods: A single-arm prospective mixed method feasibility study in three PBRNs followed by a pragmatic cluster RCT (SPIDER intervention vs. usual care) in five PBRNs. The reduction of PIPs will be measured using CPCSSN's practice EMR data. Participants experience and the SPIDER process will be assessed using qualitative methods.

Results: Feasibility practice recruitment is ongoing as is work on QI materials, workshop planning and materials for audit and feedback.

Conclusion: The SPIDER model may result in improvement for complex elderly patients. It may provide evidence to support funding for QI Collaboratives and meaningful use of EMR data as a cost effective measure for our health care system.

Abstract Number: 68

Group: PIHCIN

Evaluation of the Organizational Attributes of Primary Care Integration Strategies for Adults with Chronic Health Conditions: A Systematic Review

Joan Tranmer[1], Julia Lukewich[2], Shabnam Asghari[2], Dana Edge[1], Megan Kirkland[2], Geneviève Pare[1], Jennifer Ritonja[1], Elizabeth VanDenKerkhof[1]

1. Queen's University, 2. Memorial University

Background: There is a poor understanding of the organizational attributes of system-level primary care integration strategies associated with optimal outcomes for patients.

Purpose: Our review objectives were to: (1) identify and assess the quality of the evidence determining the impact of primary care based integration strategies on patient outcomes for adults with complex health needs; and (2) identify and synthesize common organizational attributes of effective integration strategies.

Methods: We conducted a systematic review, following Cochrane methods utilized by the Cochrane Public Health Group (CPHG). The primary outcome was clinical effectiveness, as determined through clinical and self-reported patient outcomes. Secondarily, we examined the impact on health utilization and costs. The independent variable was primary care based organizational strategies in which there was service provision across a minimum 2 practice sectors for individuals with 2 or more chronic conditions. The effect of each integration strategy and components within each strategy were synthesized and assessed using harvest plot methods.

Results: We identified 2091 abstracts; reviewed 583 full-text articles; and identified 38 articles that met the inclusion criteria. After assessment for quality with the CPHG tool, 24 studies were further excluded, due to low quality, leaving 14 studies of moderate-strong quality for synthesis. Patient outcomes assessed included clinical indicators, self-reported health status, and utilization and cost of health services. Preliminary results suggest that integration strategies that include higher numbers of specific organizational attributes may be related better health outcomes, particularly self-reported outcomes.

Conclusion: Effective primary health care integration involves system-level implementation of multi-component organizational structures and processes.

Abstract Number: 69

Group: PIHCIN

Applying Case Management Functions to Community-Based Palliative Care: A Realist Review

Grace Warner[1], Cheryl Tschupruk[2], Lisa Garland-Baird[3], Kothai Kumanan[1], Beverley Lawson[1], Ruth Martin-Misener[1], Robin Urquhart[1], Lori Weeks[1], Fred Burge[1], Tanya Packer[1], George Kephart[1]

1. Dalhousie University, 2. Nova Scotia Health Authority, 3. University of Alberta

Background: Community-based palliative care early in a patient's end of life (EOL) trajectory can assist patients and their families who struggle to manage the high symptom burden often occurring at EOL. Primary healthcare (PHC) teams are critical to providing quality community-based palliative care.

Purpose: To conduct a realist review focused on how case management functions and competencies can improve PHC teams' abilities to work alongside other community sectors to identify, assess and create plans for patients and families early in their EOL trajectory.

Methods: The RAMESES protocol for conducting realist reviews was followed: librarian assisted systematic/purposive literature searches; screening and data extraction; iterative consultations with knowledge users, family advisor partners, realist experts; and developing/testing context-mechanism-outcome program theories. Key theories explored how particular contexts catalyze case management functions in PHC.

Results: The first search extracted data from 161/2389 articles. A second purposive search identified additional articles relevant to our key theories examining multi-level contexts affecting how case management functions facilitate patient identification at EOL, creation of family centric plans, and implementation of planned care. Supportive contexts included reducing communication barriers within/outside of PHC, enhancing PHC practice cultures that embrace community supports, and individuals who value family centric care.

Conclusion: Most palliative care literature describes the last stages of life ignoring the key role of PHC. Our findings indicate community-based palliative care is still in its infancy toward adopting an inclusive model integrating health and community sectors. Health system resources need to support cross sector communication and collaborations to catalyze this integration.

Abstract Number: 70

Group: CBPHC

Preliminary Validation of the French-Canadian Version of the NHS Sustainability Model Questionnaire

Marie-Hélène Savard[1], Isabelle Pelletier[1], Stéphane Turcotte[1], Elizabeth Côté-Boileau[2], El Kebir Ghandour[1], Marie-Ève Trottier[1], Jean-Louis Denis[3], Lynne Maher[4], Patrick Archambault[1,5]

1. Centre de santé et de services sociaux de Chaudière-Appalaches, 2. Université de Sherbrooke, 3. Université de Montréal, 4. Ko Awatea Health System Innovation and Improvement Centre, 5. Université Laval

Background: The NHS Sustainability Questionnaire is a 10-item diagnostic tool that supports teams to identify strengths and weaknesses in healthcare implementation initiatives and helps predict the likelihood of sustainability for those initiative(s).

Purpose: 1) Translate the NHS questionnaire into a French-Canadian version. 2) Assess preliminary face and content validity in the context of implementing a provincial elder-friendly quality improvement initiative in a regional hospital in the province of Québec (Hôtel-Dieu de Lévis (HDL)).

Methods: Back translation was used to translate the questionnaire and face validity was assessed among five staff members working in the geriatric care unit at HDL. Respondents were asked to give short feedback about whether each question adequately addressed the topic. Base on Lawshe's methodology (1975), content validity was assessed by five experts in healthcare services, who judged each item on how essential it was to measure the concept. An item was judged valid if the majority of the respondents considered it essential.

Results: Four questions did not meet our criterion of at least 4 out of 5 positive ratings by respondents for face validity. Overall, respondents commented that questions were lengthy and difficult to understand. However, all items reached Lawshe's criterion.

Conclusion: This work yielded a French-Canadian version of the NHS questionnaire, now available for the assessment of improvement initiatives in Quebec's healthcare system. However, psychometric properties of the tool still must be carefully assessed before expanding its use. In particular, the language level seems to be unsuitable for large-scale use.

Abstract Number: 71

Group: CBPHC

Acute Care for Elders Strategy Evaluation: Montfort Hospital Case Study

El Kebir Ghandour[1], Sara Leblond[2], Josée Rivard[1], Sébastien Binette[3], Jean Louis Denis[4], Geneviève Lemay[2,5], John Joanisse[2], Linda Lessard[2], Thérèse Antoun[2], Samir Sinha[6], Patrick Archambault[1,7]

1. Centre de santé et de services sociaux de Chaudière-Appalaches (CISSS-CA), Hôpital Montfort, 3. Centre de recherche sur les soins et les services de première ligne de l'Université Laval (CERSSPL-UL), 4. Université de Montréal, 5. University of Ottawa, 6. University of Toronto & Mount Sinai Hospital, 7. Université Laval

Background: In 2016, Montfort Hospital (MH) and CISSS Chaudières-Appalaches (CISSS-CA) participated in the Acute Care for Elders (ACE) Collaborative led by the Canadian Foundation for Healthcare Improvement and Mount Sinai Hospital.

Purpose: Compare the ACE strategy implementation process and outcomes in two hospitals to support ACE strategy's future sustainability and scale up.

Methods: A comparative case study using mixed methods based on the Strategic framework for a useful and used evaluation and the National Health Service Sustainability Model. Qualitative data analysis focused on contexts, actors, main decisions, strategies, events and processes. We analyzed both projects' implementation documentation and performed 13 interviews (05-09/2018) with key actors (professionals, managers, patients-partners).

Results: We'll present preliminary findings from MH's experience. Data collection at the CISSS-CA is ongoing. At MH, facilitators were: alignment with MH's strategic mission, clear and shared vision/objectives; careful project planning, transition coach's experience/skills; clinical and organizational leadership; teams' openness and collaboration, continuous communication and director/managers commitment and support. The barriers were: limited and non-recurring funding, change in project participants and significant workload. Main conditions of success: addition of qualified personnel; CFHI support; strategic change management; and regular communication, and participants' use of a knowledge management platform (SharePoint).

Conclusion: The ACE Collaborative has raised awareness and enhanced teams' knowledge and skills; shaped links between seniors/families, clinicians, managers and discharge planning teams; created systematic linkages with primary care. Lessons learned have helped to suggest sustainability strategies after the transition coach's departure including identifying priority activities in nursing discharge planning.

Abstract Number: 72

Group: CBPHC

Diabetic Soles: From Isolation to Care

Tracey Rickards[1], Tammy Cornish[2]

1. University of New Brunswick, 2. Fredericton Downtown Community Health Centre

Background: Vulnerable elders living in subsidized housing in Fredericton are living with multiple co-morbidities. Isolation, mental health and diabetes are the greatest contributing factors to poor health outcomes. Outreach helped to identify the many needs of these elders.

Purpose: To assess the effectiveness of outreach footcare services in addressing lower limb diabetes complications for vulnerable elders. Using free outreach footcare as a tool for engagement with elders living with multiple co-morbidities, we wanted to engage elders with diabetes to increase access to healthcare services.

Methods: Four validated tools used to gather data: InLow 60 second Diabetic Foot Screen, Short Diabetic Knowledge Instrument for Older and Minority Adults, Brief Healthcare Questionnaire (PHQ-9), and the Health-related Quality of Life Questionnaire. Monthly visits for 5 months by a registered nurse who engaged in relationship building.

Results: Monthly contact by a registered footcare nurse improved health outcomes of vulnerable and isolated elders. Of the 20 participants, 10 were leaving their apartments and seeking care at the Health Centre to access healthcare and services of other disciplines.

Conclusion: Vulnerable elders needed support and resources to engage in diabetes self-management. Low income elders made difficult decisions about allocation of limited resources. Establishing a relationship with the Health Centre increased access to desperately needed services: healthcare, footcare, mental health care, social interactions, and access to multiple services provided by the Health Centre. Diabetic knowledge increased, greater self-efficacy with ability to care for self and improved mental health was realized.

Abstract Number: 73

Group: International

The HRB Primary Care Clinical Trial Network Ireland: Successes and Challenges

Nikita Burke[1], Edel Murphy[1], Paddy Gillespie[1], Molly Byrne[1], Akke Vellinga[1], Declan Devane[1], Peter Bowers[2], Liam Glynn[3], Margaret Cupples[4], Tom Fahey[5], John Newell[6], Claire Collins[7], Susan Smith[4], Martin O'Donnell[8], Andrew Murphy[1]

1. National University of Ireland, 2. University of Manchester, 3. University of Limerick, 4. Queen's University, 5. RCSI Medical School, 6. HRB Clinical Research Facility, 7. Irish College of General Practitioners, 8. HRB Clinical Research Facility Galway

Background: Between 1996 and 2014, 12 academic-led primary care trials were conducted in Ireland. Whilst the trials were of high impact, this number is much less than in peer countries such as the UK and the Netherlands. In 2015, the national Health Research Board funded the Primary Care Network Clinical Trials Network Ireland with an investment of €2.5 million over five years. The Network is comprised of key partners including the National University of Ireland Galway, the Royal College of Surgeons Dublin, Queen's University Belfast, and the Irish College of General Practitioners.

Progress to date: The vision of the network is to improve individual patient health and health care through the design, conduct and dissemination of high quality, internationally recognised, randomised trials in Irish primary care, which address important and common problems. To date, there are over 160 Health Care Professionals and 136 practices registered with the network, representing a reach of almost 8% in Ireland. We have delivered a series of 7 webinars linking recruiting trials to practices on cognate clinical topics, and we have over 1160 followers on Twitter. The network has developed a bespoke online Good Clinical Practice training for General Practitioners, delivered to over 40 participants. The network is supporting the educational needs of future primary care research leaders through programs such as training bursaries. We have developed an online resource on multimorbidity and adherence to facilitate knowledge exchange (aminuteforadherence.ie).

Four core-funded trials, focusing on infectious diseases, multimorbidity, methodology and patient safety, are running through the network; and the network is involved in 17 externally-funded studies. The total number of patients in Ireland recruited through the network is 2427. Two EU-funded general practice-led trials relating to viral illness are recruiting in Ireland through the network (ALICE; MERMAIDS-ARI). The network has played a key role in in large and successful grant applications, including funding to deliver a Cross-border Healthcare Intervention Trial, in Northern and Southern Ireland (CHITIN). The network formed a strong Patient and Public Involvement in Research (PPI) Primary Care group consisting of 8 members of the public with different health and life experiences; participating in 11 meetings and 10 studies to date. We have also hosted 3 PPI conferences with national and international speakers. Key challenges for the network include a challenging clinical environment, development of research pipeline from idea to impact, and network sustainability.

Conclusions: The HRB Primary Care Clinical Trial Network Ireland is now established. Much work remains in both consolidating and developing the Network. We welcome discussion as to how best to achieve a sustainable and meaningful Network with a focus on international collaborations.

Abbreviations

AB	Alberta
ACCESS-MH	Atlantic Canada Children's Effective Service & Strategies in Mental Health
ACHRU	Ageing and Community Health Research Unit
AD	Administrative Database
ADHG	Administrative Health Data Group
BC	British Columbia
CanIMPACT	Canadian team to improve community-based cancer care along the continuum
CBPHC	Community-based Primary Health Care
C-Champ	Canadian chronic disease awareness and management program
CCHC	Children with Complex Health Conditions
CDC	Community Data Coordinator
CDPM	Chronic Diseases Prevention and Management
CF	Community Facilitator
CFHI	Canadian Foundation for Healthcare Improvement
CHAP	Cardiovascular Health Awareness Program
CHP	Child Health Profile
CI	Confidence Interval
CIHR	Canadian Institutes of Health Research
CircHSIT	Circumpolar health system innovation team
CKD	Chronic Kidney Disease
CLSC	Centre local de services communautaires, local community service centre
CM	Case Management
CPCSSN	Canadian Primary Care Sentinel Surveillance Network
CPPHC	Comparative Policies and Programs Analysis in Primary Health Care
CRC	Canadian Red Cross
CRTC	Clinical Readiness Consultation Tool
CVD	Cardiovascular Disease
CWL	Centralized Waiting List
EBI	Evidence-based innovation
E-CCM	Expanded Chronic Care Model
ED	Emergency Department
eGFR	Estimated Glomerular Filtration Rate
EMR	Electronic Medical Records
EMS	Emergency Medical Services
EOL	End of Life
EQ-5D	Euro-QoL - 5 Dimensions

ER	Emergency Room
FMG	Family Medicine Group
FN	First Nations
FNDSS	First Nations Diabetes Surveillance System
FORGE AHEAD	The TransFORmation of IndiGEnous PrimAry HEAlthcare Delivery
HABiT	Health Awareness and Behaviour Tool
HIV	Human Immunodeficiency Virus
ICBPHC	Integrated Community-based Primary Healthcare
iCOACH	Implementing Integrated Care for Older Adults with Complex Health Needs
IHSPR	Institute for Health Services and Policy Research
IMPACT	Innovative models promoting access-to-care transformation
iPHIT	Innovation in community based primary healthcare supporting transformation in the health of First Nations and rural/remote Manitoba communities
KTE	Knowledge Translation and Exchange
LHIV	Living with HIV Innovation Team
LIP	Local Innovation Partnership
MB	Manitoba
MM	Multimorbidity
NB	New Brunswick
NCO	National Coordinating Office
NHS	National Health Service (UK)
NL	Newfoundland and Labrador
NS	Nova Scotia
NWT	Northwest Territories
ON	Ontario
OR	Odds Ratio
PAC	Patient Advisory Committee
PACE in MM	The Patient-centred Innovations for Persons with Multimorbidity
PBRN	Practice Based Research Networks
PC	Primary Care
PCP	Primary Care Provider
PEI	Prince Edward Island
PHC	Primary Healthcare
PIHCIN	Primary and Integrated Health Care Innovations Network
PLWH	People living with HIV
PMH	Patient Medical Home
PREFeR	PRioritiEs For Research
PROMs	Patient-reported Outcome Measures
QALY	Quality-adjusted Life Years

QC	Quebec
QI	Quality Improvement
QoL	Quality of Life
RAMESES	Realist And Meta-narrative Evidence Syntheses: Evolving Standards
RCT	Randomized Clinical Trial
SAR	Search and Rescue
SK	Saskatchewan
SPIDER	Structured Process Informed by Data, Evidence and Research
SPOR	Strategy for Patient-oriented Research
T2DM	Type 2 Diabetes Mellitus
TCI	Team-climate Inventory
TIP	Telemedicine IMPACT Plus
TRANS FORMATION	Transforming CBPHC delivery through comprehensive performance measurement and reporting
UAV	Unmanned Aerial Vehicle