Strengthening Commitment for Improvement *Together*

A Policy Framework for Patient Safety

Patient Safety RightNow

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Patient Safety Right Now, the Canadian Patient Safety Institute's (CPSI) 2018-2023 strategy, defines a vision that "Canada has the safest healthcare in the world." CPSI's mission is "to inspire and advance a culture committed to sustained improvement for safer healthcare."

CPSI develops system-wide strategies to ensure safe healthcare in two ways: by demonstrating what works to improve safe care in Canada, and by strengthening commitment to patient safety priorities among all healthcare stakeholders.

It has, however, become clear that not only are more robust commitments required to advance patient safety in Canada, but health systems need additional evidence and support to complete end-to-end patient safety improvements and to measure and sustain results. To this end, CPSI drafted the *Strengthening Commitment for Improvement Together: A Policy Framework for Patient Safety* (Figure 1) to stimulate conversation and action on the following policy levers: legislation, regulations, standards, organizational policies and public awareness.

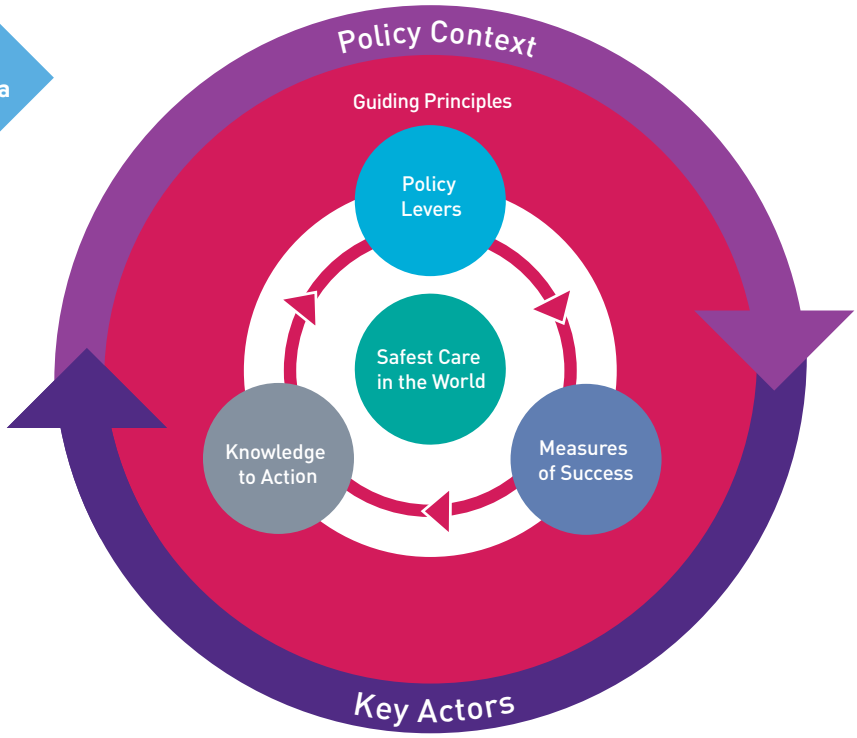
Whether you are a policy maker, healthcare leader, administrator, provider, or member of the public, you can help us achieve our goal.

Framework Components:

The following are the components of the *Policy Framework:*

- Policy Aim: Safest Care in the World;
- Policy Actors;
- Policy Context;
- Guiding Principles for Patient Safety;
- Policy Levers for Patient Safety;
- Measures of Success; and
- Knowledge to Action.

Figure 1: Policy Framework for Patient Safety in Canada



Key Messages:

Moving the needle on patient safety in Canada requires an overall shift in culture, values and expectations at all levels of the health system and the active engagement of various policy actors. CPSI recommends that the Policy Framework be used as a conceptual guide to implement and evaluate the policy levers and to systematically share what we have learned with others. The next steps in Canada are clear. People in Canada need policies that support patient safety, be it at the level of health care organizations, or by governments. These policies must incorporate patient safety competencies and adhere to accreditation standards that promote safe care.

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1. Introduction

Patient Safety Right Now, the Canadian Patient Safety Institute's (CPSI) 2018-2023 strategy defines a vision that "Canada has the safest healthcare in the world."[1] CPSI's mission is "to inspire and advance a culture committed to sustained improvement for safer healthcare." The organization develops system-wide strategies to ensure safe healthcare in two ways: by demonstrating what works to improve safe care in Canada, and by strengthening commitment to patient safety priorities among all healthcare stakeholders. These strategic directions are based on CPSI's evolution and new understanding of how to effect lasting change. It has become clear that not only are more robust commitments required to advance patient safety in Canada, but health systems need additional evidence and support to complete end-to-end patient safety improvements and to measure and sustain results.

Whereas CPSI previously worked with a wide range of willing participants, and informed accountability and improvement mechanisms such as regulation and accreditation, the new strategy focuses on key stakeholder relationships critical to influencing policy, legislation, standards and regulations and incorporating the best patient safety evidence and practices. CPSI will work with a smaller number of partners with firm commitments to the implementation and evaluation of robust safety improvement interventions. CPSI's strategy retains and enhances its partnership with Patients for Patient Safety Canada. CPSI will continue to empower patients and the public to advocate for the changes needed to improve patient safety outcomes and patient experiences in Canada.

Over the next five years, CPSI will interpret and provide evidence, moral imperative, and implementation guidance related to patient safety policy levers for provincial and territorial policymakers, organizational leaders, health profession regulators, and standard-setting and accrediting bodies.

Improving patient safety is not solely the domain of CPSI. CPSI acts as a catalyst, integrator and supporter for patient safety in Canada. Improving and sustaining health systems change requires an approach that frames patient safety within a complex system, which comes with various, often competing priorities and differences in resources, access, and needs. Patient safety is everyone's responsibility. A coordinated systems approach among all partners is required.

The implementation of policy levers will require aligned action by various policy actors, including but not limited to: governments, pan-Canadian health organizations, research funders, patients and their families, regulatory bodies, the Canadian public, employers and educators. CPSI's role as an improvement organization is to help build the capability of all actors in their roles, and to facilitate a policy environment for patient safety improvement.

[1] According to a Commonwealth Fund report released in 2017 Canada's overall healthcare performance record ranks 9th out of 11 OECD countries including on indicators related to quality and patient safety (Schneider *et al* 2017). It is therefore important to understand and take action on moving the bar on patient safety in Canada.

2. Patient Safety: A Public Health Crisis

Patient safety is a public health crisis in Canada and globally. In 2017, the Organization for Economic Cooperation and Development noted that one in every ten patient encounters with the healthcare system results in patient harm (Slawomirski *et al* 2017). Patient safety incidents constitute about 14% of the global disease burden and account for approximately 15% of hospital activity and expenditure (Slawomirski *et al* 2017). The patient safety incidents that contribute most to the disease burden include healthcare-associated infections, venous thromboembolism, pressure ulcers, medication error and wrong or delayed diagnosis (Slawomirski *et al* 2017). In addition,134 million adverse events contribute to 2.6 million deaths occurring annually in low and middle-income nation hospitals (National Academies of Sciences, Engineering and Medicine; 2018). Worldwide, unsafe medication practices and medication errors are a leading cause of healthcare-associated harm, with an estimated cost of $42 billion USD annually (Donaldson *et al* 2017).

In Canada, patient safety incidents are the third leading cause of death after cancer and heart disease, with just under 28,000 deaths in 2013 (RiskAnalytica 2017). Every one minute and eight seconds, a patient experiences harm in the Canadian healthcare system (RiskAnalytica 2017), while every 13 minutes, someone dies from a preventable patient safety incident. In the acute care setting, infections are the biggest driver of patient safety incidents accounting for roughly 70,000 patient safety incidents per year on average and generating an additional C$480 million per year on average in healthcare costs (RiskAnalytica 2017). Hospital harm cost the Ontario healthcare system $1 billion (CND) in the 2015/2016 fiscal years (Tessler *et al* 2019).

Various, and often one-off, quality improvement and patient safety initiatives have been implemented across Canada. Measures such as surgical safety checklists, bundles to prevent central line infections and reduce ventilator-associated pneumonia (CPSI 2012) are now standard practices across Canada. However, there has been no substantive improvement to patient safety in Canada despite the best efforts of committed healthcare providers, leaders, patients and families, CPSI and others for 15 years (Baker 2015; Vogel 2015). This continued rate and scale of harm is unacceptable. Canadians expect and deserve the safest care in the world. Now is the time to shift the conversation to improving patient safety using a health system approach.

This *Policy Framework* will advance the agenda on patient safety in Canada as CPSI takes its place in the policy arena. CPSI proposes that several levers be used and evaluated to improve patient safety including legislation, professional regulation, standards, organizational policies and public engagement. The *Policy Framework* is based on a model of continuous improvement and knowledge exchange to support the development of effective, adaptable and evidence-based policies at different levels across Canadian healthcare system.

3. Methodology

CPSI took a qualitative approach to identify various policy levers, outline guiding principles, and determine measures of success. A literature review of academic sources and grey literature and published documents was conducted. The following sources were analyzed to identify the policy levers and guiding principles to inform the *Policy Framework:*

1. A literature search of "policy levers" or "forces of change" for improving patient safety in Canada and internationally;
2. A review of relevant healthcare organizations, professional bodies and other public policy frameworks in Canada and internationally;
3. An analysis of the World Health Organization's (2018) *Handbook for National Quality Policy and Strategy;*[2]
4. An environmental scan of patient safety initiatives and reforms in other Canadian and international healthcare organizations (e.g. Mental Health Commission of Canada);
5. The work of two University of Alberta graduate students that outline directions for CPSI engaging in policy to improve patient safety (Erdmann 2018; Thompson 2016); and
6. A review and synthesis of CPSI's foundational work since its inception in 2003 related to improving patient safety through research and resource development to inform policy, legal and regulatory efforts (Appendix A).

A thematic analysis was used to identify emergent themes from the literature. CPSI's Policy, Legal and Regulatory Affairs Advisory Committee critically reviewed the *Policy Framework*. The Advisory Committee is comprised of leaders and experts from medicine, nursing, regulatory bodies, governments and non-government organizations, and patient partners. The Committee informed its development, offered feedback and assisted in identifying examples of policy levers or priority initiatives in patient safety along with the guiding principles and measures of success. The past and current Advisory Committee members at the time of publication are listed in Appendix B.

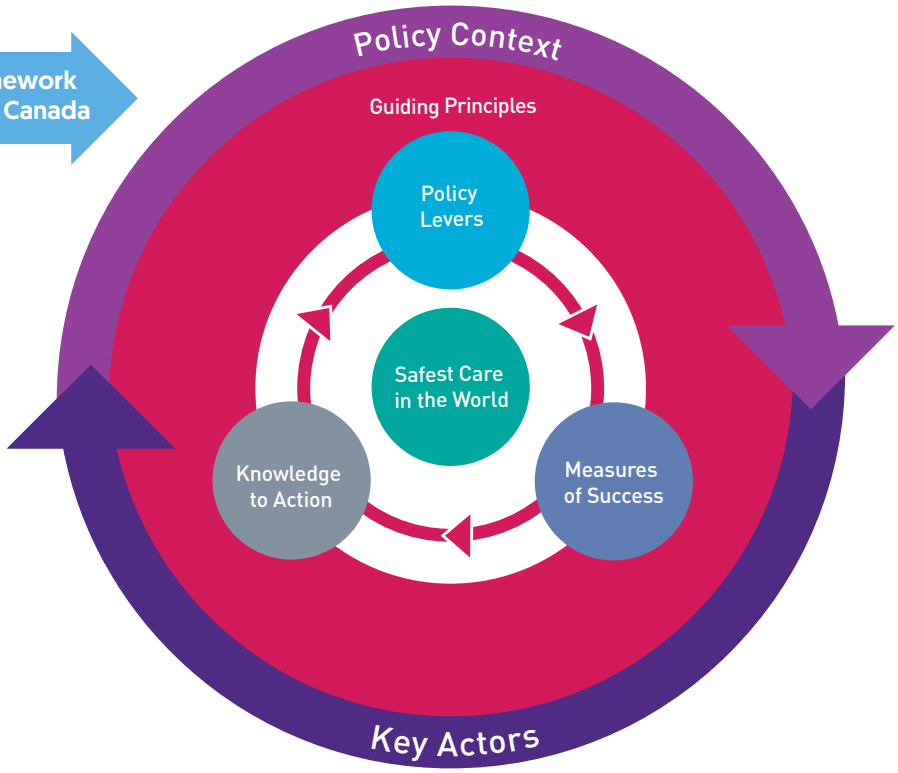
[2] The handbook and compendium of tools informs the WHO-led effort to support the development of national policies and strategies on quality of care - including patient safety (World Health Organization 2018).

4. A Policy Framework for Patient Safety in Canada

The overall goal of the *Strengthening Commitment for Improvement Together: A Policy Framework for Patient Safety* (referred to in this document as the *Policy Framework*) is to improve patient safety in all healthcare settings and to inform sustained, system-wide improvement.

The *Policy Framework* includes certain core components which are highly interrelated and may change as health systems evolve. The *Policy Framework* is intended to be a conceptual roadmap (Figure 1) that connects the relationships between identified policy levers with identified measures of success. It also highlights the underlying social, economic, political and cultural context that influences conversations on patient safety and the complex roles and relationships between policy actors. It is a guide to identify the policy gaps in Canada along with an evaluation of the identified policy levers.

Figure 1: Policy Framework for Patient Safety in Canada



The *Policy Framework* was developed to encourage discussion and guide action by policymakers, researchers, organizations, private and public healthcare delivery organizations, front line care providers, health managers, leaders, patients and their families, and the broader Canadian public. The *Policy Framework* can be used at different levels of the Canadian healthcare system. Provincial/territorial governments might use the *Policy Framework* to implement and evaluate legislation on mandatory reporting, disclosure and apology protection. The *Policy Framework* also sets the stage for learning from other jurisdictions or organizations.

4.1 Policy Aim: Canada has the Safest Care in the World

Given the ongoing burden of preventable patient harm across Canada, it is imperative that patient safety be prioritized at all levels of the healthcare system. It should be approached from a health systems lens that highlights the need for shifts in thinking related to health policy, governance, leadership, and practice (CPSI 2018a; CPSI 2018b). There is increasing evidence that engaging patients and the public as partners is vital in setting priorities, policies, systems and decisions that influence safety (CPSI 2018c).

Patient safety is not the responsibility of one organization, government or actor in the system, rather it relies on the intentional, coordinated and sustained effort of many. Moreover, healthcare reform is an on-going process that takes place within a highly complex system characterized by often-conflicting priorities, and limited resources such as time, finances and/or human resources (Forest *et al* 2015). There are challenges related to the alignment of strategies, measurement and accountability mechanisms that may influence policy implementation. For example, the successful implementation of legislation to enable reporting of critical incidents would need to take into consideration organizational policies and workplace environments including differing types of leadership, workplace culture, information technology, supports and resources such as the availability of time and optimal staffing.

4.2 Policy Context

Healthcare is a complex adaptive system that evolves and changes according to politics, sociocultural dynamics, available resources (e.g. human resources, information technology infrastructure), expectations and population health needs (Braithwaite 2018). The "policy context" refers to the systemic political, economic and social factors that influence the policy process (Buse *et al* 2012; Lewis and Fletcher 2005; Walt *et al* 2008). An analysis of the policy context across Canadian jurisdictions will identify the enablers for, or inhibitors to, advancing a patient safety agenda.

There are various contextual dimensions that underscore policies supporting patient safety. Globally, political will and committed leadership have been found to be essential for widespread patient safety improvements (CPSI 2018a). Patient safety policy development is also informed by trends in population health including increases in chronic illness and patient complexity, and population aging.

Crafting policies that support safe care ideally reflects the perspectives of different cultural groups as well as recognition of the social determinants of health, including income and social status, education and literacy, social supports and coping skills, culture and gender (Byrd and Thompson 2008; Gibson and Odeyemi 2012; Johnstone and Kanitsaki 2006). Cultural safety and recognizing Canada's reconciliation with First Nations, Métis and Inuit communities are critical to Canadian health policy (Browne *et al* 2009; Greenwood *et al* 2017; Richardson and Murphy 2018;Smye 2002).

Advancements in information technology (IT), robotics, apps, pharmacology and medical devices are also important for patient safety (Agboola *et al* 2016; Powell-Cope *et al* 2008). As an example, patient simulation training promotes team-based care and provides contextualized learning for providers

(Arnold *et al* 2018; Naik and Brien 2013). Innovations in IT and medical devices such as interoperable electronic medical records (Powell-Cope *et al* 2008), and barcode scanning for medication distribution (Institute for Safe Medication Practices Canada and CPSI 2013) are increasingly leveraged to improve patient safety. Finally, artificial intelligence (AI) and big data infrastructures are being used to promote safe patient care such as conducting risk predictions and stratifying disease (Borycki and Kushniuk 2019; He *et al* 2019; Neill 2013).

There are possible incentives and disincentives for organizational and health system change to support patient safety. Financial incentives or penalties can be leveraged to support patient safety including pay-for-performance initiatives to reduce re-admissions, and to support policies encouraging the reduction of patient safety incidents such as hospital acquired infections (Crawford Cohen *et al* 2018; Slawomirski *et al*. 2017).

4.3 Policy Actors in Patient Safety

At the heart of successful policy on patient safety are empowered and enthusiastic people and organizations with an interest in the success of the policy. A wide range of actors influence, and are influenced by the policy process to improve patient safety in Canada. The actors include: the federal, provincial and territorial governments, educators, researchers, regulators and professional associations, accreditation bodies, health authorities, non-governmental organizations, informal and family caregivers, Indigenous communities, healthcare providers, health leaders, employers, patients and patient advisors, and the public.

Policies that improve patient safety are embedded within a complex system of roles and relationships between the various actors in the policy process along with existing power dynamics and differences in perspective, prioritization and resource capacity (Buse *et al* 2012; Walt *et al* 2008). Policy actors influence a system of intricate relationships and processes such as sense-making, coalition-building, and rhetoric and persuasion (Contandriopoulos *et al* 2017). Ultimately it is a challenge to assign responsibility and accountability for patient safety, especially given a context of shifting priorities and changes in leadership (Dixon-Woods and Pronovost 2016).

Mapping the roles, relationships and power dynamics between the policy actors can be challenging, especially given the complexity inherent within the Canadian healthcare system (Béland 2014). Nevertheless, there are several tools available for identifying and mapping policy actors such as social network analysis and stakeholder analysis that includes healthcare workers (Bae *et al* 2015), patients, and the public (Bowen *et al* 2014; Brett *et al* 2012; Brugha and Varvasovszky 2000; Contandriopoulos *et al* 2017; Lewis 2006; Varvasovszky and Brugha 2000)

4.4 Guiding Principles Supporting Patient Safety Policy

The following guiding principles for the *Policy Framework* reflect the current values and desired goals underlying patient safety policy in Canada:

- Patient care is as safe as possible across the country, and efforts are made to prevent, respond to and learn from a patient safety incident.
- Jurisdictions and organizations have mechanisms for measuring and monitoring safety;
- Patients, families and the public are actively engaged and empowered;
- Supportive and engaged leadership promotes a culture of safety;
- A caring and just culture is established at all levels of Canadian healthcare ; and
- The health workforce is engaged and supported.

These principles are embedded within CPSI's Patient Safety "Bundle" for CEOs and Senior Leaders (CPSI 2018d). Highlighted in the "Bundle" are concepts that need action to move patient safety forward including psychological safety, a caring and just culture, patient safety measurement and front-line leadership (CPSI 2018d). These principles are not mutually exclusive. For instance, creating a caring and just culture within a healthcare setting requires strong and supportive leadership and an engaged workforce. These guiding principles may shift due to ongoing changes in the social, economic and political context and the perspectives of and relationships between policy actors.

These principles are important for if and how patient safety policies are implemented at different levels of healthcare systems. However, there may be challenges with the implementation of the policy levers. For instance, in organizations, policy implementation depends heavily on front-line staff and managers. Front-line staff and managers, however, often do not have the available time, training or human resource capacity (e.g. staffing, psychological safety) to make and sustain necessary workplace changes to support patient safety (Duffield *et al* 2011).

Patient care is as safe as possible across the country and efforts are made to prevent, respond to and learn from a patient safety incident.

Safe patient care is a core value of Canadian healthcare (Commission on the Future of Health Care in Canada 2002). Moving the bar on patient safety in Canada involves system-wide dedication. If unanticipated patient harm occurs, then steps are taken to ensure that patients and their families are provided with information about the incident in a timely, honest and transparent manner. Reasonable efforts are made through the policy levers to ensure that the incident is not repeated (Leape *et al* 2009). Processes of a patient-centred healthcare system support those involved in a patient safety incident, including healthcare providers, patients and their families so they will experience a transparent analysis of the incident. (Boothman 2016; CPSI 2011; Leape *et al* 2009; Moore and Mello 2017; Ock *et al* 2017). Furthermore, patients and their families need mechanisms for safe reporting of patient safety incidents along with supports (e.g. counselling) to assist them with the aftermath of a patient safety incident.

The approach of "find and fix" whereby patient safety incidents are identified and addressed has often been used in Canada and elsewhere (Braithwaite *et al* 2015). The reactive approach to harm reduction can be effective (Braithwaite *et al* 2015). At the same time there has also been a move toward incorporating proactive strategies that identify "what goes right" in preventing patient safety incidents (Braithwaite *et al* 2015; Jones and Johnstone 2019). Underscoring these proactive strategies is recognition of the ability of healthcare teams, organizations and systems to anticipate potential issues and to adapt and learn before patient safety incidents occur (Sujan *et al* 2019).

Mechanisms for measuring and monitoring safety are integral for improvement

The role of measuring, monitoring, and shared learning for quality and safety outcomes is becoming increasingly recognized by Canadian provincial/territorial/federal governments (Baker 2015). However, despite targeted advancements in several jurisdictions, there has not been substantive, system-wide improvement in patient safety. Principally, patient safety measures or scorecards are based on past patient safety incidents. While important lessons are learned from an analysis of past patient safety events, there is a need for a data infrastructure that supports real time monitoring, learning, and evidence-based quality improvement (Government of Manitoba 2015).

Reliable, standardized, and current qualitative and quantitative patient safety data is needed to guide policy at all levels. A useful model for conceptualizing this information is the *Measuring and Monitoring of Safety Framework* (MMSF) (Vincent *et al* 2013). The *MMSF* is a conceptual model that shifts understanding of safety from the absence of harm to the presence of safety through five dimensions: past harm; reliability; sensitivity to operations; anticipation and preparedness; and integration and learning (Vincent *et al* 2013).

Leaders, policymakers and care teams can apply the MMSF to guide understanding and decision-making on patient safety. The primary questions linked to the five dimensions of the MMSF are:

- **Past Harm:** Has patient care been safe in the past?
- **Reliability:** Are our clinical systems and processes reliable?
- **Sensitivity to Operations:** Is care safe today?
- **Anticipation and Preparedness:** Will care be safe in the future?
- **Integration and Learning:** Are we responding and improving?

Using the MMSF as a conceptual model provides a comprehensive and accurate, real-time view that can be used to assess, evaluate and maintain patient safety. The MMSF helps users move from "assurance" to "inquiry". It does so by shifting away from the conventional, narrowed focus of informing patient safety decision-making based on past cases of harm, towards a broader perspective of patient safety which considers current performance, future risks, organizational resiliency, and responding and learning. The MMSF is being implemented with teams at the point

[3] Patient stories and resources for patients and families are available on the following PFPSC website: https://www.patientsafetyinstitute.ca/en/About/Programs/PPSC/Pages/default.aspx (PFPSC n.d.).

of care, as well as with healthcare Boards, CEOs and senior executives. CPSI tested the MMSF in Canada through an evaluative research project (Baker 2015). The results were translated through a national initiative using collaborative methodology and implementation science principles.

Patients and families are actively engaged and empowered

Healthcare systems exist to serve the population; therefore, it is critical that people are at the heart of efforts to establish a caring and just culture. Such a culture must embrace and enable meaningful engagement of the communities served. Involving patients, families and communities in the planning, design, delivery and evaluation of health services ensures that priorities reflect what matters to them and introduces a new level of accountability and transparency for safe, high-quality care. Ideally, patients and families are fully engaged in their healthcare and are partners in efforts to improve patient safety (Ocloo 2010; Sharma *et al* 2017, CPSI 2018c).

Moving patient safety forward in Canada means that effective forums and sufficient resources for patient engagement are put in place (CPSI 2018c). The positive impact of patient engagement in patient safety is well demonstrated and facilitated by Patients for Patient Safety Canada (PFPSC), the patient-led program of CPSI and the Canadian arm of the World Health Organization's global PFPS network.[3] Launched in 2006 to ensure that the patient experience informs patient safety efforts at all levels of Canadian healthcare, PFPSC partners with CPSI, healthcare organizations and patient groups from Canada and around the world to ensure that every patient is safe (Kovacs-Burns 2008; Patients for Patient Safety Canada n.d.).

During the past decade, there has been increasing evidence that partnering with patients, families, and the public in program, policy and service design improves safety outcomes. The process also ensures patients and providers have better experiences. Patients and the public play key roles in identifying safety issues that existing systems may have missed, recommending actions that more effectively result in improved safety, and most important, helping focus policies and priorities on patient experience and what matters most to patients (CPSI 2018c).

Supportive and engaged leadership promotes a culture of safety

Supportive and engaged leadership at all levels across Canadian healthcare is critical for advancing patient safety (Kristensen *et al* 2016). This is reiterated by Kendel (2014) who stresses that the quality of leadership is integral to a culture of safety in Canada:

Strong leadership for quality and patient safety with the ability to set priorities relevant to the needs of the people - and foster an environment conducive to addressing those needs - is required among existing health system leadership at all levels, which may be aided by building quality improvement capacity among leaders themselves.

Moreover, engaged and supportive leadership fosters alignment between patient safety policies and strategies (WHO 2018). Strong leaders create and support a learning and improvement culture which focuses on maintaining safety, preventing harm and learning from errors. Sales *et al* (2017) argue that effective patient safety programs and policies require leadership that is welcoming and non-punitive, supports those who speak up, facilitates communication and teamwork, and ensures the mobilization of information. This patient safety leadership model enhances interpersonal and interprofessional openness and inquiry and reduces defensiveness (Sales *et al* 2017; Singer and Vogus 2013; Zaheer *et al* 2015). More specifically, to guide supportive leadership for patient safety, CPSI developed a Patient Safety Culture "Bundle" for CEOs and senior leaders (CPSI 2018d). In the "Bundle" are evidence-based practices for leadership to promote safe care delivery including cultivating "just culture" programs and processes, disclosure processes, and education and capacity-building in patient safety and quality improvement (CPSI 2018d). There are several mechanisms for establishing a patient safety culture in the "Bundle" for leaders including modeling key values, fostering psychological safety and establishing protocols for disclosure and apologies (CPSI 2018d).

A caring and just culture is established at all levels of Canadian healthcare

Embedding patient safety in healthcare requires a focus on building an "open and fair" healthcare culture with the requisite tools and processes, and expertise to support and maintain a positive culture. A caring and just culture in healthcare requires a transition from a culture of "shame and blame" towards learning, openness, collaboration, trust and continuous improvement (Canadian Medical Protective Association 2017; Kendel 2014). This shift requires strong leadership from clinicians, middle managers, senior leaders and governing boards, because they model the behaviours that staff will mirror and spread throughout the organization.

More specifically, a caring and just culture recognizes that errors will inevitably occur and are often due to multiple factors and system failures. A response that seeks only to blame will not adequately address system deficiencies and prevent future harm (Halpern *et al* 2016). By continually identifying and addressing latent system errors, a just culture promotes a safe environment for quality improvement by encouraging the identification and correction of system failures, while still acknowledging personal accountability (Boyner 2013). Focussing only on personal accountability may be seen to discourage careless or deficient practice; however, it may also encourage clinicians to practice defensively or fail to report mistakes. Alternatively, a caring and just culture provides a safe environment for providers to speak up about safe patient care (Nacioglu 2016; Okuyama *et al* 2014). Therefore, there is a need for improved awareness by governments and policymakers of the influence that healthcare culture has on quality and safety across a health system and a recognition that top-down, punitive policy measures may be detrimental and impede progress for improvement (World Health Organization 2018).

The health workforce is engaged and supported

The link between the health and well-being of healthcare providers and patient safety is well established (National Patient Safety Foundation 2015; Yassi and Hancock 2005). Healthcare workplaces that have reasonable workloads, optimized staffing, flexible scheduling, professional development opportunities, and supportive leadership have better patient safety outcomes (Kirwin *et al* 2013; Shamian and El-Jardali 2007). Experiencing "joy at work" also translates into safer patient care (Leape *et al* 2009; National Patient Safety Foundation 2013; Perlo *et al* 2017). Alternatively, clinician burnout can lower staff engagement, increase workplace accidents and lead to patient safety incidents (Perlo *et al* 2017). Likewise, disruptive behavior in the healthcare workplace and high staff turnover can lead to unsafe patient care (Health Quality Council of Alberta 2013; Laschinger 2014; Stone *et al* 2008).

Canadian healthcare is increasingly delivered by teams who work together to provide safe patient care (Gluyas 2015; Weller *et al* 2014). Effective teamwork and communication are key for safe care. For example, ineffective communication between team members especially during transitions in care can lead to the misinterpretation of patient information, medication errors and overlooked changes in health status (Kwan *et al* 2013; Weller *et al* 2014). Improving interprofessional team coordination and communication informed the creation of the TeamSTEPPS® program system by the Agency for Healthcare Research and Quality. This program is a means of enhancing patient safety through improved team-based care, with a focus on leadership, situational monitoring, mutual support and communication (Parker *et al* 2018). CPSI took a leadership role in advancing team-based care by delivering a TeamSTEPPS Canada™ Master Training course (CPSI n.d.).

It is also imperative to support providers and leaders when a harm event occurs. There is increasing recognition of how patient safety incidents affect the care team (Seys *et al* 2012). Following a patient safety incident, providers may experience feelings of guilt, incompetence, trauma or inadequacy (Scott *et al* 2009; Wu *et al* 2017).[4] Peer support programs help providers who have experienced or witnessed an incident cope and improve their ability to more effectively participate in patient safety incident reviews and disclosures.[5] CPSI is raising awareness and understanding of the influence of patient safety incidents on providers and supporting healthcare organizations and health professional associations with developing and implementing provider-support programs.

[4] There is considerable discussion about the term "second victim" and consideration is being given to terminology (please see Wu 2017).

[5] Peer support is increasingly used to enhance recovery for patients living with mental health issues and addictions through shared experiences, coping strategies and empathy and acceptance (Repper and Carter 2011).

4.5 Policy Levers for Patient Safety

Policy levers are mechanisms available to decision-makers to influence system changes (Howlett 2011). There are various policy levers that can shift the dynamics of patient safety in Canada including legislation, professional regulation, accreditation standards, organizational policies, and patient and public engagement. While improving patient safety represents a popular ideal of health policy, in practice there is still imperfect knowledge about the choice of which policy levers to use, when to use them and in what combination.

Legislation

Federal, provincial and territorial governments can impose changes to the Canadian healthcare system through legislation to support and/or mandate patient safety (Baker *et al* 2004; Denis *et al* 2011). Government leadership is essential for putting into place protections to address and reduce patient safety incidents in healthcare. As an example, the Government of Canada enacted Protecting Canadians from Unsafe Drugs Act (Vanessa's Law)[6] to identify adverse drug reactions and medical device incidents, impose penalties for unsafe products, and prompt recalls of unsafe therapeutic devices (Fierlbeck 2016). The law strengthens the current regulation of therapeutic products through mandatory reporting by health institutions across Canada, thereby improving patient safety by improving Health Canada's ability to collect information and quickly act upon unsafe drug or medical device products (Health Canada 2016).

Legislation on disclosure and apology protection is critical not only to the well-being and healing of patients and the providers involved, but also adds to the overall culture of safe patient care in Canada (Baker 2014; MacDonald and Attaran 2009). There is, however, considerable variation among the provinces and territories relating to mandatory reporting of patient safety incidents, apology protection and the degree to which legislation includes accountability or enforcement mechanisms for noncompliance (Erdmann 2019). Some provinces have legislation in place for the reporting of critical incidents or serious events while others either do not have any legislation in place or have it in place for only a segment of the health system (e.g., hospitals) (Erdmann 2019). Furthermore, some legislation addresses only the critical incident, while others address disclosure to the patient harmed, apology protection for the healthcare provider, and quality assurance protection for an incident.

Professional Regulation

Professional regulators have the legal mandate to enforce restrictions and conditions for practice and to set out standards for professional conduct and practice (Government of Manitoba 2015; Rowland and Kitto 2014). Embedding patient safety within professional self-regulation sets out clear expectations for safe patient care by healthcare providers.

[6] Vanessa's Law is named in honour of Conservative MP Terence Young's 15-year-old daughter Vanessa who died in 2000 from an adverse drug event.

Several Canadian regulatory bodies have embedded patient safety into their core competencies (Rowland and Kitto 2014). Together with the Royal College of Physicians and Surgeons of Canada and a vast network of health professionals and leaders, CPSI developed a Safety Competencies Framework (SCF) in 2008 with a later revision being published in 2019. The SCF was created to identify the knowledge, skills, and attitudes required by all healthcare professionals to provide safe care (CPSI 2008; CPSI 2019a). The SCF includes the following six domains for patient safety competencies:

- Contribute to a culture of patient safety;
- Work in teams for patient safety;
- Communicate effectively for patient safety;
- Manage safety risks;
- Optimize human and environmental factors; and
- Recognize, respond to, and disclose adverse events.[7]

These concepts are being integrated into pre-professional education by post-secondary educational institutions and post-professional training by healthcare organizations. The SCF has been endorsed by various professional groups and healthcare organizations such as the Royal College of Physicians and Surgeons, the Canadian Nurses Association and the Canadian Physiotherapy Association (Prairie Research Associates 2017). Some licensing and regulatory bodies are actively including policies supporting safe patient care within their codes of ethics and conduct, and in standards of practice. For instance, the Royal College of Physicians and Surgeons of Canada have included key concepts of patient safety in CanMEDS, a framework for improving patient care by enhancing physician training (CPSI 2016). At the time of publication of the *Policy Framework* the SCF was undergoing revision to reflect current concepts, issues, practices and curricula in patient safety, to simplify the competencies for usability and to strengthen health professional education and standards (CPSI 2019a).

Standards

Accreditation is an important driver for patient safety and quality improvement. Most healthcare organizations in Canada are accredited by Accreditation Canada using a set of evidence-based standards (Braithwaite *et al* 2006; Greenfield *et al* 2012). In 2017, Accreditation Canada established the Health Standards Organization (HSO) to develop and communicate global standards on such topics as healthcare governance, patient safety and quality, infection prevention and control, and medication management (HSO n.d.). Approximately 100 customizable standards to drive health and social care improvement are available (HSO n.d.). The standards are developed in partnership with patients, policymakers and healthcare providers (HSO n.d.).

[7] Within the six domains are 20 key competencies, 140 enabling competencies, 37 knowledge elements, 34 practical skills, and 23 essential attitudes (CPSI 2016).

The Canadian Quality and Patient Safety Framework for Health and Social Services (herein referred to as the Framework) was drafted through a partnership between CPSI and HSO. The Framework was supported by an advisory committee including healthcare providers, patients and family members, researchers and policymakers, indigenous and non-indigenous members. The draft Framework reflects and builds on the perspectives developed through significant investments and contributions from several federal, national and provincial and territorial organizations, as well as recent work from the OECD, World Bank and the World Health Organization. The Framework describes aspirational goals, objectives and outcomes for organizations and jurisdictions to promote safe patient care. It is anticipated that the Framework and goals will be published in 2020 and will enable the development of clearer pathways for action for healthcare and social services organizations (CPSI 2019b).

Organizational Policies

Improving safety requires an organizational culture that enables and prioritizes patient safety. The importance of culture needs to be brought to the forefront of safety activities.[8] Organizational governance, leadership and technical capacity across the health system are all necessary factors for improving patient safety. It is useful to consider the importance of developing and institutionalizing a "culture of patient safety" in organizations and across the health system for sustainable and meaningful change.

There are various factors at the organizational level that drive patient safety and quality improvement. Leadership from the board level cascading down through an organization's CEO and senior executives plays an important role with signalling the importance of patient safety. Healthcare organizations and boards will allocate time and resources on their agendas to discuss and address patient safety and quality. They will also establish daily management systems to understand risks to patients and incorporate patient safety within the organizational vision statement and strategy.

Healthcare organizations committed to patient safety put in place policies that are enablers to safe care including the following: practices and procedures for reporting and analyzing incidents; involving patients' families in care planning; support for providers; support for harmed patients and their families; ongoing quality improvement and continuous learning; methods for team communication (e.g. surgical checklist) and standardized protocols (e.g. hand hygiene); and opportunities for professional development and training (Vats *et al* 2010). They leverage advances in information technology to support patient care (Institute for Safe Medication Practices Canada and CPSI 2013; Powell-Cope *et al* 2008). There are also many examples of human factor design and planning principles that can optimize a safe environment for patients and care providers including equipment maintenance and facility design (Joseph *et al* 2018; Olmsted 2016). One example is the location and number of sinks in a patient room which may influence hand washing and infection prevention and control (Deyneko *et al* 2016; Steinberg *et al* 2013). Another example is the mitigation of falls by having well-maintained equipment (e.g. handrails and grab bars, ceiling lifts) in place (Ganz *et al* 2013).

[8] For this paper, "organizations" is limited to health service delivery organizations including, but not limited to regional health authorities/ districts, primary care networks, local health integration networks, hospitals, public and private long-term care facilities, home care, private practitioners, and primary care clinics.

Public Engagement

The public are at the heart of efforts to advance a culture of quality and safety across the Canadian healthcare; therefore, systems must be established to actively and meaningfully engage the Canadian public through different avenues such as advisory committees and public forums. Investment in the structures and skills required for engagement can be a powerful means to set and institutionalize a culture of quality within a health system (World Health Organization 2018).

One avenue for moving towards safe healthcare is to engage the public by raising their awareness of the current state of patient safety and showing them how they can influence change (Denis *et al* 2011). CPSI is committed to working in partnership with Patients for Patient Safety Canada on increasing the profile of patient safety and raising expectations for improvement (CPSI 2018a). In 2018, a survey of Canadians revealed that approximately only a third were aware of patient safety issues, while roughly the same percentage reported that they had experienced a patient safety incident either as a family member or as a patient themselves (IPSOS 2018). Once they were informed of patient safety issues, including the magnitude and impact of preventable healthcare harm, the majority of respondents (75%) ranked it as a top healthcare concern – up from 33% before awareness (IPSOS 2018).

High profile cases and tragedies raise public awareness about patient safety, especially through social media, which may in turn drive remedial actions at different levels of governance (Vincent 2011). The *Protecting Canadians from Unsafe Drugs Act* (Vanessa's Law) is a very recent example. The death of a Canadian teenager linked to unsafe medication raised public outcry and led to amendments to protect Canadians from unsafe medical devices and medications (Hohl *et al* 2015). Raising public awareness of patient safety requires inclusive goal setting, coordination, and effective communication strategies using social media, podcasts, media releases and presentations.

4.6 Measures of Success for Patient Safety in Canada

The policy levers noted in the *Policy Framework* are envisioned to improve patient safety in Canada and ultimately lead to the overall CPSI vision of Canada having the safest care in the world. The following measures of success for each policy lever were identified through literature review, intelligence gathering from regional relations activities and feedback, collaboration with PFPSC, and consultations with CPSI's Policy, Legal and Regulatory Affairs Advisory Committee to monitor the progress of activities to prevent and reduce harm.

Legislation

- Provincial and territorial Health Ministries advance patient safety through legislation that ensures transparency in the reporting and disclosure of patient safety incidents, apology and quality assurance processes, and public reporting.
- Monitoring systems are in place across Canada to measure and report consistently on safety as well as the rates and scale of harm, using shared definitions across the provinces and territories.

Regulations

- Professional associations and regulatory bodies include patient safety competency standards into their professional standards of practice.
- All professional licensing requirements include patient safety practice standards.
- Patient safety competency standards are incorporated into professional development tools and strategies.

Standards

- Organizational practices promote and enforce patient safety through the incorporation of health standards across Canada and will be measured through accreditation practices.

Organizational Policies

- Healthcare organizations are supported by boards and senior leadership to adopt policies that support a just and open culture of safety, enable transparency and reporting, and involve patients and families at every level.

Public Engagement

- Patient safety awareness increases among Canadians.
- The profile of patient safety is a priority across health systems in Canada.

These measures of success ultimately set up idealized situation for ensuring patient safety through concerted and sustained action such as legislative changes, improved patient and public engagement, and changes to professional regulations, standards and accreditation.

4.7 Knowledge to Action in Patient Safety

An important element to assessing the role and influence of, and synergy between the policy levers is linking evidence to action on a continuous basis. There is a need to establish connections made between the generation of knowledge and the development, implementation and evaluation of effective, realistic, and appropriate policy levers for improving patient safety in Canada. The concept applies to all levels and includes the rapid and purposeful generation of new evidence for system-level policy development and implementation for patient safety (Boes *et al* 2018; Etheredge 2014; Etheredge 2007; Lavis *et al* 2018). While there are various conceptual models and frameworks for knowledge translation in health care, CPSI is using Knowledge to Action Framework (KTA) developed by Graham *et al* (2006) as a means of demonstrating the intricate cyclical processes of knowledge generation, policy evaluation and mutual learning and sharing.

Key to the KTA cycle in the patient safety improvement process is partnership development in setting priorities for patient safety. Identifying strategies and measures of success for patient safety can be achieved through mutual learning, partnerships and the exchange of knowledge (Baker and Axler 2015). There is also growing recognition that there are no "one size fits all" strategies for improving patient safety. Braithwaite *et al* (2014), for instance, stressed that while there is a growing amount of literature on patient safety interventions and policies, more attention is needed on the factors associated with translating evidence into practice. The levers that work in one context may not be as effective in another. In this respect, methodological and theoretical frameworks such as implementation science (Braithwaite *et al* 2014, Fisher *et al* 2016) and realist evaluations (Best *et al* 2012; Pawson *et al* 2005) are tools that could be used to highlight the role of the social, political and economic policy context and the role of and interactions between key actors on the policy levers.

There are some practical tools available to promote knowledge exchange and translation. Investments and infrastructure for mutual learning about the effectiveness of policy levers for patient safety will improve Canadian patient safety. CPSI serves as a clearinghouse for evidence and information on patient safety. Other knowledge transfer and exchange tools include consensus building (Renfew *et al* 2008) and informal or formal networks and partnerships (Broner *et al* 2001). Key to the knowledge transfer and exchange process for the patient safety policy levers are clear and effective communication and ownership by leaders, researchers, patients, and other policy actors (Broner *et al* 2001; European Commission 2010; Jones *et al* 2006). It is also important to develop the most appropriate key messages for different actors in Canadian healthcare. Improving public awareness, for instance, will require effective public relations and communication strategies.

5. Discussion

CPSI is the national authority on patient safety, mandated to inform and build the capacity of Canadian governments, organizations, healthcare providers and the public to improve and sustain patient safety at a system level. As the third leading cause of death in Canada (RiskAnalytica 2017), patient safety incidents result in immeasurable harm and trauma to patients, families and providers, and our communities. It is absolutely necessary to raise the bar and expectation for patient safety across the country.

This is not a simple task. Patient safety will not become an item on government healthcare agendas at the provincial and territorial level until there is political will to do so and long-term objectives are set outside of short-term political cycles. There are many competing demands across Canadian healthcare systems as well as ever-changing priorities. Canadians need to better understand what policy levers are the most effective in improving patient safety and how to ensure their sustainability and spread across Canada. Improving patient safety in Canada entails embracing system complexity, ensuring continuous improvement across healthcare sectors, leveraging advances in IT and models of care, and putting into place the infrastructure for data sharing and mutual learning. These activities take patient safety beyond the linear "find and fix" model toward one that incorporates system complexity and unpredictability (Braitwaite *et al* 2015; Jensen 2008; Braithwaite 2018). It also requires the identification and analysis of the roles, responsibilities and power dynamics between policy actors and the contexts in which policy levers for patient safety are crafted, implemented and evaluated.

Much of what is known about patient safety in Canada is limited to the acute care setting. There are gaps in our knowledge about effective policies that require further investigation. For instance, Kingston-Riechers *et al* (2010) argue that further research and data is needed in Canada on the nature of patient safety in primary care as well as effective strategies for improvement. There is a shortage of information about patient safety issues within mental health including incidences of stigma and overmedication (Brickell *et al* 2009; Dewa *et al* 2018; Emanuel *et al* 2013; Shields *et al* 2018). Patient safety in home care, primary care and long-term care facilities also requires further examination (Bigham *et al* n.d.; Blais *et al* 2013; CPSI 2013; Daker-White *et al* 2015; Gartshore *et al* 2017; Kingston-Riechers *et al* 2010; Lang *et al* 2007; McDonald *et al* 2015; Wagner *et al* 2009).]

Most of the evidence and literature on patient safety extends to regulated healthcare providers. Of these, the focus has been on physicians, nurses and pharmacists, yet many of Canada's healthcare services are provided by unregulated providers such as healthcare aides (Afzal *et al* 2018) or by informal caregivers. Various tasks that protect patients from patient safety incidents (e.g. infection control, fall prevention) are performed by a range of staff including environmental and laundry service workers and facility maintenance (Sokas *et al* 2013). Moreover, many patient safety incidents occur during transitions in care such as between healthcare providers and caregivers, during changes to service provision (e.g. discharge from acute care services to community-based services), or between different jurisdictions (Kahn and Angus 2011).

Patients and their families come with differing perspectives, expectations and needs that inform their experiences of safety. It is imperative to understand patient safety in Canada through an inclusivity and equity lens which comprises a wide and diverse range of Canadians such as the Inuit, Métis, and First Nations Canadians, newcomers, the homeless, and rural and remote communities. Given this variety, meaningfully engaging the public and patients from diverse sociocultural backgrounds will improve the richness and effectiveness of patient safety policy levers. It is also essential to foster a caring and just culture through the development of open and honest conversations with and supports for patients and their families, and providers when harm occurs.

None of the above are new issues or insights. They are, however, critical to the overall understanding of what levers work, for whom and in what circumstance. Driving patient safety reforms in primary healthcare, for instance, is embedded within a different set of relationships and contextual factors than reforms in acute care services. Providers working in communities in the northern territories typically have a much different human resource and technology dynamic than providers in southern regions in Canada. Thus, any overarching shift in policy may have traction at different points in service planning or delivery and for different actors in the healthcare system.

There are various challenges for developing and implementing the identified policy levers that need to be addressed. These challenges include the following:

- Variability in terminology and definitions related to patient safety across Canada;
- Differing approaches to measurement;
- Inconsistencies in reporting, learning and sharing models;
- Very limited public awareness of the problem; and
- The stigmatization of being involved in or reporting a patient safety incident (for providers and patients).

Addressing these challenges requires a concerted effort and investments along various avenues. For one, Canada has not been adept at scaling up and mutually learning from innovations (Advisory Panel on Healthcare Innovation 2015). Pilot projects in patient safety may yield good patient, system and provider outcomes; however, without any infrastructure or process for knowledge exchange, support by policy actors (including patients and providers) and investments, they may not have traction on a large scale. Achieving the safest care in the world through the identified policy levers will not be successful without identifying and taking advantage of innovations in e-technologies (e.g. artificial intelligence), technologies (e.g. simulation) and information technology.

Patients and the public are increasingly demanding transparency. Open communication at all levels of healthcare provision is needed especially when adverse safety events happen (Gallagher and Mazor 2015; Kachalia 2013). Achieving transparency is not just the domain of healthcare providers, leaders and organizations. Ongoing reporting, sharing and a relentless commitment to learning and improvement are within the responsibility of all actors in Canadian healthcare. To this end, investments are needed in infrastructure to support learning health systems including the generation and "real time" use of big data (e.g. to identify and share information about healthcare associated infections). This includes data and information sharing across sectors, professions and the provinces and territories.

6. Conclusion

Moving the needle on patient safety in Canada requires an overall shift in culture, values and expectations at all levels of the health system and the active engagement of various policy actors. Leape *et al* (2009) argue that patient safety does not just depend on specific improvement efforts, practices and rules, but on achieving a culture of trust, reporting, transparency and discipline at different levels of the healthcare system. It is also important to move beyond the inertia that comes from the sheer complexity of the healthcare system in Canada (e.g. different models of care, funding structures, interactions and social actors). What will be key to the effectiveness of the policy levers, such as legislation and public awareness, is the ongoing evaluation of policies and mechanisms for knowledge exchange.

The CPSI *Policy Framework* is intended to assist policymakers, leaders, researchers and evaluators, managers and healthcare providers in identifying what works to improve patient safety and guide discussions on effective and realistic legislation, policies, regulations and standards. It builds on best practices which demonstrate improvements in patient safety and assists with identifying gaps in knowledge and practice. The *Policy Framework* incorporates the unique social, political and economic contexts across Canada that underscore policy decision-making and the principles that guide patient safety policy development and implementation.

To this end, CPSI recommends that the *Policy Framework* be used as a conceptual guide to implement and evaluate the policy levers and to systematically share what we have learned with others. The next steps in Canada are clear. People in Canada need policies that support patient safety, be it at the level of health care organizations, or by governments. These policies must incorporate patient safety competencies and adhere to accreditation standards that promote safe care. There is a need to explore how to improve public awareness of patient safety and include patients and families in decision-making It is also important to evaluate the policy levers within the Canadian political and social context – including the limitations created by short term political decision-making and a lack of prioritization. Recognizing challenges across sociocultural populations, socioeconomic status, geographical locations are also important elements of ensuring that all people in Canada are entitled to and receive safe care.

The Goal in Canada is to have the Safest Health Care in the World.

People in Canada Expect and Deserve No Less.

Appendix A. Policy Key Resources Developed by CPSI

These references are available on the Canadian Patient Safety Institute website.

CPSI has contributed many foundational documents to the Canadian landscape in terms of advancing patient safety, including reports and frameworks listed below, checklists (e.g. surgical safety), clinical improvement initiatives (e.g. infection, delirium and falls prevention), large scale improvement initiatives (e.g. Safer Healthcare Now!) legislative scans (e.g. mandatory reporting across Canadian provinces and territories), educational programs (e.g. patient safety officer course) and academic research (e.g. teamwork and communication), yet patient safety remains an underappreciated and serious public health issue. There is a distinct lack of public awareness and political support for activities to improve patient safety, considering that preventable harm contributes to increased costs and inefficiencies in an already resource-constrained funding environment. The degree to which preventable harms are accepted as a routine complication of care and the lack of action to improve safety would be unacceptable in any other industry.

The following CPSI resources were scanned in this review:

Canadian Disclosure Guidelines: Being open with patients and families (2008): The Canadian Disclosure Guidelines build on various patient safety initiatives currently under way across Canada. They assist and support healthcare providers, inter-professional teams, organizations, and regulators. These guidelines symbolize a commitment to patients' right to be informed if they are involved in a patient safety incident by promoting a clear and consistent approach to disclosure, emphasizing the importance of inter-professional teamwork, and supporting learning from patient safety incidents.

Canadian Incident Analysis Framework (2012): The Canadian Incident Analysis Framework is a resource to support those responsible for, or involved in, managing, analyzing and/or learning from patient safety incidents in any healthcare setting with the goal of increasing the effectiveness of analysis in enhancing the safety and quality of patient care.

Communicating After Harm in Healthcare (n.d.): This resource was developed by the Canadian Patient Safety Institute to assist healthcare providers and organizations through the process of communicating after patient safety incidents that resulted in harm. It can help guide organizations with strategies and tactics for communicating harm in healthcare with various audiences, including through social media.

Patient Safety and Incident Management Toolkit (2015): The toolkit provides practical guidance and resources for improving patient safety by providing practical, strategies and resources to manage incidents. There are three sections to the toolkit: Patient safety management—the actions that help proactively anticipate patient safety incidents and prevent them from occurring; System factors—the factors that shape and are shaped by patient safety; and Incident management—including legislation, policies, culture, people, processes and resources.

The Safety Competencies Framework (2009): Educating healthcare providers about patient safety and enabling them to use the tools and knowledge to build and maintain a safe system are critical to creating one of the safest health systems in the world. The Safety Competencies is a relevant, clear, and practical framework designed for all healthcare professionals, created by the CPSI.

Report on the Integration of the Safety Competencies Framework (2016): Provides an important snapshot of the current state of patient safety education in academic settings that could serve as a rudimentary baseline for future comparisons, and a better understanding of the value of the competencies in academia, for national health organizations and professional bodies.

Measuring Patient Harm in Canadian Hospitals (2016): Most patients in Canadian hospitals experience safe care, but when harm happens, there is a significant impact on patients, families, the healthcare team, and the health system in general. Until now, there hasn't been a standard approach to measuring and monitoring harm experienced by patients in hospital. CPSI and CIHI have been collaborating on a body of work on hospital harm. The result is a new measure of patient harm that occurs in acute care hospitals, linking the measurement work directly with practical resources for improvement.

The Case for Investing in Patient Safety in Canada (2017): In order to understand the impact of patient safety in Canada over the next 30 years, RiskAnalytica used Prosperity at Risk (PaR), an integrated socio-economic computer platform that incorporates social, health, and financial factors in a networked modeling system. RiskAnalytica linked patient safety incident rates from the latest Canadian research sources to the PaR platform in order to derive the costs of patient safety incidents.

Never Events for Hospital Care in Canada (2015): This report represents the collective work of the National Patient Safety Consortium to identify, for the first time, a list of 15 "never events" for hospital care in Canada. Never events are patient safety incidents that result in serious patient harm or death and that are preventable using organizational checks and balances. Never events are not intended to reflect judgment, blame or provide a guarantee; rather, they represent a call-to-action to prevent their occurrence.

A Framework for Establishing a Patient Safety Culture: The Patient Safety Culture "Bundle" for CEOs and Senior Leaders (2018): This tool encompasses key concepts of safety science, implementation science, just culture, psychological safety, staff safety/health, patient and family engagement, disruptive behavior, high reliability/resilience, patient safety measurement, frontline leadership, physician leadership, staff engagement, teamwork/communication, and industry-wide standardization/alignment.

Engaging Patients in Patient Safety – a Canadian Guide (2018): This extensive resource, based on evidence and leading practices, helps patients and families, patient partners, providers, and leaders work together more effectively to improve patient safety. Working collaboratively, we can more proactively identify risks, better support those involved in an incident, and help prevent similar incidents from occurring in the future.

Creating a Safe Space (2018): CPSI endeavours to clarify the legal privilege and professional confidentiality considerations of implementing peer-to-peer support programs for health professionals who are emotionally affected by a patient safety incident. This work will help healthcare organizations create psychologically safe support programs, assist health professionals who are seeking support to understand what is protected and what is not, enable patients to gain insight into health professionals' experience, and encourage policymakers to consider what might need to change – including enhanced protections for these communications – to ensure health professionals are supported after a patient safety incident.

Appendix B. Members of CPSI's Policy, Legal and Regulatory Affairs Advisory Committee (2017-2019)

Name	Title	Organisation
Chris Power (co-chair)	Chief Executive Officer	Canadian Patient Safety Institute
Bill Tholl (co-chair)	Founding President and CEO	HealthCare*CAN*
Owen Adams	Chief Policy Advisor	Canadian Medical Association
Judy Birdsell	Member	Patients for Patient Safety Canada
Katarina Busija	Member	Patients for Patient Safety Canada
Denise Durfy-Shepard	Manager, Office of Adverse Events	Department of Health and Community Services, Newfoundland and Labrador
Katharina Kovacs Burns	Member	Patients for Patient Safety Canada
Dr Alika Lafontaine	Anesthesiologist North Zone Medical Director – Indigenous Health	Alberta Health Services
Lynn MacKenzie	Chief Executive Officer	Child Development Institute
Steven Lewis	President Adjunct professor of Health Policy	Access Consulting Ltd. Simon Fraser University
Jonathan Mitchell	Vice-President, Research and Policy	HealthCare*CAN*
Kathy Perrin	Assistant Deputy Minister (retired)	Government of Nunavut
Carolyn Pullen	Director, Policy, Advocacy and Strategy	Canadian Nurses Association
Josette Roussel	Senior Nurse Advisor	Canadian Nurses Association
Patricia Sullivan-Taylor	Executive Lead, Canadian Policy and Partner Engagement	Health Standards Organization
Colin Stevenson	Vice-President - Health Services, Quality and System Performance	Nova Scotia Health Authority
Lindy Van Amburg	Assistant Director, Strategic Policy Branch	Health Canada
Jennifer Verma	Senior Director	Canadian Foundation for Healthcare Improvement
Mike Villeneuve	Chief Executive Officer	Canadian Nurses Association
Brent Windwick, QC	Attorney (retired)	
Mark Wyatt	Assistant Deputy Minister	Saskatchewan Ministry of Health
Anna Ziomek	Registrar	College of Physicians and Surgeons of Manitoba

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