Regulating During Crisis: A Qualitative Comparative Case Study of Nursing Regulatory Responses to the COVID-19 Pandemic

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Background: The COVID-19 pandemic placed intense pressure on nursing regulatory bodies to ensure an adequate healthcare workforce while maintaining public safety. **Purpose:** Our objectives were to analyze regulatory bodies' responses during the pandemic, examine how nursing regulators conceptualize the public interest during a public health crisis, and explore the influence of a public health crisis on the balancing of regulatory principles. We aimed to develop a clearer understanding of regulating during a crisis by identifying themes within regulatory responses. **Methods:** We conducted a qualitative comparative case study examining the pandemic responses of eight nursing regulators in three Canadian provinces and three U.S. states. Data were collected from semi-structured interviews with 19 representatives of nursing regulatory bodies and 206 publicly available documents and analyzed thematically. **Results:** Five themes were constructed from the data: (1) risk-based responses to reduce regulatory burden; (2) agility and flexibility in regulatory pandemic responses; (3) working with stakeholders for a systems-based approach; (4) valuing consistency in regulatory approaches across jurisdictions; and (5) the pandemic as a catalyst for innovation. Specifically, we identified that the meaning of "public interest" in the context of high workforce demand was a key consideration for regulators. **Conclusion:** Our results demonstrate the intensity of effort involved in nursing regulatory responses and the significant contribution of nursing regulation to the healthcare system's pandemic response. Our results also indicate a shift in thinking around broader public interest issues, beyond the conduct and competence of individual nurses, to include pressing societal issues. Regulators are beginning to grapple with these longer-term issues and policy tensions.

Keywords: Regulation, nursing, COVID-19 pandemic, licensure, qualitative case study, legislation

The COVID-19 pandemic created intense pressure on nursing regulatory bodies. With nurses on the front lines of the public health crisis, nursing regulators were challenged to ensure an adequate healthcare workforce while maintaining public safety. In this qualitative comparative case study, our interdisciplinary research team explored how regulatory decisions were made in three Canadian provinces and three American states during the pandemic. Specifically, we analyzed nursing regulatory responses to examine the impact of the public health crisis on conceptualizations of the public interest and explore tensions in the regulatory agenda during the pandemic.

Background

Nurses are the largest group of regulated health professionals in Canada (Canadian Institute for Health Information, 2021) and in the United States (Smiley et al., 2021). In both countries, nursing regulation falls under the jurisdiction of the provincial/territorial or state government. Nursing regulators in both countries are responsible for regulating the profession in the public interest through functions such as setting entry to practice requirements, maintaining a register of those authorized to practice, monitoring continuing competence, and investigating and sanctioning nurses who deviate from standards of practice.

Serving the public interest through these regulatory functions exposes potentially conflicting policy tensions, such as public versus professional interests, transparency versus privacy, and accountability versus flexibility. For example, some may rationalize restrictions on entry to practice or scope of practice as necessary for public protection; however, such restrictions may serve incumbent professionals by reducing competition. Additionally, these restrictions may not serve the public if they reduce access to health-

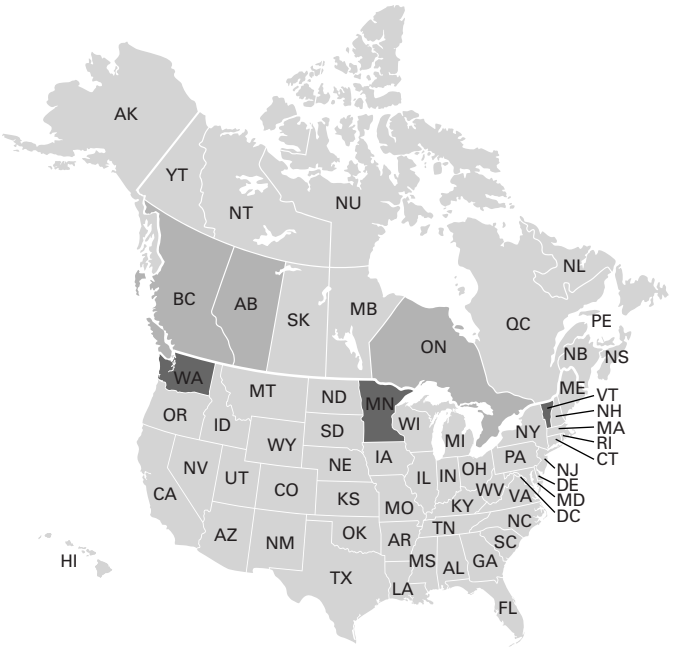
care, particularly during health emergencies (Fraher et al., 2020; Gunderson et al., 2020; Stucky et al., 2021). Optimizing access to the healthcare workforce as a matter of public interest took on new importance and clarity during the pandemic (Leslie, Moore, et al., 2021). In a joint statement, various professional regulators (including the National Council of State Boards of Nursing [NCSBN]) in the United States described their "common duty" during COVID-19 as doing whatever is possible to ensure access to care (Federation of State Medical Boards, 2020, para. 3). Regulators were urged to enhance their flexibility to augment the health workforce (through, for example, expediting temporary registrations) (Clamp, 2020), and changes were made to fast-track license verification to aid nurse mobility (NCSBN, 2020).

The pandemic exposed policy and system inefficiencies and vulnerabilities that required urgent changes and creative problem-solving (Benton et al., 2020). Nursing regulators globally were challenged to make rapid and far-reaching adjustments across the entire regulatory continuum, from registration to continuing competence to discipline. The extraordinary impact of the pandemic has provided an opportunity to evaluate the strengths and limitations of current regulatory policy and practices (Adams & Wannamaker, 2022; Alexander, 2020; Professional Standards Authority [PSA], 2021).

During past global emergencies, little evidence was generated regarding leading practices in professional regulation during the given crises; thus, by evaluating the current pandemic response, regulators can critically reflect on leading practices that may help ensure preparedness for future crises. Evidence is emerging in relation to the COVID-19 pandemic, including a policy analysis comparing regulatory changes across three countries during the first wave of the pandemic (Adams & Wannamaker, 2022), an examination of early nursing regulatory responses in the United States (Benton et al., 2020), a published case exposing potential consequences when removing licensing requirements without certain safeguards (Scheidt, 2022), and a scoping review synthesizing international strategies for making the regulation of health practitioners' practice during the pandemic more flexible (van Stralen et al., 2022). The present study adds to this body of evidence by contributing a clearer understanding of nursing regulation during a healthcare crisis.

FIGURE 1

Map Identifying the Six Jurisdictions Included in the Study



Methods

Study Design

This study examined how nursing regulators in Canada and the United States responded to the COVID-19 pandemic. We used a qualitative comparative case study research design because it can facilitate an in-depth understanding of complex issues in context (Anthony & Jack, 2009). Our study was guided by Yin's (2018) approach to exploratory multiple case study research, which is well-suited for understanding less-studied phenomena and allows for comparison and synthesis across jurisdictions. Each nursing regulator (representing one of three Canadian provinces or three U.S. states) served as an individual case study. Combining interviews and documents across each of these case studies allowed us to gain a deep understanding of the responses of nursing regulators to the COVID-19 pandemic within the broader context of political, legal, and nursing workforce factors that vary across jurisdictional boundaries.

Data Collection

Data were collected from documents and interviews to construct an understanding of how eight Canadian and American nursing regulators in the six jurisdictions under study responded to the COVID-19 crisis. Each jurisdiction varies in regulatory structure and sociopolitical context. In Canada, the provinces of British Columbia, Alberta, and Ontario were chosen because of the research team's familiarity with their regulatory bodies' structures and contexts and because they are the most populous English-speaking Canadian provinces. In the United States, Washington, Minnesota, and Vermont were selected because they border Canada and because we were interested in the context of border restrictions for nurses who may live in one country and work in the other (Figure 1). Each regulatory board and the corresponding abbreviation are provided in Table 1.

TABLE 1

Nursing Regulatory Bodies in the Six Jurisdictions Included in the Study

Jurisdiction	Regulatory Body	Abbreviation[a]	Number of Representatives Interviewed	Categories of Nurses Regulated
British Columbia, Canada	British Columbia College of Nurses and Midwives	BCCNM	3	1. Registered nurse 2. Licensed practical nurse 3. Registered psychiatric nurse 4. Nurse practitioner
Alberta, Canada	College and Association of Registered Nurses of Alberta[b]	CARNA	3	1. Registered nurse 2. Nurse practitioner
	College of Licensed Practical Nurses of Alberta	CLPNA	2	1. Licensed practical nurse
	College of Registered Psychiatric Nurses of Alberta	CRPNA	1	1. Registered psychiatric nurse
Ontario, Canada	College of Nurses of Ontario	CNO	2	1. Registered nurse 2. Registered practical nurse 3. Nurse practitioner
Washington, USA	Nursing Care Quality Assurance Commission	NCQAC	3	1. Registered nurse 2. Licensed practical nurse 3. Nursing technician 4. Advanced registered nurse practitioner
Minnesota, USA	Minnesota Board of Nursing	MBON	4	1. Registered nurse 2. Licensed practical nurse 3. Advanced practice registered nurse
Vermont, USA	Vermont State Board of Nursing	VSBON	1	1. Registered nurse 2. Licensed practical nurse 3. Advanced practice registered nurse

[a] Used for attribution of quotes to interview participants.

[b] As of January 2022, CARNA transitioned from a dual (regulator and association) mandate to a single public protection mandate and is now the College of Registered Nurses of Alberta. However, CARNA is used throughout this study to reflect when the interviews and documents were collected.

Documents

Documents were collected by searching each regulator's website between November 2020 and July 2021 for guidance, standards, policies, or other information related to the COVID-19 response, dating from the beginning of the North American pandemic response (March 2020) through the first three waves of the pandemic (July 2021). Types of documents gathered included executive or emergency orders; advisories; news/announcements; frequently asked questions; policies and policy briefs; and practice statements, standards, directives, guidance, and guidelines. All documents were publicly available.

Interviews

We contacted the executive director/registrar from each of the eight nursing regulators by email to explain the study and request an interview with someone within their organization who was knowledgeable about the organization's regulatory response to the pandemic. All regulatory bodies that we approached agreed to participate.

We conducted semi-structured interviews with representatives from the eight nursing regulators in May and June 2021. Interviews, which lasted 45–60 minutes, were conducted by the principal investigator; a second research team member attended and took detailed notes. An interview guide was developed based on categories found in the preliminary document review and tailored to each nursing regulator (Appendix). The interview guide was shared with participants prior to the interview. Interviews were conducted by videoconference and were recorded and transcribed verbatim.

Data Analysis

Regulatory documents and interview transcripts and notes were analyzed using a reflexive thematic analysis approach, which involves systematically identifying, analyzing, and reporting patterns of meaning across a data set (Braun et al., 2018). In line with Yin's (2018) recommendation, data for each case were initially analyzed separately. Individual case summaries were first developed from documentary evidence and initial readings of interviews and then analyzed across cases using Yin's pattern-matching approach.

Following the interviews, and adding further documents identified by interview participants, we analyzed all data (docu-

TABLE 2

Document Categories and Descriptions

Document Category	Regulatory Response Examples	Document Examples
Prelicensure and entry to practice	Education requirement changes (e.g., 2:1 simulation to clinical experiences hour recognition; recognition of virtual, face-to-face simulation in alignment with legislation)	Nursing rule variance (MBON, 2020a)
	Proposed academic/practice partnerships between healthcare facilities and prelicensure registered nursing, practical nursing/vocational nursing programs	Policy brief: U.S. nursing leadership supports practice/academic partnerships to assist the nursing workforce during the COVID-19 crisis (MBON, 2020b)
	Students authorized to administer COVID-19 vaccine (otherwise not permitted to do so under law without a license)	List of providers authorized to administer vaccines (NCQAC; Washington State Department of Health, 2021)
Licensure/ registration	Recognizing out-of-state/province licenses (noncompact states)	Out of state licensees, temporary licensees & telehealth (VSBON; Vermont Secretary of State Office, 2021) Courtesy applicants (CARNA, 2021)
	Emergency class registration and recalling recently retired registrants.	Temporary emergency registration (BCCNM, n.d.-b)
	License expiration extensions and licensing waivers	COVID-19 nurse licensing waiver information (NCQAC; Washington State Department of Health, n.d.-a)
	Modification of requirements (e.g., fingerprinting requirements as part of criminal background checks)	Emergency executive order 20-23: Authorizing Minnesota health-related licensing boards to modify requirements during the COVID-19 peacetime emergency (MBON; State of Minnesota Executive Department, 2020)
Scopes of practice and practicing safely	Expanded scopes of practice	New provincial orders – Change to scope of practice in hospitals (CNO, 2021)
	Redeployment	Reassignment/redeployment to other roles or duties (CNO, 2020a)
	Telemedicine training or guidance	Telemedicine training requirement (NCQAC; Washington State Department of Health, n.d.-b) Telehealth services (VSBON; Vermont Secretary of State Office, 2020b)
Continuing competence and maintaining standards of practice	Guidance on duty to provide care and/or right to refuse work	Refusing assignments or discontinuing nursing services during COVID-19 (CNO, 2020b) Frequently asked questions: Duty to provide care (BCCNM, n.d.-a)
	Adhering to public health measures	Social media and e-professionalism guidelines for nurses (CLPNA et al., 2021) Nurses supporting public health measures (CNO, 2020c)
	Flexibility to comply with continuing education requirements	Policy for continuing education and impacts of COVID-19 (VSBON; Vermont Secretary of State Office, n.d.)
Conduct investigations and discipline processes	Remote hearing procedures	Emergency administrative rules for remote hearings (VSBON; Vermont Secretary of State Office, 2020a) Effects of COVID-19 pandemic on professional conduct processes (CARNA, 2020)
	Considering standard of care in context and the circumstances in which nurses are working	Standards & guidelines: Standard of care and nurses' accountabilities (CNO, 2022d)

Note. RN = registered nurse; RPN = registered practical nurse. See Table 1 for expansion of citation abbreviations.

ments, interview transcripts, and interview notes) using the six phases of reflexive thematic analysis described by Braun et al. (2018): (1) familiarizing ourselves with the data as a whole and highlighting initial ideas of interest, (2) generating codes representing common or interesting findings, (3) constructing themes as a team by collating codes, (4) reviewing and refining themes by checking their relationships to the coded extracts and the data as a whole, (5) defining and naming themes, and (6) producing the report. Qualitative data analysis software (ATLAS.ti) was used to organize and facilitate the coding of interview data.

The use of multiple data sources allows data triangulation, which strengthens credibility (Merriam, 2009; Yin, 2018). Dependability was enhanced by creating a study database and maintaining a chain of evidence to develop an audit trail (Yin, 2018) and by the diversity of analytic perspectives among the research team members (representing backgrounds in qualitative methods, nursing, regulation, public health, law, and sociology).

Ethical Considerations

Ethics approval for this study was granted by the Athabasca University Research Ethics Board (File #23990). All interview participants provided written consent. Interviewing key informants who hold public positions at regulatory bodies poses minimal risk to participants. Although names and position titles have not been used in this report, quotations are attributed to regulatory bodies because jurisdiction is relevant to the analysis.

Results

We collected 206 documents related to regulatory responses to the pandemic from across the eight regulators included in this study. The regulatory documents were categorized according to prevalent categories (Table 2). Additionally, we conducted 10 interviews with 19 participants, and each interview included 1 to 4 participants (Table 1). Based on participants' responses, crossborder mobility was not a significant influence on regulatory responses in our findings.

The overarching narrative in the document and interview data was the magnitude of change required of regulators in response to the evolving crisis and the continued need to consider how best to regulate in the public interest given rapidly changing workforce and sociopolitical considerations. We constructed five themes:

1. Risk-based responses to reduce regulatory burden
2. Agility and flexibility in regulatory pandemic responses
3. Working with stakeholders for a systems-based approach
4. Valuing consistency in regulatory approaches across jurisdictions
5. The pandemic as a catalyst for innovation.

These themes are discussed in the following pages, and related quotations pulled from interview transcriptions are provided. Quotations have been lightly edited for grammar.

Theme 1: Risk-Based Responses to Reduce Regulatory Burden

Participants described working to ensure that specific regulatory responses were proportionate to the extenuating circumstances of the pandemic, aligning with a risk-based or right-touch approach to regulation. These risk-based responses included ensuring that regulatory barriers were not more burdensome than necessary when workforce demands were high. One participant noted:

> *I think we need to be really thoughtful about having the right amount of regulation around practice to ensure … public protection and {make} sure that we're not making that standard too low…. There needs to be that balance… that right level of regulation and not having too high a standard that becomes a barrier to practice.* (VSBON)

Another participant described a "light bulb moment" when they realized that registration processes were seen as a barrier:

> *We talk about being the gatekeeper as a really important role. But that gate can also be a barrier. So the public's interest is not always us being that barrier, it is also about ensuring that we have enough health human resources…. Not only are we preventing and trying to be proactively moving away from adding risk to the public, but {we are also} ensuring that there are adequate nursing resources out there.* (BCCNM)

Balancing risks to reduce regulatory barriers while maintaining public protection was referred to by one interviewee as "one of the most difficult dances you have when you're in these positions" (VSBON) and by another interviewee as a "double-edged sword" (BCCNM).

Participants also discussed their application of risk-based, right touch regulatory principles, such as the need for more latitude in their assessment of complaints about nursing care to "focus our efforts on the highest risk" (CNO). In Ontario, this included the regulator communicating more fully with complainants to understand the context of their concerns and ensure reasonable expectations about care during a pandemic. A benefit of focusing efforts to ensure proportionality between the level of regulation and risk to the public was that it allowed regulators to reduce the regulatory burden on nurses, which is in line with efforts to emphasize compassion and humanity in regulation, particularly in areas of lower risk or where regulatory requirements could be safely deferred. For example, Ontario modified its quality assurance program, understanding that nurses' focus needed to be on supporting patients; the regulatory body "wanted to be seen as partners in supporting that focus" (CNO). Similarly, regulators extended deadlines for completing educational requirements and deferred continuing competency audits. As one participant said, "We utilized compassion as kind of the principle and approach…. We were very mindful of the burden

that nurses were feeling in the system and wanted to make sure that we were not an additional stressor in their daily [lives]" (BCCNM).

Theme 2: Agility and Flexibility in Regulatory Responses

Regulators highlighted the need to be agile and flexible in their pandemic responses. Agility was described as "shifting our processes to match what is happening in the environment" (CARNA). In British Columbia, the issue of being an "agile and responsive regulator" was already "on the top of the radar" given other contextual factors in British Columbia such as the amalgamation of the nursing and midwifery regulators: "Agility is something we've been talking about as a principle or value…leading up to the amalgamation. [It's] something we've been striving toward." However, "the pandemic has put those things right at the top….We have to be pivoting, shifting, lifting, supporting wherever we can" (BCCNM). Previous discussions about values or principles prior to the pandemic and having strategies in place for responsive regulation may have provided a foundation for regulatory agility during the pandemic (CLPNA).

When acknowledging the importance of agility, participants also discussed the realities imposed by regulatory frameworks and changing political climates. One regulator in Alberta noted:

> *If you have new standards, they have to go to the Minister for consultation also. So, the documents we produced were not standards. They were guidelines, they were practice directions…. So the turnaround time is quicker—much, much quicker—and we could be much more responsive.* (CRPNA)

One participant pointed out that "some elements of a public health emergency… create far more flexibility than the regulatory framework would permit. The use of those public health orders has been helpful for being able to be nimble and flexible and responsive" through, for example, enabling the use of an emergency registration class (BCCNM). While BCCNM identified "a whole host of discretionary opportunities to interpret that legislation," Ontario found its agility hampered in some ways due to prescriptive legislation through, for example, restrictions regarding which nurses were eligible for this emergency class of registration. As one interviewee put it, "Our emergency assignment class only applied to registered nurses and registered practical nurses. There was no mechanism to register nurse practitioners in the emergency assignment class" (CNO). In the short term, they "had to figure out a way around" this problem. Some participants expressed hope that the pandemic would lead to more flexible regulatory frameworks going forward.

Theme 3: Working With Stakeholders for a Systems-Based Approach

Participants highlighted the importance of existing and new collaborative relationships to create a system-wide response to the pandemic. Regulators worked with other organizations and stakeholders, including the government, employers, educators, and unions, to enable the continuity of healthcare delivery and support learners and nurses. One participant described the necessity of maintaining role clarity relative to various stakeholders as "always try[ing] to stay in our lane in terms of being a regulator" (BCCNM). While maintaining a clear focus on the primary regulatory purpose, these efforts to increase collaboration and a system-wide pandemic response were considered highly successful by participants in assuring ongoing safety and competence. One participant described this approach as follows:

> *We really had the emphasis that we are a system and that as a regulator, we're not the only group that's there to protect the public…. I think the relationships were strengthened with other organizations {and} it helped reinforce that understanding as a regulator, {that} we're one piece of that whole total system to protect the public.* (CARNA)

Collaborative leadership became a regular aspect of the pandemic response. In Washington, a weekly leadership meeting with leaders from across the state in different sectors (including acute care, long-term care, public health, state agencies, and the council of nurse educators) was initiated by the NCQAC. At these meetings, after a report from each delegate, the NCQAC lead would say, "'Okay, what can we do to help?'… I found that to be truly amazing, because it was a state collaborative effort to address the needs of the organizations, but ultimately for quality care for all of our residents" (NCQAC). Similarly, in Vermont, regulators had regular virtual meetings with all chief nursing officers and chairs of schools of nursing to "have our faces in front of each other" and "see if there's anything they need clarity on or are struggling with…[to] try to keep those relationships going" (VSBON).

Ontario reported enabling the nursing workforce by working with academic partners and the government on issues such as program approval delays, clinical placement requirements, emergency assignment registrations, and movement of graduates waiting to write registration examinations into a temporary category to enable eligible nurses to support pandemic response efforts. Alberta's three nursing regulators worked together to share learnings, develop several joint documents and guidelines (e.g., infection prevention and control, social media, duty to provide care, self-employed nurses), and prepare a statement to the provincial government (CRPNA). This collaboration was unique because other jurisdictions do not have separate regulators for different nursing designations.

Other collaborative efforts focused on nursing education and the development of safe, practice-ready graduates; such efforts were emphasized in all jurisdictions under study. The pandemic created "challenges for some of the programs to ensure that students have the confidence that they've achieved the competencies and standards of practice" (BCCNM). In Minnesota, the Department of Health worked closely with programs within and outside of nursing "to address higher education issues associated with COVID" (MBON). Collaboration became a way to "bring all the minds to

the table" to "ensure students are safe while meeting the required outcomes" because of a strong value that "there won't be a compromise in our education" (CLPNA). CARNA's and BCCNM's responses were similar, providing guiding principles to assist educational programs with autonomous decision-making around training and competency.

Beyond competence for practice, regulators acknowledged that with new nursing graduates entering extremely stressed practice settings, it was necessary to ensure that support systems, such as extended mentorship and orientation, "are in place for students and graduates to be successful in that transition" (BCCNM). Ontario's regulator worked with employers to transition internationally educated nurses into supervised roles, which ensured staffing for the pandemic response and allowed these nurses to "meet their clinical practice requirement hours in order to qualify and be ready to meet all of the registration requirements" (CNO).

Regulators also worked with employers to deploy nurses strategically within facilities. Regulators saw a role "in supporting those efforts" (CNO) and helping to "make sure that the right people were getting mobilized quickly" (CARNA). The registration committee for the regulator in British Columbia worked with unions and employers "to think differently about the loss of human resources, given the pandemic," and found creative solutions for nurses who did not have the full number of required practice hours because "it didn't make any sense for us to remove them from practice if we had no indication that they were unsafe" (BCCNM).

Regulators also assisted stakeholders by focusing on providing "understandable, easily accessible" and "visible" information (CNO). Regulators described monitoring inquiries from nurses and other stakeholders to understand what issues were "bubbling to the top" (CARNA) and to "inform the way that we … put our existing resources out there or develop new resources" (CNO).

Theme 4: Valuing Consistency in Regulatory Approaches Across Jurisdictions

Participants from each regulator discussed the value of consistency in regulatory approaches, particularly for interjurisdictional mobility and virtual care. In the United States, licensure compacts allow nurses in the 39 states that are part of the Nurse Licensure Compact to work across jurisdictions without obtaining state-specific licensure. In Canada, while no compacts exist, there has been some movement toward piloting multi-jurisdictional registration and improving regulatory consistency. Based on participants' responses, crossborder mobility was not a significant influence on regulatory responses in our findings.

None of the US state regulators interviewed were members of the compact at the time of the interview, though it was a point of discussion for each. In Vermont, the pandemic enabled the regulator to demonstrate to the legislature the value of joining the nursing compact. The board of nursing had "been trying for a couple of legislative sessions to pass legislation entering Vermont into the nursing licensure compact." With the pandemic continuing, nurse mobility became the impetus for the legislation to pass and finally reflect "what the nurses in the state wanted… even with a fee increase" while allowing the regulator to "make sure the public was protected [and] that we weren't creating false barriers or unnecessary barriers to mobilize the workforce" (VSBON). In Minnesota, participants noted that they have been criticized as being "behind the times…. There's that misperception that we're digging in our heels and we don't want that change…. We're surrounded by compact states on every border and so I know that comes up a lot" (MBON). Washington worked with "stakeholders who felt positive about the compact" but encountered pushback from a specific legislator who introduced legislation to reduce board authority. As a result, board employees and public members were required to give testimony to counter accusations that the regulator had "slowed down our licensing purposely to actually get the compact and demonstrate this compact would be beneficial" (NCQAC). Consequently, the regulator "did not make any progress with the nurse licensure compact this year … and we slowed down our enthusiasm with the compact" (NCQAC).

The U.S. participants pointed out that inconsistencies across jurisdictions create an unnecessary burden for "mobile healthcare providers to know each state's—each jurisdiction's—requirements and their specific nuances" (MBON). Although these issues have "always been there," the pandemic "really did point to just what a barrier that can be when [our regulations are] all different" (MBON). Furthermore, at times of crisis, as one interviewee put it, "There's a level of protection provided by the compact that isn't provided through emergency orders…. It provides communication between states that doesn't otherwise exist … so you can avoid people hopping state to state trying to stay under the radar" (VSBON).

In the Canadian context, the pandemic accelerated discussions about crossjurisdictional relationships. As one participant noted, "we need Canadian-wide coordination on a lot of these matters, because trying to do it by jurisdiction, when you need multijurisdiction licensing … you can imagine it doesn't quite work" (BCCNM). During the pandemic, Alberta and Saskatchewan started a bi-jurisdictional licensing pilot project for virtual care, and British Columbia and Ontario were developing Nursys Canada "to create a database that could be national with unique identifiers, because this is a real, tangible issue for citizens" (BCCNM).

While regulatory issues around labor mobility, process consistency, and virtual care are not new, the pandemic has highlighted how interjurisdictional consistency could support safe care. Specifically, "COVID has definitely accelerated the conversation about virtual care when you're looking outside of your provincial borders" (CRPNA). It has become "a very hot topic now" with more urgency to check in across jurisdictions to see how other regulators are responding and encourage clarity and alignment across systems (CNO). The "heightened awareness and need for virtual care" (BCCNM) prompted conversations around interpretation of provincial licensing requirements in British Columbia. Participants

agreed that this is an area where more nimble legislation would improve continuity of care.

Theme Five: The Pandemic as a Catalyst for Innovation

Participants in several jurisdictions saw the pandemic as a catalyst for innovation. For example, Minnesota developed a variance process as "a temporary way of responding to … a really significant hardship" (MBON), which was something they had never done before. One participant noted the crisis could be viewed as "the motherhood of innovation or really looking at new and different ways of doing things" (CNO), while another said that the pandemic pushed them forward where they were already looking that, "it just accelerated the process" (CLPNA).

Participants discussed how the pandemic

> *put a spotlight on public protection, public safety, patient safety, staff safety, just safety in general…. Our job as a regulator is to protect public safety, and we've had a spotlight on that for the last year and a half.* (CARNA)

Thinking broadly about the public interest, some participants reflected on the regulator's role. In British Columbia, a participant noted it was important to question the relevance of the regulator to the public and how public interest is defined:

> *We assume we have the public's interests in mind, but are we sure? What have we checked lately? That's a pretty significant endeavor that what we're trying to now focus on is actually really understanding what the interest is, as opposed to assuming in our ivory towers what that might be…. And I think the concepts of public interest and public protection and safety are sometimes conflated…. What is the intention behind those concepts? And how do we demonstrate that?* (BCCNM)

BCCNM further questioned whether they were including all voices in defining the public interest, referencing racism in the healthcare system and the regulator's recent commitment to being an anti-racist organization:

> *And I think the other consideration of public interest is hearing all voices. So, you know, thinking about how we gain insight into how Indigenous people in (British Columbia) want us to protect their interests…. We're very focused on …, decolonizing, deconstructing racism in our system, we're playing a very forward-facing role and an intentional role and trying to make shifts there.* (BCCNM)

Participants discussed the need to learn from the pandemic for future crises. For example, CARNA drew on previous experience with H1N1 to recognize the need for an emergency operations team. Yet, the emergency reinforced the importance of "capturing what we did this time … because we will experience this again in the future, we just don't know when or what it will be" (CARNA). The regulator in British Columbia had conducted testing of their emergency registration category prior to the pandemic, which meant they were prepared to implement this registration category within 24 hours of a declaration of emergency in the province.

Participants observed that several pandemic-related innovations could impact how services are provided in the future. For example, one participant identified moving toward "greater hybrid models of remote services" for investigations, hearings, and board meetings, building on learnings about leading practices for conducting these processes remotely (CRNPA). Washington's program for healthcare aides to become LPNs and Minnesota's successful virtual visits for program approvals were other innovations identified as leading practices that might be sustainable.

Several regulators acknowledged a need to evaluate regulatory process changes made during the pandemic to determine whether maintaining them would be in the public interest:

> *Hopefully, we'll be able to look back and say, okay, these things were really good ideas that we need to hold on to and these other things … that wasn't probably the best thing we could have done, and let's make a plan to not do that again.* (VSBON)

Another participant noted "We've been forced to make some of these decisions without necessarily knowing what the impact might be… So there's a lot of work we're going to have to do to then evaluate some of those quicker and expedited decisions" (BCCNM). Regulators are taking a step back at this critical juncture to think differently about what is needed versus historical practice, and they acknowledge that the pandemic "will impact our future, it will change what we do … It's like Pandora's box: once you open it, you can't put it back in" (CRPNA).

Discussion

Examining nursing regulatory responses to the COVID-19 pandemic presents an opportunity to reflect on leading practices and learn for future emergency situations. In our study, nursing regulators focused on certain values and principles in their pandemic response measures: taking risk-based approaches to reduce regulatory burden, emphasizing flexibility and agility, working with stakeholders, striving for consistency across jurisdictions, and capitalizing on opportunities for innovation. Underpinning these responses was an emphasis by regulators on understanding how regulatory processes and policies serve the public interest.

The impact of regulation on the nursing workforce was clearly on the radar for the regulators we interviewed. Participants felt the urgency of enabling nursing workforce responses by working closely with stakeholders and reducing barriers to practice. Our participants recognized that the public interest went beyond quality of service to include equitable access to services. Critical nursing workforce shortages are only starting to be grappled with

(Bourgeault, 2021; NCSBN, 2021), and the pandemic has highlighted the public interest role of regulation in workforce responses.

The crisis-driven need to collaborate with stakeholders both within and outside the regulators' jurisdictions can be considered a positive development. In the United Kingdom, the PSA (2021) found that working with stakeholders was a major theme in regulatory responses to the pandemic, leading to "re-energized relationships" (p. 7) between regulators and other stakeholders collaborating for safe care. However, a risk associated with this increased collaboration is role confusion or lack of role transparency (PSA, 2021). In our study, regulators seemed aware of this potential, pointing out the need to "stay in our own lane" when working with stakeholders and clarifying the appropriate role for regulators during the emergency response.

Consistency among regulators, particularly as it relates to crossjurisdictional licensure, is a long-standing issue that became a touchstone of regulatory response during the pandemic. This was clear in our study, both in documents and interviews. American regulators focused on how the licensure compact affected nurse mobility and the provision of virtual care. In Canada, discussions centered on reform in this area, which became increasingly urgent due to the pandemic (Laverdière, 2021; Leslie et al., 2022; Sweatman et al., 2022). Indeed, the ongoing pandemic has led many to call for expanding licensure compacts for health professionals to better prepare for future crises (Bell & Katz, 2021).

In our study, participants noted that the crisis provided not only an opportunity to innovate but to fast-track ongoing reforms, demonstrate the value of ideas that had been struggling for government support pre-pandemic, and examine current processes to improve efficiency, both for steady state and future crises. Some of this work was started prior to the pandemic, but demands arising from pandemic conditions spotlighted the role of regulation in the broader health system. This pandemic spotlight may provide a policy window to advocate for legislative and regulatory governance change (Hatefimoadab et al., 2021).

Our results also indicate a shift in thinking around broader public interest issues, beyond the conduct and competence of individual nurses. Pressing public interest issues include equitable access to virtual care, mobility of practitioners, workforce planning, health system inequities, mental health of practitioners, and racism in healthcare. Also, the COVID-19 pandemic is not our last emergency; the ongoing pandemic, global conflict situations, and other crises will continue to strain healthcare systems. Regulators are clearly beginning to grapple with these longer-term issues and policy tensions.

Limitations

The findings from this qualitative comparative case study pertain to the specific regulators and the wider political and societal context in each included jurisdiction. Other regulatory jurisdictions might have had different challenges or responses not captured here; this presents a challenge to synthesizing our understanding of differences in regulatory responses. The wider context was particularly challenging to separate from the pandemic response in jurisdictions undergoing broader regulatory reform efforts. For example, in British Columbia, the nursing regulator was amalgamating with the midwifery regulator in the early months of the pandemic, and the Alberta regulator for registered nurses was transitioning from a dual to single mandate, both of which are elements of broader regulatory modernization efforts (*Health Statutes Amendment Act*, 2020; Steering Committee on Modernization of Health Professional Regulation, 2020; Leslie, Benoit, et al., 2021). Also, as COVID-19 continues to be a shifting and unsettled crisis, it is difficult to pinpoint longer-term or post-pandemic impacts on regulation. Despite these limitations, this study provides preliminary insights, which appear consistent across several jurisdictions, into regulatory pandemic responses, including how critical decisions were made in the context of protecting the public interest.

Future Research

As described by our interview participants, further research is needed to evaluate the longer-term impacts of pandemic-induced regulatory innovations and changes. This should include evaluating the intended and unintended outcomes of nursing regulatory responses on access to services, quality of nursing care, and public safety. As regulatory guidance was rapidly developed out of necessity at the onset of the pandemic, such decisions and actions may not have sufficiently included public/patient voices (PSA, 2021). Acknowledging that regulator and patient/public perceptions of the public interest may differ, and considering the public interest mandates of regulators, further research could include public perspectives of regulatory innovation and change. Future research could also focus on partnered approaches between regulatory bodies and academic teams, as has been suggested in the context of medicine (Wenghofer, 2015), to leverage the abundance of data that regulators produce and to establish evidence upon which to base leading practices. Finally, future regulatory research could expand to assess regulatory responses in low- and middle-income countries and to include an interprofessional lens. This would follow NCSBN's global research agenda (Alexander et al., 2021) and reflect the increasing evolution of healthcare systems toward more integrated and collaborative care delivery models (Wenghofer & Kam, 2017).

Conclusion

Our qualitative case study demonstrated the intensity of effort and change involved in nursing regulatory responses and the contribution of nursing regulation to the pandemic response. Five themes were constructed: risk-based responses to reduce regulatory burden; agility and flexibility in regulatory pandemic responses; working with stakeholders for a systems-based approach; valuing consistency in regulatory approaches across jurisdictions; and the pandemic as a catalyst for innovation. Woven throughout these themes was nursing regulators' commitment to carefully considering how best to

serve the public interest in the context of the evolving pandemic. Nursing regulators are increasingly required to consider public interest issues beyond the conduct and competence of individual nurses, and these pressing societal concerns have placed a spotlight on the role of regulation in the healthcare system. Regulators will be grappling with these shifting expectations around the public interest as the longer-term impacts of the pandemic on nursing regulation become clearer.

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APPENDIX

Sample Interview Guide

1. **Introduction:** Introduce research team members, review written consent form, provide overview of study, answer questions, and begin recording.
2. **Interview guide:** Tailored to each regulatory body based on document analysis.

Category	Guiding Questions	Potential Follow-Up Questions/Prompts
Enabling nursing workforce response	Can you describe the pandemic response measures the regulator took around the nursing workforce? Could you speak specifically to… • nursing education • entry to practice • expedited licensure/registration • scope of practice • interjurisdictional mobility • tele/virtual practice	How did you work with government or other stakeholders in this response? Were there any learnings you had from other jurisdictions or other professional regulators—in Canada or internationally—around this? Did nursing labor mobility across the Canadian-American border influence any regulatory responses?
Supporting registrants/members to practice safely	Can you describe the pandemic response measures the regulator took around supporting registrants/members to practice safely? Could you speak specifically to whether you changed your ethical guidance or provided specific pandemic guidance around… • duty to provide care/right to refuse work • tele/virtual practice • adherence to public health measures • social media • specific practice areas	How did you communicate with members/registrants during the pandemic? How did you communicate with the public?
Legislation and policy	Could you speak to how the legislative framework (or specific structures/processes) enabled or hindered the pandemic response?	How did the regulator work with government or other stakeholders in terms of emergency legislation or public health measures?
Changes to regulatory processes	Can you describe changes that were made to how regulatory functions such as committee meetings and discipline hearings were conducted?	Were there any learnings you had from other jurisdictions—in Canada or internationally—around this?
Crisis measures versus long-term change	Are there any measures that regulators implemented as crisis or emergency responses that should become the new normal?	Are there any emergency/crisis measures that should be discontinued or not considered for future use (in general or for future pandemic responses)? Are there areas where further work is needed before changes become adopted in the longer term?
Regulatory innovation	Are there areas where you feel regulatory responses or actions during this period have been particularly innovative or impactful? Were any areas of reform already under consideration where the pandemic may have accelerated change? Were there any unexpected or unanticipated outcomes from any of the regulatory measures?	Did the pandemic impact areas where regulators, governments, or other stakeholders may have been previously unable or reluctant to make changes?
Concept of the public interest	Do you think that the perception of the concept of the "public interest" has been shifting? In what way(s) has this concept been changing? Has the pandemic changed how the public interest is understood or conceptualized?	Has there been any change in focus on flexibility/nimbleness, enabling surge capacity, or access to services?

3. **Concluding question:** Is there anything else you would like us to know about how your nursing regulatory body has been regulating in the public interest during the crisis?
4. **Wrap up:** Thank you to participant(s) and description of next steps for research team.