REICHERT & ASSOCIATES
PROGRAM EVALUATION & RESEARCH

Rural and Remote Division of Family Practice

PATIENT MEDICAL HOME

Final Report | January 2022

Submitted to:

Rural and Remote Division of Family Practice

Submitted by:

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Acronyms and Abbreviations

CSC	Collaborative Services Committee
DoBC	Doctors of BC
DFP	Division of Family Practice
ED / ER	Emergency Department / Emergency Room
EMR	Electronic Medical Record
FEI	Facility Engagement Initiative
GP	General Practitioner
GPSC	General Practice Service Committee
MOA	Medical Office Assistant
MoH	Ministry of Health
PSP	Practice Support Program
RRDFP	Rural and Remote Division of Family Practice
SDoH	Social Determinants of Health

Executive Summary

This is the final report for the Rural and Remote Division of Family Practice's (RRDFP) Primary Medical Home (PMH) Initiative. Its purpose is to provide the RRDFP and Doctors of BC (DoBC) General Practice Service Committee (GPSC) as the project's funder with an evaluation of the project between September 2018 and December 2021. This report includes insights into each of the RRDFP chapter's PMH activities, the initial impacts these activities have had, and how these impacts collectively contribute to the PMH goals.

PMH in the Rural and Remote Division of Family Practice

The RRDFP PMH project was a distributed model, enabling each chapter that had capacity to participate in PMH funding to identify a community opportunity that would help them work towards the tenets of the Patient Medical Home. Nine chapters participated in the initiative over five years.

Evaluation Questions

The central questions guiding the evaluation were:

1. To what extent has the local initiative achieved its intended objectives?
2. To what extent has each chapter initiative contributed to the PMH goals and objectives?
3. What lessons does the local initiative provide that could be used to improve Patient Medical Homes for other populations or in other locations?
4. To what extent are the outcomes of the local initiative sustainable?

Evaluation Findings

Increased Access to Services

- Connecting previously siloed healthcare providers and community organizations with each other
- Sharing information with providers and patients on available services
- Reducing wait times for patients, expanding afterhours care and increasing attachment
- Working to address and investigate cultural and socioeconomic barriers to healthcare.

Improve Support for Patients

- Enhancing linkages between providers
- Clarifying roles and creating care plans
- Creating tools and resources for physicians and NPs
- Leveraging data to better understand where more supports are needed

Contribute to Effective, Efficient, and Sustainable Health Care

- Improving protocols in clinics and other healthcare settings
- Highlighting community needs to better inform planning
- Strengthening relationships between physicians and other stakeholders
- Establishing ways to sustain the outcomes of their PMH work

Retain and Attract Family Doctors

- Reducing the burden on physicians through team-based care
- Better recruitment and retention planning

Discussion

What were the factors that contributed to the success of the project?

- Drawing on existing resources and existing experience
- Encouraging open communication between stakeholders – especially patients and healthcare providers in different disciplines
- Having a flexible project structure, funding and support

What were the challenges and barriers faced during the implementation of PMH?

- Limited provider capacity.
- Securing and maintaining provider buy-in.
- Local community challenges such as geographic isolation and limitations of technology.

What has been learned that can be applied to the development of Primary Care Networks in rural and remote locations?

1. **Identifying community needs**: through the PMH funding, all communities reported increased knowledge and data to support the identification of local needs. This is seen as foundational to PCN, as it will drive decision making around resource requests and areas to prioritize within the Primary Care Networks.
2. **Increasing team-based care: trialling new models**: The team based care models in the PMH project included those that support physicians to work together as well as opportunities to work more collaboratively with other care providers These team-based care examples will be valuable for other communities to explore as they seek new ways to work together to become well-functioning Primary Care Networks.
3. Developing **relationships/partnerships with local First Nation groups** (such as health centres, communities, and First Nations Health Authority). A key aspect of Primary Care Networks is involving local First Nation and Indigenous stakeholders as partners in the planning and implementation.

Conclusion

The Rural and Remote Division's Patient Medical Home initiative supported local care providers and communities across nine regions in BC. While each project was unique, there were common themes that emerged that contributed to the four PMH goals: to **increase patient access** to appropriate, comprehensive, quality primary health care for each community, **improve support for patients**, contribute to a more effective, efficient, and **sustainable health care system** and **retain and attract family doctors** and teams working with them in healthy and vibrant work environments. Lessons learned from this work can be applied to further work towards Primary Care Networks and other future initiatives in rural and remote BC.

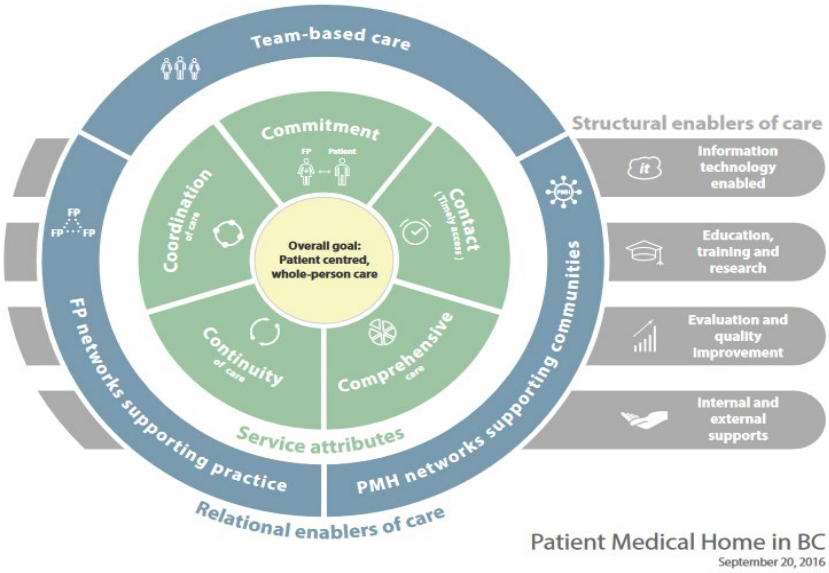
Introduction

Purpose

This is the final report for the Rural and Remote Division of Family Practice's (RRDFP) Patient Medical Home (PMH) Initiative. Its purpose is to provide the RRDFP and Doctors of BC (DoBC) General Practice Service Committee (GPSC) as the project's funder with an evaluation of the project between September 2018 and December 2021. This report includes insights into each of the RRDFP chapter's PMH activities, the initial impacts these activities have had, and how these impacts collectively contribute to the PMH goals.

About the Patient Medical Home Initiative

Figure 1: The 12 Patient Medical Home Attributes



Patient Medical Home (PMH) is a provincial initiative driven through a partnership between the General Practice Services Committee (GPSC) and the Divisions of Family Practice. It aims to develop foundations for a broad, integrated health system, delivering quality health care that effectively meets the needs of the British Columbia (BC) population[1]. PMH outlines an ideal model of general practice that aims to transform the way that primary care is delivered in BC.

The GPSC describes the PMH through 12 attributes[2] (Figure 1). Characterized by three areas of focus, the PMH model strives to increase the capacity of providers by converging and coordinating the delivery efforts of a multidisciplinary group of health professionals. Teamwork and shared responsibility will help facilitate a greater range of services to patients, increased access, reduced wait times, and in turn, improved population health outcomes. It is also expected to contribute positively to the patient and provider experience, the quality of care, and help to reduce per capita health costs over time.

To guide local and provincial transitions to the PMH model, the GPSC has defined four intended outcomes of the PMH model for local initiatives[3]:

- To **increase patient access** to appropriate, comprehensive, quality primary health care for each community.

[1] 'Provincial Evaluation Framework Patient Medical Home', May 9, 2017.
[2] Patient Medical Home in BC. September 20, 2016.
[3] Ibid.

- To **improve support for patients**, particularly vulnerable patients, through enhanced and simplified linkages between providers.
- To contribute to a more effective, efficient, and **sustainable health care system** that will increase capacity and meet future patient needs.
- To **retain and attract family doctors** and teams working with them in healthy and vibrant work environments.

PMH in the Rural and Remote Division of Family Practice

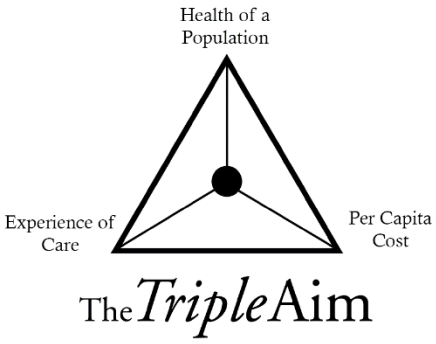
The RRDFP PMH project was a distributed model, enabling each chapter that had capacity to participate in PMH funding to identify a community opportunity that would help them work towards the tenets of the Patient Medical Home. Nine chapters participated in the initiative over five years.

About the Evaluation

Evaluation Approach

The evaluation is designed to report on formative and summative findings. That is, it will provide an opportunity to comment on the processes and foundational work of the Division to support the initiative, as well as the initiative's impacts as they relate to its stated goal and objectives. The evaluation's intent is to provide feedback that will contribute to the initiative's decision-making and highlight learnings for future projects. The evaluation will be a collaborative effort to ensure the initiative's success and will be both participatory and developmental. Therefore, the evaluation will work closely with Division staff in the development and refinement of the evaluation plan and evaluation tools and vetting of the findings.

Figure 2: **Institute for Healthcare's Triple Aim Goals**



The evaluation will also comment on the project's impacts as they relate to Institute for Healthcare Improvement's (IHI) Triple Aim goals. The Triple Aim is a health systems performance framework that examines initiatives through the dimensions of improving the patient and provider experience of care, reducing or maintaining the per capita cost of care, and improving the health of the population (Figure 1).

Evaluation Questions

The central questions guiding the evaluation were:

1. To what extent has the local initiative achieved its intended objectives?
2. To what extent has each chapter initiative contributed to the PMH goals and objectives?
3. What lessons does the local initiative provide that could be used to improve Patient Medical Homes for other populations or in other locations?
4. To what extent are the outcomes of the local initiative sustainable?

Methods

The evaluation team incorporated the following general data collection methods. For specific methods and sample sizes for each chapter, please refer to Appendix C.

Document Review

Project documents were reviewed, including project proposals, progress reports, and work products[4].

Key Informant Interviews

35 key informant interviews were conducted with physicians, Division staff, health authority staff (management and care providers), as well as other engaged community members.

Surveys

Physician surveys were administered in Southern Gulf Islands and Hazelton collecting 19 physician responses between them. Hazelton also administer two patient surveys that together received 93 responses.

Administrative Data Review / Analysis

Administrative data from the Bella Coola Diabetes clinic, specifically around referrals to its program partners, were reviewed and analysed

Analysis

All findings were analysed in the context of each chapter's stated PMH goals and objectives, and within the overarching frameworks of the RRDFP's PMH Initiative and the Triple Aim.

Confidence in the Findings

The evaluation was able to explore all four evaluation questions; however, there were some limitations to the research process which affected the robustness of data available.

- Stakeholder interviews were undertaken retrospectively for some projects, which affected the richness of qualitative data that could be obtained (because stakeholders did not always remember each initiative in detail, given the time that had passed since the first point of their delivery).

[4] Including meeting notes, information packages, and communications for community partners developed for PMH local projects

Evaluation Findings | Implementation & Operation

Organization and Operation of the Project

The RRDFP PMH project was a distributed model across the nine participating chapters: Bella Bella, Bella Coola, Gabriola, Hazelton, Long Beach, North Vancouver Island (NVI), Pemberton, Revelstoke and Southern Gulf Islands. In each chapter operational leadership of the PMH initiative was provided by the chapter coordinator and a physician lead.

Key Activities by Chapter

Chapter Name	Project Title + Description
Bella Bella	**Clinic Assistant Education Pilot Project to improve office efficiency** • MOAs education and training: Sent MOAs from Bella Bella medical clinic to Vancouver to job shadow to improve MOA processes at BBMC and efficiencies **Data working group to identify gaps and improve use of data for planning** • Brought together physicians in the community to better understand their EMR data to identify health needs within the community, created a community health services diagram.
Bella Coola	**Diabetes Education and Support for Patients to address gaps in knowledge and care** • Surveyed diabetic population in Bella Coola to determine gaps and needs in terms of services and education • Collaborative development of a diabetes education model to meet the needs of the local population. This included a diabetes education package for patients, as well as strengthened connections with programs (Seabird Mobile Diabetic Program (Nuxalk First Nation), North Shore Diabetic Education Centre to access virtual diabetes education classes, and University of Victoria chronic disease self-management program).
Pemberton	**Social Determinants of Health (SDOH) Analysis to identify gaps in care and community needs** • MOAs tracked patient requests for non-clinic related inquires (i.e. booking appointments, support with travel) • Assigning SDOH codes to adult patients at the Pemberton Medical Clinic with the goal to identify specific risk factors and their relation to health outcomes to develop targeted resources for the adult patient community
North Vancouver Island	**Frail Seniors Initiative to identify needs and increase team-based care** • Supporting interdisciplinary care discussions for frail seniors in the community 209 70+ year olds were identified and assessed using a new Port McNeill frailty scale • Identifying linkages and resources for seniors through collaborative meetings **Supported the Shared Care-funded Interprofessional Networking Series which included work on:** • Development of Emergency Department (ED) Care Plan through meetings bringing together ED Health Services, physicians, and Island Health management. Emergency

Chapter Name	Project Title + Description
	services can now transport clients to Sobering and Assessment beds bypassing ER, if beds are available. • Collaboration meeting between Port Hardy physicians and FN health directors, cultural awareness training • Education for GPs on Single Point of Access (SPA) referral form
Gabriola	**Gabriola Palliative Care Initiative to integrate services and educate physicians** • Develop an integrative system of palliative care that involves both community organisations and physicians • Physician support – palliative care workshops • Patient engagement to identify needs
Long Beach	**MHSU Redesign at Tofino General Hospital to improve partnerships** • Strengthening partnerships and collaborative processes to support whole person care. • Improve the delivery of interdisciplinary team-based care through supportive education, tools and structures
Southern Gulf Islands	**Strengthening the Primary Care Team in the Southern Gulf Islands** • Brought together FPs from Salt Spring Island, Galiano, Pender and Mayne to identify priority areas such as clinic challenges, recruitment and retention. For each area action items were developed
Hazelton	**Provider Partnerships to improve continuity of care** • Creating new physician provider teams with shared patient panels to improve continuity of care and physician/ NP experience of care at Wrinch Memorial Hospital
Revelstoke	**Revelstoke Health and Social Services Portal to house local resources** • Creation of a web portal that identifies health resources available to the community – more patient oriented than FETCH **Capacity and Coverage Planning to identify current and future capacity needs** • A community manpower plan was developed in collaboration with physicians (including rural physicians), the ER, clinic staff, and the OR. It looked at capacity, onboarding new physicians and took a longer-term view of manpower planning.
Western Interior (Lillooet, Lytton, Ashcroft)	The communities of Lillooet, Lytton and Ashcroft were initially planning to implement a virtual care project focusing on complex care patients. Over the last 5 years, these communities have faced crisis after crisis when it comes to maintaining services and a stable workforce. There were numerous physician leadership transitions and reductions in services. This culminated in summer of 2020 when the Village of Lytton was tragically destroyed by wildfire. For these reasons, a PMH project was not implemented and the budget was redistributed to other communities within the Rural and Remote Division

Progress Toward PMH Goals

This section will outline the collective impact of the PMH projects towards the four overarching goals of PMH.

Table 1: Projects by identified PMH goals

Goal	PMH projects
To increase patient access to appropriate, comprehensive, quality primary health care for each community.	Bella Bella, Bella Coola, Gabriola, Hazelton, Long Beach, NVI, Pemberton, Revelstoke and Southern Gulf Islands (9 of 9)
To improve support for patients, particularly vulnerable patients, through enhanced and simplified linkages between providers.	Bella Bella, Bella Coola, Gabriola, Hazelton, Long Beach, NVI, Pemberton, Revelstoke, and Southern Gulf Islands (9 of 9)
To contribute to a more effective, efficient, and sustainable health care system that will increase capacity and meet future patient needs.	Bella Bella, Bella Coola, Gabriola, Hazelton, Long Beach, NVI, Pemberton, Revelstoke, and Southern Gulf Islands (9 of 9)
To retain and attract family doctors and teams working with them in healthy and vibrant work environments.	Gabriola, Hazelton, Long Beach, NVI, Pemberton, Revelstoke, and Southern Gulf Islands (7 of 9)

Increasing Access to Services

Key ways that the PMH projects increased access to services were:

Connecting previously siloed healthcare providers and community organizations with each other to give patients more access points. In Bella Bella, the PMH work increased the collaboration between the Heiltsuk Health Centre and the Bella Bella Medical clinic and now a physician from the medical clinic has started providing pap tests at the Heiltsuk Health Centre giving the Centre's patients access to a new service. Bella Coola reached out to a diabetic education program based on the North Shore opening new education opportunities for residents of Bella Coola. Additionally, the project in the Southern Gulf Islands resulted in a name change to the previous Salt Spring Island Chapter. Prior to the retreat, there was very little connection between the outer gulf islands and Salt Spring Island.

Sharing information with providers and patients on available services. Through their palliative care project, Gabriola physicians connected with Island Health and got a better sense of the services available for palliative patients and the appropriate referral pathways. The creation of RevelstokeLife.ca, which outlines resources and services available in Revelstoke, has helped patients and physicians

Box 1: PMH in Revelstoke

Revelstokelife.ca, was set up to create an online directory for community services that also raised the profile of physicians and the Division. Interviewees report that mental health was the primary area of the RevelstokeLife site being accessed in 2021.

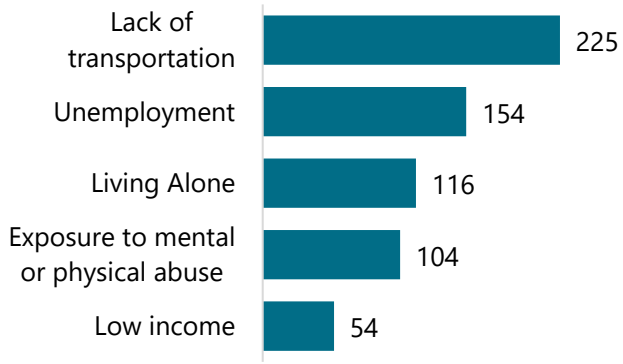
RevelstokeLife.ca

look through services like counselling or physiotherapy and find the best resources for themselves and for their patients. Part of the Long Beach PMH work set up an outreach team to meet people where they are at in the community and connect them to the services they need.

Reducing wait times for patients, expanding afterhours care and increasing attachment. Physicians in Revelstoke implemented a new afterhours schedule that expanded access from 4-7pm on Mondays to Fridays. In NVI, the interprofessional networking series established a system to connect emergency services with sobering and assessment beds both giving substance use patients access to this new service and freeing up beds in the ED and reducing wait times there. The new provider partnerships in Hazelton have reduced waitlists because physicians are more confident sending their patient to their partner physician when they are unavailable rather than adding their patient to a waitlist and seeing them when they are next able to. Physicians in Hazelton also predict they will be able to attach more patients knowing they will have the coverage and support of their partner physician.

Working to address and investigate cultural and socioeconomic barriers to healthcare. The interprofessional networking implemented in NVI brought together physicians and local First Nations Health Directors to conduct cultural awareness training to support physicians to better provide care to Indigenous patients. The ongoing development of a comprehensive model of maternity care in NVI is also bringing in representatives from the First Nations Health Authority (FNHA) to ensure that the model that emerges will be accessible to Indigenous patients. The Pemberton Chapter's social determinants of health analysis helped the Division identify the biggest barrier facing their patients and the largest was the lack of transportation (Figure 1). The findings of the analysis were used by the chapter to advocate for social work support and/or other remuneration to improve patient access and address these barriers[5]. At the planning day put on by the Southern Gulf Chapter physicians identified initiatives to improve patient access by addressing barriers such as lack of internet access or reliable transportation.

Figure 3. The most common Social Determinants of Health identified in Pemberton
(*n=6473 patients on panel age 18+)*



Improve Support for Patients

Key ways that the PMH projects improved support for patients were:

Enhancing linkages between providers so that they can help each other better support patients. In Bella Bella, the Heiltsuk Health Centre and Bella Bella Medical clinic started developing a memorandum of understanding to share patient information so that they can better support patients who access services at both and provide better continuity of care. In Gabriola, the Chapter's palliative care clinic has increased coordination between physicians and volunteers caring for palliative and near-palliative patients. The new physician partnerships in Hazelton are designed to better support patients by structuring

[5] A social work position has since been granted to Pemberton.

the information between physician partners so fewer aspects are overlooked when care is handed off between partners. In Revelstoke, the process of developing the afterhours schedule has helped physicians develop better communication with one another. Participants in the Southern Gulf Island planning day identified programs such as Shared Care and PCN to leverage to strengthen connections between providers and enhance team-based care in the future.

Clarifying roles and creating care plans that include multidisciplinary teams. In Long Beach the care plans developed by the multidisciplinary meetings clarify how different providers will interact with a patient to ensure coordination and that clients are being directed to the right place by all the elements of the healthcare and emergency service systems they interact with. Similarly, the interprofessional networking series in NVI also held some case management sessions to clarify how providers will link community members to housing, health care and other services such as managed alcohol programs.

Creating tools and resources for physicians and NPs to help physicians support their patients. In Bella Coola, the Chapter created a flow chart and education manual for patients to follow. Physicians in Revelstoke are using the RevelstokeLife website to keep up to date about new service available in the community that can help support their patients.

Box 2. PMH in Long Beach

Multidisciplinary meetings were held on the first Wednesday of the month. At the meetings attendees shared information, talked about their roles, and created individualized care plans for complex patients.

Meeting attendees included:

- Local physicians
- Paramedics
- Island Health staff
- FNHA staff
- RCMP
- Nuu-chah-nulth Tribal Council (NTC) counsellors

Leveraging data to better understand where more supports are needed. The assessments conducted as part of the frail senior's initiative in NVI have given physicians better data on which of their patients need additional supports to manage frailty. The social determinants of health analysis in Pemberton brought gave physicians data on major challenges their patients are facing, such as lack of transportation, which in the future will help them support and advocate for their patients.

Contribute to Effective, Efficient, and Sustainable Health Care

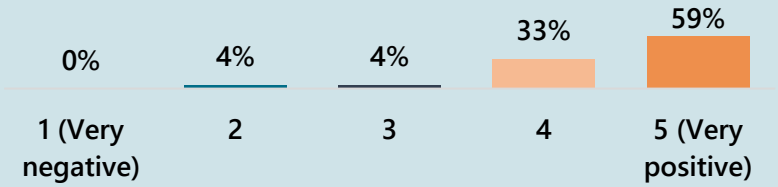
Key ways that the PMH projects contributed better and more sustainable health care were:

Improving protocols in clinics and other healthcare settings through training and collaboration. The structured communication that is part of the Hazelton's physician partnerships aims to reduce duplication and delays in information sharing when patients are handed off between physicians. The multidisciplinary team meetings in Long Beach helped healthcare providers and emergency services know how they would collectively interact with a patient so that they would stop sending patients back and forth to each other or back to a service the patient had already accessed. In Bella Bella, the MOA training increased MOA skill using the EMR for billing and communication. The trainings also helped them identify areas they needed to continue working on such as cross-training all MOAs and expanding procedures and guidelines around completing documentation.

Box 3. PMH in Hazelton

The Hazelton Chapter created new provider partnerships—pairs of physicians or NPs who support each other's patients when one is off contract or on holiday—to improve continuity of care and patient experience of care at the Wrinch Memorial Hospital and Medical Clinic (WMH).

Patients who had seen their FP/NP's partner at Wrinch Memorial Medical Clinic rated the experience positively with an **average rating of 4.5 out of 5**. (n=27)



> "[When] someone was away, there would be locum gaps. If they forgot to have someone cover when they were gone, or if a patient calls at that time, that was a problem. We needed consistency. That was our thought process."
>
> – Hazelton Physician

Highlighting community needs to better inform planning. Improved awareness of and referrals to Island Health programs has made the Island Health Authority more aware of current needs on Gabriola which may create better service planning in the future. The data gathered in NVI's frail senior's assessments and Pemberton's social determinants of health analysis has increased awareness of community needs and is informing both communities' service planning. The findings from Pemberton's analysis have proven valuable in communicating the need for a social worker to Vancouver Coastal Health. At the Southern Gulf Island planning day participants had a wide-ranging discussion on the system-level challenges they face such as the small pool of MOAs, space limitations, difficulties managing long-term care patients, and knowledge gaps for some clinic staff. From that discussion Southern Gulf Island physicians identified actions such as MOA recruitment planning, increasing clinic space through a Community Health Centre (CHC), centralizing care for long-term care patients, and accessing key education modules.

Strengthening relationships between physicians and other stakeholders to make future initiatives even more successful. In Bella Bella, a data working group was set up to create a snapshot of community services and travel times and as part of that work the Chapter collaborated with Heiltsuk and Kitasoo Health Centre representatives. However, Division staff report they realized they had to a step back from asking their First Nations partners for data to instead focus on figuring out the right process for gathering that information. One interviewee described how as they were learning lessons and building relationships critical for this data working group, they were also building connections and defining new processes that would support future work.

Establishing ways to sustain the outcomes of their PMH work such as by securing a partner to take responsibility for their maintenance. In Bella Coola the Promoting Health Lifestyle Action Group (PHLAG), an existing local committee, will take on overseeing the diabetes education indicative while the Bella Coola Healthcare Auxiliary will pay for maintaining the inventory of diabetic education manuals developed by the PMH project.

Retain and Attract Family Doctors

Key ways that the PMH projects worked to retain and attract family doctors were:

Reducing the burden on physicians through team-based care. In Gabriola, the formalized collaboration between volunteers and physicians around palliative care has distributed some of the responsibilities of caring for patients such as frequently checking on patients if they choose to remain at home. Physicians in Hazelton appreciated knowing that when they are off-contract or away their patients will be taken care of by their partner, and nothing will get missed. For recruitment, this contributes to an attractive work environment especially for those looking for part time practice since the community can offer this partnership model. The care plans created through NVI and Long Beach's PMH work that clarify how different providers will interact with the same patient ensuring coordination and reduce the frustration around repeat referrals or cases where patients seem to be sent around in circles. Through their PMH project, physicians in NVI now have the option to move patients with substance use challenges to sobering and assessment beds rather than the ER reducing the burden on physicians working in the ER. In Pemberton, the social determinants of health analysis generated data that is intended to help advocate for a social worker position.

Box 4. PMH in Southern Gulf Islands

The planning day was held on November 8th, 2021 and 11 chapter members attended - ten physicians and one nurse practitioner.

10 of the 11 participants answered a feedback survey after the planning day:

- ✓ **100% agreed** (10 of 10) that overall, the retreat was a valuable use of their time.
- ✓ **100% agreed** (10 of 10) that the activities and deliverables chosen will help accomplish SSGI goals.

> "We now have common priorities and goals with a focus on recruitment. This will directly impact patient access if successful."
>
> -SGI Planning Day Participant

Better recruitment and retention planning. Revelstoke's manpower planning component will inform which kinds of physicians will be targeted for recruitment and since the plan was created an anaesthetist has been recruited. At SGI's planning day physicians brainstormed ways to better attract physicians and locums including setting up a central recruitment website for locums, residents and other potential permanent providers; potentially sending Chapter physicians to meet with residents; and exploring creative housing options for locums or potential permanent providers.

Discussion

What were the factors that contributed to the success of the project?

Drawing on existing resources and existing experience. For example, in Bella Coola the diabetes education package they put together drew on previously developed, evidence-based resources while ensuring it was adapted to local set of supports and relevant to the main local needs. Interviewees commented that building upon local strengths contributed to in the Patient Medical Home projects.

Encouraging open communication between stakeholders – especially patients and healthcare providers in different disciplines. Across projects, stakeholders including Health Authorities, First Nations,

locums, RCMP and allied health providers were brought into the planning and implementation process. In Hazelton, one physician explained that specific and frequent patient communication was critical so that patients would feel comfortable with the new provider partnerships where their care would not be shared with a physician they may not know well. For the Long Beach Chapter, including as many stakeholders as possible at multidisciplinary meetings allowed them to get a clear sense of all the resources available and to take advantage of the variety of perspectives and expertise each stakeholder brings. In Gabriola early conversations secured buy-in from other community services so that everyone would be referring to and supporting the new hospice program. Having a Health Network and active committee, like Mt Waddington, with physicians and colleagues that meet regularly helps move this type of work forward

Having a flexible project structure, funding and support. Interviewees in several communities noted that the flexibility of the Patient Medical Home project to identify and address local, specific issues was a strength of the project. This was further enabled by having directed funding to work on the projects and having support from the Chapter coordinator to keep momentum going. Additional support from Practice Support coaches, Facilities Engagement and the Health Authority who contributed staff time and resources was also cited to help implement ideas.

What were the challenges and barriers faced during the implementation of PMH?

Limited provider capacity. In many communities it was a challenge for providers to take on PMH project work when they already had heavy workloads. It some cases this lack of capacity constrained the PMH project such as in Revelstoke where extending afterhours care to weekends was ruled out because of the lack of physician capacity. After the Bella Bella MOAs returned from their job shadowing in Vancouver they found it difficult to implement some of the improvements they identified when their day-to-day workload was already significant. Some projects struggled to find a physician to lead the work because their time is already consumed with clinical work.

Securing and maintaining provider buy-in. In Revelstoke, interviewees explained that setting up the RevelstokeLife website was a risk since it was hard to know how the website would function and what it could be until work on the website got started. In NVI, since providers, such as locums, are often coming in and out of their community it was hard to maintain provider buy-in.

Local community challenges such as geographic isolation and limitations of technology. For example, the Long Beach Chapter faced the challenge of planning their PMH work to service communities that might be difficult to access (e.g. located on a separate island). The Long Beach Chapter also found that COVID pandemic limited the outreach that had been part of their MHSU work creating new challenge for the project. Many of the patients who participated in Bella Coola's diabetes education program did not have adequate technology in their homes to access the virtual classes. It ended up taking a lot of effort to manage and support patients accessing the program on top of physicians and clinic staff already having many responsibilities. Interviewees in Bella Coola also noted that, while having virtual access is beneficial, local resources would still be preferable, since a local provider could build a stronger relationship with patients. Data gaps were a challenge for the Pemberton Chapter's social determinants of health analysis because only

chronic diseases compensated for chronic disease management were guaranteed to be in the EMR – other chronic diseases were inconsistently recorded in the EMR.

What has been learned that can be applied to the development of Primary Care Networks in rural and remote locations?

Primary Care Networks are *"clinical network of local primary care service providers located in a geographical area, with **patient medical homes** (PMHs) as the foundation. A PCN is enabled by a partnership between the local division of family practice and health authority, along with local First Nations."*[6]

During the implementation of the Patient Medical Home project, there were common themes identified that can be useful in the development and implementation of Primary Care Networks.

4. **Identifying community needs**: through the PMH funding, all communities reported increased knowledge and data to support the identification of local needs. This is seen as foundational to PCN, as it will drive decision making around resource requests and areas to prioritize within the Primary care networks.

   As identified in the evaluation findings above, projects such as the Pemberton analysis of social determinants of health and Southern Gulf Island's planning day helped identify and quantify community needs and priorities.

5. **Increasing team-based care: trialling new models**: The team based care models in the PMH project included those that support physicians to work together (i.e., Hazelton provider partnerships), as well as opportunities to work more collaboratively with other care providers (i.e., Bella Coola's diabetes program, Gabriola's palliative approach). These team-based care examples will be valuable for other communities to explore as they seek new ways to work together to become well-functioning Primary Care Networks.

6. Developing **relationships/partnerships with local First Nation groups** (such as health centres, communities, and First Nations Health Authority). A key aspect of Primary Care Networks is involving local First Nation and Indigenous stakeholders as partners in the planning and implementation. Examples of increased or activated partnerships were identified Bella Bella's data working group, Bella Coola diabetes program, Long Beach's multidisciplinary team and North Vancouver Island's engagement with FNHA.

[6] Primary Care Networks | GPSC (gpscbc.ca) accessed Jan 20, 2022

Conclusion

The Rural and Remote Division's Patient Medical Home initiative supported local care providers and communities across nine regions in BC. While each project was unique, there were common themes that emerged that contributed to the four PMH goals: to **increase patient access** to appropriate, comprehensive, quality primary health care for each community, **improve support for patients**, contribute to a more effective, efficient, and **sustainable health care system** and **retain and attract family doctors** and teams working with them in healthy and vibrant work environments. Lessons learned from this work can be applied to further work towards Primary Care Networks and other future initiatives in rural and remote BC.

Appendix A: Logic Model of the Rural and Remote PMH Initiative

Rural and Remote – Patient Medical Homes - Logic Model

Inputs

Funding

Doctors of BC

Stakeholders/Partners

Rural and Remote Division of Family Practice
- Physician leads
- Chapter coordinators
- Chapter members

Regional Health Authorities
- Island Health
- Vancouver Coastal Health
- Northern Health
- Interior Health

First Nations Health Authority

Key Initiatives

Bella Bella
- MOA education
- Data working group
- Community map

Bella Coola
- Diabetes education package
- Collaboration with Seabird
- Referrals to NS Diabetes Clinic
- Referrals to UVIC CDSMP

Gabriola
- Working group
- Community public forum
- Home Hospice Program
- Monthly rounds
- Social worker support
- "Death Café's"

Hazelton
- Physician workshop and retreats
- Partner provider
- Informing patient activities
- Provider pair meeting

Long Beach
- Engagement with NTC
- Data collection
- Multidisciplinary meetings
- Hiring MHSU staff

North Van Island
- Identifying frail seniors
- Supporting Shared Care Interprofessional Networking Series

Pemberton
- Literature review
- MOA patient data collection
- Develop clinic narrative
- EMR input
- PSP technical support
- Data analysis support

Revelstoke
- Survey launch
- Reelstokelife.ca set up
- Community manpower plan
- After hours care set up

Southern Gulf Islands
- Working group
- Planning day

Outputs

Bella Bella
- Efficiencies identified
- Relationships developed with local FN
- "Snapshot" of community services and travel times captured

Bella Coola
- 15 patients referred
- Relationships developed with Seabird, NS Diabetes Clinic, and UVIC CDSMP

Gabriola
- 15 physicians and community service providers included in working group
- 30 volunteers trained, 19 referrals to hospice program, 8 caregivers in support group
- Improved "Palliative Care in Primary Practice" model

Hazelton
- 6 provider partnerships established
- Patients provided "backup" partner provider
- Patients informed about partnerships via local flyers and word of mouth at clinics
- Unattached patients meet with provider pair

Long Beach
- Data collected to support MHSU services
- Individualized care plans for complex patients
- New manager, social worker, and pysch nurses
- Regular walk-in services, more MHSU services, more outreach

North Van Island
- Port McNeil frailty scale

Pemberton
- Review of social workers support in primary care
- Clinic narrative developed
- Input of social determinant data into EMR
- PSP technical support
- PCN planning

Revelstoke
- Online directory for community service
- Afterhours care available

Southern Gulf Islands
- Facilitator hired
- Planning Day hosted on Nov 8th and 11th
- Priorities identified and action items developed

Outcomes

Improved support for patients through enhanced and simplified linkages between providers

Increase patient access to appropriate, comprehensive, quality primary health care

Contribute to a more effective, efficient, and **sustainable health care system**

Retain and Attract Family Doctors

Long Term Outcomes

Improve the patient experience of care (including quality and satisfaction)

Improve the health of populations

Reduce the per capita cost of health care

Improve provider satisfaction (professional wellness)

Appendix B: Rural and Remote Project Map

Leveraging Data and Technology

Revelstoke Health and Social Services Portal
Developing a web portal detailing the health resources available in the community

Pemberton Social Determinants of Health Analysis
Drawing from Electronic Medical Records to understand the social determinants of health across Pemberton's Patients

Bella Bella Data Working Group
Conducting a community needs assessment that includes patient voice

Expanding Care for Seniors

Gabriola Palliative Care Initiative
Developing an integrated system of palliative care inclusive of physicians, CHS nurses & social workers, palliative care specialists, and community hospice volunteers

North Vancouver Island Frail Seniors Initiative
Supporting interdisciplinary care discussions for frail seniors

Implementing Team-Based Care

Hazelton Provider Partnerships
Forming new physician provider teams with shared patient panels to improve continuity of care and patient experience of care at Wrinch Memorial Hospital.

Long Beach MHSU Service Redesign
Developing a coordinated, comprehensive, and integrated system of care involving the health authority, community partners and physicians to deliver a team-based approach.

Revelstoke Afterhours Coordination
Refining the afterhours protocols between physician groups to ensure patient access to care

Interprofessional Networking Series
Refining the afterhours protocols between physician groups to ensure patient access to care

Supporting Education, Training and Planning

Bella Coola Comprehensive Team-based Diabetic Education
Enlarging the health care team available to respond to diabetic learning needs through web-based connections.

Bella Bella Clinic Assistant Pilot Project
Supporting MOA training and education to empower them to take on new roles in local clinics

Southern Gulf Islands Physician Planning Day
Identifying action items and priorities to guide Division work going into the next years

Appendix C:

Chapter	Methods
Bella Bella	Key Stakeholder Interviews (n=5) Document Review
Bella Coola	Key Stakeholder Interviews (n=6) Document review Admin data: # clients referred to North Shore Diabetes Clinic
Gabriola	Interviews (n=4) Document review
Hazelton	Key Stakeholder Interviews (n=4) Provider Survey (n=9) Patient Survey 1 (n=46) Patient Survey 2 (n=47) Document Review
Long Beach	Key Stakeholder Interviews (n=8) Document Review
North Van Island	Key Stakeholder Interviews (n=3) Document review
Pemberton	Key Stakeholder Interviews (n=2) Document Review
Revelstoke	Key Stakeholder Interviews (n=3) Document Review
Southern Gulf Islands	Feedback Survey (n=10) Document Review