

## The Social Impact of Virtual Group Care in British Columbia

How Innovative Care for Those with Complex Chronic Diseases Drives Social and Economic Benefits Across the Province

Prepared for the BC Centre for Long COVID, Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome & Fibromyalgia (BC-CLMF)



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## **Glossary**

**BC** British Columbia

**BC-CLMF** BC Centre for Long COVID, ME/CFS & Fibromyalgia

**CCDP** Complex Chronic Disease Program

**CRPS** Chronic Regional Pain Syndrome

MAiD Medical Assistance in Dying

MCS Mast Cell Activation Syndrome

ME/CFS Myalgic Encephalomyelitis/Chronic Fatigue Syndrome

**MLA** Member of the Legislative Assembly

MSP Medical Services Plan

PASC Post-Acute Sequelae of COVID

**PEM** Post-Exertional Malaise

**POTS** Postural Orthostatic Tachycardia Syndrome

**Q&A** Questions and Answers

**RTW** Return-To-Work

**SROI** Social Return on Investment

**US** United States

**VGMV** Virtual Group Medical Visit



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## **Executive Summary**

# The Importance of Providing Care for Long COVID, ME/CFS, and Fibromyalgia in British Columbia

Long COVID, Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) and fibromyalgia are complex chronic diseases that seriously affect the quality of life along with daily functioning, such as the ability to work or study. In Canada, the prevalence of these conditions has risen substantially. Before the COVID-19 pandemic, around **5.5**% of Canadians (2.26 million people) were already affected by ME/CFS and fibromyalgia. The pandemic has intensified this burden. As of June 2023, more than **3.5 million** Canadian adults are living with Long COVID alone, and projections indicate that by 2027, Canada may surpass **10 million** total cases.

Patients with Long COVID, ME/CFS, and fibromyalgia use health care services at disproportionately high rates, yet many still report unmet medical needs and difficulty accessing appropriate care.<sup>4</sup> Patients have raised that waitlists to receive treatment for their conditions are often years long, with access remaining limited for those in remote regions of the province or for those who are house- or bed-bound.

The BC Centre for Long COVID, Myalgic Encephalomyelitis/Chronic Fatigue Syndrome & Fibromyalgia (BC-CLMF or clinic) is distinct in British Columbia as it offers quick access to services after referral that are accessible virtually from anywhere in the province. Other programs like the Complex Chronic Disease Program (CCDP), do not have the capacity to meet current and expected future demand according to those consulted as part of the study. Patients engaged in this study also reported that the BC-CLMF provided for ongoing physician-directed care at a level that is responsive to the current demand.

The economic implications are equally significant. In Canada health care costs attributable to Long COVID are estimated at a minimum of **\$7.8 billion per year**, based on 2023 prevalence levels.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> Park, J., Gilmour, H. (March 2017). Medically unexplained physical symptoms (MUPS) among adults in Canada: Comorbidity, health care use and employment. Retrieved from: Medically unexplained physical symptoms (MUPS) among adults in Canada: Comorbidity, health care use and employment

<sup>&</sup>lt;sup>2</sup> Kuang, S et al (December 2023). Experiences of Canadians with long-term symptoms following COVID-19. Retrieved from Experiences of Canadians with long-term symptoms following COVID-19.

<sup>&</sup>lt;sup>3</sup> International Long Covid 3 Conference Boston MA Nov 19-20, 2025.

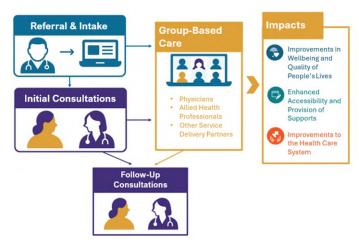
<sup>&</sup>lt;sup>4</sup> Jamieson, K. et. al. (August 2025). POLICY BRIEF Virtual Healthcare Services for People Living with Long COVID.

<sup>&</sup>lt;sup>5</sup> Rafferty, E., Unsal, A., Kirwin, E. (October 2023). Healthcare costs and effects of post-COVID-19 condition in Canada. Canada Communicable Disease Report (October 2023). Retrieved from: Healthcare costs and effects of post-COVID-19 condition in Canada - Canada.ca.



#### The Role of the BC-CLMF Model

The BC-CLMF is a specialist clinical program that provides care to individuals living with complex chronic illnesses, including Long COVID, ME/CFS, fibromyalgia, and related post-viral and dysautonomic conditions. The clinic is staffed by internal medicine physicians and multidisciplinary clinicians (referred to as allied health professionals throughout this report) that provide direct patient care and operate an innovative virtual service delivery model (see the figure on the right). This model enables province-wide access to specialist care, including for individuals in rural and remote communities, as

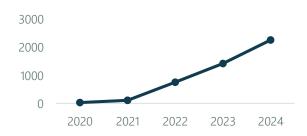


well as those too sick to travel to attend in-person appointments. It does so by delivering comprehensive, physician-led services through Virtual Group Medical Visits and complementary one-to-one consultations.

#### Overview of the BC-CLMF Model

Since its establishment in 2020, both referral volumes and service utilization have increased substantially, as demonstrated in the figure below.

## Number of Unique Patients Served by Large Group Services



The clinic provided large group services<sup>6</sup> for 2,258 unique patients in fiscal year 2024, compared with 30 in fiscal year 2020, an average annual increase of 1,857%. Although the year has not yet ended, large group services have already reached 2,008 unique patients between April and November of 2025.

Virtual-care infrastructure allows the clinic to deliver physician-led Virtual Group Medical Visits for up to 50 patients at a time, reaching

people across the province through a single session. Upon referral, patients gain immediate access to virtual group sessions and are placed on the waitlist for an initial internal-medicine consultation, while all medication prescribing occurs through appropriate individual clinical review. The clinic also assists with disability-benefit applications, provides a primary-care toolkit for community physicians, and offers mentorship and navigation support for individuals managing complex chronic illness. Patients may remain engaged with the clinic for as long as they continue to benefit, receiving ongoing support within a shared-care model alongside their primary-care providers.

<sup>&</sup>lt;sup>6</sup> Large group services represent sessions with more than 20 patients.



The BC-CLMF delivers specialist consultation and continuing care in alignment with the Medical Services Plan (MSP) fee guide, with group medical visits allowing for physician and patient interactions during each session.<sup>7</sup>

### Anticipated Impacts of Proposed MSP Policy Changes on BC-CLMF's Virtual Group Medical Visits

Recent policy proposals introducing a 20-patient cap for Virtual Group Medical Visits would have an impact on BC-CLMF operations. The clinic has noted that the model can only be sustained if costs are distributed across appropriately sized groups of approximately 50 patients. Physician billing revenue funds the multidisciplinary components of care, which are central to the structured group model, and cohorts below the 50-patient threshold do not generate sufficient resources to maintain this structure, according to clinic representatives. As a result, smaller groups would limit the ability to deliver the combined physician and allied-health approach that clinic representatives report as most effective for meeting the needs of its patient population. These impacts would be most significant for patients living in rural and remote regions, as well as those who are homebound, for whom virtual access is essential. It is with this understanding that reducing group size would compromise the financial viability of the informational sessions, multidisciplinary programs, and special lectures.

Given this scenario, clinic representatives anticipate the following impacts of the proposed policy changes:

- Longer wait times for physician consultations and medication-management follow-ups, as group sessions would be replaced with individual appointments.
- Loss of access to the ongoing, structured programs that provide multi-week, skills-based specialist support.
- The likely financial infeasibility of running physician-led patient groups.

Maintaining the current multidisciplinary structure and scale of the BC-CLMF model would support equitable and timely access to specialist care across the province. Doing so also preserves the BC-CLMF's capacity to generate social and economic value as presented in this SROI analysis, which depends on the continued viability of its physician-led and allied health virtual group service model.

The Province's investment through MSP generates substantial and measurable social and economic value when the BC-CLMF model's full benefits can be realized.

BC-CLMF SROI Study | Final Report

<sup>&</sup>lt;sup>7</sup> College of Physicians and Surgeons of BC. (August, 2025). Letter Re: Physician Practice Enhancement Program Response.



#### The Social Return on Investment of the BC-CLMF Model

This Social Return on Investment analysis found that the BC-CLMF provides substantial value to patients, families and caregivers, health care providers, and the broader health system in BC. Using an internationally standardized methodology, MNP estimated the financial value of such realized benefits and for every dollar invested in the BC-CLMF model.

#### The analysis of the BC-CLMF Virtual Group Medical Visit model revealed a SROI RATIO OF 1:6.85.

This analysis draws on the shared experiences and insights from 1,246 patients, 348 family members and caregivers, and 17 service model administrators (including physicians at the BC-CLMF, allied health professionals, service delivery partners, and referring providers), in addition to testimonials and detailed case studies.

The resulting ratio indicates that, for **every \$1** invested in the Virtual Group Medical Visit model through MSP billings, about **\$6.85** in **social and economic value** is generated for patients, their families and caregivers, physicians at the clinic, allied health professionals, the broader health care system in BC and the Ministry of Health.<sup>8</sup>

The BC-CLMF Model delivers measurable value across multiple layers of the health care system. Patients and their family members or caregivers are the main beneficiaries, reporting improvements in function, stability, and overall quality of life. Among surveyed patients, 83% of 1,128 patient survey respondents agreed that the clinic improved their physical health, and 86% of 1,135 respondents reported improvements in mental health. Many described the clinic's role as essential to their ability to manage daily living, often characterizing it as "critical" or "life-saving."

Physicians, allied health professionals, and referring providers reported strengthened care pathways, greater access to specialist expertise, and reduced clinical burden associated with the model. At the system level, the broader health care sector (including MSP and the Ministry of Health) benefits in the form of lower demand on primary care, emergency departments, and diagnostic services, along with more efficient use of specialist time.

<sup>&</sup>lt;sup>8</sup> These estimated values, and the ratio of 1:6.85, should be seen as conservative. The SROI method used to evaluate the BC-CLMF's outcomes is limited in its ability to translate impacts into financial terms. As well, BC-CLMF patients who have successfully returned to work are less likely to continue attending clinic visits and so the survey may not fully reflect the model's effectiveness in supporting return-to-work. The two-week period for collecting data, given the project's schedule, may have further limited the ability to take part in the consultations. Other considerations are that the SROI analysis looked at outcomes over a ten-year timeframe to capture lasting benefits such as fewer emergency room visits, improved quality of life, and increased return-to-work rates; however, many of these benefits likely extend beyond this period. Lastly, long COVID itself remains a complex and poorly defined condition, with ongoing debate in the research literature and a lack of consensus distinguishing it from Post-COVID conditions.



The table below provides a more detailed breakdown of the estimated financial value generated for each invested party included in the study.

Table: Value\* Created by Invested Party Included in the Study

Invested Party	Value* Created (Rounded)
Patients	\$8,198,017
Patients' Families and Caregivers	\$389,294
Physicians at the BC-CLMF	\$23,184
Allied Health Professionals and Other Service Delivery Partners	\$327,121
Referring Health Care Providers	\$777,157
BC's Health Care System	\$2,315,719
Total Value Created	\$12,030,492

<sup>\*</sup> Value is the net present value over a ten-year period calculated using a 3.5% discount rate.<sup>9</sup>

The continued effectiveness and positive influence of the BC-CLMF, along with the benefits it provides for patients, families, and the health care system, depend on stable and supportive policy decisions. According to the clinic's analysis of internal data, if the proposed MSP limits had been applied to Virtual Group Medical Visits delivered between April 1, 2024 to March 31, 2025, approximately two-thirds of patients would not have been able to access the care they were receiving. In addition, uncertainty surrounding billing policies and the restrictions in group sizes creates substantial operational challenges and is seen to be undermining the clinic's ability to plan, invest, and continue innovating its model of care.

<sup>&</sup>lt;sup>9</sup> Based on social discount rate suggestion from Boardman, Moore & Vining. (2010). Net Present Value represents the total value of projected benefits, including social and economic, in today's dollars. It adjusts future benefits for the time value of money, recognizing that a dollar today is worth more than a dollar in the future. In SROI analysis, net-present value is calculated by discounting all expected outcomes over the chosen a discount rate. This ensures that long-term impacts, such as improved health outcomes or reduced system costs, are valued realistically and consistently.



## Introduction and Background

# Long COVID, ME/CFS, and Fibromyalgia: Prevalence and Impact in Canada

Long COVID, Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) and fibromyalgia are complex chronic diseases that have a substantial impact on individuals' daily lives, including their ability to work or study. In Canada, there has been an observed increase in the prevalence of these multisystem chronic diseases. Prior to the COVID-19 pandemic, approximately **5.5**% of Canadians (2.26 million people) were affected by ME/CFS and fibromyalgia.<sup>10</sup> The pandemic has exacerbated this situation, with well over **3.5 million** Canadian adults living with Long COVID alone as of June 2023.<sup>11</sup> It is projected that, by 2027, Canada will report over **10 million** cases of Long COVID.<sup>12</sup>

These diseases are also characterized by a notable prevalence of mental health co-morbidities within patient populations, including anxiety, depression, and post-traumatic stress; these factors influence both treatment outcomes and the recovery process.<sup>13</sup>

Patients with ME/CFS, fibromyalgia, and Long COVID use health care services at higher rates compared to population averages, yet many patients also report unmet needs and challenges in accessing suitable treatment.<sup>14</sup> Adding to this, it was found that existing programs outside the BC Centre for Long COVID, Myalgic Encephalomyelitis/Chronic Fatigue Syndrome & Fibromyalgia (BC-CLMF or clinic) in British Columbia, including the Complex Chronic Disease Program (CCDP), do not have the capacity to meet current and future anticipated demand effectively according to those consulted as part of the study. Recently published research further shows only limited impact of the CCDP on patients' physical and mental health.<sup>15</sup> As well, in 2023, BC's Long COVID clinics were discontinued and transitioned to an online program, which now offers patients restricted access to physicians.<sup>16</sup> This has led to long waitlists and limited access to care, particularly for those who are house- and/or bed-bound or living in remote areas of the province.<sup>17</sup>

From an economic perspective, the impact is substantial and marked by diminished productivity, individual travel expenses, loss of income, decreased quality of life, costs associated with caregiving, and

<sup>&</sup>lt;sup>10</sup> Park, J., Gilmour, H. (March 2017). Medically unexplained physical symptoms (MUPS) among adults in Canada: Comorbidity, health care use and employment. Retrieved from: Medically unexplained physical symptoms (MUPS) among adults in Canada: Comorbidity, health care use and employment

<sup>&</sup>lt;sup>11</sup> Kuang, S et al (December 2023). Experiences of Canadians with long-term symptoms following COVID-19. Retrieved from <u>Experiences of Canadians with long-term symptoms following COVID-19</u>.

<sup>&</sup>lt;sup>12</sup> International Long Covid 3 Conference Boston MA Nov 19-20, 2025.

<sup>13</sup> Arseneau Ric and Jane McKay. BC-CLMF. Innovative Multidisciplinary Chronic Disease Care: Cost Effectiveness and Efficiency of Group Visits. July 15, 2025.

<sup>&</sup>lt;sup>14</sup> Jamieson, K. et. al. (August 2025). POLICY BRIEF Virtual Healthcare Services for People Living with Long COVID.

<sup>&</sup>lt;sup>15</sup> Meagher, E. et.al. (June 2025). Health outcomes of patients in the Complex Chronic Diseases Program. Retrieved from: <u>Health outcomes of patients in the Complex Chronic Diseases Program | British Columbia Medical Journal</u>

<sup>&</sup>lt;sup>16</sup> Ballard, J. (February 9, 2023). B.C. is taking its long-COVID clinics online and removing access to their doctors. CBC News. Retrieved from: <u>B.C. is taking its long-COVID clinics online and removing access to their doctors | CBC News</u>.

<sup>&</sup>lt;sup>17</sup> Jamieson, K. et. al. (August 2025). POLICY BRIEF Virtual Healthcare Services for People Living with Long COVID. BC Medical Journal 67-5. Retrieved from:



increased expenditures for the health care system. In Canada, health care costs due to Long COVID are estimated to be **at least \$7.8 billion annually** based on the prevalence of the condition as established in 2023.<sup>18</sup> A study from the United States estimates the direct and indirect economic cost of ME/CFS at 17 to 24 billion USD annually with approximately 9.1 billion USD attributed to lost productivity alone.<sup>19</sup> Similarly, a study published in 2025 that investigated the combined cost of Long COVID and ME/CFS to the German economy estimated costs to be over 63 billion Euro a year.<sup>20</sup>

#### Long COVID

Long COVID remains a complex and often misunderstood disease. The confusion largely stems from the absence of a universally accepted definition, with multiple conflicting interpretations currently in use. In many cases, no clear distinction is made between Long COVID and Post-COVID, also referred to as Post-Acute Sequelae of COVID (PASC).

The BC-CLMF uses PASC as an umbrella term encompassing any persisting symptoms after an acute COVID-19 infection including:

- **Tissue damage or inflammation** such as lung scarring, deep vein thrombosis, anosmia, or myocarditis.
- **Autoimmune disorders** such as rheumatoid arthritis, systemic lupus erythematosus, inflammatory bowel disease, Sjogren's syndrome, alopecia, or vitiligo.
- Metabolic conditions such as diabetes mellitus, hypertension, or high Cholesterol.
- Psychiatric or psychological conditions such as depression, anxiety or post-traumatic stress disorder.
- Post-Viral Syndromes such as ME/CFS, fibromyalgia, postural orthostatic tachycardia syndrome (POTS), mast cell activation syndrome (MCAS) and more. This is how the clinic defines Long COVID.

In Canada, approximately 15% of adults who contracted COVID-19 report symptoms lasting beyond three months, with nearly half experiencing limitations in daily activities and some missing work or school due to their condition. While post-viral syndromes like Long COVID are not new, BC-CLMF representatives note that what is new is having such a large cohort of people who have one type of viral infection leading to the onset or exacerbation of their condition. According to the clinic, this has resulted in substantial barriers to accessing care, including limited clinical knowledge, lack of diagnostic clarity, and insufficient treatment pathways. In BC and across Canada, patients often face additional challenges such as stigma, disbelief from health care providers, and fragmented service delivery.

<sup>&</sup>lt;sup>18</sup> Rafferty, E., Unsal, A., Kirwin, E. (October 2023). Healthcare costs and effects of post-COVID-19 condition in Canada. Canada Communicable Disease Report (October 2023). Retrieved from: Healthcare costs and effects of post-COVID-19 condition in Canada - Canada.ca.

<sup>&</sup>lt;sup>19</sup> Valdez, A. et.al. (2019). Estimating Prevalence, Demographics, and Costs of ME/CFS Using Large Scale Medical Claims Data and Machine Learning. Frontiers in Pediatrics. 6:412. Retrieved from: 10.3389/fped.2018.00412.

<sup>&</sup>lt;sup>20</sup> Koch, R. (June 2025). Counting the cost of Long COVID and MC/CFS. Retrieved from: <u>Counting the cost of Long COVID and ME/CFS | Newsroom | University of Adelaide.</u>

<sup>&</sup>lt;sup>21</sup> Quinn, Kieran, Razak, Fahad, Cheung, Angela (January 2023). Diagnosing post-COVID-19 condition (long COVID) in adults. CMAJ. 195 (2) E78-E79; Retrieved from: <a href="https://doi.org/10.1503/cmaj.220818">https://doi.org/10.1503/cmaj.220818</a>



These barriers are particularly acute for individuals in rural or remote communities, where access to specialized care is limited.<sup>22</sup>

#### Myalgic Encephalomyelitis/Chronic Fatigue Syndrome

ME/CFS is a complex, multisystemic condition marked by persistent, disabling fatigue, post-exertional malaise (PEM), cognitive dysfunction, non-restorative sleep, and autonomic disturbances. PEM, which is also referred to as post-exertional system exacerbation, is the hallmark symptom, where even minimal physical or mental exertion can trigger a worsening of symptoms with delayed onset and prolonged recovery.<sup>23</sup>

ME/CFS affects an estimated 600,000 Canadians, with a disproportionate impact on women, and is often triggered by a viral infection. The condition severely limits a patient's ability to work, study, and engage in daily activities, often resulting in social isolation, unemployment, and financial hardship.<sup>24</sup>

ME/CFS can reduce the quality of life for affected individuals and their family members. In addition to the symptoms, patients and family members experience emotional and financial strain.<sup>25</sup>

Despite its prevalence and severity, ME/CFS remains under-recognized and under-researched, with no curative treatments or diagnostic biomarkers available. Patients may also encounter stigma and disbelief from health care providers (i.e., medical gaslighting), leading to delayed diagnoses and unmet medical needs.<sup>26</sup>

#### **Patient Testimonial**

"Prior to getting a Covid infection I lived life to the fullest. I worked as a frontline nurse for 20 years, I ran every day, I was active with my child, participated in community theater, travelled the world. [...] I was luckier than most and received support through work and my [General Practitioner] (GP) referred me to the Post Covid Recovery Clinic. However, by the time I had my appointment with the Post Covid Recovery clinic, I already had most of the education the clinic offered which was very basic. [...]. My GP referred me to CCDP, and I am still waiting to be called (it has been almost 3 years!). My condition continued to deteriorate. Thankfully, I found out about Dr. Arseneau and since 2023 I have been a patient of his."

<sup>&</sup>lt;sup>22</sup> Jamieson, K. et. al. (August 2025). POLICY BRIEF Virtual Healthcare Services for People Living with Long COVID.

<sup>&</sup>lt;sup>23</sup> Baraniuk, James et. Al. (May 2024). Myalgic encephalomyelitis (Chronic fatigue syndrome). BMJ Best Practice. Retrieved from: Myalgic encephalomyelitis (Chronic fatigue syndrome) - Symptoms, diagnosis and treatment | BMJ Best Practice.

<sup>&</sup>lt;sup>24</sup> Muirhead, Nina (March 2021). A Conversation about Myalgic Encephalomyelitis with Dr. Nina Muirhead. Retrieved from: <u>A Conversation about Myalgic Encephalomyelitis with Dr. Nina Muirhead - CIHR.</u>

<sup>&</sup>lt;sup>25</sup> Vyas, Jui, Muirhead, Nina, Singh Ravinder, et al. (2022). Impact of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) on the quality of life of people with ME/CFS and their partners and family members: an online cross-sectional survey. BMJ Open 2022;12:e058128. Retrieved from: Impact of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) on the quality of life of people with ME/CFS and their partners and family members: an online cross-sectional survey | BMJ Open

<sup>&</sup>lt;sup>26</sup> Baraniuk, James et. Al. (May 2024). Myalgic encephalomyelitis (Chronic fatigue syndrome). BMJ Best Practice. Retrieved from: Myalgic encephalomyelitis (Chronic fatigue syndrome) - Symptoms, diagnosis and treatment | BMJ Best Practice.



#### **Fibromyalgia**

Fibromyalgia is a chronic, multisystemic pain disorder characterized by widespread musculoskeletal pain, fatigue, nonrestorative sleep, cognitive dysfunction, and mood disturbances. The condition affects approximately 1.5% of Canadians aged 12 and older, with higher prevalence among women, individuals over 40, and those with lower income or chronic disease risk factors.<sup>27</sup>

Fibromyalgia is associated with significantly poorer health status including physical functioning, pain interference, and activity limitations. Diagnosis is often delayed due to the absence of definitive biomarkers and reliance on clinical judgment, contributing to increased health care costs and patient distress.<sup>28</sup>

Fibromyalgia frequently co-occurs with other chronic conditions such as ME/CFS and Long COVID (approximately 70% to 90% of patients have both conditions)<sup>29</sup>, compounding the burden on patients and the health care system.<sup>30</sup>

#### **Caregiver Testimonial**

"After being unable to obtain effective medical help from walk in clinics and eventually a general practitioner, and being on waiting lists for several years, [my daughter] was finally included in 2024 as a patient [at the] BC-CLMF. [...] Wonderfully, she has been experiencing improvement since January, after zero improvement for the previous 3 years, and is now able to be up for several hours each day and can use a wheelchair in her apartment. The improvement so far has been significant, and hopefully ongoing, but she is still a long way from being able to look after herself or to return to work one day."

<sup>&</sup>lt;sup>27</sup> Rusu, C. et. Al. (March 2015). Chronic fatigue syndrome and fibromyalgia in Canada: prevalence and associations with six health status indicators. HPCDP 35-1. Retrieved from: https://doi.org/10.24095/hpcdp.35.1.02

<sup>&</sup>lt;sup>28</sup> Fitzcharles, M., Ste-Marie, P., Pereira, J. (September 2013). Fibromyalgia: evolving concepts over the past 2 decades. CMAJ. 185 (13) E645-E651; Retrieved from: <a href="https://doi.org/10.1503/cmaj.121414">https://doi.org/10.1503/cmaj.121414</a>.

<sup>&</sup>lt;sup>29</sup> Prevalence of comorbidity of fibromyalgia with ME/CFS and Long COVID shared by clinic representatives.

<sup>&</sup>lt;sup>30</sup> Goldenberg, D. (August 2024). How to understand the overlap of long COVID, chronic fatigue syndrome/myalgic encephalomyelitis, fibromyalgia and irritable bowel syndromes. Seminars in Arthritis and Rheumatism (67). Retrieved from: https://doi.org/10.1016/j.semarthrit.2024.152455.



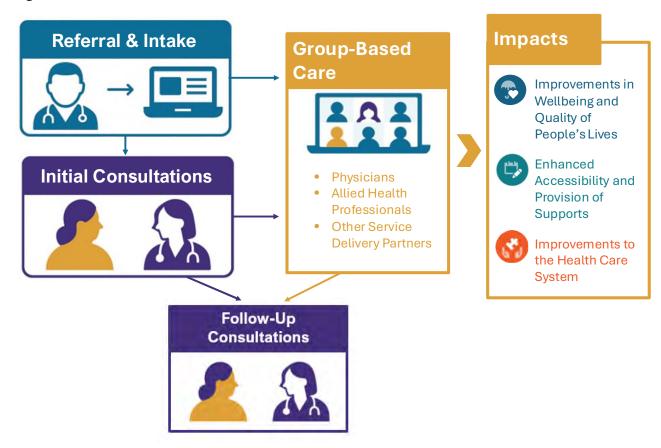
#### The BC-CLMF Model

The BC-CLMF is a specialized health clinic dedicated to supporting individuals living with complex chronic illnesses including Long COVID, ME/CFS, fibromyalgia, and related post-viral and dysautonomic conditions. Care is delivered by physicians, allied health professionals and other service delivery partners. This model extends specialist services throughout BC, with reach into rural and remote communities.

The BC-CLMF delivers specialist consultation and continuing care in alignment with the Medical Services Plan (MSP) fee guide, with group medical visits allowing for appropriate physician and patient interaction during each session.<sup>31,32</sup>

Figure 1 provides an overview of the BC-CLMF Model, offering a visual summary of its key components and operational structure. Further descriptions of the model, its resources, services, and impacts, are provided on the following pages.

Figure 1: Overview of the BC-CLMF Model of Care



<sup>&</sup>lt;sup>31</sup> The College of Physicians and Surgeons of BC has reviewed the BC-CLMF model and confirmed that its structure and documentation meet expectations for individualized assessment, appropriate clinical oversight, and responsiveness to evolving patient needs. The College of Physicians and Surgeons further noted confidence that individual concerns are effectively managed through the clinic's follow-up processes, documentation practices, and overall care design.

<sup>32</sup> College of Physicians and Surgeons of BC. (August, 2025). Letter Re: Physician Practice Enhancement Program Response.



#### **Foundational Components of the Model**

The BC-CLMF model is supported by the clinical, operational, and technological resources needed to deliver specialist care at scale. Internal medicine physicians and allied health professionals provide integrated continuing care with referral pathways connecting patients from across the province. MSP funding is foundational to this, ensuring universal access. The administrative infrastructure, in turn, sustains the clinic's virtual operations while virtual-care technology allows for physician-led Virtual Group Medical Visits (VGMVs) of up to 50 patients at a time. Together, these resources allow the clinic to deliver accessible, scalable specialist care to people living with complex chronic illnesses across BC.

#### Clinical Services and Delivery Mechanisms of the Model

Through a dynamic, multidisciplinary telehealth-based approach, the BC-CLMF has established a large-scale VGMV model delivered by clinic physicians and supported by multidisciplinary clinicians.

**Referral and Intake:** After receiving a referral to the BC-CLMF, patients quickly gain access to resources and virtual group sessions (except for medication prescribing, which requires clinical review). Patients are then placed on the waitlist for an initial internal-medicine consultation. The intake process includes consent for virtual care and confidentiality agreements for participation in group visits.

**Initial and Follow-Up Consultations:** Each patient receives a private consultation with an internal medicine specialist. Ongoing one-on-one visits are available when individual evaluation, medication review, or clinical decision-making is required beyond what can be addressed in group medical or medication visits (described below).

Group-Based Care: The model delivers several forms of physician-led virtual group medical care, each serving a distinct clinical function and supporting different aspects of ongoing specialist management: <sup>33</sup>

1. Longitudinal Structured Group Medical Visits (up to 50 patients). These cohort-based groups of up to 50 patients run for 3 to 16 weeks and meet weekly for 1 to 1.5-hour virtual sessions. With over 30 different group types, each encompassing core clinical domains that define complex chronic disease (including autonomic system dysfunction, post-exertional symptom exacerbation, chronic pain, cognitive impairment, sleep disturbance, and dysregulation of mood–stress responses), these groups are delivered through a longitudinal, skills-based approach that incorporates pacing and other self-management strategies. They operate under a physician-led model, with a BC-CLMF physician guiding the clinical direction and ensuring medical oversight, while multidisciplinary clinicians provide content within their speciality as well as practical skills work. This blended structure supports high-quality, scalable continuing care designed to meet the diverse needs of a large, medically complex population. Patients can join at different times, allowing flexible access to resources and peer support. Any concerns that extend beyond what can be addressed in the group setting are managed through private follow-up visits.

<sup>33</sup> Arseneau Ric and Jane McKay. BC-CLMF. Innovative Multidisciplinary Chronic Disease Care: Cost Effectiveness and Efficiency of Group Visits. July 15, 2025.



- 2. Small Group Medical Visits (10–12 patients). Small physician-led groups of 10–12 patients meet virtually for one-hour sessions offered several times per week. These sessions allow patients to raise individualized questions and receive condition-specific clinical guidance within a small-group setting, while also learning from peers with similar conditions. After each session, patients and their referring health care providers receive a follow-up summary outlining key issues discussed and any recommended treatment adjustments. Matters requiring further assessment are addressed through private follow-up visits.
- 3. Group Medication Visits (up to 50 patients). Physician-led sessions for up to 50 patients are delivered twice weekly as one-hour virtual visits focused on specific medications or medication classes. Each session includes structured information through a clinical presentation, followed by a question-and-answer (Q&A) period in which patient-specific questions can be addressed. This format allows patients to receive safe, consistent prescribing guidance relevant to their circumstances. Physicians review charts and make medication adjustments or issue prescriptions based on clinical judgment, sending prescriptions directly to pharmacies when appropriate. Questions requiring further evaluation are managed through private follow-up visits.
- 4. Special Lecture Series (75–150 patients). Weekly standalone expert-led virtual sessions of approximately 90 minutes cover a broad range of chronic-illness topics and draw an average of 75–150 patients. Sessions are co-hosted by a BC-CLMF physician alongside relevant subject-matter experts, with opportunities for patients to submit questions throughout. The physician monitors discussion and provides clinical input when required. These high-volume sessions extend access to foundational clinical information for large numbers of patients and reduce downstream demand for both group and individual clinical visits. Many of these special lectures are recorded and made publicly available online, with confidentiality maintained as questions are submitted in written form without any identifying information.

In addition to its core clinical services, the clinic also provides wrap-around supports including:

- Assistance with disability-benefit applications. The clinic helps patients prepare appropriate
  medical documentation and navigate complex provincial and federal disability-benefit
  applications. According to clinic representatives, as well as those consulted through this study,
  this is an essential support for individuals whose functional limitations prevent them from
  working. According to clinic representatives, this level of administrative and medical assistance
  is uncommon in specialty clinics but is often necessary for patients with chronic, fluctuating, and
  poorly understood conditions.
- Assistance with disability, insurance, and workplace-accommodation claim challenges. The
  clinic supports patients in addressing denials and other administrative barriers related to
  disability benefits, private insurance, and workplace accommodations by providing clear
  medical documentation and guidance. A primary care toolkit also serves as a resource for
  physicians who support patients with Long COVID, ME/CFS or fibromyalgia as described in
  more detail below.



- A primary-care toolkit for community physicians. Recognizing gaps in provincial knowledge
  around Long COVID, ME/CFS, and fibromyalgia, the clinic maintains a toolkit to assist
  community physicians in providing evidence-informed care. This resource enhances system
  capacity and supports continuity of care beyond the specialist setting.
- Mentorship and educational resources for patients. The clinic offers accessible educational materials and mentorship opportunities to help patients understand their conditions, build self-management skills, and navigate the health care system more effectively.

Patients can remain in the program for as long as medically required, receiving ongoing support within a shared-care model alongside their primary care providers.

#### **Demand for BC-CLMF Model Services**

Demand for the BC-CLMF services has increased dramatically since its inception in 2020. As shown in Figure 2, the clinic delivered large-group services<sup>34</sup> to 2,258 unique patients in fiscal year 2024, compared with just 30 unique patients in fiscal year 2020. This represents an average annual growth rate of approximately 1,857%.

Although fiscal year 2025 is still in progress, the clinic has already served 2,008 unique patients through large-group services between April 2025 and November 2025. Referral volumes continue to rise: the clinic onboarded 1,261 new patients in 2023, 1,999 in 2024, and it has already onboarded 2,107 new patients between January and November of 2025. <sup>35</sup>

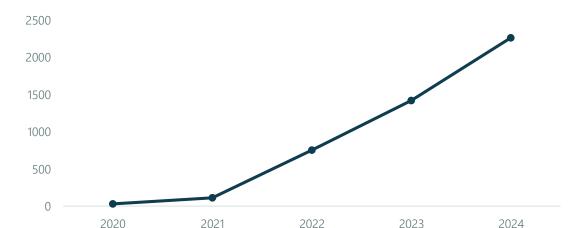


Figure 2: Number of Unique Patients Served by Large Group Services<sup>36</sup>

#### Invested Parties Reached by the BC-CLMF Model and Their Resulting Impacts

The BC-CLMF model delivers value across multiple layers of the health care system. Patients and their family members or caregivers are the main beneficiaries, experiencing change in function, stability, and quality of life. Physicians, allied health professionals, and referring health care providers are also invested parties through strengthened care pathways, access to specialist expertise, and reduced clinical

<sup>&</sup>lt;sup>34</sup> Large group services represent sessions with more than 20 patients.

<sup>35</sup> Based on data provided by BC-CLMF.

<sup>36</sup> Ibid.



burden. At the system level, the broader health care sector (including MSP and the Ministry of Health) experiences change due to lower demand on primary care, emergency departments, and diagnostic services, along with more efficient use of specialist time.

For the purposes of this SROI analysis, such impacts are categorized into three domains:

- 1. **Improvements in Wellbeing and Quality of Life.** Outcomes that reflect changes in physical, cognitive, emotional, and functional health for patients and their families.
- 2. **Enhanced Accessibility and Provision of Support.** Outcomes related to improved access to specialist care, timely clinical guidance, disability-related supports, and navigation of complex systems.
- 3. **Improvements to the Health Care System.** Outcomes that translate into system-level efficiencies, reduced avoidable utilization, and strengthened continuity of care across the province.

Section 3 of the report examines these outcomes in more detail, with Appendix B presenting the full set of outcomes organized by invested party.

#### **Patient Testimonial**

"I'm a family physician and I have been a patient of Dr. Ric Arseneau since 2021. I suffer from widespread chronic pain and carry the diagnoses FM [Fibromyalgia], CRPS [Complex Regional Pain Syndrome] and CFS among other diagnostic labels. [...] I'm glad to say that I have since been able to return to work part-time, which was unimaginable some years back. I still reference notes and worksheets from the course and what I have learned from Dr. Arseneau and his guest lecturers as a patient has significantly impacted my clinical practice as well. I was fortunate to have been able to access specialized care in a timely manner at a critical time in the course of my illness."



# 2. Objectives, Scope and Approach to the SROI Study

## **Backdrop to the Study**

At the system level, the BC-CLMF contributes to the efficiency and sustainability of BC's health care infrastructure, in part by reducing opportunity costs, lowering reliance on emergency and primary-care services, and shortening wait times for urgent care.

While the model is aligned with the Ministry of Health's objectives under the MSP, recent and forthcoming policy changes, specifically the introduction of a 20-person cap on VGMVs as of January 2026, have implications for virtual service-delivery models such as that offered by the BC-CLMF. The expected impacts of these policy changes include:

- Longer wait times for physician consultations and medication-management follow-ups, as group sessions would be replaced with individual appointments.
- Loss of access to the ongoing, structured programs that provide multi-week, skills-based specialist support.
- The likely financial infeasibility of running physician-led patient groups.

From the point of view of the clinic, the change in MSP policy is seen as compromising its mission to provide fair, high-quality care for individuals with complex chronic conditions throughout BC. The cost of multidisciplinary support, which is central to the structured-group model, can only be sustainably distributed across appropriately sized groups. It is with this understanding that reducing group size would compromise the financial viability of the clinical-care sessions, multidisciplinary programs, and special lectures.

Preserving the existing structure and scale of the BC-CLMF model would allow for more consistent and equitable access to specialist care across the province. This approach also underscores that the Province's investment in this virtual model generates measurable social and economic value when its full benefits can be realized.

#### **Caregiver Testimonial**

"The BC-CLMF's virtual care has given our daughter and family hope and tools to work towards improved health. Prior to my daughter's referral to the BC-CLMF, we spent years without a diagnosis and travelled throughout the province and to the US [United States] for specialists, made several ER [Emergency Room] visits, had numerous specialist referrals, scans, and tests. If we had earlier access to the BC-CLMF, we would have saved both ourselves and the health care system significant costs."



### Study Objectives, Scope, and Approach

To assess the social and economic value created by the BC-CLMF VGMV model, MNP applied the internationally recognized Social Return on Investment (SROI) methodology<sup>37</sup> supplemented by case studies involving patients, family members, and caregivers.<sup>38</sup>

#### **Objectives & Scope**

The purpose of this SROI study is to demonstrate the social and economic value generated by the BC-CLMF's VGMV model in BC, with specific attention to the value created for patients, service providers, and the wider provincial health care system.

While SROI analyses can vary in scope (i.e., from focusing on a single program to accounting for the social value generated by an entire organization's activities) this study is oriented on the value associated with the BC-CLMF VGMV model.

This study is a forecast SROI,<sup>39</sup> designed to estimate the potential value that the BC-CLMF VGMV model may generate over the next ten years assuming its activities continue to produce the anticipated outcomes and impacts.<sup>40</sup>

This study was conducted in accordance with the principles established by the SROI Network.<sup>41</sup>

- Involve invested parties<sup>42</sup> throughout the engagement
- Understand what changes
- Value the things that matter
- Only include what is material

- Do not over-claim value
- Be transparent
- Verify results with invested parties
- Be responsive

<sup>&</sup>lt;sup>37</sup> As outlined in A Guide to Social Return on Investment, the guidance document of The Social Value Network International.

<sup>&</sup>lt;sup>38</sup> Please note that all names and identifying information have been anonymized in the case studies presented throughout the report to preserve the privacy of all participants.

<sup>&</sup>lt;sup>39</sup> An SROI analysis can be 'evaluative' or 'forecast.' An evaluative SROI analysis provides a definitive statement of value based on rigorous primary research on evidence of outcomes achieved by invested parties. A forecast SROI analysis provides a projected value statement based on rigorous secondary research evidence that reveals reasonable expectations of outcomes achieved by invested parties. Both approaches are valid and can be used in combination based on the availability of data.

<sup>&</sup>lt;sup>40</sup> A 10-year timeframe was selected for this analysis due to the nature of patient characteristics and anticipated outcomes. By choosing a 10-year projection, the analysis accounts for important outcomes that may require extended periods to become evident, such as reduced emergency department visits, improved quality of life and wellbeing, and increased return to work rates.

<sup>&</sup>lt;sup>41</sup> Social Value International, The Principles of Social Value. N.D. Retrieved from: https://static1.squarespace.com/static/60dc51e3c58aef413ae5c975/t/6127b55936e97e03e86297ea/1629992289441/Principles+of+Social+Value+.pdf

<sup>&</sup>lt;sup>42</sup> Please note that SROI methodology uses the term "stakeholders" to define individuals or groups who experience change (positive or negative) as a result of the activity being analyzed. For the purposes of this report, the term "invested parties" is used instead.



The following graphic outlines the six standardized steps used in this SROI analysis. Additional details on the methodology are provided in Appendix A.



- 1. Establish Scope and Identify Key Invested Parties: This step defined the activities included in the study, the relationships that support delivery of the model, and the groups affected by it. It also established the financial investments and timeframes considered in the analysis.
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- 2. **Map Outcomes:** An Impact Map was developed to illustrate how resources (inputs) support activities (outputs) and how these activities generate outcomes for each invested party.
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- **3. Evidence Outcomes and Assign Value:** This step identified which invested party experiences each outcome, estimated the number of people affected, and determined the financial value associated with each outcome.
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- **4. Establish Impact:** Methods were applied to avoid over-claiming by adjusting for factors such as deadweight, attribution, displacement, and drop-off. Sensitivity testing was conducted to ensure results were reasonable and robust.
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- 5. Calculate the SROI Ratio: This step included calculating the SROI ratio.



**6. Report and Validate Findings:** Results were reviewed and validated with BC-CLMF physicians, allied health professionals, and patients, ensuring accuracy, relevance, and alignment with invested party experience.

This valuation draws on BC-CLMF administrative data, a structured literature review, patient testimonials, and invested party input gathered through three online surveys and virtual case study interviews.



#### Independent Surveys Administered by MNP

The engagement process for this study included three distinct online surveys, one for each of the invested parties listed below:

- BC-CLMF Patient Survey: Responses from 1,246 patients were collected to understand their experiences with the BC-CLMF model and the impacts of the clinic's services on their health and daily lives.
- Family Members and Caregivers Survey: Feedback from 348 family members and caregivers was gathered to understand the changes they experienced because of the patient's involvement with the clinic.
- **Service Model Administrators Survey:** Perspectives from 17 individuals (including BC-CLMF physicians, allied health professionals, service delivery



partners, and referring health care providers) were collected to assess how the model creates value for those involved in delivering or coordinating care.

For the analysis, MNP considered all substantially completed survey responses. As a result, survey findings referenced throughout also include the total number of responses for each referenced question.

To ensure respondent confidentiality and eliminate any potential influence on survey findings, BC-CLMF's role was restricted exclusively to distributing the survey invitations to patients, caregivers, and providers. Distribution occurred through the clinic's website, social media channels, and direct email communications to ensure that invitations reached only eligible participants. Survey administration, data handling, and analysis were conducted independently by MNP, with BC-CLMF staff having no access to response data at any stage. This strict separation of roles preserved objectivity and safeguarded the privacy and confidentiality of all participants.



#### **Virtual Case Study Interviews**

To capture the full range and nuance of impacts generated by the BC-CLMF model, virtual case study interviews were conducted with patients, family members, and caregivers. These interviews provided detailed narratives illustrating how the model affects day-to-day functioning, access to care, and overall wellbeing. Case study insights are incorporated throughout the report to contextualize quantitative findings.

To protect respondent confidentiality, BC-CLMF conducted the interviews using an interview guide developed by MNP. BC-CLMF's role was limited to administering the interviews, with no involvement in data interpretation. MNP independently reviewed and analyzed the raw anonymized data to develop the final case studies, ensuring objectivity and methodological rigor.



#### **Past Patient Testimonials**

To further understand patient experiences with the BC-CLMF model, the study incorporated an analysis of 86 letters submitted by patients or their family members to their respective Members of the Legislative Assembly (MLA) between July and August of 2025.

In addition, 16 physician letters written in 2024 in support of the BC-CLMF were reviewed to capture provider perspectives and contextualize the broader clinical impact of the model.



### **Study Limitations and Considerations**

This report relies on the completeness, accuracy, and fair representation of all information and data obtained from the BC-CLMF, survey respondents, and public sources available as of December 1, 2025. The validity of the findings and conclusions is dependent on the quality of this underlying information. Accordingly, MNP cautions readers and disclaims any liability arising from the use of this report for purposes other than those for which it was prepared.

Interpretation of the study findings should consider the following limitations and considerations:

- Limitations in Financial Valuation and Potential Undervaluation. The valuation of social outcomes associated with the BC-CLMF VGMV model is constrained by inherent limitations of the SROI methodology. Many outcomes are qualitative and cannot be fully quantified in financial terms, which restricts the extent to which the model's total value can be captured numerically. For example, improvements in patient knowledge and understanding of chronic conditions are based on estimates provided by participating invested parties. While these safeguards help prevent overstatement of value, they also result in a conservative estimate of the clinic's overall impact.
- Limitations Related to a Short Timeline for Primary Data Collection. Primary data from patients, family members and caregivers, and BC-CLMF physicians, allied health professionals, and referring health care providers were collected through structured surveys and case study interviews. Due to project scheduling constraints, the data-collection window was limited to two weeks, which may have reduced opportunities for some invested parties to participate. Despite this compressed timeline, response rates were high across all groups, supporting the robustness of the findings. This is particularly notable given that many individuals affected by these conditions experience symptoms such as cognitive impairment, fatigue, and post-exertional difficulties that can slow or limit participation. The strong level of engagement from this population underscores both the relevance of the study and the reliability of the primary data collected.
- Potential Undervaluation of Patients That Successfully Returned to Work. A further consideration is the potential undervaluation of outcomes for patients who experienced substantial improvement through the BC-CLMF VGMV model and were therefore able to return to work or resume other major functional roles. Once these individuals regain stability, they typically reduce their use of clinic services and no longer engage with clinic communications to the same degree, according to clinic representatives. As a result, they are less likely to respond to follow-up survey invitations that were distributed through clinic channels. In contrast, clinic representatives shared that patients with ongoing impairment remain more connected to the clinic and are therefore more likely to participate in the surveys. This participation pattern introduces a systematic sampling bias in which the dataset disproportionately represents individuals with persistent limitations. Consequently, the study's findings likely provide a conservative estimate of the model's true impact on return-to-work and functional-recovery outcomes.



- Consensus Regarding Long COVID in the Research Literature Remains Emergent. Long COVID has become a common diagnosis for persistent post-viral syndrome symptoms since the start of the COVID-19 pandemic, yet the condition continues to grow in complexity and both diagnosis and treatment continue to be hampered by a lack of clarity. This is primarily attributable to the absence of a universally recognized definition, with multiple, sometimes contradictory interpretations presently in circulation. Furthermore, there is frequently no explicit distinction made between Long COVID and Post-COVID conditions. For the purposes of this report, the definition of Long COVID is based on the criteria outlined in Section 1, utilizing secondary research sources available prior to November of 2025. This evolving understanding should be considered when interpreting the findings, as the absence of a universally recognized definition may influence both the estimation of impacts and the generalizability of the results. The study's conclusions are therefore best viewed in the context of ongoing developments and uncertainties in the broader research landscape.
- Scope of Invested Parties Included in This Analysis. The valuation of impacts associated with
  the BC-CLMF VGMV model excludes certain parties, including regulatory colleges, health-sector
  organizations, employers, disability and advocacy groups, and the general public. Impacts on
  these groups are either limited in magnitude, could not be robustly assessed within the study's
  data-collection timeframe, or are already reflected indirectly through other invested parties
  included in the analysis.
- Timeframe of the SROI Analysis. Outcomes were assessed over a ten-year horizon to capture long-term impacts such as reduced emergency department utilization, sustained improvements in quality of life, and increased return-to-work rates. A decade-long timeframe is appropriate for chronic, relapsing conditions in which benefits accrue gradually and may only become fully observable over multiple years. Because several positive outcomes are expected to persist beyond the ten-year window, the resulting SROI ratio should be interpreted as a conservative estimate of the model's total social and economic value. A detailed summary of outcomes and the financial proxies used in the valuation is provided in Appendix C Summary of Financial Proxies.

#### **Patient Testimonial**

"Prior to becoming a patient at the BC-CLMF, I spent over 15 years seeking answers to my increasingly debilitating symptoms. I saw countless specialists, and given the siloed nature of our medical system, not one was able to put the full picture together and provide me with an accurate diagnosis or adequate support. In fact, I was often misdiagnosed, dismissed, or worse - told that my symptoms were simply psychiatric in nature."



## System and Individual Level Impacts of the BC-CLMF's Virtual Group Medical Visit Model

Evidence from research studies highlights the advantages of virtual service delivery for both patients and health care providers. Virtual appointments have been shown to improve patient quality of life, reduce opportunity costs by avoiding unnecessary diagnostic testing, and ease pressure on emergency and primary care services, ultimately contributing to shorter wait times.<sup>43</sup> Similarly, virtual health education has been shown to be more effective than education in routine care settings, in-person group education, or printed resources for patients with chronic illnesses.<sup>44</sup>

Within this context, the BC-CLMF VGMV model plays an important role in the provincial health care system by offering accessible, longitudinal care for patients with chronic complex disease, particularly those living in rural and remote regions. The model strengthens clinical capacity by providing resources and mentorship for health professionals, improving patient care pathways, and increasing system efficiency through reductions in unnecessary diagnostics and smoother navigation of care.

#### As referenced in Section 1, the model generates positive outcomes across three main domains:



1. Improvements in Wellbeing and Quality of People's Lives: Outcomes that reflect changes in physical, cognitive, emotional, and functional health for patients and their families.



**2. Enhanced Accessibility and Provision of Supports:** Outcomes related to improved access to specialist care, timely clinical guidance, disability-related supports, and navigation of complex systems.



**3. Improvements to the Health Care System:** Outcomes that translate into system-level efficiencies, reduced avoidable utilization, and strengthened continuity of care across the province.

The following sections examine these domains in greater depth, considering impacts from the perspectives of patients, their families and caregivers, BC-CLMF physicians, allied health professionals, referring health care providers, the broader provincial health care system, and the Ministry of Health through MSP. Appendix B provides a comprehensive summary of the outcomes identified for each invested party.

<sup>&</sup>lt;sup>43</sup> Alberta Health Services. Cost Implications of Virtual Visits in Primary and Specialty Care. January 2021. Retrieved from: Cost Implications of Virtual Visits in Primary and Specialty Care

<sup>&</sup>lt;sup>44</sup> Rush Kathy et. al. The efficacy of telehealth delivered educational approaches for patients with chronic diseases: A systematic review. August 2018. Retrieved from: The efficacy of telehealth delivered educational approaches for patients with chronic diseases: A systematic review - ScienceDirect



### Improvements in Wellbeing and Quality of People's Lives



The first domain captures changes in overall wellbeing (including physical, mental, emotional, and spiritual dimensions) as well as improvements in quality of life.

The outcomes within this domain are relevant to:

- Patients
- Patients' family and caregivers
- Physicians at the BC-CLMF
- Allied health professionals and other service delivery partners
- Referring health care providers

#### Patients' Enhanced Knowledge

Patients consistently reported that the BC-CLMF helped them better understand their conditions and how to manage them. According to survey results, 95% of patients (out of 1,161 total responses) agreed they learned more about their own conditions through clinic services. Many emphasized that access to reliable information was essential to managing symptoms and making informed decisions.

Clinical care opportunities at the BC-CLMF are delivered through structured group sessions and special lectures covering topics such as pacing, symptom management, nutrition for chronic conditions, and coping strategies. These sessions also created space for patients to learn from others' questions and experiences, which was described as highly valuable by survey respondents. This focus on clinical information sharing gave patients a clearer understanding of their conditions and treatment options, helping them feel more in control of their health journey.

Beyond that, patients who took part in case study interviews highlighted the importance of up-to-date research and practical tools provided by the clinic, which supported informed decision-making and day-to-day symptom management. Follow-up materials and clinician guidance further strengthened patients' confidence in managing their health. As one case study participant noted, collaborative learning and access to reliable resources were key factors in building confidence and reducing uncertainty.





# CASE STUDY: A Patient's Experience with the BC-

Faced with unexplained symptoms after Long COVID, a patient arrived at the BC-CLMF feeling isolated and overwhelmed. As both a health care professional and a patient, they struggled to find answers, support, and validation in traditional health care settings.

After months of uncertainty, the patient received a clear diagnosis of ME/CFS linked to Long COVID. This moment was profoundly validating to learn that the symptoms are due to these conditions and not any wrongdoing by the patient.

For this patient, the clinic's expertise in medication and complex chronic disease treatment was crucial. The BC-CLMF worked closely with the patient's GP, who relied on the specialist's recommendations for diagnosing, tapering, and managing medication dosages.

Learning about pacing and symptom management also helped the patient regain control over their day-to-day life.

Having already seen 20 specialists, the patient was grateful for the clinic's ability to coordinate care and simplify access to knowledge: "This system is so much more manageable and convenient. It doesn't drain my energy to nearly the same degree. I can access so much comprehensive information quickly and smoothly, and I take all that knowledge and pass it to my GP."

Beyond physical health care, the clinic helped the patient feel seen and supported. "For the first time since becoming sick, I feel like I have a community of people who understand my experiences.

The patient praised the clinic's team-based model: "Being a health care professional myself, I know how hard it is to create a well[-] functioning multidisciplinary team. This clinic is the gold standard for this model. They provide treatment [...]to the whole person's needs, physical and mental, and treatments, and access to specialists are not siloed." The patient emphasized the importance of the clinic's model, which enables doctors to support work as a team and meet diverse patient needs: "Multidisciplinary teams provide more knowledge and that's what we patients need. It is cost-efficient and successful."

This patient's story demonstrates the substantial impact of a multidisciplinary clinic on recovery, empowerment, and well-being. By offering coordinated care, expert knowledge, and community support, the clinic gave the patient the tools and validation they needed to navigate Long COVID and ME/CFS. Their experience stands as a testament to the value of integrated, team-based health care for complex, long-term diseases.



#### Patients' Improved Physical and Mental Health

Survey findings demonstrate that BC-CLMF services have a substantial impact on patients' physical and mental health. Eighty-three percent (83%) of respondents (out of 1,128 total responses) agreed that the clinic improved their physical health, while 86% (out of 1,135 total responses) reported improvements in mental health, and 88% (out of 1,143 total responses) indicated an overall improvement in their quality of life. These outcomes were often linked to better symptom management and access to specialized care.

One of the most notable improvements was in PEM, also known within the patient population as crashes, a hallmark symptom of ME/CFS, and common comorbidity in Long COVID and fibromyalgia. Among respondents, 65% (out of 1,246 total responses) reported less severe crashes and 62% (out of 1,246 total responses) experienced fewer crashes. Approximately 50% (out of 1,246 total responses) also noted higher baseline functioning, longer sleep duration, clearer thinking, and reduced pain. These changes translated into greater independence and improved ability to manage daily activities, as highlighted by case study interview participants.

Mental health benefits were equally notable. Patients who participated in the survey and case study interviews described reduced anxiety and depression, improved emotional well-being, and a renewed sense of hope and purpose. For many, the clinic was described as "lifesaving" and "critical," with some stating they would have deteriorated or considered medical assistance in dying (MAiD) without access to this care.

According to case study interview participants, trauma-informed approaches and peer support opportunities helped reduce isolation and fostered emotional resilience. These benefits of VGMVs are also reflected in relevant academic literature, highlighting the benefit of reduced isolation and peer support.<sup>45</sup>

The clinic's integration of allied health services, such as physiotherapy and occupational therapy,

"[I] was considering MAiD, however the clinic's support has given me hope. I'm gradually regaining my functional abilities. Any improvement I've experienced wouldn't have been possible without the clinic's (doctors + other practitioners) valuable knowledge and support."

- Patient

alongside coordinated care plans, contributed to measurable improvements. These improvements include less fatigue, more pain control, and improved daily functioning for case study interview participants. Patients who responded to the survey repeatedly emphasized that the BC-CLMF is one of the only sources of specialized care for ME/CFS, Long COVID, fibromyalgia, and related conditions in BC.

<sup>&</sup>lt;sup>45</sup> Barnhill, J. et.al. (February 2024). Different but the Same: Common Themes in Illness Experience Among People With Diverse Long COVID Symptoms and the Potential Benefits of Virtual Group Medical Visits. Journal of Patient Experience. Retrieved from: doi: 10.1177/23743735241230144



## CASE STUDY: A Patient's Experience with BC-CLMF

Living in a remote and isolated area, one patient found the BC-CLMF to be their "only means for any support for Fibromyalgia and [other] chronic pain conditions." Before discovering the clinic, accessing help meant travelling all the way to Vancouver, as there were "[no doctors who had] knowledge [to treat their condition] in their location." The ability to connect remotely through Zoom was essential, allowing the patient to access crucial supports. Travelling to seek more comprehensive care is simply not feasible. As they put it, "Without this clinic I wouldn't be in a very great place right now."

A standout benefit of the clinic for this individual was the opportunity to connect with others facing similar health challenges. They remarked, "I hear about other experiences and treatment ideas I didn't know about before. My mental health has improved greatly since joining the network of people at the clinic. This clinic acknowledges that yes, my experiences are real, and this is invaluable." Meeting others and listening to their stories provided a sense of validation and acceptance that had been missing from their previous health care experiences.

The expertise at the clinic also made a deep impact. "I have never encountered anyone who has such knowledge and understanding of these conditions as Dr. Arseneau." Now, they feel valued, validated and listened to.

Beyond emotional support, the BC-CLMF offered practical tools and knowledge. The patient learned beneficial exercises such as "cyclic sighing," and discovered the importance of pacing which helped them better manage their symptoms. Since joining the clinic, they report sleeping better and having more energy. The clinic's support also made a difference in navigating disability supports, "without the support I probably wouldn't have qualified. Their level of expertise has been hugely helpful. I can't access services where I am, so this clinic is everything", the patient stated.

Although also a patient at a chronic pain clinic in Vancouver, the patient explained, "that deals with the physical condition only" and offers no support for mental health.

The patient credits the clinic's support for improved confidence and substantial improvements in both mental and physical health. "I've taken so many different courses[...]. The variety is amazing. The people they bring in to offer information and support is vast.[...] I can access all these [health care providers] through this clinic and that is truly unique."

For this patient, the BC-CLMF has been life-changing. Their experience demonstrates the vital role that such clinics play in supporting individuals with fibromyalgia or other types of chronic pain, especially for those in remote communities.



#### Patients' Improved Quality of Life and Return to Work

The impact of BC-CLMF services extends beyond symptom management to meaningful improvements in daily life and employment. Survey results indicate that 17% (out of 1,254 total responses) reported being able to return to work as a direct result of clinic support. In testimonials submitted to government officials such as MLAs, patients described returning to demanding professions as lawyers, engineers, and health care professionals, among other professions, after years of being unable to work due to their conditions.

Others indicated through the patient survey that they had regained a greater ability to balance work with family responsibilities, such as parenting, which had previously been difficult for them due to severe fatigue and pain.

In case study interviews, patients also reported quality of life improvements, describing the changes as increased

"The Virtual Group Medical Visits at the BC-CLMF have changed my life for the better. No other health care provider has been able to provide the care I need to improve and start functioning normally [again]. I see an improvement after every single virtual group medical visit. I am not able to attend in[-] person events due to my health. If the Virtual [Group] Medical Visits were not available, my health would decrease and I would lose hope that I would ever be able to function normally or return to work."

- Patient

independence, ability to manage daily activities, enhanced social engagement, and a renewed sense of control over their health journey. Reduced fatigue and pain allowed individuals to join more fully in family and community life, decreasing isolation and improving overall well-being.

#### Patients' Family and Caregivers' Enhanced Knowledge

Patients' family members and caregivers reported increased knowledge about these conditions due to BC-CLMF services. Patients' family and caregiver survey data show that 92% (out of 337 total responses) agreed the clinic helped them better understand the needs of the person they care for, while 83% (out of 293 total responses) indicated they can access educational resources designed for caregivers through the BC-CLMF.

Publicly available resources included on the BC-CLMF website and the clinic's YouTube channel have further expanded access to health information. Notably, the Family and Friends presentation shared on the clinic's YouTube channel has been viewed over 21,000 times since March of 2023. <sup>46</sup> The presentation explains the science and impacts of complex chronic disease to laypeople.

<sup>&</sup>lt;sup>46</sup> Retrieved from: Family and Friends: ME/CFS, FM and Long COVID



# CASE STUDY: A Caregiver's Experience with BC-

For one caregiver, the journey to find answers for their daughter's health was a harrowing one. Their daughter "spent 25 years in the medical system trying to determine what was wrong. It was a devastating, negative life experience," they said. Everything changed when she found support at Dr. Arseneau's clinic. The caregiver described how the clinic brought about a profound shift in their daughter's life. "Dr. Arseneau's clinic has changed her life."

The caregiver expressed deep gratitude for Dr. Arseneau's approach of listening and not being dismissive. The respectful and attentive care their daughter received gave her the confidence to make a difficult decision about prioritizing her health, and support as she navigated the disability system.

The webinars were especially helpful. They taught her to manage her symptoms and support for all her conditions, and the group sessions provided an environment in which to learn from others. Without this model, the caregiver believes their daughter would be facing "more visits to the doctor's office and ER," and the costs of travelling for medical care would be an added burden.

The impact of the clinic's support is clear; despite her chronic illness, their daughter has increased confidence, feels well taken care of and believed about her health, and can now participate more fully with her son and her husband in their family life. She is also active in her community again, regaining parts of her life that illness had taken away.

Despite these positive changes, the caregiver remains concerned about her future. They worry that if the clinic's support was to end, "the safety [net] would be gone...and [she would] lose all the positive gains that [she] has made." Their perspective highlights how essential compassionate, accessible care is, not just for patients, but for the families and caregivers who walk alongside them.

## Patients' Family and Caregivers' Improved Physical and Mental Health

Improved mental health was a recurring theme for patients' families and caregivers. Caregivers participating in the survey and case study interviews consistently described feeling reassured knowing their family member was receiving appropriate medical support, which eased anxiety and reduced feelings of isolation for family members and caregivers. Caregivers also reported improved emotional well-being when the patient showed progress in their health.

"Being permitted to sit in on some of the educational aspects delivered in the virtual sessions has given me a better knowledge and understanding of the aspects of this illness and helps me be a better support person. Something I would not be able to do if the remote sessions were not available."

- Caregiver

Eighty-three percent (out of 393 total responses) of family members and caregivers agreed that the support provided to the person they care for also improved their own quality of life, and 79% (out of



316 total responses) said that, due to the care patients were able to access at the BC-CLMF, their own caregiver responsibilities have been reduced as a result.

Over 75% (out of 228 total responses) reported learning about their own physical and mental health through strategies shared with them by clinic patients. Survey participants also highlighted that VGMVs reduced logistical burdens such as long drives, ferry trips, and missed work, allowing caregivers to maintain their own health routines and avoid burnout.

## CASE STUDY: A Patient's Experience with BC-CLMF

Before finding help at the clinic, this patient felt alone and "entirely abandoned by the medical system." Years of being housebound and unable to care for their two children who have their own support needs, had taken a heavy toll. "I spent a long time building a private practice which was my passion and life's work, and I had to shut it all down," they shared. The search for accurate treatment and understanding seemed endless.

Everything changed at the patient's very first appointment at the BC-CLMF. "I left that appointment in tears of relief that I hadn't felt [that way] in decades after speaking to a doctor," they recalled. "It was incredible to feel understood, acknowledged, validated and have access to so much support and information and support." For the first time in years, they felt hope and healing, especially after going through what they refer to as "medical gaslighting for 15–20 years."

The patient described the group care model as "the most unique part [of the clinic] that has been so beneficial [to them]." Because they were housebound, being able to join group sessions [felt like] "a blessing". From the start, they had "immediate access to all the [virtual] groups." Joining with other [] [patients] who had "lived experience of the same kinds of conditions" opened a new world of support and learning: "In 1.5 years, I've gained [the equivalent of] 10 years' worth of knowledge if I was doing [only private] appointments." "The group format itself has given me so much that a [private] appointment couldn't have been able to give me. The support I feel being a part of a larger community that understands this is just a [wonderful thing].'

Since joining the clinic, the patient's quality of life has been enhanced. "Since being part of [this] clinic and learning how to manage my symptoms better...my mental health has improved significantly. I'm more available to my kids, to myself, [and] I can enjoy things more, [...] I have hope now." Their family relationships are also stronger: I have more capacity to connect with my friends, children and husband. [...] Family relationships are less stressed, [and overall, much] improved [...]. [My children] are getting more of what they need from me."

The education they received at the clinic has helped the whole family, they said: "My husband has learned so much and is better able to support me now. My mother is now able to acknowledge and understand and support [me] because of this clinic. [...] We are feeling less stress." Even relationships with friends improved: "Being validated at the clinic and getting an accurate label everyone understands better and knows better how to support me." Access to support for Canda Pension Plan disability benefits also made a big difference.



## Enhanced Knowledge and Wellbeing Among Physicians, Allied Health Professionals, and Referring Health Care Providers

The BC-CLMF has played a critical role in increasing clinical knowledge and reducing stigma among health care providers who work with or refer patients living with Long COVID, ME/CFS, and fibromyalgia.

Survey results show that 78% (out of 16 total responses) of providers reported gaining enhanced understanding about Long COVID, ME/CFS, and fibromyalgia since working with or referring to the clinic, and 89% (out of 16 total responses) felt more supported in caring for this population.

Respondents described the model as collaborative and affirming, with one noting: "I am part of a large community who learns and grows with each other. There is great support for each other because of participating as both a patient, and [as] someone who finds a place as a practitioner."

Providers also reported improved professional fulfillment, with 92% (out of 16 total responses) agreeing that working with BC-CLMF is rewarding because patients receive appropriate, evidence-informed care.

Additionally, 70% (out of 15 total responses) reported experiencing less stigma related to Long COVID, ME/CFS, and fibromyalgia in the broader medical community since collaborating with the clinic.

These findings are particularly important in light of recent research indicating that nearly half of health care providers in BC were only slightly or not at all aware of Long COVID symptoms when patients first sought care.<sup>47</sup> This knowledge gap underscores the importance of the specialized education, clinical mentorship, and collaborative support embedded within the BC-CLMF VGMV model.



<sup>&</sup>lt;sup>47</sup> Jamieson, K. et. al. (August 2025). POLICY BRIEF Virtual Healthcare Services Changes for People Living with Long COVID.



## CASE STUDY: A Patient's Experience with BC-CLMF

Living in a rural community and managing chronic fatigue made it difficult for this patient to access the medical care they needed. Before finding the BC-CLMF, they struggled to receive accurate diagnoses for multiple conditions and were unable to work consistently. It was only at this clinic, where "they have expertise that no one else seems to have," that they finally received the comprehensive care they needed. The treatment they now receive is something they could not get anywhere else.

One of the most valuable aspects of the clinic for this patient is the ability to receive care remotely. Because they live rurally and experience fatigue, remote access has been essential.

The patient emphasized that the clinic's assistance in helping them "navigate through the support system the way they did" was especially impactful. The clinic's knowledgeable staff guided the patient through complex processes and connected them with the resources and supports needed, including medications, disability benefits, and other essential services, which they might not have accessed otherwise. This handson guidance made a substantial difference, empowering the patient to overcome barriers and confidently pursue the treatments and supports that improved their wellbeing.

They reported having gained "so much knowledge that [they have since] taken to other care providers," who now maintain prescriptions recommended by the clinic. The patient explained that other physicians lacked the confidence to prescribe for their conditions, but that changed with guidance and information from the BC-CLMF. Being able to work with other care providers on pharmacological supports has greatly improved their ongoing care.

Since starting VGMVs at the BC-CLMF, the patient has noticed "remarkable" changes in wellbeing and quality of life. Previously, they were housebound and often bed bound, but now they can leave the house, work a bit, and better manage flareups. They can do basic tasks like showering independently and cooking a meal daily without exhausting themselves.

The clinic has also become a valuable "hub toward accessing other types of treatments" and supports, such as the Disability Tax Credit and Registered Disability Savings Plan, in addition to group medical visits.

The patient also pointed to coverage of BC-CLMF visits by MSP as an important factor in their recovery. Like many patients with ME/CFS, they had been unable to work for some time and experienced financial strain. The clinic enabled them "to access more treatments, modalities and information without having to pick and choose based on financial hardship."

They are now gradually returning to work and able to work part time "in a way that doesn't hurt" because they can recognize when to stop; this has made a meaningful difference in their quality of life. They are also able to participate more in their community. As someone who lives rurally, their community life depends on energy levels because it takes more effort to go anywhere. They can now make plans with greater confidence that they will have enough energy to follow through.

Overall, the support from the BC-CLMF has been transformative for this patient, allowing them to live with greater independence, dignity, and hope for the future.



### **Enhanced Accessibility and Provision of Supports**



This domain refers to how the BC-CLMF VGMV has provided for enhanced, low barrier access to care, including support to accessing disability benefits for patients and caregivers.

The outcomes listed under this domain are relevant to:

- Patients
- Patients' family and caregivers
- Physicians at the BC-CLMF
- Allied health professionals and other service delivery partners

#### **Improved Patient Access to Care**

The BC-CLMF has substantially improved access to care for individuals living with Long COVID, ME/CFS, and fibromyalgia, conditions that are often underserved or poorly addressed in traditional health care settings. Survey data show that 75% (out of 1,214 total responses) reported they would be unable to

access comparable care elsewhere, and 15% (out of 1,214 total responses) felt that they would have no access to care at all without the BC-CLMF.

Timely access emerged as a major benefit across both survey responses and case study interviews. Patients reported that the ability to join VGMVs quickly after referral allowed them to bypass the long wait times and multiple referrals typical in traditional care pathways. The virtual model also removes the need for travel, an essential factor for a population frequently experiencing mobility challenges, severe fatigue, or post-exertional symptom exacerbation.

Ninety-three percent (out of 1,158 total responses) agreed that care is easier to access through the BC-CLMF, and 44% (of 1,169 total responses) indicated they would otherwise need to travel more than one hour for in-person care.

"The group visits are very informative, and I've learned more from hearing stories from other patients than if I had individual appointments only. No other care from a primary care provider or specialist is comparable when managing multiple complex and overlapping conditions. After 30+ years of struggling to access appropriate care and getting sicker, I'm finally getting help from this clinic."

- Patient

#### **Support for Patients Navigating Disability Applications**

Beyond clinical services, the BC-CLMF provides advocacy and support with completing disability applications and appeals for patients.

To date, the clinic has assisted 912 patients with disability applications, including:

- 741 applications for long- and short-term disability
- 365 applications for Canada Pension Plan Disability
- 692 Disability Tax Credit applications
- 79 Persons with Disabilities applications
- 60 WorkSafeBC applications



In addition, 350 disability denials were successfully appealed.<sup>48</sup> As per clinic representatives, these supports address systemic barriers: standard disability forms rarely capture the episodic and multisystem functional impairments characteristic of these conditions, and many primary-care practices lack the time, expertise, or capacity to manage detailed medical documentation or appeals.

BC-CLMF physicians noted that the majority of patients would be unlikely to secure disability benefits without this assistance, given the limited awareness and diagnostic familiarity with Long COVID, ME/CFS, and fibromyalgia among many community providers.

# Access-to-Care Improvements and Disability-Support Benefits for Families and Caregivers

The BC-CLMF's VGMV model also reduced substantial logistical and financial burdens for families and caregivers. Nearly 44% (out of 140 total responses) of surveyed caregivers reported routinely accompanying the person they support to medical appointments. In the absence of virtual options, caregivers expected expenses related to travel, accommodation, meals, arranging home care, and lost income.

Nintey-three percent (93%) of caregivers (out of 251 total responses) estimated they would most likely incur an average of \$158 in travel costs per appointment<sup>49</sup> if the only way to access care was in-person. Family members and caregivers located in rural areas of the province

estimated an average travel cost of \$437 per appointment.<sup>50</sup>

"These visits have been pivotal for my family member [as we live in rural BC]. The ability to attend an appointment virtually has cut [our] costs significantly (including travel costs, housing, food and requiring kenneling multiple dogs). This clinic... [finally diagnosed] my family member, [and provided her] access to support immediately via lectures and group meetings... compared to the CCDP (which doesn't offer any resources and it's a 2.5+ year wait). [It's important to me to know] my family member [has] a community she can connect with because of the lectures and meetings, [and that she can] learn more things about her health needs and begin working on things immediately."

- Caregiver

Case study interviews with family members and caregivers emphasized that the clinic's VGMV model removes these challenges, preventing unneccessary financial strain and significantly reducing their time commitments. Caregivers also noted that virtual access enables them to maintain their own health routines, avoid burnout, and sustain their role without compromising family stability.

In addition to alleviating travel-related cost burdens, the BC-CLMF resources have enhanced financial accessibility by assisting with caregiver tax benefit applications. Approximately 19% of survey respondents (out of 35 total responses) reported receiving support in successfully claiming the Canada Caregiver Tax Credit, providing meaningful financial relief for households managing complex, ongoing care needs.

<sup>&</sup>lt;sup>48</sup> Administrative Data shared by BC-CLMF.

<sup>&</sup>lt;sup>49</sup> MNP survey finding based on Family and Caregiver Survey. N=173. Cost incurred by caregiver, excluding costs incurred by the person they care for.

<sup>50</sup> MNP survey finding based on Family and Caregiver Survey. N=29. Cost incurred by caregiver, excluding costs incurred by the person they care for.



## CASE STUDY: A Patient's Experience in Northern BC

A patient living in Northern BC shared their journey navigating complex health conditions while residing in a remote community. The patient explained that "there are no services available in [their] community that provide care for complex diseases...without this clinic [I] don't know where [I] would be." Prior to accessing the clinic's VGMVs, the patient felt isolated and without support, emphasizing, "I was very alone prior to this clinic and now I am part of a community."

With limited health care programs in their region, the patient found the webinars and VGMVs transformative: "The webinars have enabled [me] to start a new life and learn to be a new human being." The clinic's virtual care became their lifeline, as they said, "the only help and support [I] receive is through virtual care due to the remote community in which [I] reside." Without the VGMVs, they shared, "I would be lost," highlighting the lack of knowledgeable professionals locally who understand their conditions.

Thanks to the clinic, the patient reported meaningful improvement in daily living: "I am now able to function, able to cook a meal, able to be a mom to my son, and [I] received assistance in receiving [Canada Pension Plan Disability]." The ongoing support from VGMVs was described as essential: "I am concerned about the level of anxiety [I would] experience if the VGMVs are taken away...[because] the VGMVs have provided [me] with a community, hope, resources and knowledge...[They] keep [me] going as there is no cure for these diseases."

The patient's story also includes a history of severe trauma across multiple areas: "I have been through some very severe trauma in my life. In all areas, school medical home and emergency services." For years, they were unable to go anywhere in public alone due to extreme post-traumatic stress disorder. Their involvement in the clinic's Shame and Trauma group was pivotal: "Since being involved in the Shame and Trauma group I have been able to work on several issues. I am able to speak clearly now and have a voice. I am able to mostly self advocate and am able to communicate to get the care that I want and need now." They reflected that "I would be the most scared shaky person I was before if I hadn't been able to be a part of this clinic!"

This patient's experience illustrates how accessible and community-based virtual care can dramatically improve quality of life and foster empowerment, especially for those facing geographical barriers and complex health needs.

#### Improvements in Providers' Ability to Deliver Care

The BC-CLMF's VGMV model has increased efficiency and improved working conditions for physicians and allied health professionals. By delivering care through virtual group medical visits, providers can support a larger number of patients in less time while reducing the administrative burden and simplifying follow-up workflows.<sup>51</sup>

Eighty-one percent (81%) of 12 surveyed physicians and allied health professionals at BC-CLMF agreed that the VGMV model has made work more accessible for them, as they can work remotely.

<sup>&</sup>lt;sup>51</sup> Arseneau Ric and Jane McKay. BC-CLMF. Innovative Multidisciplinary Chronic Disease Care: Cost Effectiveness and Efficiency of Group Visits. July 15, 2025.



## Improvements to the Health Care System



This domain reflects how the BC-CLMF VGMV model contributes to reduced costs and greater efficiency across the broader health care system.

The outcomes associated with this domain are relevant to:

- BC's health care system at large
- The Ministry of Health through MSP

#### BC's Health Care System at Large

The economic impact of Long COVID, ME/CFS and fibromyalgia is substantial. Costs associated with increased use of services through the health care system are in addition to any expenditures associated with caregiving, diminished productivity, individual travel expenses, loss of income, and decreased quality of life.

In Canada, health care costs due to Long COVID alone are estimated to be at least \$7.8 billion annually based on the prevalence of the condition in 2023.<sup>52</sup> Similarly, a study published in 2025 that investigated the combined cost of Long COVID and ME/CFS to the German economy estimated costs to be over \$63 billion euro a year.<sup>53</sup>

A study assessing health care costs in Canada found that, within the first 56 days after an acute COVID-19 infection, individuals living with post-

COVID-19 conditions had 11% higher health care utilization compared to a control group.<sup>54</sup> Researchers in the United Kingdom observed a similar trend with a 49% higher health care utilization by those living with Long COVID in the 12 months after an acute infection.<sup>55</sup>

Many BC-CLMF patients also reported high use of the health care system. On average, patients reported waiting up to six years for a correct diagnosis and seeing an average of four specialists. Similarly, BC-CLMF patients have reported reduced ER visits since joining the clinic.<sup>56</sup> According to survey responses,

"This is a VITAL service for both patients and community providers - patients are able to access care in a much more timely and sustainable way. This model and specifically this program takes enormous weight off primary care providers and other provincial medical services. It creates an opportunity for patients that were previously unable to even access care; whether due to their remote locations, or severe mobility issues. The BC[-] CLMF leadership is supportive [and] wonderful to work with/for."

- Health care provider

<sup>&</sup>lt;sup>52</sup> Rafferty, E., Unsal, A., Kirwin, E. (October 2023). Healthcare costs and effects of post-COVID-19 condition in Canada. Canada Communicable Disease Report (October 2023). Retrieved from: Healthcare costs and effects of post-COVID-19 condition in Canada - Canada.ca.

<sup>&</sup>lt;sup>53</sup> Koch, R. (June 2025). Counting the cost of Long COVID and MC/CFS. Retrieved from: Counting the cost of Long COVID and ME/CFS | Newsroom | University of Adelaide.

<sup>&</sup>lt;sup>54</sup> Rafferty, E., Unsal, A., Erin, K. (2023). Healthcare costs and effects of post-COVID-19 condition in Canada. Can Commun Dis Rep 2023;49(10):425–32. Retrieved from: <a href="https://doi.org/10.14745/ccdr.v49i10a03">https://doi.org/10.14745/ccdr.v49i10a03</a>

<sup>55</sup> Lin, L. et. al. (June 2024). Healthcare utilisation in people with long COVID: an OpenSAFELY cohort study. BMC Med. 22:255. Retrieved from: doi: 10.1186/s12916-024-03477-x

<sup>&</sup>lt;sup>56</sup> BC-CLMF Townhall poll on July 10, 2025 based on 748 responses.



patients rely on strategies learned at the BC-CLMF to self-manage conditions, which reduces the need for acute health care.

Other reported benefits to the VGMV model include: a lower no-show rate due to the facility of attending virtual appointments; and better coordinated care between the clinic and primary care physicians from sharing notes and care plans post-appointment.<sup>57</sup> As part of the collaboration with primary care providers, the clinic's specialized physicians can appropriately assess and diagnose complex conditions, write prescriptions, and develop comprehensive care plans. This allows primary care providers to focus on their core responsibilities while managing their patient's chronic conditions with the support of the clinic's detailed plans.



<sup>&</sup>lt;sup>57</sup> Arseneau Ric and Jane McKay. BC-CLMF. Innovative Multidisciplinary Chronic Disease Care: Cost Effectiveness and Efficiency of Group Visits. July 15, 2025.



## CASE STUDY: A Patient's Experience with BC-CLMF

After being diagnosed with Long COVID four years ago, this interviewee found themselves unable to work and facing an uncertain future. Their journey back to employment was not straightforward. They credit Dr. Arseneau with being "instrumental in advocating for an appropriately paced return-to-work (RTW) program with WorkSafe BC." For them, it was essential to slow down the RTW process; if they had been forced back prematurely, they believe they likely would not have been able to work at all, as it would have been too strenuous. Thanks to this advocacy, they are now back to full-time work as a teacher, a role they describe as critical in their community. They also noted the broader impact of their return, pointing out the financial benefits for the government, WorkSafe BC, and for their employer.

Their experience at BC-CLMF was marked by appreciation for the diversity of services offered at the clinic. Having access to a range of allied health professionals and informative clinical care sessions was a highlight. They made a point contrasting their BC-CLMF experience with the program through the Long COVID Clinic in Vancouver, stating that the specialized lectures and small groups at BC-CLMF are far superior. Participating in group medical sessions was beneficial, as they learned a great deal from other people's questions and were highly satisfied with the support they received in a group-based setting.

Since enrolling in the clinic, they reported "nothing but improvements" in their health. The coaching provided by the allied health team was helpful for symptom management, and the prescribed medication enabled them to regain function and return to work full-time. They also recognized their good fortune in having an attentive and caring family physician but emphasized that the limitations in expertise their family physician has with these complex and under-researched chronic illnesses made the specialized care at the clinic vital. They added that, without access to this clinic, many family physicians would continue to struggle to stay on top of research on complex chronic disease like Long COVID and would have fewer opportunities to learn about the specialized care needed for recovery from complex chronic disease.

Beyond work, the interviewee shared their joy at resuming athletic pursuits like biking and softball. These activities have helped them improve their physical fitness, reconnect with their community, and interact with their teammates, all of which are important for their mental health. The workshops at the clinic also provided them with the knowledge and language to self-advocate to employers, friends, family, and others who may not understand these illnesses. They explained that those without lived experience often do not understand the reality of these conditions. However, now they and able to discuss their experiences with people in their lives, knowing they'll be more understood.



#### Ministry of Health through MSP

According to BC-CLMF representatives, implementing a 20-person cap on VGMVs would render clinical care and multidisciplinary sessions economically unsustainable because allied professional support costs cannot be effectively amortized at that scale. Consequently, physicians would need to shift time currently spent serving up to 50 patients per hour in group settings to one-on-one visits. From the point of view of clinic representatives, this would reduce combined capacity, from a range of 80 to 100 patients per hour to 2 to 12 patients per hour. From the clinic's analysis of their internal data, if the VGMVs delivered in the April 1, 2024 to March 31, 2025 period were restricted to meet the proposed MSP changes, about two-thirds of patients (1,544 unique patients) would lose access to their clinic care.

While patients attending individual telehealth visits might benefit from focused one-to-one care, the overall time per patient would drop from 60 to 90 minutes in a group session to approximately 20 minutes per session. Similarly, the frequency of available sessions per patient is likely to decrease, according to clinic representatives.

These individual sessions would also lack the multidisciplinary perspectives and the opportunity for care for those too unwell to actively engage. Peer learning and shared experiences are an additional benefit of group formats for this patient population.<sup>58</sup>

Adding to this, and given existing waitlists and backlog, the proposed cap is seen to be further restricting access and driving patients toward alternative services, such as emergency and specialist care, which are more costly for the Province.

MNP's cost analysis suggests that replacing VGMVs with individual telehealth visits under current fee codes would increase MSP expenditures by \$1,296,105.50 over the modeled period<sup>59</sup> and patient population.



<sup>&</sup>lt;sup>58</sup> Canadian Pain Task Force. (2020). Report: June 2020. Health Canada. Retrieved from <a href="https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/canadian-pain-task-force/report-2020.html">https://www.canada.ca/en/health-canada/corporate/about-health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/canadian-pain-task-force/report-2020.html</a>

<sup>&</sup>lt;sup>59</sup> This SROI analysis utilized patient data form the 2024 calendar year as it represents the most recent, complete year of available data.



## CASE STUDY: A Caregiver's Experience with BC-

The caregiver explained that their experience is shaped not only by their partner's participation in the BC-CLMF program, but by the lasting impact the clinic has had on their relationship and daily life. They described multiple impactful moments, particularly the online groups, noting that "after the groups, there are new skills [my partner] employs that radically change [their] relationship with [their] body and [their] healing."

They emphasized the uniqueness of the clinic's multidisciplinary expertise, stating that staff "all have unique skills and expertise to offer." This depth of knowledge has translated into meaningful change:

"This [clinic] has provided a light at the end of the tunnel regarding my partner's health. I feel more hope and optimism. There is a sense of possibility for recovery that we weren't getting from the medical system. If anything, the mainstream medical system makes it worse because [of the struggles of being] misdiagnosed or misunderstood."

The caregiver also reported significant improvement in their own wellbeing. The caregiving burden "has been lightened because [I am] now far more optimistic about the outcome of [my partner's] health," and their partner's improved self-management has reduced stress for both of them. They attributed this shift to the practical tools and solutions learned through the clinic.

The possibility of losing access to the VGMV model was described as "a terrifying thought," as their partner would be forced to rely again on services that "didn't work before." The caregiver stressed that alternative care would not be "anywhere near as effective," highlighting that BC-CLMF's ME/CFS-specific expertise is rarely found elsewhere.

Overall, this caregiver's experience underscores the BC-CLMF's role as a source of hope, expertise, and support, not only for individual patients but for the families and communities surrounding them.



## 4. SROI Calculation and Impact Interpretation

#### **SROI Calculation**

The internationally standardized SROI methodology was used to quantify the social and economic value generated for every dollar invested in the BC-CLMF VGMV model. This valuation draws on MSP billing data from the BC-CLMF, along with primary data collected through surveys and case study interviews, as outlined in Section 2 of the report.

The analysis focused on the value of outcomes as detailed in Appendix C – Summary of Financial Proxies. MNP estimated how many invested parties experienced each outcome, then assigned a financial proxy to each, and applied methodological adjustments to ensure a conservative and robust valuation. These adjustments included:<sup>60</sup>

- **Deadweight** the extent to which the outcome would have occurred regardless.
- **Displacement** the degree to which the outcome replaces other positive results.
- Attribution the portion of the outcome due to contributions from others.
- **Drop off** the expected reduction of the outcome over future years.

After discounting for these factors, the total adjusted value of all outcomes was compared to the total investment. The resulting quotient produced the SROI ratio, representing the social and economic return generated per dollar invested.<sup>61</sup>

The analysis of the BC-CLMF VGMV model revealed an SROI ratio of 1:6.85.

This ratio shows that, for every \$1 invested in the VGMV model through MSP billings, approximately \$6.85 in social and economic value is created for patients, patients' families and caregivers, physicians at the clinic, allied health professionals and other service delivery partners, BC's health care system, and the Ministry of Health via MSP.

Key areas where significant value is created include:

- The wellbeing and quality of life changes for patients, their family and caregivers, and health care providers who work under the model
- Improved accessibility of care for patients, family members and caregivers, and health care providers
- Increased efficiencies for BC's health care system including the BC Ministry of Health through MSP payments

<sup>&</sup>lt;sup>60</sup> In Social Return on Investment (SROI) analysis, a financial proxy is an estimated monetary value assigned to an outcome that does not have a direct market price. These proxies allow analysts to express social, economic, environmental, or other non-financial outcomes in financial terms, enabling comparison with the costs of achieving those outcomes.

<sup>&</sup>lt;sup>61</sup> It is important to recognize the limitations and considerations outlined earlier in the report when reviewing the study findings.



Table 1 summarizes the social and economic value created by invested parties included in the study.

Table 1: Value\* Created by Invested Party

Invested Party	Value* Created (Rounded)
Patients	\$8,198,017
Patients' Families and Caregivers	\$389,294
Physicians at the BC-CLMF	\$23,184
Allied Health Professionals and Other Service Delivery Partners	\$327,121
Referring Health Care Providers	\$777,157
BC's Health Care System	\$2,315,719
Total Value Created	\$12,030,492

<sup>\*</sup> Value is the net present value over a 10-year period calculated using a 3.5% discount rate.

To ensure validity of the estimates and assumptions made, sensitivity tests were conducted as part of the valuation process, providing further assurance that the ratio is not over-claimed. Overall, a 3.5% discount rate was applied to account for the time value of money. 62,63

The sensitivity tests completed for this analysis tested the impact of estimations or assumptions related to:

- The number of invested parties experiencing outcomes,
- The magnitude of outcomes experienced, such as hours saved,
- The financial proxies used to represent the value of outcomes, and
- The deadweight, displacement, attribution, and drop-off adjustments applied.

Lastly, the SROI study underwent an independent peer review process, consistent with best practices for ensuring methodological rigor, transparency, and credibility.

 $<sup>^{\</sup>rm 62}$  Based on social discount rate suggestion from Boardman, Moore & Vining. (2010)

<sup>&</sup>lt;sup>63</sup> Net Present Value represents the total value of projected benefits, including social and economic, in today's dollars. It adjusts future benefits for the time value of money, recognizing that a dollar today is worth more than a dollar in the future. In SROI analysis, net-present value is calculated by discounting all expected outcomes over the chosen a discount rate. This ensures that long-term impacts, such as improved health outcomes or reduced system costs, are valued realistically and consistently.



## CASE STUDY: A Caregiver's Experience with BC-CLMF

From the beginning, the caregiver witnessed the struggles their partner faced with PEM, describing how their partner "basically had to self-diagnose that [they] had Long Covid through [their] own research." Years of uncertainty and fear were transformed when they found the clinic, which "has made an immense difference to [their] health." For their loved one, crashes are now under control, and, as they explained, "the [medication] eliminated the brain fog immediately, which affected so many other things such as sleep."

The caregiver watched as their partner gained strength through group support and new strategies like pacing and heart rate monitoring. "[They] are now able to walk longer daily where [they] couldn't walk at all before," the caregiver shares. The sense of community found in group meetings was moving for both of them: "It's a community of sharing."

Virtual access to the clinic is crucial for them, avoiding the need to travel to appointments by ferry and reducing stress while allowing more time together. The caregiver notes, "I know [my partner] knows how to deal with [their health conditions] now. Life has improved immensely. It was fear of the unknown before but now we know what's happening. We can do things together... I am [also] benefiting from the learning [my partner is] experiencing." As their partner's condition improved, the caregiver resumed exercise and focused on their own health, since constant care was no longer required. Their daily life has changed. "Before, when [my partner] was virtually couch or bedridden, I was looking after [them] completely. Now we share chores, activities and daily tasks like dog-walking together." Their daily life has changed in a profound way.

The caregiver expressed both gratitude and concern when considering the clinic's impact. They shared that, without the VGMVs, they would feel lost, as many family physicians and specialists in BC seem to have limited knowledge of Long COVID. The caregiver was concerned about the future of the clinic and what it might mean for their partner. The caregiver finds the idea of reduced access to the clinic's support unthinkable, stating: "the government's attempt now to roll back access to this clinic is unfathomable because it's working...it is, like, saving lives." The caregiver's hope is clear: "This clinic not only needs to survive as it is, [but it also] needs to expand drastically to bring in more physicians. People need to be educated about the truth of the effect of viral infection and people need to be supportive of the science that will make real differences to their health."



## **Implications**

Access to care for individuals living with Long COVID, ME/CFS, and fibromyalgia in BC remains challenging. The number of specialists dedicated to these complex chronic conditions is notably low, exacerbating the challenge of timely and appropriate care for this patient population.<sup>64</sup> Existing programs outside of the BC-CLMF, such as the CCDP, have waitlists of multiple years, and Post Covid clinics do not offer sufficient access to physicians, leading to barriers for patients.<sup>65</sup>

Long COVID, ME/CFS, and fibromyalgia are complex, multisystem conditions that impose a substantial burden not only on affected individuals but also on the health care system and society as a whole. These conditions often result in severe fatigue, pain, and cognitive dysfunction, with many patients experiencing mental health co-morbidities. Affected individuals often have a high health care utilization and reduced or complete loss of ability to work.<sup>66</sup> The prevalence of these conditions continues to rise. Over 3.5 million Canadians are affected by Long COVID alone and projections suggest this number will continue to grow.<sup>67</sup>

This SROI analysis found that the BC-CLMF delivers substantial benefits to patients, families, health care providers, and the broader health system in BC. Through its VGMV model, the clinic provides timely, accessible, and multidisciplinary care to individuals living with complex chronic conditions, including those in rural and remote communities where such expertise may be otherwise unavailable.

Patients reported substantially improved physical and mental health, increased understanding about their conditions, and greater independence in managing daily life. The clinic's disability-benefit advocacy, informational resources, and peer support environment, further enhance quality of life while reducing the practical and mental burden placed on caregivers.

For physicians, allied health professionals, and referring health care providers, the model strengthens clinical expertise, reduces stigma and supports coordinated multidisciplinary care. At the system level, this approach improves efficiencies, decreases unnecessary service use, and contributes to a more sustainable health care infrastructure in BC.

Recent policy changes proposing a cap of 20 patients for VGMVs pose significant risks to the sustainability of the BC-CLMF's care model. Clinic physicians have indicated that such a cap would make group visits unsustainable. This restriction would, from their perspective, lead to longer wait times, reduced access to multidisciplinary care, and increased reliance on more costly health services such as emergency and specialist visits. The loss of group-based care, according to clinic physicians, would disproportionately impact patients in rural and remote areas, as well as those with mobility limitations, which are frequent symptoms of the conditions treated at the clinic.

<sup>&</sup>lt;sup>64</sup> Jamieson, K. et. al. (August 2025). POLICY BRIEF Virtual Healthcare Services for People Living with Long COVID.

<sup>65</sup> Ballard, J. (February 9, 2023). B.C. is taking its long-COVID clinics online and removing access to their doctors. CBC News. Retrieved from: <u>B.C. is taking its long-COVID clinics online and removing access to their doctors | CBC News.</u>

<sup>&</sup>lt;sup>66</sup> Jamieson, K. et. al. (August 2025). POLICY BRIEF Virtual Healthcare Services for People Living with Long COVID.

<sup>&</sup>lt;sup>67</sup> Kuang, S et al (December 2023). Experiences of Canadians with long-term symptoms following COVID-19. Retrieved from Experiences of Canadians with long-term symptoms following COVID-19.



It is within this context that maintaining support through Provincial investment in the current BC-CLMF VGMV model provides for the realization of significant social and economic value by improving access, reducing system strain, and supporting better health and quality of life for British Columbians living with complex chronic illness.

## CASE STUDY: A Patient's Experience with BC-CLMF

A patient living with Long COVID and ME/CFS described their journey to the BC-CLMF as a turning point after years of uncertainty and isolation. "I went through every test with no answers before being seen at the clinic, no one was putting it together until I talked to Dr. Arseneau. Huge relief, knowing what is going on." For two to three years, they were bedridden, with no guidance available: "Before there was no services. I didn't know where to go and my GP didn't know where to refer me to or what to recommend."

The patient emphasized the unique value of the clinic's educational resources and group sessions, highlighting that the "most important, for my personal recovery are the special lectures and groups I have been participating in. And learning about things, learning why things happen and establishing a baseline. I do believe I am gaining function." The sessions provide "a whole picture scale of what is going on, [as well as helping me] understand PEM and crashing and why this happens and what can help. Every class has been great."

Practical support was also crucial, especially with paperwork for long-term disability: "My GP is supportive but just doesn't know enough. It was very hard for my GP to fill out the forms. Dr. Arseneau has been a huge support with that and knows what to do." The patient noted that, since engaging with the clinic, their independence has grown: "I feel more confidence now to ask for help. [...]. Huge relief in understanding what helps and does not help."

VGMVs at BC-CLMF have transformed the patient's approach to care and daily life. "I noticed changes in how I approach my illness and also how my friends and family approach it." The patient's relationships improved, and family and friends gained a better understanding of their illness: "This has helped me and my family understand what is going on and what is helpful."

The patient described the clinic as a lifeline. "There is nothing to replace it. I couldn't find any other service before I found the clinic. I really don't know what I would do if the clinic was not available anymore." Since accessing the clinic, they have not needed to return to the ER and now use the clinic exclusively for their care.

This patient's experience demonstrates how the BC-CLMF supports individuals facing complex health challenges and barriers to support.



## Appendix A – Detailed SROI Methodology

MNP used the internationally standardized SROI methodology (outlined in <u>A Guide to Social Return on Investment</u>, the guidance document of The Social Value Network International) to conduct this study. The six steps outlined below are the standard process for conducting an SROI analysis and have been used in this study.



#### SROI Step 1: Establish Scope and Identify Invested Parties

This step involved addressing the following questions:

Which invested party will experience outcomes due to the investment made into the BC-CLMF VGMV model? Invested parties for this SROI analysis were identified and vetted through discussions with the BC-CLMF. More specifically, MNP conducted a facilitated session with BC-CLMF physicians, patients, family members, allied health professionals and referring health care providers. The invested parties for whom outcomes were mapped, measured, and valued are outlined in Appendix B – List of Outcomes by Invested Party.

Which aspects of the investment will be considered in the analysis? The investment included in the SROI analysis was derived from the BC-CLMF's MSP billing data.

What timeframe will the SROI analysis cover? The 10-year time frame for this study represents the period over which projected outcomes and associated social value are modeled. This duration was selected to capture long-term impacts of the BC-CLMF VGMV model, such as sustained health improvements, cost savings, and quality-of-life benefits that extend beyond short-term results.



### **SROI Step 2: Map Outcomes**

The next step in the SROI process was the development of an Impact Map for the BC-CLMF VGMV model. The Impact Map visually outlines how key resources (inputs) support specific activities (outputs) that in turn generate measurable outcomes for invested parties, collectively forming the model's theory of change.

The map was informed by:

- A review of BC-CLMF documents and relevant public sources.
- A virtual focus group with clinic physicians, allied health professionals, referring health care providers, patients, and family representatives. <sup>68</sup>
- Responses from three online surveys: one for patients (1,245 responses), one for family members and caregivers (349 responses), and one for clinic physicians, allied health professionals, and referring health care providers (17 responses).
- Fifteen case study interviews with patients, family members and caregivers.

<sup>&</sup>lt;sup>68</sup> A preliminary impact map was developed based on background documents and literature. A focus group session was then conducted with two physicians, one allied health professional leading VGMVs at BC-CLMF, three referring health care providers, three patient representatives, and one family member representative to review, validate and refine the preliminary impact map. MNP received and incorporated feedback from three additional allied health professionals who were unable to attend the focus group session.



Based on the research and engagement activities described above, outcomes were mapped for each invested party (see Appendix B).



#### SROI Step 3: Evidence Outcomes and Give Them a Value

This step involved determining which and how invested parties experience each mapped outcome and then establishing the financial value of each outcome.

Existing information provided and publicly available research on outcome achievement amongst those involved in similar programs were reviewed.

Mapped outcomes were then financially valued based on feedback received from patients, family members and caregivers, and model administrators, as well as financial proxies<sup>69</sup> from literature. Valuation information and methods from other relevant and comparable SROI studies were used, where possible, to enable comparison and ensure results from this study are aligned with other similar work.

The valuation of outcomes as presented in this report relied on the availability of comparative financial proxies and data from the BC-CLMF.



#### **SROI Step 4: Establish Impact**

In this step, the following methods were used to reduce the risk of overclaiming impacts. They were applied as percentage discounts to the value included in the SROI analysis.

- **Deadweight** (i.e., how much of the outcome would have happened anyway in the absence of the BC-CLMF's activities).
- **Displacement** (i.e., how much the outcome has displaced other outcomes).
- **Attribution** (i.e., how much of the outcome is attributable to others).
- **Drop-off** (i.e., to what extent an outcome will drop off over time).

Values were determined based on literature and reasonable estimations. This step also involved sensitivity testing to ensure the estimates are reasonable. Overall, a 3.5% discount rate was applied to any value claimed into the future.



#### SROI Step 5: Calculate the SROI Ratio

In SROI methodology, the SROI ratio is calculated by multiplying the number of invested parties anticipated to achieve an outcome by the value of the outcome and then discounting for impact. The total value of all outcomes is then divided by the total investment.



#### **SROI Step 6: Report**

The results of this study were validated and socialized with BC-CLMF physicians, allied health professionals, and patients. The SROI analysis also underwent a peer review process, which is considered a best practice to ensure credibility, transparency, and methodological rigor.

<sup>&</sup>lt;sup>69</sup> Financial proxies are estimates of financial value where it is not possible to know an exact value.



# Appendix B – List of Outcomes by Invested Party

Invested Party	Domain of Change	Outcome(s)
Patients	Changes in the wellbeing and quality of people's lives	<ol> <li>Improved physical and mental health allowing them to return to work.</li> <li>Perceived increase in knowledge for patients.</li> <li>Improved mental health through:         <ul> <li>Being listened to and cared for.</li> <li>Receiving trauma-informed care.</li> <li>Having agency in one's own care journey.</li> </ul> </li> <li>Improved physical health through learning and implementing care strategies.</li> <li>Increased quality of life due to increased financial stability (receipt of disability benefits).</li> <li>Increased support in filling out paperwork to access disability benefits</li> <li>Improved mental health through fostered sense of community in group visits.</li> <li>Improved quality of life as a result of having access to effective and appropriate care for their conditions.</li> <li>Improved mental health through reduced stigma as patients receive specialized care.</li> <li>Improved physical and mental health through access to medication other physicians may not prescribe due to limited knowledge or scope as some medications can only be prescribed by specialists.</li> <li>Increased supports to return to work for physicians who are patients via mentorship, accommodations, strategies, etc.</li> </ol>
	Changes in accessibility and provision of support	<ol> <li>Immediate access to BC-CLMF services upon referral.</li> <li>Increased provision of ongoing, longitudinal care.</li> <li>Cost averted by accessing virtual care (for patients living in urban areas).</li> <li>Increased accessibility for underserviced populations in BC's health care system (for patients living in rural areas).</li> <li>Increased support in filling out paperwork to access disability benefits.</li> <li>Increased support in navigating the system of care for patients, including medication, even without a primary care provider.</li> </ol>



Invested Party	Domain of Change	Outcome(s)
		<ol> <li>Increased access to care for patients who are unable to participate in a private consultation.</li> <li>Increased access to care that they would otherwise not be able to receive in a traditional care model.</li> <li>Reduction in cost as a result of lower no-show rate for patients.</li> <li>Reduced reliance on mental health services due to improved mental health through care at the BC-CLMF.</li> </ol>
Patients' families and caregivers	Changes in the wellbeing and quality of people's lives	<ol> <li>Increased education through publicly accessible resources on website and YouTube channel to.</li> <li>Improved mental health through knowing their family member/care recipient is receiving appropriate medical support.</li> <li>Improved mental and physical health through reduced care responsibility as patients' physical and mental health improves and support received from person they care for.</li> <li>Improved mental and physical health through learning health strategies from patients.</li> <li>Improved mental health for family and caregivers through experiencing less stigma due to trauma-informed approach of the clinic.</li> </ol>
	Changes in accessibility and provision of support	<ol> <li>Increased accessibility as family and caregivers don't have to accompany patients to in-person medical visits.</li> <li>Increased access to tax benefits if caregiver status is claimed through BC-CLMF advocacy.</li> </ol>
Physicians at the BC-CLMF	Changes in the wellbeing and quality of people's lives	<ol> <li>Financial stability.</li> <li>Increased sense of fulfillment by adequately caring for patients.</li> <li>Greater understanding about conditions by collaborating with patients and allied health professionals.</li> <li>Training on stigma in health care.</li> </ol>
	Changes in accessibility and provision of support	<ol> <li>Increased efficiency when caring for patients through multidisciplinary care model.</li> <li>Increased knowledge of effectiveness of VGMV model and furthering medical knowledge in a new field.</li> </ol>
Allied health professionals and	Changes in the wellbeing and	<ol> <li>Allied health professionals receive an honorarium for presenting in lecture series.</li> <li>Increased knowledge about conditions.</li> </ol>



Invested Party	Domain of Change	Outcome(s)
other service delivery partners	quality of people's lives	<ul> <li>Increased sense of fulfillment by: <ul> <li>Adequately caring for patients.</li> <li>Reaching patients who would otherwise not be able to access their services.</li> <li>Supporting patients with conditions they may also have had.</li> <li>Furthering the medical field.</li> </ul> </li> </ul>
	Changes in accessibility and provision of support	Work is more accessible for allied health professionals through virtual care.
Referring health care providers	Changes in the wellbeing and quality of people's lives	<ol> <li>Increased support for patient care by BC-CLMF physicians and allied health professionals.</li> <li>Improved mental health by knowing patients receive appropriate care.</li> </ol>
	Changes in accessibility and provision of support	<ol> <li>Increased knowledge for referring health care providers through primary care toolkit.</li> <li>Increased support when caring for patients by utilizing notes generated from BC-CLMF to confirm diagnoses and adjust other care provided to the patient accordingly.</li> </ol>
BC's health care system at large	Changes in the system of care	<ol> <li>Reduction in short-term health service utilization (e.g., reduction in unnecessary ER visits).</li> <li>Reduction in long-term health service utilization (e.g., specialist visits).</li> <li>Reduction in cost for care per patient.</li> <li>Improved efficiencies in correct diagnosis, patients avoid additional diagnostic procedures.</li> <li>Increased accessibility for underserviced populations in BC's health care system.</li> <li>Reduction in cost as a result of lower no-show rate for patients.</li> <li>Reduced reliance on mental health services due to improved mental health through care at the BC-CLMF.</li> <li>Reduced reliance on care through family doctors and hospitals, which increases availability of (these) services for the rest of the population.</li> <li>Reduced costs for unnecessarily prescribed medication (opioids).</li> <li>Increased rates of return to work within the BC-CLMF patient population who are also health care providers.</li> </ol>



Invested Party	Domain of Change	Outcome(s)
Ministry of Health via MSP	Changes in the system of care	1. Reduced cost to the health care system.



## Appendix C – Summary of Financial Proxies

Invested Party	Outcome	Financial Proxy
Patients	Immediate access to BC-CLMF services upon referral	Cost of chronic pain management on
	Increased provision of ongoing, longitudinal care	waitlists
	Cost averted by accessing virtual care (Urban)	Cost averted by accessing virtual care
	Increased accessibility for underserviced populations in BC's health care system (Rural)	Out of pocket expenses for rural residents trying to access health care
	Improved physical and mental health allowing them to return to work	Average annual wage in BC in 2024
	Perceived increase in knowledge for patients	Cost of "Personal Health Information Management Course"
	Improved mental health through: - being listened and cared for - receiving trauma-informed care - agency in one's own care journey	Improved quality of life via treatment for pain, depression, anxiety, and sleep issues
	Improved physical health through learning and implementing care strategies	Fees for 12 kinesiology sessions
	Increased support in filling out paperwork to access disability benefits	Time taken to determine eligibility for PWD from financial eligibility assessment to review and approval
	Increased quality of life due to increased financial stability (receipt of disability benefits)	Value of wellbeing, health, and life satisfaction per person receiving disability benefits in the UK in 2025.
	Improved mental health through fostered sense of community in group visits	Cost of "Objective Isolation and Loneliness' Impact"
	Improved quality of life as a result of having access to effective and appropriate care for their conditions	Improved quality of life via treatment for pain, depression, anxiety, and sleep issues
	Improved mental health through reduced and reduced stigma as patients receive specialized care.	Valued with financial proxy above
	Increased support in navigating the system of care for patients, including medication, even without a primary care provider	Hourly cost of systems navigator
	Increased access to care for patients who are unable to participate in a 1:1 consultation.	Cost averted by accessing virtual care
	Increased access to care services they would otherwise not be able to receive in a traditional care model.	Average cost of specialized services (allied health professionals). Cost for 30 minutes



Invested Party	Outcome	Financial Proxy
	Improved physical and mental health through access to medication other physicians may not prescribe due to limited knowledge or scope as some medications can only be prescribed by specialists.	Quality of life valuation via treatment for pain, depression, anxiety, and sleep issues
	Increased supports to return to work for health care providers who are patients via mentorship, accommodations, strategies, etc.	Cost of mentorship opportunities such as conferences and courses for physicians in BC
	Reduction in cost as a result of lower no-show rate for patients	No-show fee at BC-CLMF
	Reduced reliance on mental health services due to improved mental health through care at the BC-CLMF	Average therapy costs with psychologist in BC in 2025
Patients' families and caregivers	Increased education through publicly accessible resources on website and YouTube channel to	Cost of "Learning to be caregivers for people with chronic conditions" course
	Improved mental health through knowing their family member/care recipient is receiving appropriate medical support	Valued with financial proxy below
	Improved mental and physical health through reduced care responsibility as patients' physical and mental health improves and support received from person they care for	Cost for private respite care
	Improved mental health through experiencing less stigma as patients are cared for by specialists in a trauma-informed way	Valued with Indicator above
	Increased accessibility as family and caregivers don't have to accompany patients to in-person medical visits	Cost averted by accessing virtual care as indicated in Family/Caregiver Survey
	Improved mental and physical health through learning health strategies from patients	Annual cost savings per patient due to chronic disease self-management programs
	Increased access to tax benefits if caregiver status is claimed through BC-CLMF advocacy	Time taken to determine eligibility for PWD from financial eligibility assessment to review and approval
Physicians at the BC-CLMF	Financial stability	MSP data on 2024 income
	Increased sense of fulfillment by adequately caring for patients	Cost of psychological distress from absenteeism
	Increased efficiency when caring for patients through multi-disciplinary care model	Amount of time saved by hourly wage for health care providers
	Greater understanding about conditions by collaborating with patients and allied health professionals	Cost of fibromyalgia advisor training program



Invested Party	Outcome	Financial Proxy
	Training on stigma in health care	Cost of training on stigma in health care
	Increased knowledge of effectiveness of VGMV model and furthering medical knowledge in a new field	Cost of attending digital health conference in BC
Allied health professionals and	Allied health professionals receive an honorarium for presenting in lecture series	Honoraria for allied health professionals
other service delivery partners	Increased in knowledge about conditions	Cost of fibromyalgia advisor training program
	Increased sense of fulfillment by - adequately caring for patients - reaching patients who would otherwise not be able to access their services - supporting patients with conditions they may also have had - furthering the medical field	Cost of psychological distress from absenteeism
	Work is more accessible for allied health professionals through virtual care	Cost savings for in-office work vs remote work
Referring health care providers	Increased support for patient care by BC-CLMF physicians and allied health professionals	Cost of burnout (Cost per person per year due to productivity loss due to poor sleep)
	Increased knowledge for referring health care providers through primary care toolkit	Cost of course "Assessing Long Covid in the Community" from University of Alberta - for rehabilitation professionals
	Increased support when caring for patients by utilizing notes generated from BC-CLMF to confirm diagnoses and adjust other care provided to the patient accordingly	Cost of fibromyalgia advisor training program
	Improved mental health by knowing patients receive appropriate care	Cost of burnout (per person per year due to productivity loss due to non-restorative sleep)
BC's health system at large including Ministry of Health via MSP payments	Reduction in short-term health service utilization (e.g., reduction in unnecessary ER visits)	Average cost of emergency medicine consultation
	Reduction in long-term health service utilization (e.g., specialist visits)	Average cost of internal medicine consultation
	Reduction in cost for care per patients	MNP's data analysis on cost savings of individual billing codes vs group billing codes (cost per patient)



Invested Party	Outcome	Financial Proxy
	Improved efficiencies in correct diagnosis, patients avoid additional diagnostic procedures	Cost savings due to less demand for diagnostic procedures
	Reduced reliance on care through family doctors and hospitals, which increases availability of (these) services for the rest of the population	Hospital costs avoided
	Reduced costs for unnecessarily prescribed medication (opioids)	Physician cost avoided
	Increased rates of return to work within the BC-CLMF patient population who are also health care providers	Cost per individual for potentially inappropriate prescription





