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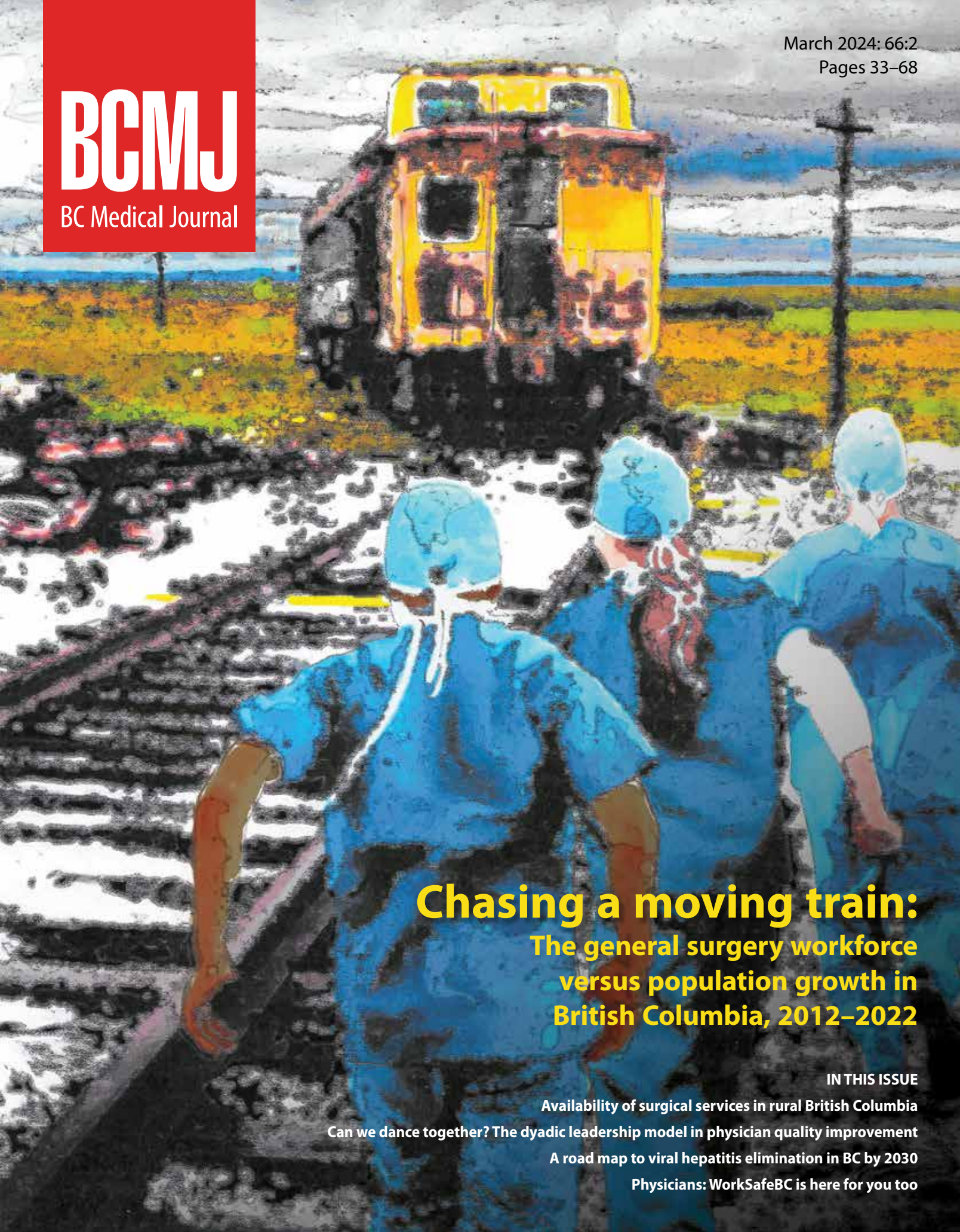

Chasing a moving train:
The general surgery workforce versus population growth in British Columbia, 2012–2022

IN THIS ISSUE

BCMJ
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In this issue we offer two articles on the state of surgery in British Columbia. In addition to the cover article, Dr McDonald and colleagues present data they collected about procedure volumes in 45 rural communities. The article begins on page 51.

Mission: The *BCMJ* is a general medical journal that shares knowledge while building connections among BC physicians.

Vision: The *BCMJ* is an independent and inclusive forum to communicate ideas, inspiring excellent health care in British Columbia.

Values
Quality: Publishing content that is useful, current, and reliable.
Connections: Sharing diversity of thought and experiences from across the province and promoting communication between BC doctors.
Impact: Striving for healthier patients and communities by amplifying physicians' voices, opinions, research, and news.

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ON THE COVER
In this issue we offer two articles on the state of surgery in BC. In the cover article, Dr Hwang and colleagues surveyed general surgeons on their staffing needs and wait times. Article begins on page 46.

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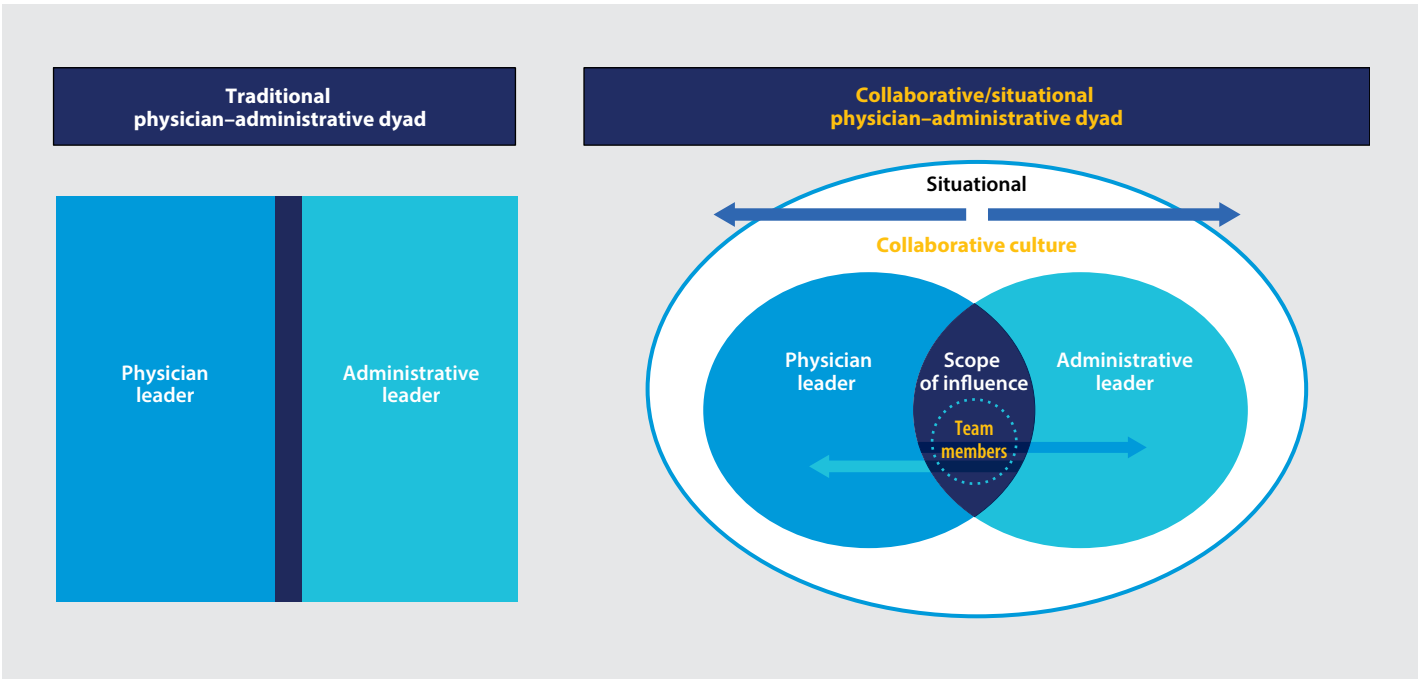

The dyadic leadership model supports physicians and operational leaders to work in partnership to co-develop projects that address health care system problems and to translate learning into action and sustainability. Article begins on page 42.

CLINICAL

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Waiting in pain

Patients and doctors are worried about access to surgery in British Columbia.

Waiting is not an idle state. It is not merely the passage of time until one's name rises to the top of a list. Foundering benchmarks don't capture the human experience of surgical purgatory. Waiting is painful. It can be physically painful, like for the patient in need of a joint replacement who can barely walk anymore. Waiting can also be emotionally painful, like for the patient with an ovarian mass whose prognosis hangs in the balance of her pathology report.

In this issue of the *BCMJ*, we are publishing two articles on the state of surgery in our province. In the article on the availability of surgical services in rural British Columbia, Dr Brooke McDonald and colleagues present data that they meticulously collected about procedure volumes in 45 rural communities. Of those communities, 23 did not have a surgical provider and five had family physicians with enhanced surgical and/or obstetric skills as their sole surgical providers.

The article caused me to reflect on how fragile our health care system is in many places, when critical procedures like cesarean sections, appendectomy, abscess management, and colonoscopy depend on one physician for an entire community of people. At a time when many of us in tertiary care settings feel overburdened and burned out, I also wonder about the physical and emotional well-being of these rural colleagues who likely have even less support at their disposal. I imagine that carrying the load of an entire community could feel simultaneously like a great privilege and a great pressure. Please write to the *BCMJ* and tell me about your experience.

For the other article of this quasi-theme issue, Dr Hwang and colleagues surveyed general surgeons on their staffing needs and wait times. The demand for surgery has increased substantially over the last 10 years, but the number of general surgeons remains in deficit. Having this local data is important because, as they say, what gets measured gets managed. (Or at least we hope it will.)

Canadians' top priority for health care funding was to reduce surgical wait times.

We know that surgeons are just one part of the huge team required to successfully perform surgery. Nurses, porters, sterile techs, and anesthesiologists are just a few examples of the skilled people essential to a functional operating room. Any one of these indispensable roles can be impacted by training, understaffing, recruitment challenges, etc., and that's without mentioning the infrastructure itself. This is a complex problem.

In December 2023, Leger, a polling company, published a national survey[1] in which 63% of respondents were living in British Columbia. The results indicated that Canadians' top priority for health care funding (36%) was to reduce surgical wait times. The online survey was intended to find out about Canadians' preferences for Pharmacare, but in the end only 18% said they wanted money to go toward creating a new universal single-payer drug coverage plan. Global News reported on the politics currently at play on the topic of health care spending, noting that current proposals do not seem aligned with the stated needs of our population.[2]

In his recent interview with the *BCMJ* [2024;66:10-13], our new Doctors of BC president, colorectal surgeon Dr Ahmer A. Karimuddin, mentioned that part of the reason he wanted the role was to impact positive change in wait times. Although we are rich in resources in Canada, our system is failing people. Dr Karimuddin comes into the role with energy and enthusiasm for a collaborative approach, using resources like the Specialist Services Committee to leverage change for patients. He recognizes that a lot of people are "at their wits' end . . . and they [are] going to continue to feel stressed and distressed for their patients and not be able to do much about it."

Surgery, whether it's elective or emergent, is essential to good health care. Physicians and patients have identified that access to surgery is a problem. What do you think is one thing that would help? ■

—Caitlin Dunne, MD, FRCSC

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Grateful

Gratitude can be your gateway to a joyful life.

After a few years in practice, I witnessed some of my older colleagues give up their hospital privileges. I recall listening to their stories at the time. They did not express any joy in their work. They were disillusioned and no longer felt valued for the work they were doing in the hospital. I remember thinking that I could learn from their experiences to try to avoid feeling what I now realize was probably them feeling burned out. I don't think I was familiar with the concept of burnout at that time. Although the term was coined in the 1970s, it was not part of my lexicon in the 1990s.

I tried to avoid overworking by pacing myself. I took a day off during the week, and I still do. Starting out in practice is nerve-racking. The worries are endless. The natural inclination is to build up a patient panel as fast as possible. I was fortunate to have some amazing mentors in my medical career. Dr Jerry Danielson, for whom I did a locum in Shellbrook, Saskatchewan, taught me not to accept every new patient who walked through my door into my practice. That saved me a lot of headaches and is a pearl I now pass on to younger colleagues. Jerry taught me to pace myself.

I also try to keep a positive attitude, which I learned from my late dad, who is my most treasured mentor. My religion has taught me gratitude, which can reduce toxic emotions such as resentment, frustration, and regret and makes depression less likely.[1] One study of Vietnam War veterans found that those with higher levels of gratitude suffered lower incidences of posttraumatic stress disorder.[2]

When dealing with the illness and death of my patients, I naturally feel sad. What pulls me up from the sadness is feeling grateful that it is not I or someone I love who is going through that. I have had many days when I have gone home after work and hugged my children out of love and gratitude. After reading Dr Caitlin Dunne's editorial in the October 2023 issue of the *BCMJ*, it got me thinking about the type of father I was to my children when they were younger. It made me question whether I had been present enough in their childhood. I was relieved to hear them express gratitude to me recently for being there when it mattered to them.

One study of Vietnam War veterans found that those with higher levels of gratitude suffered lower incidences of posttraumatic stress disorder.

Dr Mark Sherman, a family physician in Victoria, is a mindfulness coach who runs workshops for physicians on mindfulness in medicine, burnout, and resilience. I was privileged to attend one of his workshops and am on his mailing list. In his January 2024 newsletter, he states: "Gratitude is the entry point to living a joyful life. While it can be easy to take for granted the blessings that abound near and far from the immediacy of our lives, when we slow down we can better *see* the grace that has been here all along. Amidst the challenges and tribulations there is, as well, *so much* beauty. Can you see it? Perhaps for you it is the health or vitality of your body, or the creative capacity of the mind. It might be the many blessings of relationship, or the resonant beauty of Nature. Whenever we look with the discernment of presence, we more easily slip into this place of gratitude."[3]

I am grateful for my health and for the people I love and those who love me. I am grateful for my friends and colleagues. I am grateful for the work that I do—for the ability to help patients in their time of need, especially the grateful ones. ■

—David B. Chapman, MBChB

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Letters to the editor

We welcome original letters of less than 500 words; we may edit them for clarity and length. Letters may be emailed to journal@doctorsofbc.ca or submitted online at bcmj.org/submit-letter and must include your city or town of residence, telephone number, and email address. Please disclose any competing interests.

Planetary health versus travel

At the bottom of the first table of contents page of the November 2023 issue of the *BCMJ* is a list. The list documents six things the journal is doing to minimize its environmental impact.

On the back cover of that issue is an advertisement for a medical conference: Antarctica 2025: Unconventional Conventions. I see this as a climate misadventure. Organizers, speakers, and participants should consider how their participation contributes to the disruption of the climate.

With reports that the last 12 months have been the hottest ever recorded and October 2023 being 1.3 °C hotter than any October on record,[1] everyone should not just question the value of an Antarctic travel conference but also repudiate this activity.

It is time to stop this type of planet-killing tourism disguised as CME.

Primum non nocere.

I suggest BC physicians refuse this type of CME.

—Douglas J. Courtemanche, MD, MS, CRCSC
Vancouver

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Reframing chronic pain conversations

High-impact chronic pain affects quality of life and causes anxiety.[1] Affected individuals are more frequently prescribed opioids than those suffering from mild to moderately bothersome pain.[2] Management of this complex condition adds to the burden experienced by burned-out family doctors.

Psychosocial factors influence pain and patients' ability to manage their symptoms. Patients overwhelmed with chronic pain may find supportive self-management programs difficult to follow. An effective patient–provider partnership can be compromised if the patient feels they are to blame for their lack of progress.

Chronic pain already comes with the burden of stigma.[3] The experience of chronic illness may change the way individuals view themselves and the world. They can experience the environment as dangerous and feel they cannot effect change.[4] This leads to a decreased sense of self-efficacy. Reframing the pain conversation can reduce the risk of provoking a shame-based response.

Introducing the limbic system as an umbrella term used to explain neuroplastic changes in the brain explains associated anxiety with pain.[1] Framing the conversation around chronic pain causing alert or alarm in the limbic system turns the focus to chronic pain as the culprit, not the patient. The stress of pain is then connected to emotions, actions, memory,[5] and the downstream consequences of high alarm: maladjusted survival responses, associated neurohormonal changes, increased inflammation, and central sensitization causing a cycle of pain and anxiety.

Multiple other pain influencers can then be addressed, including the stress of unemployment, financial hardship, health inequities, and compromised interpersonal relationships and social interactions, which negatively impact coping mechanisms.

A structured approach and Internet-based chronic pain tools make this approach possible in a busy medical practice.

Pain questionnaires can be used prior to an appointment to identify the presence of high-impact chronic pain. A 20-minute counseling appointment is essential for a narrative interview, with the opening question "Please tell me everything you feel I should know about your pain."

Subsequent follow-up counseling appointments are used to address biological causes for chronic pain. Endorse symptoms,

and acknowledge that exact causes for pain cannot always be identified. Repeatedly assure patients of negative findings. Reassure patients there is no imminent harm and that conditions requiring surgery have been eliminated. Explore other forms of medication that can impact central sensitization and chronic inflammation.

Ask patients what they feel is the cause of their pain. Using questionnaires, reassess the impact of pain on their quality of life and use these measures as a tool to address movement, sleep, diet, socialization, and mental health.

Multiple tools for patients are available to explain pain, neuroplasticity, central sensitization, and the inflammatory neurohormonal cascade of sympathetic arousal.

Education tools are available online (https://youtu.be/b5hTjigmXYUA).

Links to management tools for overwhelming pain, physical and emotional, can be emailed to patients (https://painimprovement.com/overwhelmed-pain).

Pain coaches and education can be accessed through https://painbc.ca/find-help/support-programs/coaching and www.selfmanagementbc.ca.

Regular office visits providing supported self-management can assist patients to change entrenched negative cognitions and behavior and help improve emotional and physiological regulation.

An understanding of the biological and psychological effects of chronic pain through a graduated education program will decrease a sense of shame and increase interpersonal effectiveness and interest in social connectedness. The goal is to empower patients and support them in discovering joy in their lives again.

—Judy Dercksen, MD
Quesnel

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Re: BC has the tools to address the drug poisoning emergency

The editorial by Dr Michael Schwandt in the December issue of the *BCMJ* [2023;65:365-366] proposes dealing with the drug poisoning emergency by decriminalizing drugs, reducing stigma, and increasing the safe drug supply. The problem with this approach is that it looks at only one outcome, and that is to prevent drug poisoning and drug poisoning deaths. Unfortunately, there are many more issues to this complex problem.

There are enormous social costs associated with normalizing drug use. We have witnessed the ghettoization of Hastings Street in downtown Vancouver, the near extinction of Chinatown, and the open use of drug injections across the entire downtown of Vancouver. It is ironic that it is illegal to drink alcohol or smoke cigarettes in many public places when injecting opioids is legal.

Our neighbors to the south have witnessed the destruction of the downtown cores of Portland, Seattle, and San Francisco due largely to permissive drug policies. These cities are rejecting this approach and are now recriminalizing and discouraging drug use. A similar story is unfolding in Portugal.

A safe drug supply, in my view, appears to be increasing accessibility to drug use, and in some cases safe drugs are being diverted so that addicted persons can purchase fentanyl-based products.

I am concerned that we are setting a very poor example for young people by normalizing drug use. Contrary to the editorial, I want to stigmatize drug use so that it does not become an attractive lifestyle for our children, teenagers, and young adults. There are some consumer groups who defend the rights of adults who use drugs and the subsequent lifestyle of crime that supports drug use. This, in my view, is a mistake.

The current policies are simply not working, as evidenced by the persistently high rates of overdoses and deaths. It is time, in my view, to try a different approach. Already, the provincial government has reversed policies on drug use that allowed drug injections in parks and near schools.

I do not pretend to provide a comprehensive solution to the current problems, but we need a broader approach than simply supplying safe drugs to persons addicted to drugs. We need to consider the extensive social problems that are created by normalizing drug use. We certainly need more housing and treatment services. There may be a role for more coercive treatment approaches. Lifesaving approaches such as certification under the Mental Health Act need to be reviewed.

It is time for citizens to seize the agenda and to not rely on advocacy groups and so-called experts to get us out of this crisis.

—Derryck H. Smith, MD, FRCPC
Vancouver

I urge Dr Schwandt, a member of the *BCMJ* Editorial Board, to resist the temptation to quote British Columbia's outgoing chief coroner, Lisa Lapointe, as though her statements are fact. Dr Schwandt quoted the following misrepresentation from the November 2023 BC Coroners Service Death Review Panel report[1] in his editorial [*BCMJ* 2023;65:365-366]: "as many as 225 000 [people] are at risk of poisoning from unregulated drugs, [but] only 4476 people were prescribed safe supply medications in July 2023."

The impression these numbers give is that fewer than 5000 people out of 225 000 are receiving treatment. In both Dr Schwandt's editorial and the coroner's report, the goal is to demonstrate an urgent need to expand safe supply.

However, the problems with these numbers are manifold. First, there is an

important number that is simply missing: 25 000. That is the approximate number of people in BC being prescribed opioid agonist therapy—primarily methadone and suboxone—which is an effective treatment for opioid use disorder. This number was buried in the coroner's report in an appendix on page 42—far enough from the prominent pull quotes as to be almost invisible.

The number 225 000 is also problematic. This number is derived from a 2019 national survey of illegal drug use, which was then retroactively applied to BC. The resulting statistic was of such uncertain accuracy that its 95% confidence interval was 92 000 to 221 000. This number was then arbitrarily inflated based on an assumption that drug use "has increased" since 2019. The final result—a range of 125 000–225 000[1]—is of clearly limited statistical value, and yet the upper figure has been quoted often enough in the press (and now the *BCMJ*) that it has begun to acquire an undeserved ring of truth.

What makes this data invention even more egregious is that the original 2019 statistic included *all* illicit drug use, including cocaine, methamphetamine, ecstasy, hallucinogens, heroin, and salvia. Could all these drug users benefit from increased access to safe supply opioids? Of course not. Many of them do not even use opioids. Their inclusion in the data serves only to exaggerate the need for expanded safe supply.

If we look at actual facts instead of carefully edited and invented statistics, we see that far more people are already on effective treatment than the chief coroner would have us believe: 30 000 instead of 5000. Furthermore, far fewer people would benefit from expanded safe supply: perhaps 100 000–125 000. Not 225 000.

—Mark Mallet, MD, CCFP
Victoria

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Author replies

I thank Drs Smith and Mallet for their correspondence.

The toxic drug poisoning crisis is a complex issue, requiring action across a continuum including mental health, trauma prevention, addiction treatment, and harm reduction. It cannot be concluded that harm reduction measures to provide a safer supply of drugs have failed, when at current scale these measures have reached only a small fraction of those potentially at risk. Further, while there is little to suggest that availability of a safer supply normalizes and increases drug use, there *is* evidence of positive impacts among those who might otherwise access the toxic illicit supply. In fact, in the weeks since publication of this editorial, a new BC-based study has been released showing decreased drug poisoning and all-cause mortality among people receiving safer supply.[1]

The number of people at risk of illicit drug poisoning in BC is large, and estimates of this heterogenous population are by their nature inexact. Expert researchers have applied peer-reviewed and published methodologies to examine the population at risk. For example, using linked health data sources, a team of BC researchers identified a provincial cohort of people with substance use disorder comprising 162 099 individuals.[2] Meanwhile, people who use drugs but do *not* meet criteria for a substance use disorder in administrative health data are also at risk: people fitting this description make up a substantial proportion of those dying of illicit drug poisoning in BC. Estimates and related ranges realistically reflect uncertainty regarding the number of people at risk from using illicit drugs, and an estimated at-risk population of up to 225 000 is quite coherent with the more restrictive population estimates of people with substance use disorder in BC.

The crucial fact is that many British Columbians are at ongoing risk of death due to the toxic illicit drug supply. The product of this population size and the unpredictability of the drug supply are such that an average of seven people in our province die of illicit drug poisoning every day. Long-standing and important programs of opioid agonist treatment and addiction treatment have not adequately addressed this issue, and safer supply approaches remain underutilized.

The evidence base for safer supplies of drugs continues to grow, and urgent action could help prevent further deaths in our communities.

—Michael Schwandt, MD, MPH

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Better together; never alone

Doctors of BC has committed to *better together* as the central pillar of our new strategic plan (www.doctorsofbc.ca/sites/default/files/doctors_of_bc_strategic_plan_2024-2029.pdf). Moving forward, taking each other along in all the work we do is a wonderful thing. Anything I can do, you and I can do better, together. Anything I achieve, you and I can achieve better, together. In partnership and connection, we make the complex problems in our world better, together.

A lie we tell ourselves starts on the first day of medical school. We don a white coat to help us stand apart, feel empowered, and be enabled. We share with the world that we are ready to help and promise to look after it. What it tells us, in hushed whispers, is there will be a time when we will need no one.

It happens repeatedly. You have your MD; you are ready to be on your own. You have your CFPC; you know all you need to know. You have your privileges. You're an island unto yourself. The system around us keeps lying to us, and so do we.

Why do we do that?

In locker rooms and Facebook groups, we talk of feeling alone—47% of residents are bullied, 60% of female physicians feel unsafe at work, 80% of those victimized feel unsafe reporting such behavior, 40% of doctors report feeling burned out, 30% meet the criteria for depression, and 1 out of 14 report suicidal ideation, with the highest ratios seen in doctors who have been in practice for more than 10 years. More time spent in medicine doesn't teach us how to cope; it simply makes us more alone.

Yet, in the real world, people cheer when they hear someone has gotten into medical school. Why? Because they know their loved one will have a meaningful life of purpose. Mitch Albom tells a beautiful story about his sociology professor, Morrie Schwartz, who had ALS. People would come to commiserate with Schwartz yet would leave feeling uplifted. Albom asked Schwartz why he was not wallowing in misery when he was the one who was dying. Schwartz explained simply—why would he do that when *taking* made him feel like he was dying, but *giving* made him feel like he was living? Giving and sharing make us feel alive. We are better, together.

This is the change that we can make today, and Doctors of BC commits to this: we are, and we will be, better, together.

In our challenging workspaces, it is hard to find inspiration sometimes. We are reminded daily that no one of us can change the entire health care system. Yet I find inspiration at work daily. I find it in the people who come together to look after a patient with colorectal cancer. I find it in the operating room, where surgeons, anesthesiologists, and nurses come together to make miracles happen. I find it with our surgical residents, who see the world as one of possibility, not a broken one as so many of us do. Only by being with them am I better.

Alone, it's hard to change one order set. When we came together through the Specialist Services Committee to create the Enhanced Recovery After Surgery and Surgical Patient Optimization Collaborative, we changed entire care pathways, patient journeys, and provider experiences. Overnight, lengths of stay went down by 4 days, and complications by a third. Together, we made everything better.

So, how will Doctors of BC commit to change? By making a commitment to each other that we will get through these difficult times better, together. A commitment that we will help our colleagues so we can do better, together. A commitment that we will help our patients find their way through a challenging health care system better, together.

This commitment will follow a promise as well. You will never be alone. If you are struggling to make a clinical decision, there is a friend next to you—you are never alone. If the demands of your job or your personal life are too much, there will be someone there for you—you are never alone. If you are being intimidated or bullied, there will be someone there for you—you are never alone. This is the change that we can make today, and Doctors of BC commits to this: we are, and we will be, better, together. When you need someone, you will not be alone. Better together; never alone. ■

—Ahmer A. Karimuddin, MD, FRCSC
Doctors of BC President

Can we dance together? The dyadic leadership model in physician quality improvement

The dyadic leadership model supports physicians and operational leaders to work in partnership to co-develop projects that address health care system problems and to translate learning into action and sustainability.

Eiko Waida, MD, FRCPC, FAAP,* Caryl Harper, MScN,* Devin Harris, MD, MHSc, Harsh Hundal, MD, MPA, Michelle Scheepers, MBChB, FCA(SA), MMed, FRCPC, Andrea Burrows, RN, MSN

* Dr Waida and Ms Harper contributed equally to this work.

ABSTRACT

Background: The Interior Health Authority Physician Quality Improvement initiative implemented a dyadic leadership model in 2018. The model pairs medical and operational partners to foster a culture of learning, trust, and shared vision. Successful dyadic partnerships facilitate alignment of core values, develop collaborative relationships, demonstrate transparent communication, value complementary competencies, and model mutual respect.

Methods: The rapid review methodology and survey design are published in a white paper titled "Dyadic Leadership Model—Why It Works." This article discusses the dyadic leadership factors supported through the rapid review and survey. Participant impact statements from the survey results support the discussion.

Conclusions: The dyadic leadership model has become the expectation of new participants in the Interior Health Authority Physician Quality Improvement program. Feedback from cohort alumni has expressed the strength of the dyadic partnership. This model has become a core component of the program, as it provides valuable links between medical and operational partners.

Dr Waida is a pediatrician in Vernon, Physician Quality Improvement and Spread Committee co-chair for the Interior Health Authority in Kelowna, and Physician Quality Improvement faculty for the Interior Health Authority in Kelowna. Ms Harper is Physician Quality Improvement faculty for the Interior Health Authority in Kelowna. Dr Harris is the executive medical director, quality, patient safety, and research, for the Interior Health Authority in Kelowna. Dr Hundal is the former executive medical director, physician engagement and resource planning, for the Interior Health Authority in Kelowna. Dr Scheepers is an anesthesiologist and a Physician Quality Improvement initiative physician advisor for the Interior Health Authority in Kelowna. Ms Burrows is a research manager in the research department of the Interior Health Authority in Kamloops.

This article has been peer reviewed.

In 2018, the senior executive team of the Interior Health Authority (IHA) supported the Physician Quality Improvement (PQI) initiative, with the goal of increasing physician involvement in quality improvement activities. Supported through a collaboration between the Specialist Services Committee and the IHA, the PQI initiative operationalized a dyadic leadership model wherein participants are provided with quality improvement education, training opportunities, and expertise from coaches and consultants. A core component of the model is the dyadic partnership that matches medical leaders with operational leaders to learn quality improvement through project work. For the purposes of this article, the term *medical leader* refers to a physician dyad partner. These individuals are committed to building a partnership in which they share a passion for a project idea and the quadruple aim vision: improving the provider experience, improving the patient experience, achieving better outcomes, and reducing the per capita cost of health care.

The dyadic partnership is not a new concept in health care, and there has been a resurgence in implementing this model in high-performing health care organizations worldwide, including in Canada, the United States, and Germany.[1] Although the dyadic partnership has become more common in health care, there is limited understanding of the physician and operational experience as dyadic partners.[2] This raises questions about how to optimize the dyadic partnership. This article explores the key leadership factors in the dyadic partnership and how it supports physician engagement in quality improvement activities.

In March 2021, IHA PQI leadership commissioned a white paper on the

emerging dyadic leadership model. The white paper, titled "Dyadic Leadership Model—Why It Works," outlines the findings from a rapid review process and survey results from IHA PQI alumni.[3] The paper describes the program's current state, outlines the dyadic leadership model, synthesizes dyadic participant experiences, and identifies opportunities for improvement.

Context

Over the past 5 years, the IHA PQI program has exponentially increased the number of dyad partnerships enrolled. The Institute for Healthcare Improvement's quadruple aim underpins the program; the four components are improving the provider experience, improving the patient experience, achieving better outcomes, and reducing the per capita cost of health care.[4] To achieve this, resources are provided to ensure the medical leader–operational leader dyads can access quality improvement coaching and expertise, data analysis, administrative support, education, and funding to support their project. To enroll in the program, physicians residing in the Interior Health region complete an application identifying their area of interest and specific goals, which is followed by an interview. Physicians are matched with counterpart operational partners, typically from the same geographic area and specialty. The PQI steering committee adjudicates the applications. Physician participants are compensated for project time and for attending nine training sessions.

The IHA PQI program brings the practice context to the foreground, creating an opportunity for medical and operational partners to work together with their team to identify a need, co-develop a plan to address the need, and trial strategies to translate the learning into action and sustainability. The program offers the dyad a structured environment for reciprocal knowledge sharing, consensus building, and co-creation toward actionable solutions. Pairing medical and operational partners to apply quality improvement to a common goal facilitates positive and sustainable change. To this end, dyads are encouraged to complete a partnership agreement. The agreement challenges them to think about how they will work together, including how to address decision making, competencies, values, goals, and accountabilities. Additionally, to set up IHA PQI dyads for success, they complete a strength deployment inventory. The intention is to learn about their own and each other's strengths and to gain insights to communicate effectively, navigate conflict, and promote collaboration. Moreover, throughout the learning process, the dyads begin to speak a common language, and their shared learning accelerates solutions to the problems that arise. This shared learning ensures that interventions are tailored to the specific context and that local teams are engaged in decision making and co-creating solutions for sustainable change.

Dyadic leadership factors

Dyadic leadership factors are key aspects in the dyadic partnership that support leadership development toward more effective and relational collaboration. The authors chose five key factors integral to leadership success, supported by the literature and by impact statements from survey participants. The five key factors are common core values, collaborative working relationships, clear and transparent communication, mutual respect, and complementary competencies.[2,5-9] What is unique is how these factors guided the authors to think about the dyad partnership as a dynamic and multifaceted medical and operational dyad in the IHA PQI program. This uniqueness is illuminated in the dyadic experience related to these and other factors.

Common core values

Our values are lived through our actions and reflect our organizational culture.[10] When dyads share common core values and a collective vision, it helps motivate their behavior toward a collaborative culture; as a result, there is a greater likelihood that the project will succeed. Historically, medical and operational leaders have had distinct core values.[11] These distinct values sometimes create tension and hinder collaboration and trust.[6,12,13] For example, physicians value autonomy, while operational administrators value interdependence of organizational structures.[12] Having common core values was identified as an essential element of the IHA PQI dyadic experience, as it provided an opportunity to work with "other highly motivated staff looking to make positive changes for patient care" and "[to collaborate] with a physician champion for improved quality of care" [impact statements from survey participants].

Collaborative working relationships

At a base level, a collaborative working relationship can be described as a PQI dyad working together effectively, sharing responsibility to reach their project goals.[14] Health care organizations are using the dyadic leadership model to break down traditional silos to allow operational and medical leaders to work together toward shared goals.[8] A traditional siloed approach perpetuates isolated thinking and tension in the working environment. Alternatively, shifting dyads toward a joint working relationship emphasizes collaboration, co-creation, and sustainability of the quality improvement change initiative **[Figure]**.[15,16]

Senge describes collaborative relationships as a learning environment akin to a systems-thinking culture capable of continuous growth and change.[17] The idea of systems thinking highlights the importance of pooling collective intelligence and developing a shared vision. Systems-thinking insights and collective intelligence emerge as the dyads collaborate and co-create throughout the experiential learning in PQI. Specifically, the dyadic partners better understand each other's culture, strengths, and perspectives; build trust; encourage learning; and provide new opportunities to use evidence to improve decision making.

Example: Palliative care team. One dyad set out to improve morale and decrease compassion fatigue and burnout among members of a palliative care team. Their

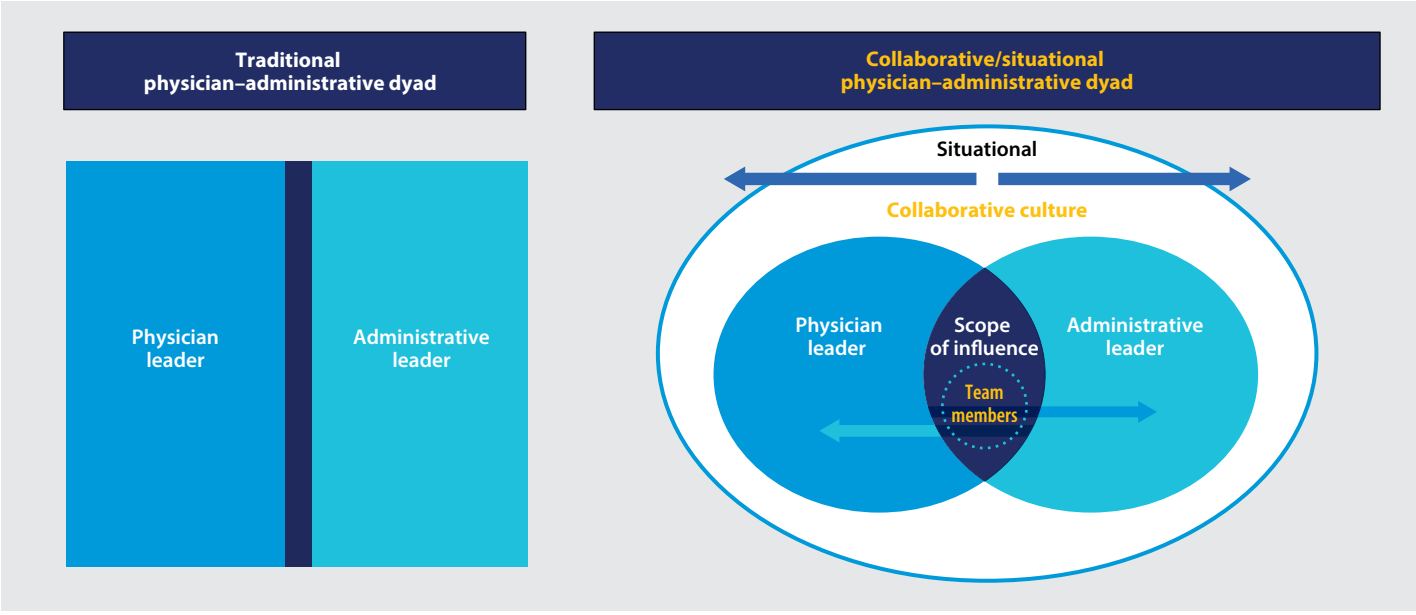

FIGURE. Traditional versus collaborative teams. Figure concept from Oostra.[16]

work together was successful beyond expectations, decreasing sick time taken by palliative care team staff members by almost 50%. The positive outcomes strengthened the partnership; several years later, they continue to trust and respect each other's expertise. They also continue collaborating on this project to spread joy at work, which carries over into promoting a culture of excellence and a supportive environment for patients and care providers. Their project's purpose remains the same—to promote an environment where staff enjoy coming to work, make fewer errors, take less sick time, and provide better patient care.

Clear and transparent communication

Effective, clear, and transparent communication is essential to the PQI dyad, as it supports positive learning experiences and successful project development. Additionally, transparent communication is necessary to ensure the dialogue between dyadic partners is respectful, timely, and intentionally focused on problem-solving rather than being task driven.[14] IHA PQI alumni describe problem-solving as the ability to "build bridges between management and physicians" and engage in "dialogue, bridging gaps in communication with other health care providers, [and] learning about barriers involved in doing so" [impact statements from survey participants].

Example: Handwritten notes. One of the PQI dyad projects addressed the need for improved communication between hospitalists, nurses, and allied health professionals. The need was identified due to challenges reading and interpreting handwritten notes and varying documentation styles. As a result, the dyad and interdisciplinary team developed and implemented a physician electronic note template, reducing the use of handwritten progress notes by 40%. Moreover, 90% of hospitalists agreed that electronic progress notes help them with complex discharges, and 100% agreed that e-documentation and the template improve handovers. This example shows the need for better communication and that intentionally collaborating with multidisciplinary partners elevates dyad problem-solving abilities, provides a platform for creative solutions, and can yield desired outcomes. The overwhelming support from alumni survey results underscores effective, clear, and transparent communication as a prominent factor in driving positive outcomes in their PQI project.

Mutual respect

Mutual respect is a positive feeling, specific action, or conduct toward another person.[12] The underlying premise of mutual respect is that each person is a professional specialist and their contributions to the dyad are equally valued. A PQI alumni survey participant described valuing each other and mutual respect: "We can't do this work without a dyad; it's that simple."

The reciprocal relationship and joint accountability between dyad partners are key characteristics critical to addressing potential conflicts and contradictions during the project.[18] A safe, respectful space must be created to reach the project's potential. To create a safe environment for dyads to succeed, there must be respect for each other and the team to face failure enthusiastically rather than as defeat.[19]

Complementary competencies

The dyadic leadership model incorporates complementary competencies or roles. When operational and medical leaders work in a dyad, each at the top of their skill set, capabilities, and competencies, it can allow a maximum return on their time and effort.[6,20] Complementary competencies are necessary because health care is a dynamic

and complex system; one leader does not have the capacity to be good at everything required. Moreover, an alumnus explained that being in a dyad "amplifies the ability to engage stakeholders in a multidisciplinary project" [impact statement from survey participant].

The IHA PQI program highlights the importance of complementary competencies by encouraging dyads to complete an IHA PQI dyad agreement before their project begins.

Example: Shared learning. Implementing the dyadic leadership model in the IHA supported collaborative relationships, clear and transparent communication, and shared vision between medical and operational partners for quality health care outcomes. Interestingly, each dyad partner wanted to learn more about each other's competencies during the project. They gained valuable insights through self-reflection and conversations to develop a more significant relationship to support the partnership throughout the project. By increasing physicians' knowledge of and experience in health care operations, they are better equipped to co-create solutions that support sustainable change. Additionally, physicians get a sense of partnership and belonging within the organization, which can facilitate integrating physicians and alleviate burnout.[13,15] An alumnus described complementary competencies as follows: "The power of the dyad is being able to make change much stronger together" [survey participant].

Summary

The IHA PQI program, with support from the Specialist Services Committee, plays a critical role in spreading the science of improvement throughout the Interior Health region. The dyadic leadership model provides a way for physicians to engage in the health care system meaningfully and effect positive change in patient care. The model of medical partners paired with operational partners was introduced as a change idea at the program's inception and has become expected by new participants. The overwhelming success of this change has demonstrated considerable benefits for the dyads, patient care, and the organization. The IHA PQI dyadic model activates people's agency on an interpersonal level with the hope and anticipation of increasing connectivity, trust, and innovation throughout the organization. ■

Competing interests
None declared.

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Hamish Hwang, MD, FRCSC, FACS, Nadeesha Samarasinghe, MD, Karan D'Souza, MD, Daniel Jenkin, MD, FRCSC, Scott E. Cowie, MD, FRCSC

Chasing a moving train: The general surgery workforce versus population growth in British Columbia, 2012–2022

Due to population growth and aging, the deficit in the number of full-time-equivalent surgeons in BC increased from 74 to 105 between 2012 and 2022.

ABSTRACT

Background: General surgeons play a vital role in the health care system and require hospital resources to provide patient care. British Columbia had 5.0 general surgeons per 100 000 population in 2022, less than the Canadian average of 5.7. A study conducted in 2012 showed that BC needed 232 general surgeons but had only 158 full-time equivalents, a deficit of 74 surgeons, and projected a need for 260 general surgeons by 2022. This study examined the general surgery workforce after a 10-year period and compared the results with those of the 2012 study.

Methods: A survey was sent to all members of General Surgeons of BC. Respondents were asked to report the number of surgeons, both by head count and by full-time equivalent, at the hospital where they worked and the number of operating room days available per 4-week block. They were also asked to provide individual wait-time data and open-ended comments. Benchmark operations such as appendectomies and breast cancer operations were tabulated using MSP data from 2012 to 2022. Population data for 2022 were obtained from BC Stats. The Mann-Whitney U test and Wilcoxon signed-rank test were used to analyze the data. A *P* value of less than .05 was considered significant.

Results: To meet the national average in 2022, 302 general surgeons were needed in BC. The actual number was 217 by head count and 197 by full-time equivalent, a deficit of 105. The greatest deficit was in the Fraser Health Authority, where 115 general surgeons were needed but there were only 57 by head count and 51 by full-time equivalent, less than half the number needed. The number of general surgery operating room days by hospital per 4-week block increased between 2012 and 2022 (18.6 vs 21.9, $P = .033$), but the number of operating room days per full-time equivalent was relatively unchanged (4.6 vs 4.4, $P = .42$). Operating room days per surgeon and wait times for cholecystectomy, hernia repair, bowel resection, and colonoscopy did not change significantly between 2012 and 2022. Many surgeons reported difficulties in recruitment due to nursing shortages and a lack of hospital resources. Appendectomies increased 22% between 2012 and 2022. Breast cancer operations increased 28% in the same period. General surgery consultations for malignancy increased 42% between 2013 and 2022.

Conclusions: The demand for emergency surgery, cancer operations, and other general surgery procedures increased between 2012 and 2022 due to a growing and aging population. The number of general surgeons needed in 2022 was greater than that projected in 2012. Despite adding 39 full-time-equivalent surgeons, the deficit increased from 74 to 105 between 2012 and 2022. This illustrates the importance of planning and deploying adequate resources to recruit the number of general surgeons needed for the future to keep up with increasing demand.

Dr Hwang is a general surgeon at Vernon Jubilee Hospital and the economics chair of General Surgeons of BC. Dr Samarasinghe is a general surgery resident in the University of British Columbia Faculty of Medicine. Dr D'Souza is a general surgery resident in the UBC Faculty of Medicine. Dr Jenkin is a general surgeon at Nanaimo Regional Hospital and the past president of General Surgeons of BC. Dr Cowie is a general surgeon at Langley Memorial Hospital and the president of General Surgeons of BC.

This article has been peer reviewed.

Background

General surgeons play an essential role in the health care system in both urban and rural settings. Patients with breast cancer, melanoma, colorectal cancer, and other

cancers have their cancer removed by a general surgeon. Patients needing a hernia repair or gallbladder operation, as well as those needing emergency surgery for a ruptured appendix, bowel obstruction, or traumatic abdominal injury, also require a general surgeon's services. General surgeons also perform very subspecialized surgeries such as liver transplants, and in many communities they perform emergency surgeries as well as elective gastrointestinal endoscopic procedures such as colonoscopy. No general hospital would be able to function without a general surgery service.

General surgery is a hospital-based specialty that is dependent on hospital resources such as an operating room, an endoscopy suite, nurses, surgical equipment, instrument reprocessing infrastructure, and inpatient hospital beds for patients to recover. A surgeon by themself cannot treat patients without these critical resources. It is not enough to train or recruit more surgeons; hospital resources also need to be increased accordingly so the additional surgeons can meet the demand for surgical services.

According to the Canadian Institute for Health Information (CIHI), in 2022, the average number of general surgeons per 100 000 population was 5.7 in Canada but 5.0 in British Columbia, where there were 263 surgeons: 184 male and 79 female.[1] BC lags behind the rest of Canada in terms of the number of general surgeons per 100 000 population, though in the 1970s, the number exceeded the Canadian average **[Figure 1]**.[1]

A study conducted in 2012 showed that 158 general surgeons were in full-time practice at hospitals in BC, which was 74 less than the Canadian average of 232.[2] To keep up with population growth, it was projected that 260 general surgeons would be needed in BC by 2022. The purpose of this study was to compare the actual number of general surgeons in BC in 2022 with the number in 2012 and the number needed in 2022 with the number projected to be needed in 2022 by the 2012 study.

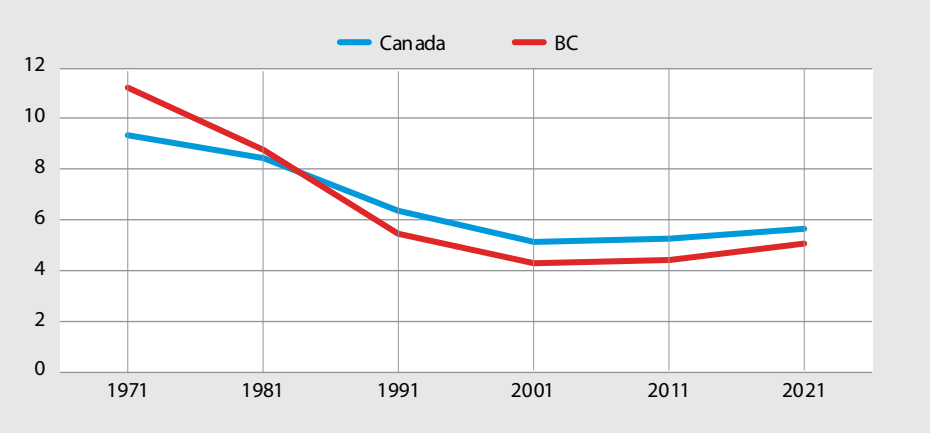

FIGURE 1. Number of general surgeons per 100 000 population in BC versus Canada, 1971–2021.

Methods

We sent an anonymous survey to all 240 members of General Surgeons of BC in October 2022 and aimed for a 50% response rate. We asked respondents to identify the hospital where they worked; count how many general surgeons worked at their hospital, both by head count and by full-time equivalent (FTE); and provide the number of operating room days assigned to each respondent and to the entire general surgery service at their hospital per 4-week block. We also asked respondents to report their personal wait times for cholecystectomy, inguinal hernia, bowel resection, and colonoscopy; list obstacles to recruitment; and provide open-ended comments about workload, wait lists, access to resources, and recruitment in general. Follow-up emails and phone calls were conducted to fill in any missing information and resolve discrepancies. Research ethics approval was obtained from the UBC Office of Research Ethics (H22-02779).

Population data were obtained from BC Stats for 2022.[3] We compared those data with the original raw data from the 2012 study.[2] Using the Canadian average of 5.7 surgeons per 100 000 population and BC population statistics,[3] we calculated the number of general surgeons needed in 2022. We also compared the number of operating room days and wait times reported by the respondents with those reported in the 2012 study.[2]

Billing data were obtained from the BC MSP payment data series.[4] Appendectomy, the most common emergency general surgery operation that is seldom done on a scheduled basis (unlike cholecystectomy, for example), was selected to represent acute care surgery volumes. Breast cancer operations were similarly selected to represent cancer surgery volumes.

We used either the two-tailed Mann-Whitney U test or the Wilcoxon signed-rank test, as appropriate, to compare continuous variables using an online calculator.[5] A *P* value of less than .05 was considered significant.

Results

There were 151 responses to the survey, a 63% response rate. All five regional health authorities were represented: Vancouver Coastal Health (29.1%), Fraser Health (26.0%), Interior Health (20.5%), Northern Health (7.1%), and Island Health (17.3%). Of 120 respondents who answered the question concerning employment status, 70% (84) indicated they worked full-time, 16% (19) worked part-time, 4% (5) worked as a locum, 5% (6) only did surgical assists, and 5% (6) were fully retired.

Table 1 shows the number of general surgeons with a permanent hospital position in BC in 2022. The totals from 2012 are also included, but the breakdown of male versus female surgeons was not available. Because many surgeons worked part-time,

TABLE 1. General surgeons in BC, 2012 and 2022, and population growth, 2012–2022.

Health authority	General surgeons								Needed	Deficit (FTE)
	2012 (head count)	2012 (FTE)	2022 (head count)			2022 (FTE)				
	Total	Total	Total	Male	Female	Total	Male	Female		
Vancouver Coastal Health	42	35	55	33	22	49	30.4	18.6	72	23
Fraser Health	47	44	57	37	20	51	33.3	17.8	115	64
Interior Health	42	36	46	34	12	42	30.5	11.5	48	6
Northern Health	15	14	19	16	3	19	16.0	3.0	17	(2)
Island Health	32	29	40	29	11	36	26.3	9.7	50	14
Total	178	158	217	149	68	197	136.4	60.6	302	105

Health authority	Population 2012	Population 2022	Increase (%)	65+ population 2012	65+ population 2022	Increase (%)
Vancouver Coastal Health	1 161 809	1 261 465	9	158 032	229 899	45
Fraser Health	1 662 540	2 021 030	22	240 432	346 199	44
Interior Health	749 027	843 543	13	146 865	209 803	43
Northern Health	292 030	304 255	4	36 332	49 992	41
Island Health	774 171	885 271	14	149 402	226 166	51
Total	4 639 577	5 315 564	15	731 063	1 062 059	45

FTE = full-time equivalent.

the number of FTE surgeons was less than the number of surgeons by head count. On average, each member of the general surgery workforce worked 0.9 FTE. There was no significant difference between the mean FTE for male surgeons (0.92) and female surgeons (0.89) Overall, there was a deficit of 85 surgeons in terms of head count and 105 in terms of FTE. Every region except Northern Health had a general surgeon deficit. The largest deficit was in Fraser Health, which had less than half the number of general surgeons per population than the Canadian average.

Table 2 shows the number of operating room days and wait times reported by surgeon respondents compared with those reported in the 2012 study. The mean number of general surgery operating room days per hospital increased but remained the same when adjusted for FTE. There were no significant changes in operating room days or wait times for four common procedures.

Barrier to recruitment: Lack of resources

Of the 92 surgeons who responded to the question about obstacles to recruitment, 57% (52) did not have a need to recruit or had recently recruited; 32% (29) had a need to recruit, but there was a lack of operating room and/or endoscopy resources; 7% (6) had a need to recruit, but there was a lack of suitable candidates in terms of meeting the needs of a remote community and needing to fill a part-time rather than a full-time position; and 5% (5) had a need to recruit but could not due to a shortage of operating room nurses. Forty-seven respondents provided comments in the open-ended question. Many commented on the lack of nurses and the overcapacity of hospital resources. The following are some particularly insightful responses (edited slightly for brevity and clarity):

"We don't have too much of an issue with surgeons, but we do have trouble with shortages of nurses. Whenever we have full staff, then something happens and they get rid of nurses so we are short again. MDR [medical device reprocessing] is not on call, so the nurses do their work. We have too many ALC [alternative level of care] patients, so forever no beds. We have not been prioritized for upgrading our physical plant. How can we recruit?"

"This survey had no questions about on-call burden. In smaller communities like mine, the issue is not really access to operating room/endoscopy time but the burden of one in three call. For that reason, we have expanded our group to five surgeons to reduce the burden of call. As a smaller group, when one surgeon is away, the extra work has to be absorbed by the rest of the group, and that can be hard."

Acute care and cancer care volumes

The number of appendectomies performed per year increased by 22% between 2012

and 2022, based on MSP billing data **[Figure 2]**. There was a 28% increase in breast cancer operations from 2012 to 2022 and a 42% increase in general surgery consultations for malignancy (a specific fee created in 2013), according to MSP billing data **[Figure 3]**. There was a notable decline in volumes in 2020–2021, likely due to operating room shutdowns in response to the COVID-19 pandemic, but volumes rebounded in 2021–2022.

Discussion

Although the number of general surgeons in BC and general surgery operating room time per hospital have increased, they have not kept up with unprecedented population growth or demand, in particular for acute care and cancer care services. An important question is why there is a discrepancy between the number of full-time surgeons reported in this study and the number reported by CIHI and MSP. CIHI reported that BC had 263 general surgeons in 2021;[1] MSP reported 284.[4] The numbers from CIHI are derived from aggregate billing data and do not account for surgeons who are semi-retired and no longer practising as a surgeon, those who have a billing number but not a permanent position, and those who work part-time. MSP data include all physicians who bill MSP, so even if a surgeon billed only $1 in a year, they would be counted. MSP also reports the number of physicians but excludes those who billed less than $92 000 per year; this number was 237 in 2021–2022, which is not out of line with our head count of 219.

Pressure points: Acute care and cancer surgery

Our study may have failed to capture some surgeons who practise as acute care surgeons. In follow-up emails, several sites indicated that they have formal permanent acute care surgery positions and included them in their responses. Other sites with informal arrangements did not. This is a new model of practice in busier hospitals where surgeons do not have a traditional elective practice with associated elective operating

TABLE 2. Operating room days and wait times, 2012 versus 2022.

	2012		2022		
	n	Number	*n*	Number	*P*
General surgery OR days per hospital per 4-week block (mean)	34	18.6	34	21.9	.033
General surgery OR days per hospital per 4-week block, adjusted for FTE (mean)	34	4.6	34	4.4	.420
OR days per surgeon per 4-week block (mean)	72	4.5	74	4.2	.085
Wait time for bowel resection (mean weeks)	65	9.2	70	10.7	.280
Wait time for cholecystectomy (mean weeks)	65	15.3	71	13.7	.730
Wait time for hernia repair (mean weeks)	63	17.9	71	16.9	.720
Wait time for colonoscopy (mean weeks)	64	20.6	68	14.8	.082

OR = operating room; FTE = full-time equivalent.

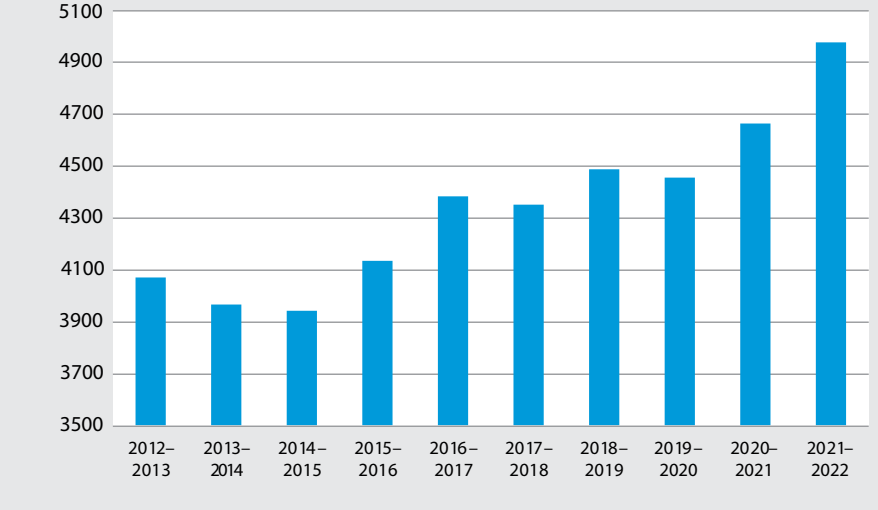

FIGURE 2. Number of appendectomies performed in BC per year from 2012 to 2022.

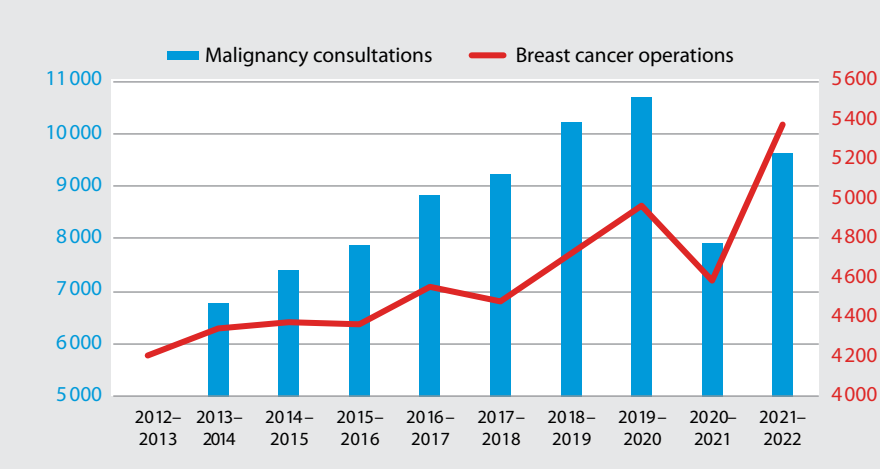

FIGURE 3. Number of breast cancer operations and malignancy consultations in BC per year from 2012 to 2022. Note that the malignancy consultation fee was created in 2013, so there are no data for 2012–2013.

room and endoscopy time and provide only emergency surgical services.[6] Some of those surgeons are quite busy, which would be reflected in the MSP billing figures but not by our study methodology. In addition, most surgeons have both an elective practice and an on-call acute care surgical practice; this is impossible to identify in the available data and is, therefore, beyond the scope of this study. The 22% increase in appendectomies demonstrates a growing need for acute care surgeons. Granted, this may have just resulted in the same number of surgeons being 22% busier rather than needing to hire 22% more surgeons.

Emergency surgery is not the only area showing growth. The 2012 study predicted an increased incidence of cancer and a growing need for cancer operations.[2] Cancer care is a resource-intensive area of medicine, requiring not only operating rooms but also oncologists, chemotherapy nurses, and radiation treatment infrastructure. This growing area of need was illustrated by the unprecedented decision to send BC patients to Washington state for cancer treatment in May 2023 due to unacceptable wait times, which made international news.[7] The increase in breast cancer operations and malignancy consultations illustrates the importance of planning more cancer care resources, including operating room time.

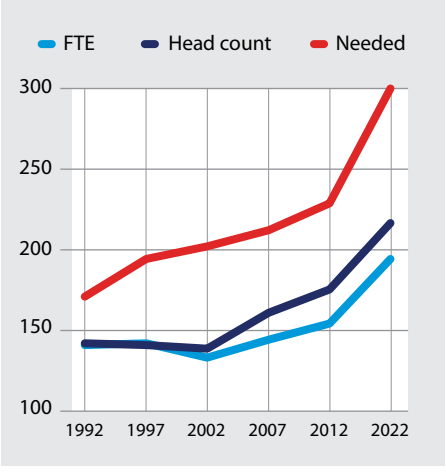

FIGURE 4. Deficit of general surgeons in BC, 1992–2022.
FTE = full-time equivalent.

Running and going backward

The 2012 study projected that 260 general surgeons would be needed in BC in 2022, based on the 2012 Canadian average of 5.0 general surgeons per 100 000 population and a projected 2022 BC population of 5 190 802 at the time of the study.[2] The Canadian average of general surgeons per 100 000 population was 5.7 in 2022, and the BC population was 5 315 564,[3] 2.4% higher than projected in 2012. Therefore, the number of general surgeons needed in 2022 was 302. From 2012 to 2022, the BC population increased by 15% overall, and the population 65 years of age and older increased by 45% **[Table 1]**. The 2012 study projected a 42% increase in the population 65 years of age and older based on government statistics at that time.[2] Even the head count number of general surgeons in 2022 was less than the number needed in 2012 **[Figure 4]**. The BC population in 2032 is projected to be 6 098 221.[3] Assuming the Canadian average of 5.7 general surgeons per 100 000 population remains level, 348 general surgeons will be needed in BC by 2032. Given that the 2012 study underestimated both the actual 2022 BC population and the number of surgeons needed, coupled with the fact that the average surgeon works 0.9 FTE, it is possible that the number of surgeons needed in 2032 will be even greater.

Study limitations

Data were gathered using a survey, which required some subjectivity in determining wait times. However, the same methodology was used in the 2012 study, so making comparisons between the two studies is not unreasonable. Also, focusing on surgeons with permanent hospital positions may underestimate patient care provided by acute care surgeons and locums who may not have regular operating room and endoscopy time; this may be reflected in the discrepancy between our results and head counts reported by CIHI and MSP. However, this does not take away from the demonstrated need for more general surgeons to care for increasing numbers of patients who need emergency surgery, cancer surgery, and other services that general surgeons provide.

Conclusions

Because of population growth and aging, meeting the need for general surgical services is akin to chasing a train that is accelerating away from you. Despite hiring 39 new general surgeons, the deficit in the number of FTE surgeons increased from 74 to 105 between 2012 and 2022. If efforts are not made to train and recruit general surgeons and to increase hospital and other resources accordingly, the train will simply vanish over the horizon, and strains on the system will be felt by both surgeons and patients in the near future.

Competing interests
None declared.

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Brooke McDonald, MD, Rachel Jane Livergant, MD, MBT, Catherine Joanne Binda, HBSc, Shreya Luthra, Patricia Balmes, BSc, Mariah Moti, MD, Lauren Galbraith, MD, CCFP (OSS), Ryan Falk, MD, CCFP (ESS), MGSC, Nicole Ebert, MD, CCFP (OSS), Shahrzad Joharifard, MD, MPH, FRCSC, Emilie Joos, MD, MSc, FRCSC, FACS

Availability of surgical services in rural British Columbia

Family physicians with enhanced surgical skills/obstetrical surgical skills are integral to the well-being of rural patients and the health care systems they access.

Dr McDonald is a family practice resident at the University of British Columbia, Nanaimo. Dr Livergant is a general surgery resident at UBC, Vancouver. Ms Binda is a fourth-year medical student in the UBC Faculty of Medicine. Ms Luthra is a third-year medical student in the UBC Faculty of Medicine. Ms Balmes is an administrative employee of the Division of General Surgery, UBC. Dr Moti is a general surgery resident at the University of Manitoba, Winnipeg. Dr Galbraith is an obstetric surgical skills physician in Vernon. Dr Falk is an enhanced surgical skills physician in Chilliwack. Dr Ebert is an obstetric surgical skills physician in Coldstream. Dr Joharifard is a clinical assistant professor in the UBC Department of Surgery, co-director of the UBC Global Surgery Lab, a member of the UBC Branch for Global Surgical Care, and a pediatric general and thoracic surgeon at BC Children's Hospital. Dr Joos is a clinical associate professor in the UBC Department of Surgery, associate medical director of the UBC Branch for Global Surgical Care, co-director of the UBC Global Surgery Lab, program director of the UBC Trauma Fellowship Program, and staff trauma and acute care surgeon at Vancouver General Hospital.

Corresponding author: Dr Brooke McDonald, mcdbro@student.ubc.ca.

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ABSTRACT

Background: Family physicians with enhanced surgical skills/obstetric surgical skills contribute significantly to surgical care delivery in rural British Columbia. This environmental scan documents their practice locations and procedural scope.

Methods: Practice locations of enhanced surgical skills physicians/obstetric surgical skills physicians were identified using public data and professional networks. These data were collected between January 2022 and April 2023. Numbers of surgical procedures performed were determined using MSP billing data for fiscal year 2021–2022.

Results: Overall, 11 enhanced surgical skills physicians and 21 obstetric surgical skills physicians were practising in 17 of the 45 rural communities. Five communities had enhanced surgical skills physicians/obstetric surgical skills physicians as the sole surgical providers. Common procedures billed by these physicians included colonoscopies (n = 559), C-sections (n = 404), and inguinal/femoral hernia repairs (n = 52).

Conclusions: A number of family physicians provide core surgical services in rural BC, sometimes as the only surgical providers at their hospital. Despite the limitations of the data collected, due mostly to a high turnover of surgical providers in rural sites, our study shows that enhanced surgical skills physicians and obstetric surgical skills physicians are integral to the well-being of rural patients and the health care systems they access. Concerted efforts should be made to recruit and retain these key surgical providers in our province.

Background

Providing quality surgical services, including emergency and obstetrical surgical care, is essential to a well-functioning health system. Over the past 2 decades, there has been significant attrition of surgeons and obstetricians/gynecologists in rural sites in Canada, notably in British Columbia.[1] Data from 2011 indicated that, in BC, women who resided more than 1 hour from a hospital that provided maternity services (including C-section) had poorer perinatal outcomes.[2] When accessing surgical care, rural and remote patients experience barriers related to transportation, finances, continuity of care, and psychosocial factors.[3-5]

Family physicians, including Canadian- and foreign-trained graduates, have a long history of providing surgical care in rural BC. In 2007, the enhanced surgical skills and obstetrical surgical skills training programs were created: 12-month and 6- to 12-month accredited training programs, respectively, for Canadian family physicians. The programs are recognized by the College of Family Physicians of Canada, and graduates receive a Certificate of

Added Competence in enhanced surgical skills/obstetrical surgical skills. Currently, there is only one enhanced surgical skills program in Canada (University of Saskatchewan, Prince Albert) and three obstetrical surgical skills programs (University of British Columbia, Surrey; University of Manitoba, Winnipeg; Northern Ontario School of Medicine, Thunder Bay). Another enhanced surgical skills program is being developed at the University of Alberta. According to the College of Family Physicians of Canada, there were 26 physicians with a Certificate of Added Competence in enhanced surgical skills and 55 physicians with a Certificate of Added Competence in obstetrical surgical skills in Canada as of July 2022, although this may underestimate the total family physician surgical workforce. While the Certificate of Added Competence can be obtained only after successful completion of an accredited enhanced surgical skills or obstetrical surgical skills training program, in practice, the certificate is not a requirement for hospital privileging in surgery. Hence, a few South Africa–trained physicians and Canadian physicians trained in the era of rotating internships continue to practise surgical skills in their community.[6]

Recognizing that lack of access to rural surgical care results in disproportionate adverse outcomes, a consortium of the Canadian Association of General Surgeons, Society of Obstetricians and Gynaecologists of Canada, College of Family Physicians of Canada, and Society of Rural Physicians of Canada published the *Joint Position Paper on Rural Surgery and Operative Delivery* in 2015. The authors concluded that enhanced surgical skills/obstetrical surgical skills are a key solution to ensuring patients receive surgical care close to home.[7]

While the importance of enhanced surgical skills physicians/obstetrical surgical skills physicians has been emphasized by patients, researchers, and professional bodies, little is known about the current volume and distribution of surgical care in rural BC.[2-5,7] To address this knowledge gap, we conducted an environmental scan of surgical care in rural BC to identify the practice locations of enhanced surgical skills physicians/obstetrical surgical skills physicians, the procedures they perform, and available specialist support.

Methods

Rural BC communities with functioning hospitals and populations ranging from 1000 to 25 000 (2021 census) were included in this scan.[8] Health centres and clinics were excluded. Local surgical providers were defined as specialist surgeons (OB/GYNs or general surgeons) and family physicians with surgical skills. Anesthesia providers were defined as anesthesiologists and family physician anesthesiologists. Nonphysician personnel were excluded from the scan.

Enhanced surgical skills/ obstetrical surgical skills are a key solution to ensuring patients receive surgical care close to home.

Data on the practice locations of enhanced surgical skills physicians, obstetrical surgical skills physicians, and family physician anesthesiologists were initially collected from the literature on rural hospitals with functioning operating rooms.[9] Those data were verified and expanded by using health authority websites,[10] by making direct inquiries to hospital administration, via Rural Coordination Centre of BC staff, and by contacting our professional networks. Data on the practice locations of anesthesiologists, OB/GYNs, and general and subspecialty surgeons were obtained from the College of Physicians and Surgeons of BC's registrant directory. Data collection was conducted between 1 January 2022 and 30 April 2023.

MSP billing data for the 2021–2022 fiscal year were obtained from Doctors of BC for all procedures billed by family physicians in rural BC communities. To receive a list of codes billed by family physicians for procedures performed in the operating room, contact the corresponding author.

Results

Mapping of surgical sites and personnel

A total of 45 BC communities, spanning all regional health authorities, met the inclusion criteria (Interior Health: n = 19; Northern Health: n = 14; Island Health: n = 7; Vancouver Coastal Health: n = 4; Fraser Health: n = 1). The **Figure** shows the availability of local surgical services in rural BC, defined as the presence of either a surgical specialist (general surgeon or OB/GYN) or an enhanced surgical skills physician/obstetrical surgical skills physician, as of 30 April 2023. Of the 45 communities included in this study, 17 (38%) had enhanced surgical skills physicians/obstetric surgical skills physicians, five (11%) had specialist surgeons only, and 23 (51%) had no local surgical provider. Six (13%) communities had anesthesiologists, and 24 (53%) had family physician anesthesiologists. Two sites, Fort Nelson and Hazelton, had one and two family physician anesthesiologists listed, respectively, but no permanent surgical provider. Contact with our family physician anesthesiologist network clarified that, in Hazelton, surgical care is provided by regular outreach general surgeons and obstetricians from Terrace. In Fort Nelson, the local family physician anesthesiologist currently works as a family practitioner and does not provide anesthesia care.

Overall, we identified 83 surgical specialists (48 general surgeons; 35 OB/GYNs), 32 family physicians with surgical skills (11 enhanced surgical skills; 21 obstetrical surgical skills), and 103 anesthesia personnel (27 anesthesiologists; 76 family physician anesthesiologists) working in the communities included in this study (to receive additional information, contact the corresponding author). Family physicians with enhanced surgical skills/obstetrical surgical skills practised alongside general surgeons and OB/GYNs in 11 communities (Dawson Creek, Fort St. John, Golden, Nelson, Powell River, Prince Rupert, Quesnel, Salmon Arm, Sechelt, Terrace,

and Trail), and alongside a single general surgeon in Kitimat. There were five communities in which family physicians with enhanced surgical skills/obstetrical surgical skills were the sole providers of surgical care, including Creston, Fernie, Revelstoke, Smithers, and Vanderhoof. These communities were catchment areas for more than 30 smaller, predominantly Indigenous, surrounding communities. Referral centres for these five hospitals offered the following surgical services: general surgery, OB/GYN, orthopaedics, ophthalmology, and urology (Cranbrook, Vernon, Terrace, Prince George); plastics (Prince George, Terrace); and otorhinolaryngology (Prince George, Vernon, Cranbrook). These five hospitals also benefited from outreach services from

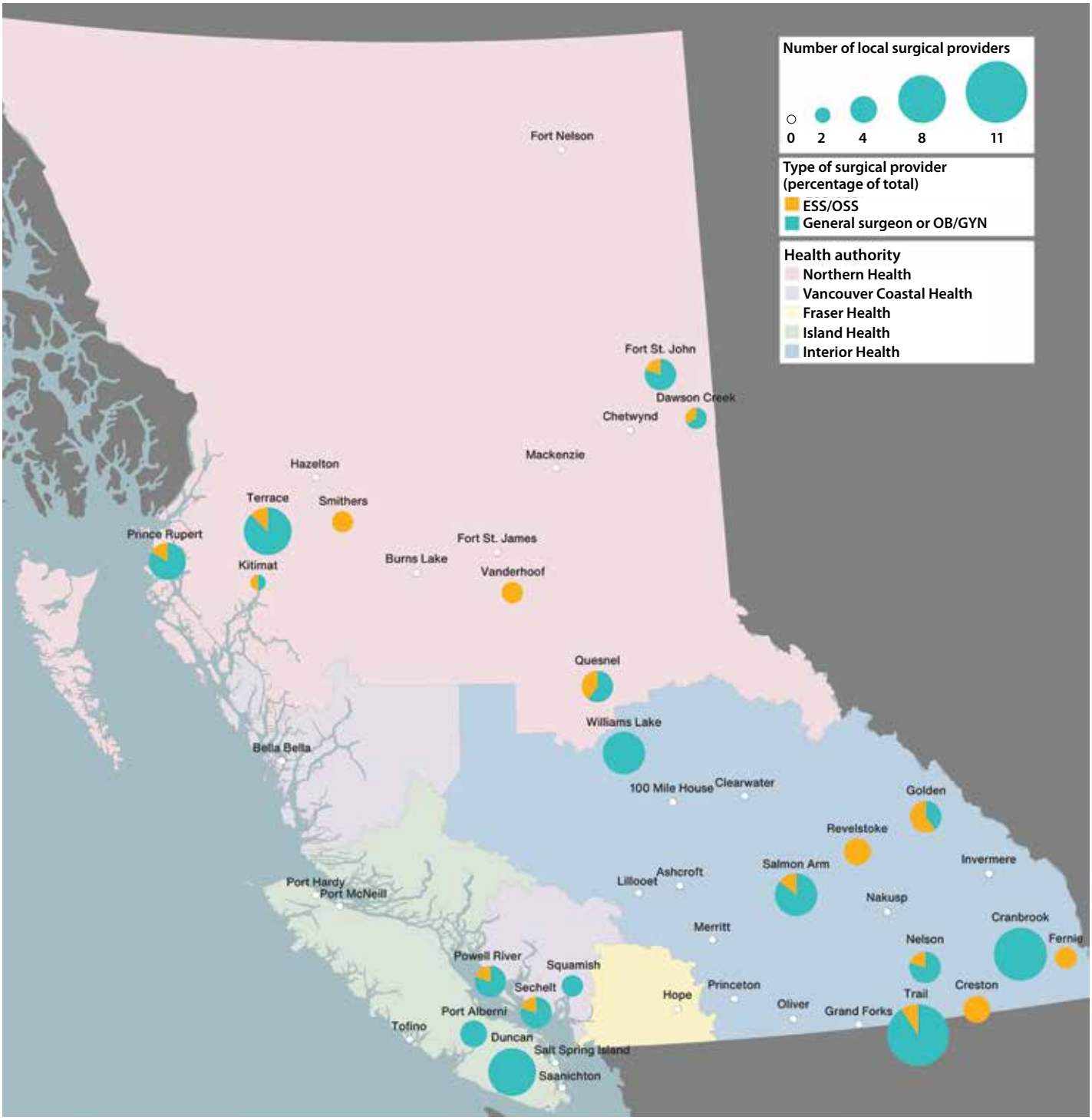

FIGURE. Availability of local surgical providers in rural BC as of 30 April 2023.

ESS = enhanced surgical skills; OSS = obstetric surgical skills; OB/GYN = obstetrician/gynecologist.

visiting general surgeons, OB/GYNs, orthopaedics, urology, plastics, and otorhinolaryngology, funded in part by the Northern and Isolation Travel Assistance Outreach Program.[11]

Procedures performed by enhanced surgical skills physicians/obstetrical surgical skills physicians

All 45 communities provided MSP billing data for family physicians in 2021–2022. Across the 17 communities that had enhanced surgical skills physicians/obstetrical surgical skills physicians, the most commonly billed surgical procedures were colonoscopies, followed by C-sections, vasectomies, and dilation and curettage for spontaneous and therapeutic abortions **[Table]**.

The largest number of C-sections were performed in Dawson Creek (n = 67), followed by Smithers (n = 66) and Vanderhoof (n = 41). Although our scan did not identify the presence of permanent enhanced surgical skills physicians/obstetrical surgical skills physicians in Squamish, C-sections (n = 29) were billed by family physicians in this location; the Rural Coordination Centre of BC indicated that the procedures were performed by obstetrical surgical skills locums. Across the 17 communities, other billed OB/GYN procedures, in order of prevalence, included oophorectomy/salpingectomy, curettage for postpartum hemorrhage, management of Bartholin abscess, and hysterectomy.

A variety of general surgical procedures were performed by family physicians with enhanced surgical skills/obstetrical surgical skills, including inguinal/femoral hernia repairs (n = 52) and appendectomies (n = 13). Appendectomies were billed in two locations: Vanderhoof (open: n = 7) and Revelstoke (laparoscopic: n = 5; open: n = 1). Across the 17 communities, enhanced surgical skills physicians also billed a small number of other procedures, including management of perianal disease (n = 132), management of venous insufficiency (n = 22), tonsillectomy (n = 64), palmar/plantar fasciectomy (n = 13), and skin graft and flap (n = 13). Notably, Lillooet, which does not have enhanced surgical skills physicians/obstetrical surgical skills physicians, had billings for 33 colonoscopies, five surgical abortions, and one umbilical hernia repair; presumably, these procedures were performed by locums.

Discussion

Timely access to quality surgical care is critical. However, in a vast, 944 700 km^2 province that has difficult terrain and extreme winter weather, it is a challenge to provide this lifesaving care close to home for much of BC's population. Our study highlights a persistent gap in the surgical workforce in rural BC. Of the 20 small-volume surgical programs that were operating in the province in 1995, 11 have closed, three in the past 10 years.[12,13] As a result, more than half the rural population we studied cannot obtain a C-section or an appendectomy in their local hospital. And since most of the Indigenous population in Canada lives in remote areas,[14] Indigenous peoples are disproportionately affected by this inequitable access. Addressing this issue must be prioritized in the effort to decolonize health care in BC.

These procedures are essential and time-sensitive for patients: they either alleviate morbidity, improve function, or prevent mortality.

Fortunately, there are physicians who are passionate about providing essential surgical services in our province's most remote environments.[15] We identified 32 family physicians with enhanced surgical skills/obstetrical surgical skills who were working in BC, which represents one-third of this workforce in Canada. These physicians practised in 17 rural communities and were the sole providers of surgical care in five of them. In some places, such as Kitimat, these physicians offered the only access to C-section in the region. If these physicians were not working there, more than 30 Indigenous communities would not have access to surgery. In addition, patients living in Creston, Fernie, Revelstoke, Smithers, and Vanderhoof would have to travel, sometimes up to 200 km, to access basic surgical care, often under adverse road and weather conditions.

While data from our environmental scan suggest that individual enhanced surgical skills physicians in rural BC performed fewer procedures in 2021–2022 compared with self-reported national averages in 2018,[16] they offered a wide scope of interventions ranging from colonoscopy to curettage for postpartum hemorrhage and skin flaps. This diversity of practice is characteristic of surgical providers who work in rural sites, as has been shown by the breadth of practice of Australia's rural surgeons.[17] These procedures are essential and time-sensitive for patients: they either alleviate morbidity (e.g., screening colonoscopy for early detection of colon cancer), improve function (e.g., curettage and skin flaps for nonhealing wounds), or prevent mortality (e.g., treatment of postpartum hemorrhage).

Family physicians with enhanced surgical skills/obstetrical surgical skills do not work in isolation. Our scan confirmed that they worked in teams, either with other enhanced surgical skills physicians/obstetrical surgical skills physicians or with surgical specialists. We feel this is crucial to prevent professional isolation, defined as geographic separation between different professionals leading to reduced coordination and collaboration.[18] Whether working alongside other nonsurgeon physicians or with specialists, these surgical teams help create a critical mass of surgical providers who can share the burden of surgical emergencies and support each other, which reduces the risk of burnout. In communities that have a single general surgeon, such as Kitimat, obstetrical surgical skills support can protect against the attrition of an entire local surgical program. Professional isolation can also

TABLE. MSP billing data for major procedures performed by family physicians with enhanced surgical skills/obstetric surgical skills in 17 British Columbia communities (2021–2022).*

Domain	Procedure	Total number billed	Number of communities
General surgery			
	Colonoscopy	559	6
	Gastric polypectomy	8	3
	Inguinal/femoral hernia repair	52	3
	Incisional hernia repair	4	1
	Umbilical hernia repair	27	4
	Hernia repair, resection of bowel	1	1
	Appendectomy, open	8	2
	Appendectomy, laparoscopic	5	1
	Laparoscopy	8	1
	Laparotomy (post-op hemorrhage, intra-abdominal management)	1	1
	Chest tube insertion	35	10
	Abscess, incision, and drainage under general anesthetic	10	6
	Hematoma, incision, and drainage under general anesthetic	1	1
	Hemorrhoid, surgical management	57	13
	Pilonidal cyst, surgical management	8	6
	Perianal abscess/fistula, surgical management	49	13
	Sphincter repair	18	8
	Temporal artery biopsy	1	1
	Lymph gland biopsy	4	1
	Breast biopsy	1	1
Obstetrics/gynecology			
	C-section	404	16
	Surgical abortion	262	11
	Oophorectomy/salpingectomy	36	8
	Sterilizations, tubal and abdominal	27	8
	Bartholin cyst/abscess, surgical management	11	5
	Hysterectomy	2	1
	Endometriosis, cautery of, laparoscopic	1	1
	Curettage postpartum hemorrhage	19	7
Urology			
	Vasectomy	272	9
	Circumcision	26	5
	Cystostomy	11	4
	Spermatocele/hydrocele excision	3	2
Plastics			
	Tendon repair	14	7
	Palmar/plantar fasciectomy	13	2
	Skin flap	8	2
	Skin graft	5	3
	Digit amputation	6	5
	Foreign body removal with general anesthetic	3	1
	Open reduction metacarpophalangeal or interphalangeal joint	2	2
Ear, nose, and throat			
	Tonsillectomy	64	4
	Adenoidectomy	31	4
	Peritonsillar abscess, surgical management	9	3
	Tongue, excision with general anesthetic	1	1
	Submandibular gland, excision	1	1
Orthopaedics			
	Prepatellar bursa, excision	3	1
	Osteomyelitis, surgical management	1	1
	Abscess, pelvis/hip/femur, incision and drainage with general anesthetic	1	1
	Toe amputation	1	1
	Synovectomy, hip	1	1
Vascular			
	Sclerotherapy	12	1
	Venous ligation	6	1
	Venous stripping	4	1

* Creston, Dawson Creek, Fernie, Fort St. John, Golden, Kitimat, Nelson, Powell River, Prince Rupert, Quesnel, Revelstoke, Salmon Arm, Sechelt, Smithers, Terrace, Trail, Vanderhoof.

be prevented by accessing frequent outreach by specialists from referral centres. Professional relationships between specialist and enhanced surgical skills/obstetrical surgical skills teams are crucial for sustaining robust local surgical programs and should be a continued focus of rural development initiatives.

While family physicians with enhanced surgical skills/obstetrical surgical skills are a pillar of the surgical workforce in BC, they face several challenges. First, although there are local mixed surgical teams (specialists and nonspecialists) and specialist outreach activities, networks of care can be fragmented, and relationships with specialists can be difficult.[16] To circumvent this, the BC Rural Surgical and Obstetrical Networks piloted a coaching program in seven BC communities in 2017 to connect enhanced surgical skills physicians/obstetrical surgical skills physicians with specialist surgeons in their referral region, which was well received.[19] In addition, the UBC Reticulum platform recently integrated enhanced surgical skills physicians in their map to create a virtual connection between specialists and nonspecialists.[20] Further, the first Rural Surgery Symposium organized by the UBC Global Surgery Lab in April 2023 brought together stakeholders from all disciplines related to surgical care and sparked discussions about recruitment, retention, and sustainability.[21] While relationship building is ongoing, more formalized networks of care need to be created to ensure sustainability of rural surgical sites.[22]

Second, as identified by a recent scoping review, identifying training gaps for isolated surgical providers is crucial to supporting this critical workforce.[23] While family physicians with enhanced surgical skills/obstetrical surgical skills benefit from strong accredited training programs, continuing professional development activities are few and far between. Indeed, these physicians have identified continuing professional development as essential to their capacity to maintain procedural confidence and to the sustainability of their field; the College of Family Physicians of Canada will soon make continuing professional development mandatory.[6,16] Presently, family physicians with enhanced surgical skills/obstetrical surgical skills rely on conferences, asynchronous learning media (e.g., podcasts), a virtual obstetrical surgical skills curriculum,[24] and focused skills workshops, as well as returning to their training site for a refresher and being deployed abroad to obtain more exposure. Funding to pursue additional training is available from the National Advanced Skills and Training Program for Rural Practice; it partially covers 30 days of expenses. Innovative and improved opportunities for continuing professional development are crucial to ensuring the continued viability and expansion of enhanced surgical skills/obstetrical surgical skills in rural BC communities. For example, the Virtual Educational Platform Working Group, a collaboration between enhanced surgical skills physicians and trainees, obstetrical surgical skills physicians and trainees, and the UBC Global Surgery Lab, which is funded by the Rural Coordination Centre of BC, will explore the continuing professional development needs of rural surgical providers in order to create educational resources that are tailored to their needs. Moving forward, we strongly advocate for longitudinal training of rural surgical providers in close collaboration with moderate- to high-volume referral centres to maintain existing skills and diversify the scope of practice to better serve the rural population.

We hope this scan serves as a call to action for health policymakers, administrators, and clinicians in BC.

Study limitations

This study provides a snapshot of the state of surgical services in BC, as of 30 April 2023. Although we can confidently rely on MSP billing data for surgical procedures billed during the fiscal year 2021–2022, the complete surgical mapping was complicated by the dynamic state of the workforce (e.g., frequent locuming, provider turnover, and out-of-date registrant directory information in rural communities). To overcome these challenges, our research team contacted Rural Coordination Centre of BC staff and enhanced surgical skills physicians/obstetrical surgical skills physicians and family physician anesthesiologists within our professional networks. Also, the publicly available fee-for-service billing data do not capture procedures conducted under alternative payment plans. Additionally, we could not capture data on procedures in which enhanced surgical skills physicians/obstetrical surgical skills physicians assisted specialist surgeons, which resulted in an underestimation of the actual number of procedures performed by family physicians who have surgical skills.

Conclusions

Despite provincial and national urgency to improve access to and quality of surgical care in remote and rural communities, there is still a profound gap in surgical coverage. Family physicians with enhanced surgical skills/obstetrical surgical skills are invaluable stakeholders and providers who play a key role in resolving this inequity. These physicians require support in the form of robust networks of care, connections with specialists, and structured continuing professional development programs to maintain competencies and confidence. We hope this scan serves as a call to action for health policymakers, administrators, and clinicians in BC. ■

Competing interests

None declared.

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Family physicians with enhanced surgical skills/obstetrical surgical skills have identified continuing professional development as essential to their capacity to maintain procedural confidence and to the sustainability of their field.

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A road map to viral hepatitis elimination in BC by 2030

Hepatitis B virus (HBV) infection can be prevented with an effective vaccine, and chronic infection can be managed with antiviral medications. While there is no vaccine against hepatitis C virus (HCV), chronic HCV infection can be treated with direct acting antivirals. Treatment with direct acting antivirals cures more than 95% of people with chronic HCV infection and is associated with significant reductions in both liver-related[1] and non-liver-related[2] mortality. Despite the availability of effective prevention and treatment, viral hepatitis remains a persistent public health issue in Canada[3] as well as globally.[4] As a result of social, economic, and migration factors, British Columbia experiences a disproportionate burden from viral hepatitis compared with the rest of Canada.[5]

To reduce the impact of viral hepatitis, the Canadian government, in alignment with global efforts spearheaded by the World Health Organization,[6] aims to eliminate both hepatitis viruses as a public health threat by 2030. To support this goal, the Public Health Agency of Canada set targets[7] for the proportion of people living with chronic HBV or HCV infection in Canada to be diagnosed and treated by 2025 and 2030.

As each province and territory in Canada is responsible for health care planning and delivery, strategies for viral hepatitis elimination are tailored to each region. In July 2023, the BC Ministry of Health announced actions to develop a road map to viral hepatitis elimination in BC.[8] The road map development is being led by the BCCDC and the BC Hepatitis Network, with funding support from the BC Ministry of Health and the Canadian Network on Hepatitis C. Together, they are conducting a series of province-wide consultations and engagements to help inform the road map.

The BC viral hepatitis elimination road map development aligns with efforts supported by the Canadian Network on Hepatitis C Roadmap Project[9] and is overseen by a multipartner steering committee, with representatives from the government, health care, research, and community sectors.[10] In mid-2023, a project team was formed, including staff from BCCDC Clinical Prevention Services,[11] the BC Hepatitis Network,[12] and independent consultants. In the summer of 2023, five working groups were formed, each including people with lived experience of HBV or HCV infection, along with clinicians, researchers, and other service providers, fostering collaboration and expertise from diverse perspectives.

These working groups helped design and implement the consultations and engagements that launched in November 2023. The objective is to gain comprehensive insights into the status of viral hepatitis and related services in the province. A survey of service providers was conducted, along with interviews and focus groups across the province to engage diverse perspectives and experiences. Data are also being used from published scientific literature, public health surveillance, previous strategies and consultations, and ongoing research studies.

Once the information gathering is completed, working groups will craft recommendations based on the best available evidence and what is learned about the current state of viral hepatitis in BC. Recommendations will be aimed at ensuring the right tools and adequate resources are available to care providers and communities to support them in eliminating viral hepatitis as a public health threat by 2030. The BC road map tailors recommendations for targets and goals for eliminating viral hepatitis to BC, including a focus on health equity and Indigenous self-determination.

Learn more at https://hepfreebc.ca. Clinicians and other parties wishing to provide input into the road map or participate in a working group to help craft recommendations can use the contact form to email the project team (https://hepfreebc.ca/contact/). ■

—Sofia R. Bartlett, PhD
Scientific Director (Interim), Clinical Prevention Services, BCCDC

—Deb Schmitz
Executive Director, BC Hepatitis Network

—Joel Harnest
Community Engagement Specialist, BC Hepatitis Network

—Janice Duddy, MES
Principal Consultant, Janice Duddy Consulting

—Mona Lee, MPH
Consultant, Janice Duddy Consulting

This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ *Editorial Board.*

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Physicians: WorkSafeBC is here for you too

In this column, we often address physicians as providers: professionals who ensure workers across BC get the care they need to recover from work-related injuries. This month, we address you as workers yourselves: people who face unique physical and psychological risks at work.

At WorkSafeBC, we have seen that violence and other threats to safety are top of mind for many. In 2022, half the physicians surveyed by Doctors of BC said they had been involved in or impacted by a physical or psychological safety incident in the last year, with psychological safety incidents being more common.[1] Meanwhile, the increasing complexity of care that patients require—for mental health disorders, multisystem diseases, and comorbidities—has changed medicine, as have an increasing administrative burden and COVID-19. Surveys of Vancouver-based physicians conducted in the fall of 2020 found burnout rates ranging from 51% to 68%.[2,3]

Against this backdrop, we want to remind you that our mandate includes compensating eligible physicians who are injured or become ill at work, as well as helping to make all physicians' workplaces safer—including psychologically.

We are here for you when you sustain a work-related injury

According to WorkSafeBC data, from 2018 to 2022, physicians made an average of just 10 claims per year for which WorkSafeBC began paying compensation. This accounts for less than 0.1% of such claims from health care and social services workers during that time frame. During those 5 years, 12 of the physician claims were related to violence in the workplace.

There are likely complex reasons why few physicians are initiating claims. Some physicians may not be considered a "worker" under the Workers Compensation Act. As a physician, you are covered as a worker under the Act if you are:

- A salaried employee receiving a T4.
- Working for your corporation that has registered with us.
- An independent operator who has purchased WorkSafeBC Personal Optional Protection.[4]

If you have worker status and are injured in the course of your work, we encourage you to file a claim with us right away by calling 1 888 967-5377. If you are unsure if you have worker status or would like to attain it, see the guide at www.worksafebc.com/physician-guide-to-registration.

We are your partner in building a psychologically healthy and safe workplace

All BC employers must ensure the health and safety of their workers and any other workers at their workplace. Employers are required to provide any necessary information, training, and supervision to their own workers. In a multi-employer workplace (such as a health authority site), one "prime contractor" must ensure everyone's occupational health and safety activities are coordinated and that they maintain a system or process to ensure compliance with occupational health and safety regulations.[5]

As the regulator for BC workplaces, our role includes conducting workplace inspections for compliance. We are also here to support and educate employers on health and safety, including psychological safety. We recently published our mental health strategy, which is a framework for our work in this area moving forward. We will continue to partner with organizations such as SWITCH BC, which works to improve the health, safety, and well-being of BC health care workers.[6] We are also here to support you with any questions or concerns you may have.

Learn more about making your workplace safer

If you have questions about your personal health and safety or your workplace's health and safety, call our prevention information line at 1 888 621-7233.

You can reach a WorkSafeBC medical advisor via the RACE app or by calling 604 696-2131 or 1 877 696-2131 (toll-free).

To learn about your responsibilities as a worker and/or an employer, watch the recorded webinar "Optimizing Your Practice: WorkSafeBC and Safety at Your Workplace," available at www.doctorsofbc.ca/business-corner/worksafebc-webinar-doctors-how-optimize-safety-your-practice. If you are part of a physician group that is interested in attending a future Mainpro+/MOC Section 1 session on a similar topic, leave us a voicemail on the medical services contact line at 1 855 476-3049.

To read our mental health strategy, visit www.worksafebc.com/mental-health-strategy. ■

—Peter Rothfels, MD
Chief Medical Officer and Director, Medical Services, WorkSafeBC

—Jacqueline Holmes
Manager, Prevention Field Services, WorkSafeBC

This article is the opinion of WorkSafeBC and has not been peer reviewed by the BCMJ *Editorial Board.*

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Memories from my childhood

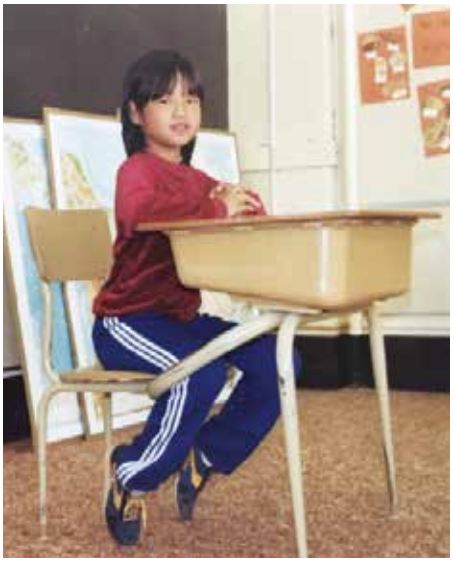
Dr Chung shares four snapshots from different moments in her life in Canada and Borneo.

Allison Chung, MD

Landing in Canada with wobbly legs

It snowed on 15 March 1981, the day we landed in Vancouver. There were eight of us on the Cathay Pacific flight. Walking through Vancouver International Airport, my legs were still wobbly after being in the air for 14 hours. It had taken 6 days to get here after a 3-day layover in Hong Kong to pick up quilted coats. I also needed glasses, but there was too much else to do, so I continued to squint for 2 more years.

I was carrying a vomit bag in one hand and a plastic bag full of all my worldly possessions in the other. I held my head high, and my posture was militant. At 8 years old, I knew this was not a family vacation, as my father had told us. There had been too much civil unrest and tension in our little seaside Malay town. It was time to go. This was no vacation and was certainly not the time to show weakness.



Dr Chung at Sir Wilfred Grenfell Elementary in Vancouver, her first school in Canada. The burgundy velour sweater was another of the family's purchases in Hong Kong.

That's why I was disappointed when my body betrayed its weakness when the wheels of the 747 touched the ground. My 50-pound body lurched forward; I swallowed, then hurled into a waxed lunch bag as we taxied to the gate, breathing recirculated air and smelling the stench of well-used toilets. My siblings looked at me with disgust. My parents didn't know, and I didn't dare tell them that my body broke.

At the terminal, I wondered if anyone else knew what I had done, as I carried my vomit bag as if it were my lunch. Eventually I left my bagged weakness on a ledge after waiting to be processed. I was too scared to ask how to dispose of it.

We used the escalator to leave the airport, and it was my first time using one. I watched each step go from flat to stair-shaped, holding up the line, too afraid to step forward. My siblings all took the leap of faith and left me behind at the escalator's edge. Then I felt a hand in mine, and a stranger helped me onto the first moving step. For the second time that day, my legs wobbled. I was disgusted by my body's betrayal, and I didn't know how to say thank you in English.

As I ran up the stairs to catch up with my group, I realized it was like the stair game I played with my friends back home. We rolled up an elastic band and tossed it onto the stairs. The goal was to hop up and down the stairs but avoid the one the elastic band was on. At the top of the escalator, I imagined there was an elastic band on the step that was flattening. I took a deep breath and hopped off. My legs didn't wobble.

Dr Chung, 15 March 1981, the day she arrived in Vancouver.

Conversations at the bank

I went to a segregated public primary school in Borneo. On 5-year-old legs, it took 45 minutes to walk there. Chinese kids attended school in the mornings, and Malay kids in the afternoons. I had to leave our apartment by 6:10 a.m. to get to school on time. I usually walked with my friend, Heng Mian Chu.

Because of the heat when it was time to walk home, she and I would detour through the Hongkong and Shanghai Bank, where we would sit in the plastic lobby chairs and wait for the air conditioner to unstick our white-and-blue polyester uniforms from our backs. It took the same amount of time for us to share a packet of dried ramen noodles as it took for our uniforms to peel away from our sweaty bodies. We both had to be home by 12:30 p.m. She had to help take care of her little brother, and

Dr Chung is a family physician in Kamloops who is hoping to write more stories in her upcoming retirement.

This article has been peer reviewed.

I had to help in my father's shop. Sometimes it was a rush to get home, because I was also the class captain and had to stay after class to supervise the sweeping of the classroom and cleaning of the chalkboards by my classmates.

In the comfort of the air-conditioned bank, Heng Mian Chu revealed to me her secret dream. She wanted to go to Singapore to attend college to become a teacher. She wanted her own apartment and a bank account in her own name. She told me that she would invite me, and, if I wanted, I could stay with her and I could go to college too. She was a 6-year-old with the weight of family duty and cultural norms on her little shoulders. Two years later, her mother had another baby, and Heng Mian Chu no longer had time to sit in the bank. At the same time, my father was preparing us for immigration to Canada. I told my friend that my father was taking us on a family vacation. She was thrilled, and we couldn't wait until I returned so I could tell her of the world beyond Borneo.

It was 4 years later when I returned. I was 12. I spoke fluent English. I couldn't wait to tell my friend about the outside world. Her dream of being a teacher was achievable, and I was going to help her. I went to look for Heng Mian Chu and found out from neighbors that my friend had moved, because her mother had another baby and they needed a bigger apartment. I tracked down her father, who told me that Heng Mian Chu could no longer be my friend. She had family responsibilities and no time to waste thinking about college. The ideas about careers and dreams I had written to her about were simply too threatening for her family. Heartbroken and desperate, I returned to Vancouver and wrote letters to Heng Mian Chu fervently for 2 more years, until I was in grade 9 and preoccupied with high school and hormones.

I often wonder what happened to my friend. During quiet moments, I have found myself typing her name into Google and coming up with nothing. It is as if she and her dreams fell off the face of the Earth.

Marketplace by the sea

When I was a little girl, my mother would take me to the *besar* (Malay for *market*) by the sea. We would go early in the morning, where we would get bean sprouts in puffed-up bags, eat yummy little pastries stuck on banana leaves, look down at crouched Malay women shucking coconuts, and watch a chicken get exsanguinated after we picked out the lucky sacrificial lamb. We would go by the stinky fish market, where fresh crabs threatened to crawl out of wicker baskets and I would watch fishmongers haul their goods in from the sea. The fish would be dumped from their nets onto newspaper-lined floors. The whole place was putrid from the wet of the sea, with little fish parts floating beneath our sandals.

Those fish were so fresh that their little gills would puff away, sucking for air, their stomachs moving paradoxically, striving for oxygen to keep their slimy bodies alive, until at last their breathing waned, they gulped their final breaths, and they were picked up by someone to be cooked for supper that night. It occurred to me that in the final moments of my mother's life, while I held her cold, blue hands, her last breaths were like those of the fish just hauled in from the sea. Oddly, I was wearing sandals that night at Villa Cathay Care Home in Vancouver. I looked down, fully expecting to see the wet of the sea and little fish parts floating beneath my sandals.

I have found myself typing her name into Google and coming up with nothing. It is as if she and her dreams fell off the face of the Earth.

Sriracha sauce with the rooster

I was on my way to the till, my body leaning sideways because I had again put too many things in the basket. I was supposed to get only potpies, but fries, bacon, and chicken were on sale.

Dr Chung's mom outside her nursing home around 2009, along with their now super geriatric pooch.

He was an elderly fellow wearing a turban, his mask tucked under his nose. I wondered how effective it was during the seventh wave of the pandemic as his bushy beard pushed out in all directions. He pointed down the aisle and mumbled something. I didn't hear him initially, unsure who he was talking to. Again he pointed down the aisle and repeated his request.

"Do you need help with something?" I asked.

"Hot sauce," he said, pointing down the aisle with the Asian foods.

"Yes, down this aisle," I said, and continued on my way to the till. Then something stopped me and I looked back at him.

"Rooster," he said.

Suddenly, I saw my mom. She moved to Vancouver in her 70s after her husband died. She moved to a foreign land with a foreign language. She couldn't read. She never learned. But she knew numbers and a few letters. This allowed her to take the 22 Knight bus to Chinatown to buy sriracha sauce with the rooster on it. That was how she lived her entire 87 years. She looked at pictures and navigated the world of cuisine by roosters, diamonds, and little red letters. In the same way, she traveled from

Continued on page 63

Obituaries

We welcome original tributes of less than 700 words; we may edit them for clarity and length. Obituaries may be emailed to journal@doctorsofbc.ca. Include birth and death dates, full name and name deceased was best known by, key hospital and professional affiliations, relevant biographical data, and a high-resolution head-and-shoulders photo.

Dr Harold James (Jim) Rhodes

1944–2023

Jim was a family doctor, husband, father, grandfather, skipper, and great friend. He was a son of Vancouver but grew up in Port Alberni. He attended UBC for a Bachelor of Arts in 1965 and a Master of Science in 1970 and finished with a Doctor of Medicine in 1973. He interned at the Royal Alexandra Hospital in Edmonton, Alberta.

He opened his medical practice on West Hastings in Burnaby in 1974. He shared a practice with Dr Juergen Rauh during his first years at that location. Jim was a competent, compassionate, and caring physician, generous of time and spirit. The practice gradually grew into a five-doctor clinic. He enjoyed all aspects of medicine and was appreciated as a colleague, friend, and mentor.

He served as chief of staff at Burnaby Hospital. He spent many years on the board of the Section of General Practice, as it was known in those days (ultimately morphing into the Society of General Practitioners). That is where Jim and I became well acquainted. Jim had an innate sense of fun and mischief that evolved into many escapades and adventures, often involving the BCMA (now Doctors of BC).

Jim was also on the board of Pacific Blue Cross and was a medical advisor for Parkinson Society British Columbia. He retired from practice in 2004.

While Jim had time for many interests, his biggest passion was sailing. He was an active member of the Royal Vancouver Yacht Club for over 40 years. His boat, the *Stovepipe*, was often one of the smallest boats in the harbor, with the most people in the cockpit. There were many cruises, including to the Gulf Islands, Barkley Sound, Broughton Archipelago, and beyond.

Jim's life was celebrated with his friends and acquaintances with an Eight Bells Service at his yacht club on 3 January 2024.

He will be deeply missed by Brenda, his wife of 57 years; his children, Kent, Ariel, and Janice; his grandchildren, Danielle, Oscar, and Robin; his siblings, Michael, Malcolm, and Julia; and his many nieces, nephews, and cousins.

Jim was the kind of person who made your life richer simply by knowing him.

—Al Kallas, MD
Vancouver

Dr Judith Naylor

1937–2024

Sadly, Dr Judith Naylor, a highly respected pediatrician in Kamloops, passed away suddenly on 10 January 2024, with a good friend at her bedside. She was predeceased by her parents, William and Ethel Naylor, and her brother, Derek Naylor. She leaves behind many close friends.

Judith was born on 9 February 1937 in Banbury North, County of Oxford, England. She graduated from high school and medical school in England. After completing her medical degree at the University of London, she completed an internship at King's College. Before leaving England, she completed several diplomas relating to child health.

Eager to become a pediatrician, Judith immigrated to Canada and started a residency program in pediatrics at Vancouver General Hospital. Her 5-year residency training also took her to Ontario, Saskatchewan, and Ohio.

OBITUARIES

Continued from page 62

After completing her residency, she moved to Kamloops, where she spent her entire medical career caring for children and their families. As head of the department of pediatrics, she was instrumental in starting a neonatal intensive care program at Royal Inland Hospital.

In her early years, Judith was a competitive swimmer. She lived for her dogs, and over the years she enjoyed the company of many female black Labrador retrievers. She was always interested in everything to do with her homeland.

She loved the outdoors. In her spare time she enjoyed cross-country skiing, hiking, fishing, and grouse hunting. Her favorite vacation was an annual getaway to the Chilcotin to camp and hunt grouse.

At her request, there will be no service. In lieu of flowers, donations to one of the following organizations in memory of Judith Naylor would be appreciated: BC SPCA, a local food bank, or the Royal Inland Hospital Foundation.

—Susan Endersby
Kamloops

—Sharon Frissell
Kamloops

BC STORIES

Continued from page 61

Malaysia to Vancouver on her own to visit us, the diaspora. To this day, I still have no idea how she completed her point-of-entry airport card.

"Yes, I know that brand. It is the rooster brand. Sriracha sauce," I said. I could tell he was smiling.

"It should be here." But it was not. I gestured for him to wait while I asked. It turned out they had none because of a supply chain issue and spoilage of chili peppers in California. He wanted to know if it would be another few days before the sauce arrived. "No. Many weeks. They cannot make more at the factory!"

I suggested alternatives—garlic chili paste, sweet Thai chili, Jamaican Tabasco sauce? He shook his head at every option.

"I like rooster. It is the only one," he said, and wandered off with a bag of bananas.

At the till, the cashier was smiling. She had watched the exchange and now joined in on the discussion. "There is no substitute! The others are too sweet. We cannot use that on our food. We are Indians! We need spice. Our mouths need to burn!"

I had come in to get potpies. Instead, I was given a sweet memory of my mother.

In the parking lot, the guy beside me looked over, probably wondering why a middle-aged woman was laughing by herself in her hot car on a super hot Kamloops summer afternoon. I was thinking of my mom in heaven and how she doesn't need to go by the picture of the rooster anymore because she can finally read. ■

WORKSAFEBC

Continued from page 59

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BCCDC

Continued from page 58

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Classifieds

Pricing (two options): Run an online-only ad at our monthly online rates, or pay an additional $25 per month for an ad to appear in print as well. **Online rates:** Doctors of BC members: $50 + GST per month per ad, of up to 350 characters. $75 + GST for 351 to 700 characters. Nonmembers: $60 + GST per month per ad, of up to 350 characters. $90 + GST for 351 to 700 characters. **Deadlines:** Ads must be submitted or canceled by the first of the month preceding the month of publication, e.g., by 1 January for February publication.

Place a classified ad: bcmj.org/classified-advertising. Payment is required at the time that you place the ad.

New classified advertising categories: The new Events section can be used for CME or other events, and the Vacation Properties section has been renamed Accommodation. The same rates apply.

PRACTICES AVAILABLE

RICHMOND/STEVESTON—PRACTICE OWNERSHIP OPPORTUNITY

Two strata turnkey automated FP practices. FPs can manage practice with six current FP practices contributing to overhead. Guaranteed income or LFP/FFS billing and turnkey service agreement with potential to buy real estate. Visit www.weststevestonmedicalclinic.com or contact msinghalmd@gmail.com.

VANCOUVER ISLAND—URGENT AND PRIMARY CARE CENTRES

Island Health has exciting opportunities for family practitioners to work at new UPCCs. Join a team of primary care providers and other allied health staff to deliver integrated team-based care. The UPCCs are bright new clinics offering turnkey operation, with no overhead costs and a group clinical service contract with competitive rates. New-to-practice incentives for medical education debt relief or signing bonus may be available for those who qualify. Ask for details! For more information, contact our recruitment team at medstaffrecruitment@islandhealth.ca.

EMPLOYMENT

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Are you a physician looking for work? Or a medical facility requiring physicians? Our team works with Canadian independently licensed physicians, CFPC/RCPSC-eligible physicians, and clinics and hospitals across Canada, with excellent reviews. Contact Canada's trusted recruitment firm today to experience the benefits of our specialized service that is tailored for your success! Visit www.physiciansforyou.com, email info@physiciansforyou.com, or call 778 475-7995.

LANGFORD—WESTSHORE URGENT AND PRIMARY CARE CENTRE

Island Health–operated facility in the fastest-growing BC community is seeking MDs for urgent episodic care (walk-in, urgent, and elective). Paid via the Alternative Payments Program with upper hourly pay, two shifts daily (7:30–3:00 and 1:30–9:00), 7 days per week. Funded for two MDs per shift, with flexible shift times available; work as few or as many as you wish. Staff is a mixture of family and emergency MDs, as well as nursing staff (majority are ER nurses). On-site mental health, social services, lab, imaging, and pharmacy. Clinic does ECGs, bedside ultrasound, slit lamp, and minor surgery. On-call specialist list same as ER. Clinic software has access to hospital records and data. If interested, contact Dr Dan Horvat at 250 961-9149 or email dan.horvat.md@gmail.com.

NANAIMO—HOSPITALIST: GENERAL PRACTITIONER OR GENERAL INTERNIST

The Hospitalist Medicine Division at Island Health has openings for full-time, part-time, and locum hospitalists. We are a very collegial group of 25 physicians with diverse backgrounds who share a commitment to our team, with a strong emphasis on work-life balance. We pride ourselves on the supportive environment we have created with great specialist relations and by stepping up to help each other whenever needed. Our scheduling offers great flexibility, with shifts assigned months in advance to allow ample time to plan for your and your family's needs. Interested candidates, please email your CV and letter of interest to Shannon Williams at medstaffrecruitment@islandhealth.ca.

PORT COQUITLAM—FP FULL-TIME OR PART-TIME; EXCELLENT INCENTIVE AND OVERHEAD

MD Medical Clinic is looking for a full-time or part-time family physician. There are currently more than 2700 patients on a wait list. The clinic uses Oscar EMR and offers billing support. Split arrangement is 80/20. Potential annual earnings are $400 000 to $600 000. Overhead includes everything, such as MOA, EMR, and equipment. Incentives include dental/medical extended health benefits, $350K/year income guarantee, and a $20 000 signing bonus for a 2-year full-time contract. Alternatively, if the physician needs a living space, there is a new one-bedroom apartment available above the clinic, which we offer rent-free for the first 12 months. Please call 604 518-7750 or email mdmedicalclinicbc@gmail.com.

MISCELLANEOUS

ONLINE OR IN PERSON—LOW-COST COUNSELING FROM THE ADLER CENTRE

Low-cost counseling offered online or in person. Individuals: $65 ($45 for those on disability or social assistance, unemployed, or working less than 6 hours per week). Couples: $90. Our carefully selected master's-level interns complete their practicums under clinical supervision. Registered clinical counselors are also available at a rate of $125 for individuals and $140 for couples or families. Visit www.adlercentre.ca to learn more.

Find more classified ads online:
bcmj.org/classifieds.

CME Calendar: Discontinued
To place a CME ad, use the Events section in the classified listings (same rates apply).

Dr Don Wilson

Dr Wilson is an obstetrician-gynecologist who has recently switched to full-time locum work, practising mostly in the Comox Valley. Here he shares a little about himself with *BCMJ* readers.

What profession might you have pursued, if not medicine?
Veterinary medicine was my first dream job, which only changed when I saw a baby born when I was 14.

Which talent would you most like to have?
A knack for carpentry and home maintenance. My father was a jack-of-all-trades, and I left home too young to learn many of those skills from him.

What do you consider your greatest achievement?
Having loving, healthy relationships with my family and friends.

Who are your heroes?
My two grandmothers, my mother and father, and the Elders who directly influenced my life before I left my home Nation for high school at age 14.

What is your idea of perfect happiness?
Sharing times of togetherness and good food with my children and grandchildren, with some time outdoors by the ocean on a warm sunny day.

What is your greatest fear?
Outliving any of my children or grandchildren.

What characteristic do your favorite patients share?
They are intellectually curious, are engaged in their own health care, and genuinely want to know how and why recommended treatments are supposed to work.

Which living physician do you most admire?
I cannot narrow it down to just one. At the moment, I am in awe of the physicians who are trying to work in the Gaza Strip.

What is your favorite activity?
Cooking for my family, especially for large gatherings.

On what occasion do you lie?
When my spouse asks if I ate the last peanut butter cookie.

What is your most marked characteristic?
I'm not sure if it's just me who thinks this, but I want it to be authenticity.

What do you most value in your colleagues?
Team effort, kindness, and a willingness to step up and help when others are struggling.

What are your favorite books?
There are too many titles to list. I love reading science fiction, fantasy, and biographies of interesting people.

What is your favorite place?
There is no place like home, and by home I mean the territory where my ancestors and I are from—the home territory of the Heiltsuk Nation.

What is the proudest moment of your career?
I have many, but one has to be saving a mother and baby from certain death after a uterine rupture. It was clearly a team effort, but having the skills of an obstetrician were the key ones that prevented a terrible outcome.

What is your motto?
Prioritize the accumulation of memories, not the accumulation of things.

How would you like to die?
Hopefully in my sleep if I live to an old age in relatively good health. Otherwise, via MAID if I am facing a long terminal health spiral. ■

The *BCMJ* is discontinuing the Proust Questionnaire in favor of longer-form physician profile opportunities. We'd like to thank everyone over the years who has had the courage and good humor to reveal something of themselves here. In future, please use the Physician Spotlight department and the questions provided in the Guidelines for Authors to lead an interview with a colleague or as a jumping-off point for an essay, or answer the questions about yourself. For more information, visit https://bcmj.org/submit-article.

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