Stronger Together: A Collaborative Approach to Solving Canada's Healthcare Supply Chain Crisis

Anne Snowdon, Alexandra Wright, Saba Ghadiri and Cindy Ly

Abstract

Canada's healthcare supply chain faces persistent disruptions, and its fragility has been well documented. This jeopardizes patients' access to critical care and places significant stress on healthcare professionals, which points to the essential need for a collaborative approach to building relationships, strengthening self-reliance and advancing healthcare supply chain resilience in Canada. This paper documents the design and development of a community of practice (CoP) strategy, bringing together representatives from different sectors, including the private sector, government, health workforce, health system leadership and citizens, to successfully mobilize their diverse expertise and co-design practical solutions to support supply chain resilience in Canada.

Supply Chain in Healthcare

In Canada, healthcare supply chain disruptions remain a persistent challenge, with more than 600 essential medical products reported as being in short supply each week (Goodwin 2021). In 2023, Canada reported 3,098 drug shortages. The average duration of these shortages is approximately 93.5 days (Health Canada 2023). Medical product shortages jeopardize timely access to critical care for patients and place significant stress on healthcare professionals operating in increasingly unstable care environments (Snowdon et al.2024).

Healthcare supply chain is a highly complex, multi-stakeholder system spanning from manufacturing to the final delivery of products to health service organizations (Mulcahy and Kareddy 2021). Disruptions in health products negatively impact the quality of care patients receive and lead to profound limitations for healthcare providers to deliver safe and effective care. Unlike traditional supply chains, such as retail and automobile manufacturing that focus on efficiency and lowest cost, the end of the healthcare supply chain is a person's life (Snowdon et al. 2021, 2022). As such, healthcare supply chain processes must prioritize reliability and resilience to ensure safe continuity of care (Aldrighetti et al. 2019; Golan et al. 2020).

Canada's reliance on globally sourced health products, coupled with its vast geography and relatively small, dispersed population, renders it particularly vulnerable to global supply disruptions. This vulnerability underscores the urgency of a "Canada First" strategy to advance and strengthen supply chain resilience – emphasizing domestic capacity, diversified sourcing and robust preparedness to anticipate, absorb and recover from disruptions and maintain the continuity of care (Health Canada 2024; Tukamuhabwa et al. 2015). Recent shifting geopolitical relationships have further incentivized the need for a "Canada First" approach to strengthen self-reliance and health supply chain resilience in Canada.

A "Canada First" healthcare supply chain strategy mobilizes domestic capacity to advance self-reliance and proactive action to manage supply shortages using a coordinated, multi-jurisdictional response to strengthen resilience across Canada's health systems. A "Canada First" strategy is essential for protecting patients and the healthcare workforce by ensuring equitable, timely access to critical products across care settings.

In 2023, Canada reported the highest number and longest duration of drug shortages globally (PharmaCompass 2023). Factors contributing to this included limited digital infrastructure, fragmented supply chain governance and lengthy procurement pathways driven by lowest-cost models (Snowdon et al. 2021, 2022). Canada's share of the global health supply market is less than 2%, severely limiting its bargaining power during international shortages (Medtech Canada 2022). Healthcare supply disruptions have been associated with the failure of health systems to proactively plan and adapt to shifting demands for care (Simpson 2012), limitations in digital infrastructure that preclude data-driven decisions to manage demand utilization (Snowdon et al. 2021, 2022) and distribution challenges due to vast geography and relatively small populations living in rural and remote communities (Snowdon and Wright 2022a). Persistent and lengthy healthcare product disruptions in Canadian health systems jeopardize quality and access to patient care and place significant strain on healthcare providers who must deliver patient care without the critical products to do so.

This paper examines a unique strategy to advance a "Canada First" health supply chain strategy that strengthens supply chain resilience across Canadian health systems. This paper presents the design and development of the communities of practice (CoPs) strategy and model as a structured framework that not only demonstrates how CoPs can address the complex challenges of the health supply chain but also illustrates the role of a CoP in creating the solutions to long-term resilience and sustainability within a healthcare supply chains that prioritizes "Canada First."

Review of the Literature

Canada's healthcare supply chain vulnerabilities have been documented for decades, particularly during public health crises such as the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak and the coronavirus (COVID-19) pandemic (Wright et al. 2024). Globally, no nation is fully self-sufficient in healthcare supply; however, Canada's dependence on international suppliers, often concentrated in a single vendor or jurisdiction, exacerbates systemic fragility (Health Canada 2024; Mercurio and Tundang 2023). The majority of pharmaceutical products, medical devices and consumable products used in Canadian healthcare facilities are imported from other countries, often relying on one company to supply the majority of product inventory required by a health organization (International Trade Administration 2016; Trading Economics 2023).

COVID-19 served as a critical "stress event" (Ivanov and Dolgui 2020), exposing the shortcomings of lean, just-in-time and globally dependent supply models (Snowdon and Forest, 2021). This resulted in devastating outcomes for Canadians, with 2,632,916 reported COVID-19 cases, 150,546 cases among health workers and death rates among Canadian seniors living in long-term care that were higher than all other Organisation for Economic Co-operation and Development countries (CIHI 2022). In Canada, current approaches to managing healthcare supply chain disruptions have proven to be ineffective and may contribute to delays in access to care for patients and limit healthcare workforce capacity to make decisions on providing essential care (Snowdon et al. 2021; Snowdon and Saunders 2021). The health supply chain in Canada is characterized by a lack of coordination within and between health systems, provinces, federal jurisdictions and supply chain stakeholders, resulting in little, if any, communication or coordination of strategies to manage supply disruptions (Snowdon et al. 2021). This results in a highly competitive procurement environment whereby organizations compete with each other, driving up costs that disadvantage facilities with limited purchasing power or limited supply chain expertise and limited or no supply chain capacity to manage supply disruptions or unexpected surges in demand (Snowdon et al. 2021; Snowdon and Forest 2021). Canada's procurement model has historically prioritized lowest-cost sourcing, typically from low-wage jurisdictions such as India and China, with limited supplier redundancy. This approach, coupled with minimal digital infrastructure and a lack of standardized product data, has impaired effective inventory management, performance measurement and global product traceability (Snowdon et al. 2021).

A "Canada First" strategy is essential for protecting patients and the healthcare workforce by ensuring equitable, timely access to critical products across care settings.

Canada's healthcare supply chain remains largely reactive rather than proactive, with supply chain teams often unable to anticipate or plan for disruptions in advance. As a result, responses to product shortages typically occur only after disruptions are already well underway, increasing risk to both patients and the healthcare workforce (Snowdon and Wright 2022b). During recent public health emergencies, these vulnerabilities became more pronounced. Provincial health systems were required to implement supply allocation mandates that restricted the use of scarce products, measures

that led to significant inequities in supply distribution. This disproportionately affected sectors such as long-term care and community health, which had limited capacity to manage severe product shortages critical to ensuring patient safety (CIHI 2024; Snowdon et al. 2022). Without established preparedness frameworks or robust data analytics, the health systems in Canada lack the ability to accurately forecast risks of product shortages or implement preventive interventions to mitigate risks of supply shortages for patients or the health workforce (Snowdon et al. 2022; Snowdon and Saunders 2021).

Canada's health supply chain is composed of a diverse and highly specialized network of stakeholders, including manufacturers, distributors, group purchasing organizations, provincial supply chain bodies, federal agencies, public health entities and healthcare organizations across hospital, community and long-term care sectors (Mulcahy and Kareddy 2021). While each group possesses deep expertise within its domain, they typically operate in silos with limited interconnectivity, minimal coordination and few opportunities to share insights or align on national strategies. This lack of cohesion impedes the development of an integrated, resilient supply chain capable of supporting a "Canada First" approach (Medtech Canada 2022). Empirical evidence underscores the need for a coordinated and collaborative supply chain model that engages all jurisdictions and stakeholder groups. Mobilizing the collective expertise across these sectors is essential to designing a resilient national strategy that ensures equitable access to health products when and where care is needed (Ivanov and Dolgui 2020; Medtech Canada 2022; Snowdon et al. 2021).

The traditional view of supply chains as linear processes composed of discrete organizational entities contributes to what Sense and Clements (2006) describe as "supply chain myopia," a narrow focus on immediate connections, often at the expense of broader system-level insights. This siloed perspective is particularly problematic in healthcare, where dynamic, complex stakeholder relationships demand a more integrated, adaptive approach. CoPs offer a compelling framework to address these multifaceted challenges. Wenger et al. (2002) define CoPs as "groups of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis." Bentley et al. (2010) further operationalize this definition through three foundational pillars: domain, representing the enduring topic or problem of shared concern; practice, referring to the applied knowledge and expertise of members; and community, which reflects the social interactions and relationships built through shared learning. CoPs have demonstrated success in enabling cross-jurisdictional collaboration, fostering knowledge exchange and translating research into practical, context-specific solutions (Barwick et al. 2009; Bentley et al. 2010; Bertone et al. 2013; Kothari et al. 2015; Yousefi-Nooraie et al. 2012). In Canada, CoPs have proven effective in creating forums for shared learning through practice, interpretation of research across different disciplines and increased interprofessional and inter-regional collaboration (Fung-Kee-Fung et al. 2014; Norman and Huerta 2006; White et al. 2008).

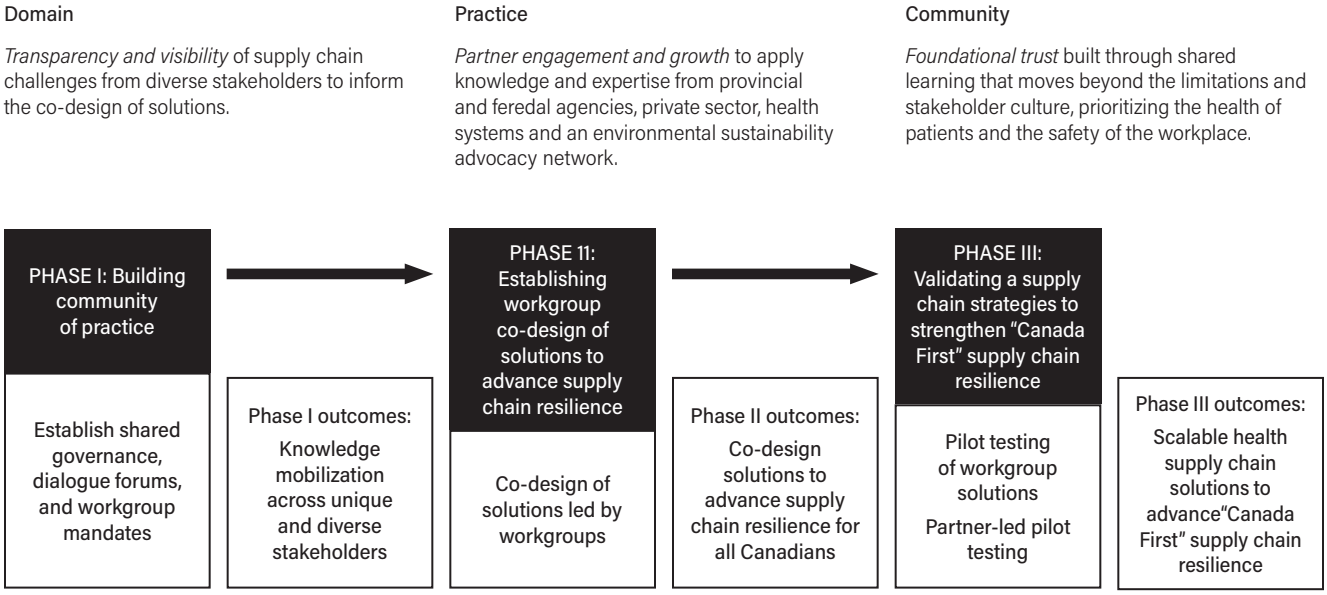
As a strategic model, CoPs provide a mechanism for members to draw upon experiential knowledge, reflect on actions and adapt practices in real time (Li et al. 2009). This dynamic learning environment enables continuous monitoring of system capacities and interdependencies, forecasting responses to both local and global shifts and simulating potential responses to emergencies (Li et al. 2009). Furthermore, the CoP can facilitate learning by supporting crisis recognition, innovations in the face of crisis and decision support. By linking the "knowledge holders," CoPs facilitate the process of translating evidence into policy and practice (Bertone et al. 2013). Recently, Emami et al. (2024) introduced four cornerstone principles of healthcare resilience for critical infrastructures, such as the supply chain, whereby monitoring, anticipation, recognition and learning support the advancement of health supply chain resilience. The CoP strategy creates a channel for bringing partners together into a community, monitoring supply disruptions and the progress of solution design, anticipating future supply challenges, recognizing the diversity of stakeholder knowledge and experiences across the CoP and collectively creating a forum for learning and information sharing.

CoP Strategy for Supply Chain Resilience in Canadian Health Systems

The Supply Chain Advancement Network in Health (SCANH) established a CoP supported by the Social Sciences and Humanities Research Council (SSHRC) Partnership Grant Program to operationalize the proposed CoP. The CoP was developed with stakeholder engagement, collaboration and community building as foundational features to enable the mobilization of knowledge domains across diverse areas of health supply chain expertise (Nicolini et al. 2022). There were three guiding principles for the CoP: (1) health supply chain is person-centric, prioritizing the person's life at the end of the supply chain (Aldrighetti et al. 2019; Meijboom et al. 2011); (2) to enable coordination within and across jurisdictions by focusing on inclusivity of all stakeholder groups, leveraging economies of scale, increasing global competitiveness and optimizing supply chain performance for the modern healthcare supply chain performance, to the modernization of healthcare supply chain (Gorbenko et al. 2023); and (3) to build upon and mobilize existing knowledge to overcome the failure to learn from past supply disruptions and to create a forum for collaboration within and across health systems.

The ultimate goal for the CoP was to design, implement and scale supply chain strategies that leverage expertise and knowledge across jurisdictions and support domestic supplier networks across Canada to strengthen Canada's self-reliance and economic recovery. Aligned with Bentley et al. (2010) three pillars (domain, practice and community) the CoP was designed to mobilize stakeholders with unique domains of knowledge relevant to the health supply chain including policy leaders, health system leaders and decision makers, clinicians, researchers, supply chain teams, manufacturers, distributors, group purchasing organizations and government agencies. Stakeholders represented unique areas of supply chain practice to enable and inform the co-design of solutions and strengthen supply chain resilience. Bringing this diverse range of stakeholders together created a new "community" whereby partners gained new insights, knowledge and perspectives. The mobilization of knowledge domains was a unique opportunity for CoP partners that enabled them to build new relationships, gain knowledge and expertise (e.g., citizens, manufacturing, distribution, health system leadership and supply chain teams), design and develop solutions to advance supply chain resilience and informed and guided by knowledge exchange across jurisdictions and sectors. By linking these knowledge holders, the CoP supported translating evidence into both policy and practice (Bertone et al. 2013), embodying the collaboration needed to advance the "Canada First" strategy to strengthen supply chain resilience.

FIGURE 1.
Community of practice partnership strategy



CoP = community of practice.

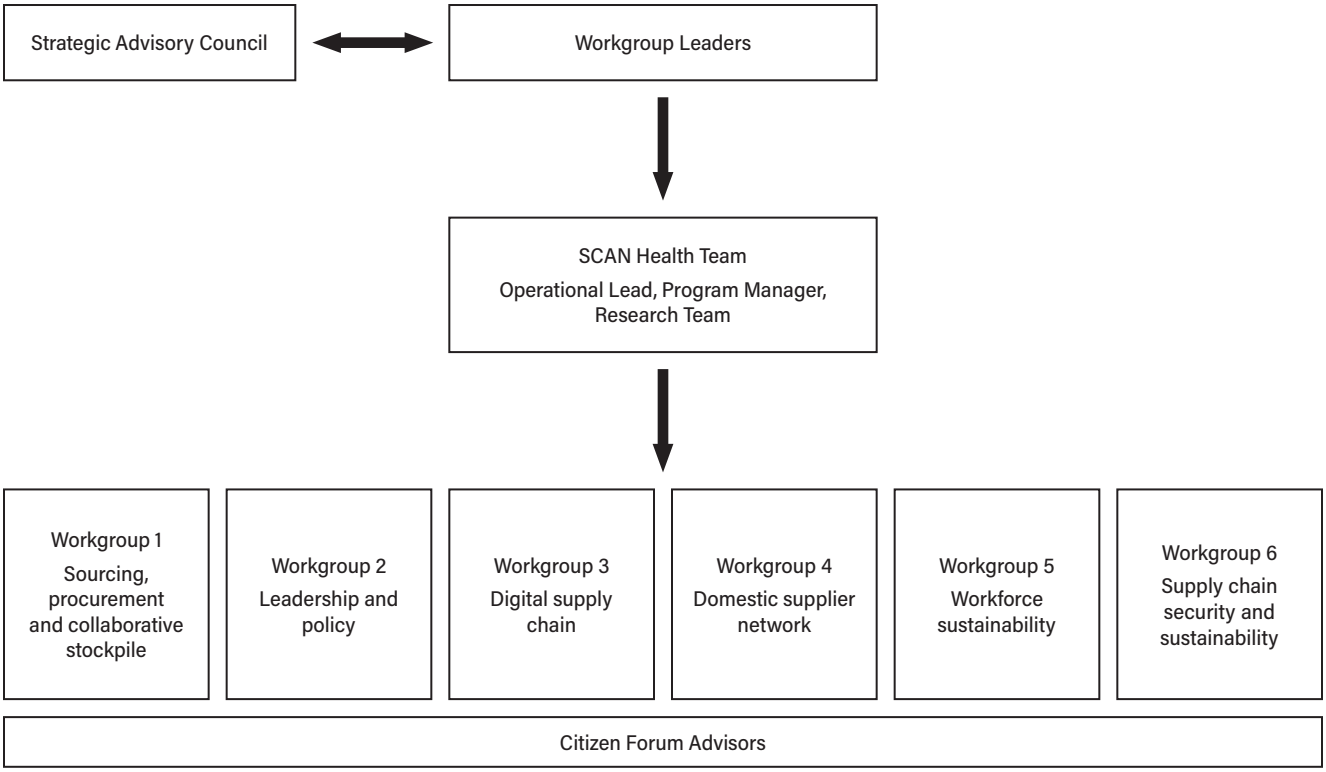
Phase 1: Building the Community

Phase 1 focused on establishing shared governance and building the CoP community. This was achieved by engaging key stakeholders across multiple jurisdictions and sectors (Bentley et al. 2010; Kothari et al. 2015) to identify and prioritize supply chain challenges that required solutions to advance resilience. Deep knowledge sharing, fostering a sense of community and cohesion over time, and "thinking together" established a forum for collaboration focused on supply chain resilience (Pyrko et al. 2017). Building a robust CoP required establishing a shared understanding of supply chain challenges from very diverse stakeholder perspectives to inform a defined purpose and vision for the CoP while building trust and relationships to foster knowledge sharing (Usoro et al. 2007). Participants collaborated to map existing knowledge resources, strategic insights and knowledge gaps in Canada's healthcare supply chain. Throughout phase 1, cultivating equity, transparency and trust remained a core focus and the defining feature of the CoP (Eggs 2012).

The governance model for the CoP was designed to support the key objectives of the CoP, embodying Bentley et al.'s (2010) domain principle of shared supply chain expertise and understanding of Canada's health supply chain. The governance structure deliberately created multiple channels for stakeholder input and leadership, including dialogue forums, workgroups and the use of a knowledge-sharing platform.

All partners actively engaged in establishing the CoP's operational strategies and identifying the value in specific types of engagement. A strategic advisory council of senior executives from industry, academia, citizen advocacy, health system leadership and government provided strategic advice to the SCAN Health team. Six working groups were established, each one led by co-directors with diverse areas of expertise and domains of knowledge.

FIGURE 2.
SCANH CoP governance model



CoP = community of practice.

Workgroup leaders meet quarterly with the SCAN Health team to support and facilitate knowledge-sharing across workgroups. In addition, all workgroups and partners convened annually for dialogue forums focused on knowledge sharing, debate and dialogue to define strategic priorities and opportunities to strengthen supply chain resilience. Dialogue forums enabled partners to share their knowledge and insight to identify shared values and priorities, creating a culture of transparency, inclusion and learning. The first dialogue forum established a shared understanding of supply chain challenges in Canadian health systems, whereby partners shared their knowledge, views and experiences to identify shared values and priorities, establishing a foundation of transparency, inclusion and collective learning. An online information-sharing platform was used to connect, inform and mobilize the collective expertise of SCAN Health's CoP partners. Within this platform, partners connected with one another, accessed resources and made use of dedicated spaces that support their workgroup's specific needs. Workgroup leaders met to discuss the progress of working groups, assess opportunities for additional partner participation, share information about their learnings and develop strategies to progress toward the CoP's goals and objectives.

Phase 1 concluded with a defined CoP infrastructure, a prioritized set of supply chain challenges and an established repository and knowledge-sharing platform. In alignment with Bentley et al.'s (2010) domain pillar, this phase brought together stakeholders for shared expertise to unite diverse stakeholders who might otherwise remain isolated in separate organizational silos. Mobilization of key stakeholders allowed healthcare providers, supply chain professionals, policy makers and industry partners to achieve a comprehensive understanding of complex supply chain issues that transcend any single stakeholder's perspective, addressing a critical gap in previous, fragmented approaches to healthcare supply chain management.

Phase 2: Establishing Workgroup Co-Design of Solutions to Advance Supply Chain Resilience

Phase 2 focused on establishing six workgroups, each with a defined mandate and charter. This began with defining the supply chain challenge, informed by empirical research (Snowdon et al. 2021) and guided by a "Canada First" strategy to strengthen supply chain resilience (Seibert 2015). The workgroup charter was designed by the participating partners consistent with Wenger's concept of the "joint enterprise" (Li et al. 2009) and ensured each workgroup was grounded in a shared purpose and accountable governance structure. Each of the six workgroups focused on one priority challenge of supply chain fragility, defined and identified by partners participating in each workgroup and informed by empirical research (Snowdon et al. 2021). Segmenting the diverse supply chain challenges in Canada was a strategy that enabled workgroup members to define the solutions needed to advance the "Canada First" objectives and to enable clear governance practices, such as defined terms of reference for each workgroup, defined membership and partner participation guidelines (e.g., conduct, conflict of interest management). The strategy of defining objectives of the CoP and workgroup mandates linked to unique dimensions of supply chain fragility has been documented as a highly successful governance strategy for CoP organizations (Probst and Borzillo 2008).

Each workgroup reached an agreement on defining the supply chain problem that contributed to healthcare supply chain fragility (Snowdon et al. 2021) and then advanced a wide range of options to consider as solutions to the defined problem. This first step sets the foundation for participants to advance the co-design of practical tools and strategies to improve supply chain resilience solutions to overcome the priority supply chain challenge. Six multi-sectoral workgroups, co-chaired by diverse leadership experts (supply chain experts, military, clinicians, academics) led over 80 co-design sessions (virtually), where their respective strengths and expertise were mobilized to inform the co-design of solutions by creating the capacity to proactively manage supply disruptions in a coordinated and collaborative approach to advance supply chain resilience. Workgroup participants shared their insights and expertise to inform the design of solutions and the priority outcomes to be achieved, mobilizing their collective expertise to refine and advance solution co-design. This workgroup strategy is supported by three pillars (Bentley et al. 2010): domain, practice and community, creating a structured approach to collaborative problem solving to address the complexities of healthcare supply chain resilience. The mandate and scope of each workgroup are described in Table 1.

TABLE 1.
Community of practice workgroup mandate and scope

Sourcing, procurement and collaborative stockpile: Design a model for multi-jurisdictional coordination of supply infrastructure and logistics.
Leadership and policy: Create an engagement and ethical framework to support the establishment of an ongoing forum for discussions concerning the healthcare supply chain and help guide decision makers by indicating the kind of policies necessary.
Digital supply chain: Define and design the "end-to-end digital supply chain" to create transparency of product utilization and risks should a disruption take place.
Domestic supplier network: Create a manufacturing capability/capacity resource and identify strategies and pathways to support domestic manufacturing capacity in Canada.
Workforce sustainability: Develop tools to support greater linkages between clinical work and supply chain management, and educate leadership on the clinical relevance and importance of supply chain in advancing workforce capacity and quality of work environments.
Supply chain security and sustainability: Identify critical data points and develop a data sharing strategy, engage in risk and threat assessment to understand vulnerabilities and systematically map capabilities, intents and potential risks of disruption or inequities within sector supply chains.
Citizen forum: The citizen forum brings a lens on diversity, equity and inclusion to inform and define workgroup priorities.

Phase Three: Validation of Supply Chain Strategies to Strengthen the "Canada First" Supply Chain Resilience

Phase three, which began in 2025, focused on the validation and evaluation of workgroup solutions. Pilot testing of the solutions began in 2024, engaging a large majority of CoP partners and stakeholders to assess the feasibility, utility and impact of each solution on real-world healthcare settings. Ethics approval was obtained for each of the pilot test research protocols. One of the key features of pilot testing was the integration of solutions into existing health systems or agencies for "real-world" testing to support the potential for adoption and scalability of solutions well beyond the scope of the CoP. The solutions currently in the testing phase are described in Table 2.

TABLE 2.
Working group co-designed solution

Workgroup	Solution evaluation during pilot testing
Leadership and policy	A multi-jurisdictional collaboration framework designed to support a "Canada First" strategy that proactively manages supply disruptions by engaging all jurisdictions to coordinate and collaborate on the supply management of actual or potential supply disruptions. The pilot testing is underway using a simulation of a critical product supply disruption.
Domestic supplier network	A searchable, artificial intelligence–driven data platform profiles domestic manufacturers of critical healthcare products approved by Health Canada. The platform builds awareness of Canadian companies to enable supply chain teams to prioritize procurement of products from Canadian companies. Multiple CoP partners are currently testing this solution for usability and effectiveness in supporting a "Canada First" strategy that supports Canadian companies.
Workforce sustainability	A communications strategy ensures clinicians are informed or product disruptions. This solution is designed to engage clinician expertise to inform risk mitigation strategies during supply shortages and select alternative products for substitution.
Supply chain security	A proactive risk surveillance tool is designed for health supply chain teams to identify potential or actual supply disruptions of critical products. The risk surveillance tool enables proactive management of supply disruptions focused on reducing risk to patients, workforce and capacity to meet demands for patient care. Multiple CoP partners are testing this risk surveillance tool.
Digital supply chain	Integration of a unique product identifier (Global Trade Item Number, GTIN) into patient health records (e.g., patient health summary) is a solution designed to enable tracking of product use and outcomes for every patient seeking care in Canadian health systems. This strategy is led by Canada Health Infoway and the Canadian Institute for Health Information.

CoP Outcomes and Impact

Three outcomes were proposed to be achieved at the completion of the CoP, namely, (1) supply resilience: the advancement of supply chain resilience solutions across Canada to strengthen post-pandemic recovery and sustainability of health system capacity to deliver care in Canada; (2) sustainability: the design and implementation of sustainable healthcare supply chain strategies to support and protect the health of citizens and the health workforce, while also protecting the planet; and (3) equity: the development of person-centred, supply chain resilience that is just and equitable to ensure that critical products go where they are most needed to protect the health of citizens at greatest risk, strengthening population health, wellness and workforce sustainability. To date, five supply chain solutions are in pilot testing, demonstrating significant progress toward advancing supply chain resilience and the design of solutions that protect the health of citizens and the health of the workforce. The achievement of sustainability and equity outcomes remains to be determined until the pilot testing is completed. Beyond these outcomes, two additional outcomes are emerging that illustrate the utility and effectiveness of the CoP strategy to advance supply chain resilience in Canada.

Solution co-design through applied learning, deepening relational ties and breaking down silos

The CoP has successfully designed supply chain resilience solutions as an outcome of co-design strategies. The workgroup strategy has successfully enabled Bentley et al.'s (2010) practice pillar, which embodies "learning through doing" that occurs when stakeholders collaboratively design and develop supply chain resilience solutions. Similar to Wenger et al.'s (2002) observation that "through its practice, its concepts, symbols and analytic methods the community operates as a living curriculum." Embedded in the CoP strategy, the practice pillar was embodied through translating knowledge into the co-design of actionable solutions through collaborative problem-solving by CoP partners participating in the workgroups. In addition to the workgroup co-design outputs (Table 2), the second dialogue forum engaged all CoP partners and workgroups to share progress on the key priorities identified to advance supply chain resilience and progress of the co-design of solutions to advance the strategic outcomes of the CoP. This process ensured that practice-oriented solution co-design strategies were vetted with all CoP participants to support applied learning and share unique domains of knowledge to advance and refine supply chain resilience solutions emerging from the workgroups. A third dialogue forum further advanced the practices of the workgroups to examine and explore the utility of co-designed solutions using a case simulation exercise, the war in the Asia-Pacific region, to enable all workgroups and CoP partners to examine how emerging supply chain solutions will advance supply chain resilience. Dialogue forums created an opportunity for debate, dialogue and insights to mobilize the expertise and knowledge of all stakeholders who had had no such forum for dialogue before the CoP. It enabled the identification of key enablers, barriers and feasibility factors for the implementation of supply

chain resilience solutions with particular attention to the outcomes of equity, resiliency and sustainability.

Advancement foundational trust and mutual problem solving

The emergence of supply chain resilience solutions in pilot testing suggests the CoP is advancing the achievement of three overarching goals: transparency and visibility of supply chain challenges, partner engagement and growth and foundational trust. Transparency has been strengthened by mobilizing diverse stakeholder perspectives and sharing knowledge, expertise and data to inform the co-design of solutions that address supply disruptions. Partner engagement has grown from 60 initial partners to more than 110 partners, including provincial and federal agencies, the private sector, health systems and an environmental sustainability advocacy network. Partner growth would suggest the CoP has created a trusted forum for dialogue, co-design of solutions and inclusive collaboration by enabling knowledge sharing, engaging all stakeholder groups and mobilizing knowledge and expertise to achieve the design of solutions to advance supply chain resilience. The CoP has built trust by moving beyond the limitations of jurisdiction or stakeholder culture, prioritizing the end of the health supply chain as being the health of patients and the safety of the workforce.

The CoP has focused on developing the "reciprocal ties of accountability, dependency, trust and communication" that Wenger et al. (2002) identify as essential for sustained collaboration. The collaboration across diverse stakeholder groups and jurisdictions has fostered connectivity and the relational infrastructure necessary for sustained collaboration. The design of the workgroups and dialogue forums was created deliberately for relationship-building across jurisdictional and organizational boundaries, addressing the competitive siloing that previous research identified as a barrier to supply chain resilience (Snowdon et al. 2021). Digital infrastructure to support communication across the CoP (e.g., Basecamp) has enabled and improved connectivity and access to knowledge resources for all members of the CoP, reinforcing the community beyond in-person gatherings. Public engagement has been further extended through the SCANHealthCAN podcast and blog publications, bringing CoP partners and leaders to further share their knowledge, insights and expertise about current challenges for the healthcare supply chain and the opportunities to advance solutions to advance a "Canada First" supply chain resilience.

Stakeholders developed initial trust through open dialogue and the establishment of a collective sense of purpose to advance supply chain resilience. Evidence emerging from the CoP is now revealing a highly collaborative model of stakeholder engagement that may serve to inform and sustain a "Canada First" strategy for supply chain resilience well into the future. The active participation of provincial and national organizations in leading solution pilot testing further signals a structural shift away from competition to coordinated supply chain resilience across Canadian jurisdictions.

Conclusion

Canada has experienced many difficult lessons from the COVID-19 pandemic that had a profound impact on the health of Canadians, influenced by significant shortages of critical supplies needed to protect patients receiving care and the health workforce delivering care. The SCANH CoP has successfully created a national forum for stakeholder partnership building that mobilizes diverse areas of expertise and knowledge domains to effectively co-design scalable, actionable solutions that advance health supply chain resilience in Canada. This CoP has been a *first-of-its-kind* initiative, as it has provided a unique opportunity to dismantle the barriers to healthcare supply chain resilience, having brought together critical stakeholders and experts, including scholars, clinicians, policy makers, supply chain teams and citizens. Through this collaborative and evidence-based approach, the CoP has translated empirical insights into practical collaborative co-design strategies supporting an equitable, sustainable, "Canada First" strategy that advances supply chain resilience across all Canadian jurisdictions. HQ

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About the Authors

Anne Snowdon, PhD, is a professor, Strategy and Entrepreneurship, scientific director and chief executive officer, Supply Chain Advancement Network in Health at the Odette School of Business, University of Windsor, Windsor, ON. Anne can be reached by e-mail at snowdon@uwindsor.ca.

Alexandra Wright, PhD, is the research director for Supply Chain Advancement Network in Health at the Odette School of Business, University of Windsor, Windsor, ON. Alexandra can be reached by e-mail at alexandra.wright@uwindsor.ca.

Saba Ghadiri, BEng, MA, is a research analyst for Supply Chain Advancement Network in Health at the Odette School of Business, University of Windsor, Windsor, ON. Saba can be reached by e-mail at ghadiris@uwindsor.ca.

Cindy Ly, MA, is a research analyst for Supply Chain Advancement Network in Health at the Odette School of Business, University of Windsor, Windsor, ON. Cindy can be reached by e-mail at cindy.ly@uwindsor.ca.