Evaluation of a provincial physician engagement initiative using **established health care quality optimization** frameworks

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Introduction: ***Across Canada, much effort has been put into increasing physician engagement to improve communication and collaboration between physicians and administrative leadership. One measure was the Facility Engagement Initiative (FEI) created in 2016 by Doctors of BC and the BC Ministry of Health. However, although many projects have been supported, no systematic approach or established tool has been used to describe and evaluate these initiatives. This study presents a method of characterizing and evaluating physician engagement initiatives using projects funded by FEI through BC Cancer's Medical Staff Engagement Society (MSES).***

Methods: We reviewed funded MSES engagement initiatives from 2017–2019, collecting data from project proposals and reports. Projects were mapped against the society's strategic priorities and three engagement frameworks: the International Association for Public Participation's spectrum of public participation, the Institute for Healthcare Improvement's quadruple aim, and the BC Patient Safety and Quality Council's dimensions of quality. Descriptive analyses were conducted.

Results: We analyzed 39 completed projects, which received total funding of $420 299. Projects were carried out in regional cancer centres across the province and spanned multiple oncology and related disciplines. They collectively mapped to all MSES strategic priorities and chosen engagement frameworks. We describe temporal shifts in trends and gaps in priorities.

Discussion and conclusion: FEI presented a unique opportunity for physicians to engage with leadership and positively impact the health care system. Mapping projects against frameworks allows for project themes, temporal changes, and collective limitations to be identified. Longitudinal evaluation will be needed to understand the long-term impact of physician engagement initiatives.

KEYWORDS: physician engagement, facility engagement initiative, engagement frameworks, evaluation, burnout, medical staff society

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Introduction

Meaningful physician engagement and leadership is necessary for high-quality, cost-effective, patient-centred care and overall health care system transformation.[1] Physician engagement is the active and willing participation of physicians in making decisions and improving health care at the patient, organization, and systems levels.[1,2] Working as leaders and on the frontlines, physicians have a unique privilege and responsibility to act as advocates and implement change.[1,3]

Engagement has been characterized as vigour, dedication, and absorption in work — the antithesis to burnout.[4] Physician engagement has been shown to improve career satisfaction, physician retention, quality and cost of care, and patient safety.[5,6] Engagement protects against physician burnout, which is characterized by exhaustion, cynicism, and a sense of ineffectiveness.[4,7] Nationally, over 50% of Canadian physicians have symptoms of burnout.[8] This may in part be the result of a breakdown in trust, communication, and collaboration between physicians and their health care authorities

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and leadership.[9,10] Although it is important to address factors contributing to burnout, some suggest it may be more important to identify means of increasing physician engagement, through both physician engagement initiatives and projects that directly improve physician well-being.[4,6] Recent emphasis has been on identifying strategies at both individual and systems levels to enhance physician engagement.[4,11]

In 2016, Doctors of BC and the British Columbia (BC) Ministry of Health launched the Facility Engagement Initiative (FEI) to enhance relations and collaboration between facility-based physicians and health authorities in the province.[12,13] This included a memorandum of understanding to health authorities for physician engagement and funds directed to support engagement initiatives. Backed with the FEI vision, the BC Cancer Medical Staff Engagement Society (MSES) formed a steering committee to represent over 400 medical staff and liaise on engagement-related projects between BC Cancer and the Provincial Health Services Authority. Together, physicians and administrative leaders promote matters deemed important to physicians through involvement in decision-making and funding.[14] Although many projects have been carried out by MSES and over 70 related engagement societies with support from FEI,[13] no systematic approach or established evaluation tool has been used to describe these projects collectively.

This study aimed to address this gap. Using BC Cancer MSES as an example, we present an evaluation of how MSES-funded initiatives fulfilled organizational strategic priorities. We also compare them with frameworks created for health care quality optimization and engagement. Describing the initiatives that were developed to enhance physician wellness and overall health care system quality and performance will facilitate an understanding of how resources are invested to enhance physician engagement. In turn, this approach can be used by other engagement societies to describe and evaluate their initiatives and guide future directions.

Methods

We conducted a retrospective evaluation of all engagement initiatives funded by MSES that were carried out and completed between 2017 and 2019. Later projects were not included as significant adjustments were made in 2020 as a result of the COVID-19 pandemic. Pauses in government

funding delayed start dates, and other projects were granted extensions. In addition, post-pandemic, MSES transitioned to funding smaller initiatives to support a greater total number of projects. Projects also have lengthened timelines; therefore, many are still underway. Together, these changes would have affected interpretation of the results.

In the approval process, project proposals are evaluated against predefined criteria. Five steering committee members assess domains of physician engagement (whether the project reflects MSES's strategic priorities), patient care quality (positive impact to patient care), implementation (feasibility and likelihood of success), and impact (breadth of impact across domains). All projects require an identified executive sponsor to ensure a priori project collaboration with leadership. Most projects have received funding; projects focusing on objectives other than physician engagement, such as clinical research, are not funded.

We collected data from proposals, progress reports, and final reports. Financial data were extracted from a program-specific financial platform used to monitor facility engagement work. Data collected included background information about the initiative, participants, medical discipline, and budget.

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As there was no established evaluation tool, we reviewed the literature and identified three frameworks for physician engagement and health care quality optimization: the International Association for Public Participation's (IAP2) spectrum of public participation,[15] the Institute for Healthcare Improvement's (IHI) quadruple aim,[16] and the BC Patient Safety and Quality Council's (BCPSQC) dimensions of quality, which has since been revised as the BC Health Quality Matrix[17] (Table 1). These validated frameworks were chosen as they are among the most used and recognized in this field. The IAP2 spectrum of public participation outlines five levels of public stakeholder engagement in initiatives, with increasing involvement resulting in an increased impact on decision-making. The IHI quadruple aim represents four overarching social needs that inform and guide health care improvement. The BCPSQC dimensions of quality describe health care quality from both an individual and systemic level.

Table 1. Descriptions of the Medical Staff Engagement Society's (MSES) strategic priorities and the chosen evaluation frameworks.

Evaluation framework	Domains
MSES strategic priorities Priorities guiding the BC Cancer Medical Staff Engagement Society	**Priority 1** — To provide opportunities for communication among BC Cancer medical staff (across disciplines and across regions) **Priority 2** — To foster enhanced communication and collaboration between BC Cancer and PHSA leadership **Priority 3** — To lead collaboration across "silos" to address inefficiencies and improve clinical workflow and indirect patient care **Priority 4** — To promote medical staff wellness
IAP2 levels of engagement Levels of public engagement in decision-making processes	**Inform** — Provide the public with objective information to understand the problem/opportunity **Consult** — Obtain public input on decisions/analysis **Involve** — Work directly with the public throughout the process **Collaborate** — Partner with the public in development plans and implementation **Empower** — Place final decisions in public hands
IHI quadruple aim Overarching social needs that inform and guide health care improvement	**Improving population health** — Improving the patient experience to lessen disease burden and improve overall care **Reducing cost of care** — Improving patient experience and health while decreasing health care costs, without compromising quality **Enhancing patient experience** — Improving patient subjective and objective experience, health literacy, and self-management **Improving provider satisfaction** — Improving health care provider satisfaction and quality of care while mitigating burnout and negative outcomes
BCPSQC dimensions of quality A shared definition of health care quality at individual and systemic levels	**Respect** — Honouring a person's choices, needs, and values **Safety** — Avoiding harm and fostering security **Accessibility** — Ease with which health and wellness services are reached **Appropriateness** — Care is specific to a person's or community's context **Effectiveness** — Care is known to achieve intended outcomes **Equity** — Fair distribution of services and benefits according to population need **Efficiency** — Optimal and sustainable use of resources to yield maximum value

Note: BCPSQC = BC Patient Safety and Quality Council, IAP2 = International Association for Public Participation, IHI = Institute for Healthcare Improvement, PHSA = Provincial Health Services Authority.

Projects were analyzed to determine which of the MSES strategic priorities and the three frameworks' domains were addressed. With iterative discussion, the principal investigator and a research assistant coded the projects using the frameworks and the MSES strategic priorities. A third coder helped resolve discrepancies and maintain coding consistency. All analyses were performed using Excel v. 16.57 (Microsoft, Redmond, Washington, USA).

Results

Between 2017 and 2019, MSES supported 39 projects to completion: 10 in 2017, 20 in 2018, and nine in 2019. Involved medical disciplines included radiation, medical, surgical, gynecological, and oral oncology, as well as radiation therapy, psychiatry, pathology, functional and diagnostic imaging, medical genetics, palliative care, and hereditary cancer. Projects were based in one or more cancer centres across BC. They varied widely in focus: 19 initiatives focused on both physicians and patients, 13 focused solely on physicians, and seven focused primarily on physicians although they affected patients indirectly. Overall, $420 299 in funding was allocated for the 39 initiatives across the three years. Funding available each year varied: $149 363 in 2017, $166 967 in 2018, and $103 969 in 2019. The average project cost was $10 776.91.

In relation to the four MSES strategic priorities, 35 of 39 projects involved providing communication opportunities (90%), 33 enhancing workflow (85%), 25 promoting wellness (64%), and 24 enhancing collaboration (62%) (Figure 1). Almost all (97%) addressed two or more of the strategic priorities, and 12 (31%) addressed all four. There was intersection between communication opportunities and enhancing workflow; 74% of the projects aimed to address both priorities. Over half of the projects aimed to address both communication opportunities and enhancing collaboration or promoting wellness (56% each).

In terms of the IAP2 levels of engagement framework, 16 of 39 (41%) projects achieved the inform level, seven consult (18%), eight involve (21%), 25 collaborate (64%), and 11 empower (28%) (Figure 2). Many projects incorporated one or two means for public participation (41% and 46%, respectively). Of the combinations, the most common was collaborate and inform (21% of projects) and collaborate and empower (21%).

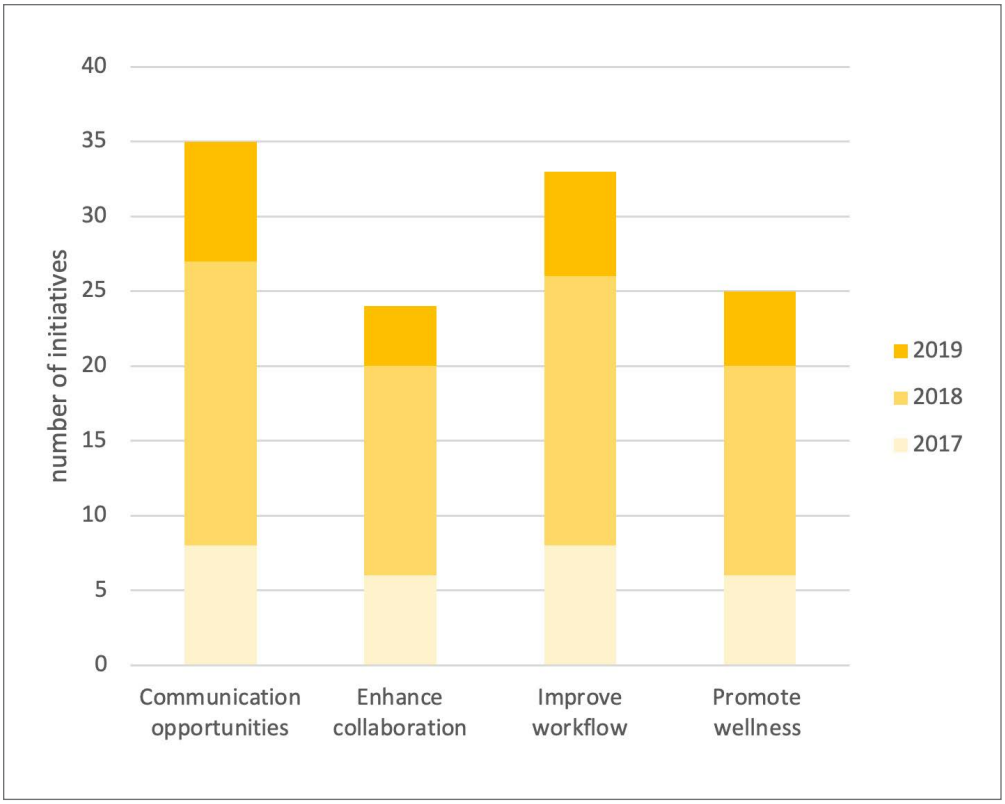

Figure 1. Medical Staff Engagement Society (MSES) projects, mapped to its four strategic priorities.

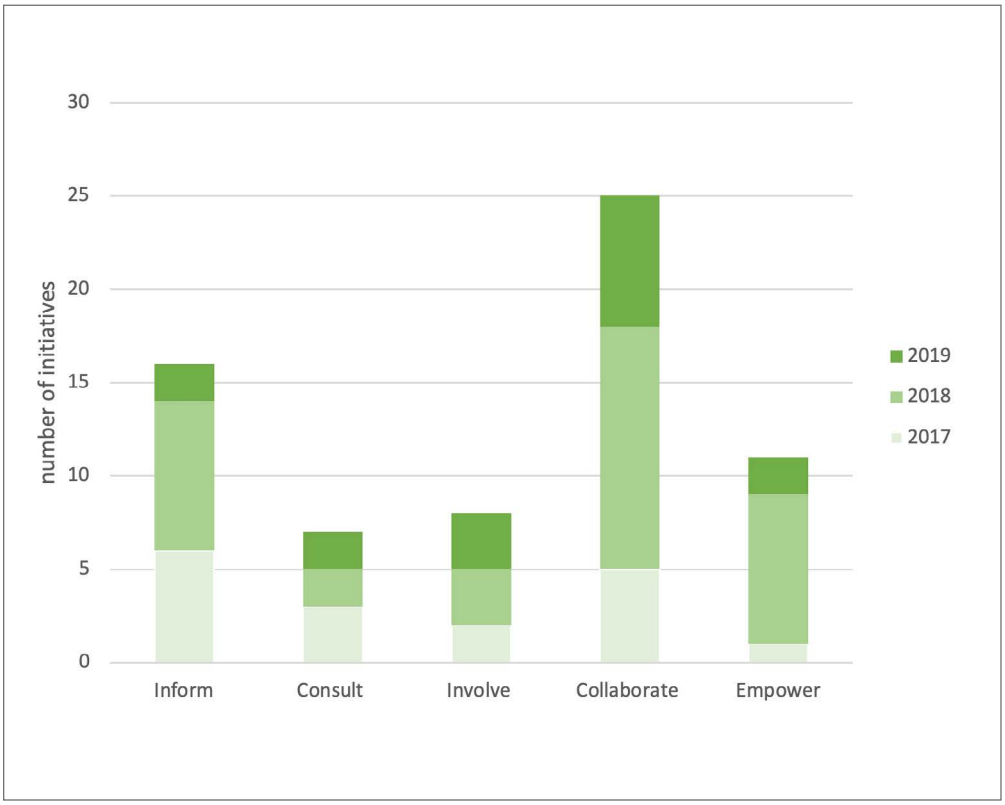

Figure 2. Medical Staff Engagement Society (MSES) projects, mapped to the five domains the of International Association for Public Participation's levels of engagement.

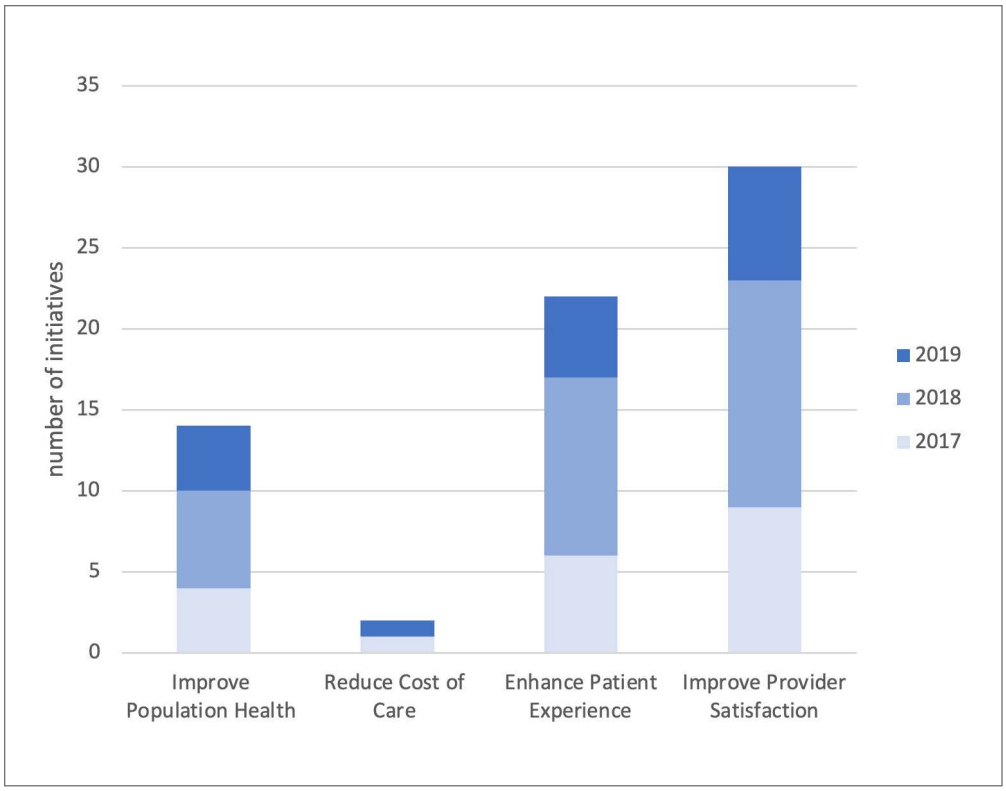

Figure 3. Medical Staff Engagement Society (MSES) projects, mapped to the four domains of the Institute for Healthcare Improvement's quadruple aim.

When assessed using the IHI quadruple aim framework, 30 of 39 initiatives related to improving provider satisfaction (77%), 22 enhancing patient experience (56%), 14 improving population health (36%), and two reducing cost of care (5%) (Figure 3). Almost half (46%) of the projects addressed two aims; 41% addressed one aim. A few (10%) addressed three aims and only one project (3%) addressed all four aims. The greatest intersection was both improving provider satisfaction and enhancing patient experience (44% of projects).

When assessed using the BCPSQC dimensions of quality framework, eight of 39 projects related to respect (21%), seven safety (18%), four accessibility (10%), 16 appropriateness (41%), 26 effectiveness (67%), one equity (3%), and 22 efficiency (56%) (Figure 4). Almost half of the projects (46%) addressed two dimensions of quality, and many (23%) addressed three dimensions. Only 8% addressed as many as four dimensions. The greatest intersections were between effectiveness and efficiency (36%), appropriateness and efficiency (28%), and appropriateness and effectiveness (26%).

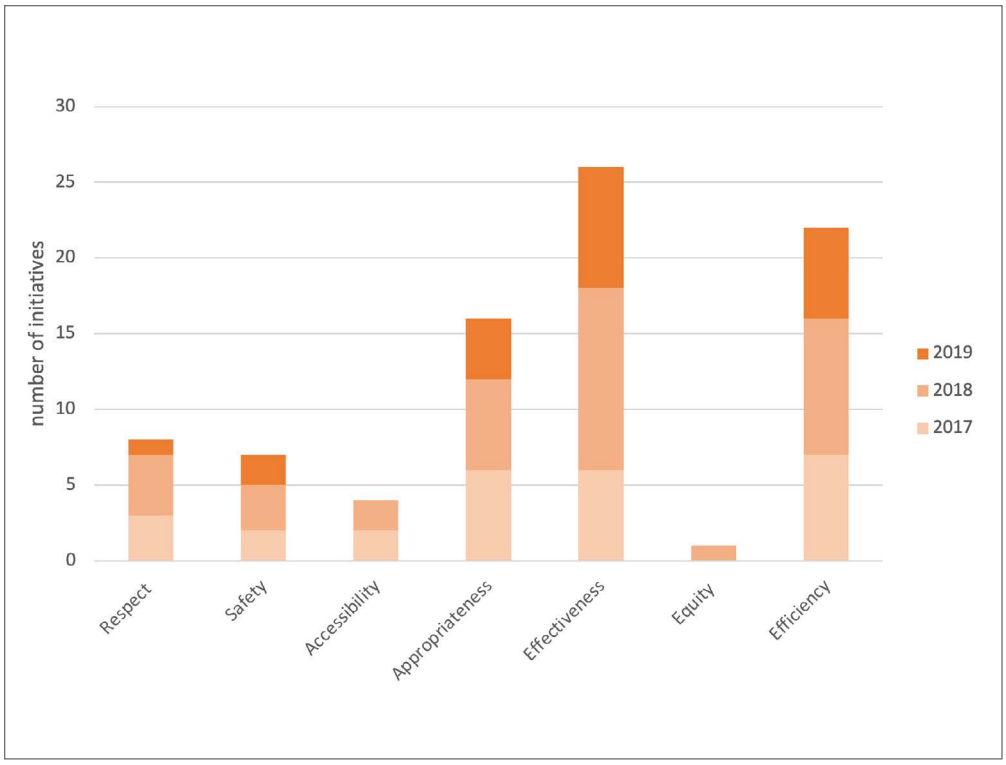

Figure 4. Medical Staff Engagement Society (MSES) projects, mapped to the seven domains the of BC Patient Safety and Quality Council's dimensions of quality.

Discussion

Significant efforts are being made to enhance physician engagement.[4,11,13] Many medical engagement societies have been developed in recent years to bridge communication and collaboration between physicians and administrative leadership.[13,18] However, despite considerable funding of such initiatives, little is present in the literature describing outcomes.[13,19] Moreover, no systematic approach or established tool exists to describe and evaluate these projects. Our study presents a method of assessing how a diverse array of physician-led engagement initiatives aligns with organizational strategic priorities as well as health care quality optimization and engagement frameworks. This is important, not only for physicians, but also administrators in leadership positions who can help direct funds to meet overlapping demands.

Between 2017 and 2019, BC Cancer's MSES supported 39 diverse initiatives across the province in a range of oncology and related medical disciplines. The aims of the projects varied widely, from improving oncology genomics literacy with online resources to addressing inefficiencies with new patient triage algorithms. Physicians created workshops for other physicians to learn about and combat burnout,

increase self-awareness and communication skills, and manage difficult situations. There were efforts to organize provincial palliative radiation oncology site groups, arrange needs-assessment discussions among general practitioners in oncology, and develop quality improvement working groups. A provincial adolescent and young adult cancer care program was developed and a cancer supportive care program providing psychosocial support for patients was launched.[20,21] Collectively, the 39 projects addressed the four MSES strategic priorities along with various aspects of the IAP2, IHI, and BCPSQC frameworks.

Comparing engagement projects against established frameworks allows insight into temporal changes. For example, when mapping projects to the IAP2 levels of engagement, projects more frequently informed and consulted stakeholders in 2017; however, a gradual shift toward more involvement, collaboration, and empowerment in shared decision making was seen in subsequent years. Transformation of health care systems requires stakeholder engagement. To improve health care quality, efforts should be made to move toward increasing levels of engagement and empowering shared decision-making.[22,23]

When assessing projects in terms of the IHI quadruple aim, we noted a general emphasis on improving provider satisfaction. This may represent a stride toward improved physician wellness in the face of widespread burnout.[8,24] Burnout has been shown to impact the health, well-being, and productivity of physicians as well as patient care, and remains an important concern in health care and quality improvement.[25–27] Understanding project themes may provide valuable insight into pressing health care issues and ensure resources are appropriately allocated to address needs.

Finally, frameworks can allow identification of gaps and limitations among collective projects. Comparing projects against BCPSQC's dimensions of quality revealed that while many projects mapped to the qualities of effectiveness, efficiency, and appropriateness, very few mapped to accessibility or equity. Depending on the needs of the population, this may represent an important gap that future projects can address.[28] Medical engagement societies should monitor how funded projects are improving various aspects of patient care to ensure the highest level of care is achieved.

Frameworks can allow **identification of gaps and limitations** among collective projects.

This study has limitations given its nature as a retrospective evaluation of a single MSES. Projects after 2019 were not included, as MSES initiatives had undergone restructuring given impacts of the COVID-19 pandemic. The program was reinitiated in 2022, but more recent projects were not included as they were still underway at the time of data collection. The analysis of projects is limited by the chosen frameworks and method, as no gold-standard approach or validated tools currently exist. Given that the projects were also evaluated against the MSES strategic priorities, future directions may not be generalizable to other medical engagement societies with different priorities. Indeed, current MSES strategic priorities have evolved from the ones used in this study. Therefore, with iterative use of this approach, frameworks may need to be adapted to ensure they reflect the engagement society's overarching objectives and needs in a design-based research approach.[29]

Future research should continue to track efforts to improve physician engagement. This includes continued support of physician leadership and engagement initiatives and ongoing purposeful evaluation. This study represents one approach to evaluating engagement initiatives that may be used by other societies. In addition, future work should aim to assess the lasting impact of engagement initiatives on levels of physician engagement and burnout, as well as secondary outcomes, such as patient care. Overall, a better understanding of the impact of these projects may allow for more coordinated efforts, appropriate resource allocation, and health care improvement.

Conclusion

Engagement initiatives present valuable opportunities for physicians to work with medical and administrative leadership to make a positive impact on the health care system. Understanding how physician engagement projects map to frameworks of engagement and health care optimization can lead to identification of areas of potential growth. Longitudinal evaluation will be required to understand the lasting effects of these initiatives on patient care. Ultimately, with the recent emphasis on improving physician engagement, there is hope that not only will rates of burnout decline, but also efforts will result in greater physician satisfaction, improved patient care, and overall health care quality improvement and transformation.

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Competing interests
Dr. Ingledew is president, Dr. Pollock is vice president, Dr Le is managing director, Dr Gill is former chair, and Dr. Shenkier is past president of BC Cancer Medical and Dental Staff Association/Medical Staff Engagement Society. Dr. Keyes and Ms Jadis declare that they have no potential conflicts of interest.

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Authors' contributions
LJ collected the data. LJ, SK, and AP analyzed the data. SK, LJ, PI wrote the manuscript. PI, LJ, AP, DL, SG, and TS conceived the project. All authors edited and approved the final manuscript.

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