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Advance care planning: identifying system-specific barriers and facilitators

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ABSTRACT

Background Advance care planning (ACP) is an important process in health care today. How to prospectively identify potential *local* barriers and facilitators to uptake of ACP across a complex, multi-sector, publicly funded health care system and how to develop specific mitigating strategies have not been well characterized.

Methods We surveyed a convenience sample of clinical and administrative health care opinion leaders across the province of Alberta to characterize system-specific barriers and facilitators to uptake of ACP. The survey was based on published literature about the barriers to and facilitators of ACP and on the Michie Theoretical Domains Framework.

Results Of 88 surveys, 51 (58%) were returned. The survey identified system-specific barriers that could challenge uptake of ACP. The factors were categorized into four main domains. Three examples of individual system-specific barriers were "insufficient public engagement and misunderstanding," "conflict among different provincial health service initiatives," and "lack of infrastructure." Local system-specific barriers and facilitators were subsequently explored through a semi-structured informal discussion group involving key informants. The group identified approaches to mitigate specific barriers.

Conclusions Uptake of ACP is a priority for many health care systems, but bringing about change in multi-sector health care systems is complex. Identifying system-specific barriers and facilitators to the uptake of innovation are important elements of successful knowledge translation. We developed and successfully used a simple and inexpensive process to identify local system-specific barriers and enablers to uptake of ACP, and to identify specific mitigating strategies.

Key Words Advance care planning, goals of care designation, knowledge translation

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INTRODUCTION

Advance care planning (ACP) is a process of reflection and communication of a person's future health care preferences. Best viewed as a process, not an event, ACP encourages a patient, his or her family, and the health care team to maintain a dialog that can guide medical decision-making even when the patient becomes incapable of consenting to or refusing health care[1].

Bringing about change in clinical practice can be challenging. End-of-life care planning is characterized by the presence of beliefs deeply held by patients, their families, and their communities; by health care providers from various training backgrounds; and by health care systems. Together, those beliefs shape approaches to care. Shifting care for patients with advanced illness toward a more transparent, explicit, patient-focused approach can be a formidable undertaking, and it calls for engagement of the health care system, the legal system, health care professionals and providers, and the general public. There are examples of successful application of ACP across regional contexts, but an ACP policy and process has not, to our knowledge, been implemented across an entire multi-sector population-based health care system such as a provincial health care program[2,3].

Alberta Health Services (AHS) is the major publicly funded comprehensive health care organization for the 4 million residents of the province of Alberta. Almost all Albertans receive almost all of their health care from AHS. Goals of Care Designation (GCD) is a made-in-Alberta

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medical order that uses a letter and number coding system to describe the general intent of care and to provide direction on specific interventions and locations of care. In Alberta, practitioners refer to "ACP/GCD" to describe the process of discussions and documentation that occurs over time with a patient and the determination of the most appropriate GCD that is both medically appropriate and reflective of the patient's values.

In 2014, AHS implemented a multi-year, multi-sector phased *provincial* rollout of a policy and procedure for ACP/GCD. Based on previous randomized trials and systematic reviews, there is good evidence that ACP is effective in ensuring that patient-centred care is delivered[4–6]. However, how to optimally operationalize, implement, and evaluate widespread uptake of a formalized ACP framework across a large population and throughout a complex multi-sector health care system is not well understood. That knowledge gap offered an opportunity to prospectively study and support the system-wide implementation of the use of ACP/GCD.

We partnered with AHS in a knowledge creation and knowledge translation program that is using four research activities to apply the knowledge-to-action cycle[7,8] to support adoption and use of ACP/GCD across Alberta. Based on the knowledge-to-action cycle and, more specifically, referring to experience with uptake of ACP[9], we affirmed that particular attention needed to be paid to

- assessing barriers and facilitators to knowledge use;
- selecting, tailoring, and implementing interventions;
- adapting knowledge to the local context;
- monitoring knowledge use; and
- evaluating the impact on health outcomes.

To help identify barriers and facilitators, we approached Alberta's Strategic Clinical Networks (SCNS)—that is, senior clinicians, administrative leaders, patient representatives, researchers, and others working within specific clinical contexts (for example, the Cancer SCN, the Cardiovascular Health and Stroke SCN). Alberta's SCNS are tasked with identifying and implementing innovation across AHS, and they include individuals known to be seasoned innovators and effective agents of change. We reasoned that individuals from those groups would be well positioned to identify barriers and facilitators specific to the uptake of ACP/GCD in Alberta and to guide us in approaches to implement a culture-changing practice across the province.

We carefully considered the approach to use in inquiring of those agents of change how to identify and manage systemic barriers and facilitators. Although extensive published evidence has described system-wide barriers (and, to an extent, facilitators) to ACP across several settings, less information is available to guide how to go about characterizing those barriers and facilitators at a system-specific level. An ideal implementation approach should use strategies that enhance facilitation and mitigate barriers. One recent systematic review summarized barriers and facilitators to uptake of ACP and indicated that "contextual factors influencing uptake of ACP are complex and multifaceted" and that further study is needed "to develop a sound theoretical and empirical foundation to develop interventions that improve uptake of ACP in this setting"[9].

Further, we reasoned that changing the behavior of health care providers could be particularly challenging and yet pivotal to the success of this provincial initiative. Michie and colleagues[10] described one approach to support change in health care provider practice that aligns closely with the system-wide culture-changing approach we proposed to undertake. Those authors described theories of change that included motivational, action, and organizational concepts. Specifically, 14 domains relevant to change were identified within what is now called the Theoretical Domains Framework[11]. Those domains can contribute to or block uptake of evidence-based practice into clinical use (Table I).

We used the Theoretical Domains Framework to guide the development of a survey instrument on the potential local barriers and facilitators to ACP/GCD uptake in the Alberta context. We recognized that the research strategy and methods we used would be most effective if they were simple and inexpensive to develop and if they called for minimal time from the key informants we were approaching. To that end, we used a pen-and-paper survey designed to identify key barriers and facilitators, followed by a semi-structured informal discussion designed to identify pragmatic approaches to address what the survey identified as the most important barriers and facilitators.

METHODS

This study used a mixed-methods design.

The Survey Instrument

Development of the survey instrument used published evidence on barriers and facilitators to uptake of ACP[9], the Theoretical Domains Framework[10,11], and early experience from the implementation of ACP/GCD in Calgary, Alberta[12]. The interview questions were designed to investigate specific barriers and facilitators to the implementation of ACP/GCD within Alberta, reflecting domains of the Theoretical Domains Framework (Table I).

We wanted to ensure a high participation rate by having simple, few, and easy-to-understand questions. We estimated that respondents would have to be able to complete the survey within 10 minutes. That strategy ensured that we would identify major areas of focus from a highly engaged group representing many perspectives, as opposed to exhaustively identifying system-specific barriers and facilitators to uptake of ACP/GCD from a few individuals. The draft questionnaire was tested iteratively within the research team, and then by a group of three senior academic knowledge translation experts with experience in questionnaire design and implementation who helped to reduce the length and complexity of the survey.

The final survey questionnaire (Table II) was divided into three sections. Part A queries the background of the interviewee, including demographics, professional background, years in practice, and location within the province. Part B describes the ACP and GCD process, and then presents ordinal evaluations of specific domains as previously described. Part C consists of open-ended questions to evaluate the domains for which an ordinal system is not

TABLE I Domains of change in use of evidence-based guidelines within health care[a]

Domain	Construct (abbreviated)
1. Knowledge	Knowledge, scientific rationale, procedural knowledge
2. Skills	Skills, competence, skill assessment
3. Social or professional role or identity (self-standards)	Identity, professional identity, roles, boundaries
4. Beliefs about capabilities	Self-efficacy, control over environment, empowerment, self-esteem
5. Beliefs about consequences	Outcome expectations, regret, attitudes, beliefs, rewards, sanction
6. Motivation and goals	Intention, goals, priorities, commitment
7. Memory and decision process	Memory, attention control, decision-making
8. Environmental context	Resources (material or other)
9. Social influences	Social support, group norms, leadership, conformity, supervision
10. Emotion	Affect, stress, regret, fear, threat
11. Behavioral regulation	Goals, target setting, implementation intention, action planning
12. Self-monitoring nature of the behavior	Routine, automatic habit or breaking a habit, past behaviors
13. Optimism	Hope for improvement/change
14. Reinforcement	Behavioral reinforcement (intended and unintended)

[a] Summarized from Michie *et al.*[10,11].

appropriate (emotion, reinforcement, and optimism, for instance). Scientific and ethics approval was not required for this quality improvement project.

The Survey Process

During the course of regularly scheduled meetings, we met face to face with a convenience sample of the Core Committees of four Alberta SCNs: Cancer, Seniors' Health, Cardiovascular Health and Stroke, and Critical Care. The paper-and-pen survey was presented to the first three committees; attendance of committee members at those meetings was 28, 37, and 23 respectively. Some members attending via teleconference were not able to complete the paper survey.

We explained the purpose of the survey and invited interested in-person attendees to participate. After inquiring about the respondent's level of knowledge of ACP, the survey provided a summary of ACP and why it is being implemented across the provincial health care system. Surveys were completed anonymously and returned. After reviewing the survey data from the first three SCNs, we met with a fourth SCN, Critical Care, and held a semi-structured group discussion on the identified barriers and facilitators to provincial application of the new ACP/GCD policy. Strategies to mitigate those barriers and to enhance the effect of facilitators were explored.

Data from the surveys completed at the three Core Committee meetings were entered into an Excel spreadsheet and summarized. Prevalent issues and themes were identified and ranked according to priority or number of mentions by survey respondents. Those data, including creation of a table outlining identified barriers to the multi-sector uptake of ACP/GCD, were used to inform and prompt the semi-structured group discussion. The intent was to use a process of discussion and consensus to identify the highest-ranked barriers and facilitators, and therefore the data were not further statistically analyzed. Field notes from the discussion with the fourth SCN were taken by two researchers and then summarized.

RESULTS

Of 88 surveys, 51 (58%) were returned. Respondents described their professional background as administration ($n = 21$), physician ($n = 17$), nursing or allied health ($n = 2$), member of the public ($n = 2$), both nurse and administration ($n = 1$), and other ($n = 8$). Respondents came from across the province, working in the Edmonton zone ($n = 17$), the Calgary zone ($n = 15$), a provincial role ($n = 12$), the Central zone ($n = 3$), or elsewhere ($n = 4$).

Table III presents the major barriers to the multi-sector uptake of ACP/GCD that were identified during the process. Most participants reported insufficient public engagement and misunderstanding to be the most significant public and patient barriers. Major systemic factors were also identified, and those primarily concerned the busy clinical and operational environment resulting from many competing initiatives in the health care setting. Respondents identified the need for sufficient infrastructure to support implementation of ACP/GCD. The latter barriers were complemented by the need for an electronic reporting system to track GCD and ACP conversations. (In contrast, the current paper-based system holds ACP/GCD documents in a green plastic sleeve, which becomes the property of the patient and transfers with them between heath care sectors.) When it came to health care provider factors, half the participants

TABLE II The survey instrument

Welcome
AHS is soon implementing a bold policy to support ***Goals of Care Designation*** across the province.
To be successful, the implementation of Goals of Care Designation will require a shift in culture amongst physicians, nurses, other health care providers, patients, and also the public. To that end, a group of researchers is helping AHS implement Goals of Care Designation—our team of researchers includes individuals from the ***Cancer SCN, Cardiac and Stroke SCN,*** and several others. We are advising AHS on ways to make the cultural shift and an educational program to support Goals of Care Designation, more effective.
Core Committees of SCNs are populated by members who are known to be:
☐ innovators ☐ agents of change ☐ key opinion-leaders and experts on Alberta's health care system.
The literature on KT is clear: identifying barriers and facilitators to change is critical to successful KT. Because of your broad perspectives, we are asking your advice on identifying ***barriers and facilitators*** to implementing a provincial Goals of Care Designation policy across AHS.
Specifically we want to hear about what you think might be: (a) The ***main barriers to implementation*** at a provincial level and (b) The possible interventions that may best ***facilitate implementation.***
During this survey, please advise us from a ***broad, provincial or Zonal perspective,*** rather than from the micro level of the individual provider or patient.
This survey will take only a few minutes. Your responses will remain anonymous. Thank you very much for guiding us in the implementation of this important AHS province-wide policy.
Part A (2 min): your current level of familiarity with Goals of Care Designation
Select the answer that fits best for you:
1. How familiar are you with Advance Care Planning ("ACP")? ☐ not one bit ☐ vaguely familiar ☐ somewhat familiar ☐ very familiar ☐ actively involved in this policy
2. How familiar are you with Goals of Care Designation ("GCD")? ☐ not one bit ☐ vaguely familiar ☐ somewhat familiar ☐ very familiar ☐ actively involved in this policy
Please read these definitions: Advance Care Planning ("**ACP**") is a way to help patients and their families think about, talk about and document wishes for health care in the event that the patient becomes incapable of consenting to or refusing treatment or other care. It is a process, not an event. ACP encourages dialogue between a patient, his/her family, and the health care team that can guide medical decision-making even when a person becomes incapable of consenting to or refusing healthcare. Goals of Care Designation ("**GCD**") is a made-in-Alberta framework to describe the general intent of care, guide use of interventions, transfers and location of care in an easily understood standardized manner (also known as R,M,C orders). It is a medical order used to describe and communicate the general aim or focus of care including the preferred location of that care. **The ACP-GCD provincial policy** describes the principles and procedures for use of GCD across Alberta Health Services and contracted service providers and encourages early ACP conversations. A new AHS policy requires the use of GCD across the province throughout AHS, Covenant Health and all contracted service providers, by March 2014.
Part B (2 min): Elements to Implementation:
In this survey, we will be asking about: a) healthcare provider factors, b) resource factors, c) public and patient factors, and d) systems factors—four areas thought to be important in change management within the health care system. What do you predict about the potential ***barriers to implementation*** of the ACP-GCD policy listed below? Please consider the big picture: think at the Provincial or Zonal Level.
a) Healthcare provider factors Please select the **three** most important ***barriers to implementation*** of Goals of Care Designation from the list. ☐ Lack of Healthcare providers' support of the ***purpose*** of the change to ACP and GCD ☐ Incomplete uptake of a AHS and service provider ***staff education program*** ☐ Lack of Healthcare provider's ***mastery*** of GCD and how to guide patients through the process ☐ Conflict with Albertan health care providers' ***personal beliefs*** (based on social and cultural influence) ☐ Discomfort (***emotional***) with initiating conversations regarding patient health care ☐ This is a behavior change that is different from what is usual (i.e. the organizational change in behavior required is far from current behavior or is too complex) ☐ Lack of ***staff specially dedicated*** to engaging patients and families in ACP and GCD conversations ☐ Lack of visible AHS ***Leadership*** support Please indicate (write below) if any ***barriers as related to health care providers*** have not been identified that you feel are important to the uptake ACP/GCD:

TABLE II Continued

b) Resource factors

Please select the **three** most important ***barriers to implementation*** of Goals of Care Designation from the list.

- ☐ Lack of ***time*** for providers to undertake ACP or GCD conversations
- ☐ Lack of funding to ***remunerate (or incentives for)*** health care providers to engage in ACP or GCD conversations
- ☐ Lack of adequate ***environment*** to perform conversations (quiet, peaceful, etc.)
- ☐ Lack of access to ***resources*** (printed and digital documents, movies etc.) explaining ACP or GCD
- ☐ Lack of ***electronic health record*** capability to track GCD orders and ACP conversations

Please indicate (write below) if there are important barriers to the uptake of the above policies ***related to resources*** that have not yet been listed:

_____

c) Public/Patient factors

Please select the **two** most important ***barriers to implementation*** of Goals of Care Designation from the list.

- ☐ Lack of a formal ***Public engagement*** campaign
- ☐ ***Public misunderstanding*** on the role of ACP and GCD or policy intent
- ☐ Insufficient ***alignment with current legislation*** on Personal Directives, adult guardianship and the Trustee Act

Please indicate (write below) if there are important barriers to the uptake of the above policies related to ***Public/Patient factors*** that have not yet been listed

_____

d) Systems factors

Please select the **three** most important ***barriers to implementation*** of Goals of Care Designation from the list.

- ☐ Ineffective AHS and service provider staff ***awareness campaign***
- ☐ Lack of ***infrastructure*** (admin support, evaluation, program managers, education consultants, and funding, etc.) to support implementation in the short term or long term
- ☐ ***Asynchronous*** (staggered timing of) adoption of change across the Zones
- ☐ High ***operational costs*** outweigh benefit to the system or patients
- ☐ Foreseeable ***conflict*** because there are too many other initiatives within AHS

Please indicate (write below) if any ***system factors*** barriers have not been identified that you feel are important to the uptake of the above policies

_____

Part C (3 min): Narrative:

4. ***How useful*** do you think **ACP** will be after full implementation in achieving patient-centered care? **(circle one number from 1–7)**

1	2	3	4	5	6	7
Not at all useful						Extremely useful

If you scored 1–4 please explain why you think this?

_____

5. ***How useful*** do you think **GCDs** will be for achieving patient-centered care? **(circle one number from 1–7)**

1	2	3	4	5	6	7
Not at all useful						Extremely useful

If you scored 1–4 please explain why you think this?

_____

TABLE II Continued

6. What **relevance do you see for ACP/GCD** as related to activities of your SCN? (Please elaborate) **(circle one number from 1–7)**

1	2	3	4	5	6	7
Not at all relevant						Extremely relevant

If you scored 1–4 please explain why you think this?

_____

7. For each domain listed here can you recommend **two** possible interventions—things we should think about doing—that may best **facilitate implementation of the ACP/GCD process at a provincial level?**

a) Healthcare provider factors:

i. _____

ii. _____

b) Resource factors:

i. _____

ii. _____

c) Public/Patient factors:

i. _____

ii. _____

d) Systems factors:

i. _____

ii. _____

You're almost done! Now just a bit of information about yourself...

Part D: Background information: (3 min)

8. Your main professional role:

☐ Physician (Specialty: _____)

☐ Nurse (LPN, RN, NP)

☐ Allied heath (OT, PT, SW, other)

☐ Administrator

☐ Public SCN participant

☐ Other (please indicate: _____)

9. Area or Zone that you currently work in: _____

10. Years of practice: _____ years **OR** Year of Graduation: _____

11. Gender:

☐ Male ☐ Female

12. Age:

☐ <30 ☐ 30–39 ☐ 40–49 ☐ 50–59 ☐ 60–69 ☐ >70

13. Cultural background: _____

14. For MD: How often have you used/ordered a GCD (i.e. R1–3, M1–2, C1–2) on patients?

☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Never before

How often have you used another type of GCD i.e. DNR?

☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Never before

15. For Nurse/Allied Health: How often have you been involved in care of a patient with a GCD order?

☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Never before

How often have you been involved with a patient with another type of GCD i.e. DNR

☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Never before

TABLE II Continued

16. For administrator/Non MD/Nurse/Allied Health: Does your institution use the GCD framework?
When was it initiated? (mm/yy) _____
17. How often have you engaged in ACP at a separate time from conversations aimed at determining a GCD (e.g. encouraging patients to participate in reflecting on and communicating their values and preferences for future healthcare, learning about their prognosis, selecting an agent and documenting in a personal directive)?
☐ Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Never before
Wrap Up
All answers will remain anonymous, and we appreciate your input!
If you would consider taking part in a subsequent survey to establish key indicators for the degree of success in implementation of ACP and GCD in Alberta please enter your email below.
If you would consider participating in a qualitative interview study about your views on ACP and GCD please enter your email below.
Thank you again for your time!
Jonathan Howlett, Nakul Sharma and Neil Hagen, on behalf of the ACP–GCD CRIO Research Team

TABLE III Major barriers identified to the multi-sector uptake of advance care planning (ACP) or goals of care designation (GCD) across Alberta[a]

Domain	Element	Value [*n* (%)]
Public or patient factors	Insufficient public engagement	43 (84)
	Public misunderstanding	41 (80)
Systems factors	Conflict because of too many other Alberta Health Services initiatives	42 (82)
	Sufficient infrastructure to support implementation—especially expert staff	40 (78)
	Ineffective public awareness campaign	37 (73)
Resources	Adequate time for ACP/GCD conversations	40 (78)
	Need for electronic record capability to track GCD orders and ACP conversations	35 (69)
Health care provider factors	Health care provider's mastery of GCD	31 (61)
	Ineffective staff education program	26 (51)
	Emotional discomfort initiating ACP/GCD conversations	25 (49)

[a] By 51 respondents.

emphasized ineffective staff training programs and emotional discomfort surrounding the initiation of ACP/GCD conversations as barriers. Lack of mastery of the GCD and how to guide patients through the process was also identified as a major barrier.

Some items were *not* identified as major barriers: conflict with the personal beliefs of health care providers; a general lack of visible leadership support for the ACP/GCD policy within the health care system; and the operational costs of GCD implementation outweighing the tangible financial benefit to the system. In analyses of responder demographics and other personal attributes, age, self-identified cultural background, and years in practice seemed not to influence the results of the survey.

Respondents to the survey were invited, through open-ended questions and free text, to describe facilitating factors for the domains of interest (health care provider factors, resource factors, public and patient factors, and systems factors). Many facilitating factors were identified, but no common themes emerged. The small space available for free text answers resulted in very brief, often one-word, responses.

Of the 51 respondents, 27 (53%) indicated they were "not one bit familiar," "vaguely familiar," or "somewhat familiar" with ACP and GCD, and 24 (47%) were "very familiar" or part of the ACP/GCD implementation team. The barriers and facilitators identified by those two groups were almost identical. However, respondents who were

more familiar with ACP/GCD were more likely to identify the lack of dedicated staff tasked with engaging patients and families in ACP and GCD conversations as an important barrier (data not shown).

In the second phase of the study, members of the Critical Care SCN Core Committee were presented with the results of the survey and asked to provide feedback through a semi-structured discussion. All members who were in the room at the time of that meeting—approximately 30 people—participated. They were able to identify several potential mitigating strategies for the identified barriers and ways to facilitate enablers (Table IV). Potential strategies to address identified public and patient barriers included the creation of an awareness campaign for patients and public, so that Alberta residents might be better prepared to engage in ACP/GCD discussions. The group suggested that an awareness strategy could be complemented by an electronic recording system to track changes to ACP/GCD. Further, the lack of adequate time for health care providers to have ACP/GCD conversations could be partly addressed by access to electronic records of previous conversations. The use of electronic records could be further enhanced by leadership specifically emphasizing the importance of electronic records to support use of ACP/GCD by frontline staff. For the health care workers who would be engaging patients in the ACP/GCD process, it was identified that training, including conversation scripts or simple reviews of ACP/GCD topics, could promote comfort when engaging patients. In summary, a to-and-fro group discussion served as an effective venue to outline specific mitigating factors.

DISCUSSION

Longer life spans and an aging population have pushed the agenda of ACP to the forefront. Focusing on the preferences of the patient aligns ACP with other priorities within the health care system such as providing patient-centred care. Health regions that decide to implement a policy of ACP are often confronted with the problem of designing a simple way to communicate and record patient wishes and discussions for use in guiding medical care[13]. The health care planning and delivery situation in Alberta is arguably more complex than it is in other systems because a single health care entity is providing publicly funded health care essentially for all citizens across the continuum of community-based, ambulatory, and tertiary services; acute care and continuing care; and prenatal care through to geriatric services. We understood that bringing about change in a multi-sector environment could benefit from a clear understanding of the pragmatic barriers and facilitators that require focus. We suspected that our lessons learned might be of interest to other multi-sector health care systems.

The barriers and facilitators identified in our survey are consistent with the range of barriers and facilitators to uptake of ACP that have been described in the literature. Those barriers and facilitators commonly include lack of proper support from organizational leaders; impatience with the process of implementing ACP, given that it requires attitudinal change and is not a simple process; a disconnect between the public and health care providers, who need to work hand in hand; and lack of access for health care providers to information about the ACP process (intranet, Web-based information, and so on)[9,13]. In Alberta, many of those factors have been targeted for improvement when engaging practitioners in the ACP/GCD process.

We are aware that improvement is strengthened by iterative analysis coupled with a developmental approach[14]. Our own local experience indicated that, if a shift in the approach to health care is to take hold, several steps of knowledge creation and translation should be followed by engagement[15]. Central to such quality improvement is that the process of change focuses on the key system-specific barriers and facilitators that are present locally. Key barriers to the uptake of ACP/GCD in Alberta appear to be a need for effective public education and engagement, complexity and a lack of time within the health care environment (that is, competing priorities), lack of a provincial electronic health record to facilitate communication between health care providers across geographic locations and time, and for some providers, vague awareness of the ACP process. Feedback from health care providers can shed light in this complex arena, and there is emerging evidence that adds insights[16]. Knowing the key domains that are relevant targets in promoting uptake of best practices by health care providers served as a compass as we generated our questionnaire and conducted the subsequent discussions. There is emerging evidence that patient and family misunderstanding about the limitations of medical interventions are key barriers to uptake of ACP. Consistent with those findings, our survey identified an effective public awareness campaign as foundational to the success of ACP/GCD policy uptake in Alberta. We hope that our lessons learned on how to undertake surveys such as the present one might

TABLE IV Strategies to mitigate against system-specific barriers to, and to facilitate enablers of, advance care planning (ACP) or goals of care designation (GCD)

Domain	Specific element
Public or patient factors	Develop an impactful public awareness campaign so that patients and families are better prepared to participate in discussions
Systems factors	Leadership to communicate the high priority of ACP/GCD for frontline staff
Resources	Develop an electronic record to track ACP and GCD conversations
Health care provider factors	Provide health care providers with training on conversation scripts and simple messages on ACP/GCD to promote comfort with the conversations

be of value to other jurisdictions planning implementation of ACP.

We undertook this study recognizing the pragmatic realities of the health care system's circumstances: time lines were tight, resources were limited, and the most information possible had to be garnered with only a minimal burden on survey respondents. We reasoned that a mixed-methods approach would serve our needs well[17]. One important lesson that emerged from undertaking this survey process was that facilitating and mitigating factors can be too complex to be adequately identified or understood in a brief text survey. In contrast, a to-and-fro group discussion serves as an appropriate venue to outline specific mitigating factors and can be accomplished quickly and efficiently.

Mitigating strategies for the barriers we identified appear to be feasible. The identified barriers and mitigating strategies are currently being considered in the provincial ACP/GCD implementation strategy. However, that process will require inter-sectoral collaboration and reorientation of public policy to enhance uptake and utilization of the ACP/GCD process by both the public and practitioners. To add to the results reported here, we have launched separate provincial surveys to obtain information from key stakeholder groups: the public and health care providers working on the front lines of health care delivery.

Although several key barriers and strategies were identified in the present study, the approach has inherent limitations. The context for ACP/GCD is Alberta, and although the information we developed could likely be applied to many multi-sector health care systems, an explicit process to promote system-specific engagement and input is critical. Also, we do not know that the views of the SCN Core Committee members who participated in the survey represent views across the province. Finally, given that many participants had limited knowledge of the ACP/GCD process, data about barriers to uptake might be skewed by that inexperience.

CONCLUSIONS

Using an inexpensive process, innovators and agents of change across a multi-sector health care system advised us of key barriers and facilitators to the implementation of ACP/GCD. With a strong understanding of the current barriers to uptake of the ACP/GCD process, our goal is to integrate the novel mitigating strategies that were also identified during the current process to improve integration of ACP into practice across Alberta's complex health care system.

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CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology*'s policy on disclosing conflicts of interest, and we declare that we have none.

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