CSA GROUP™

What We Heard
Final Report

Helping inform the development of the National Standard of Canada for operation and infection prevention and control of long-term care homes (CSA Z8004)

January 2022

Health Canada Santé Canada

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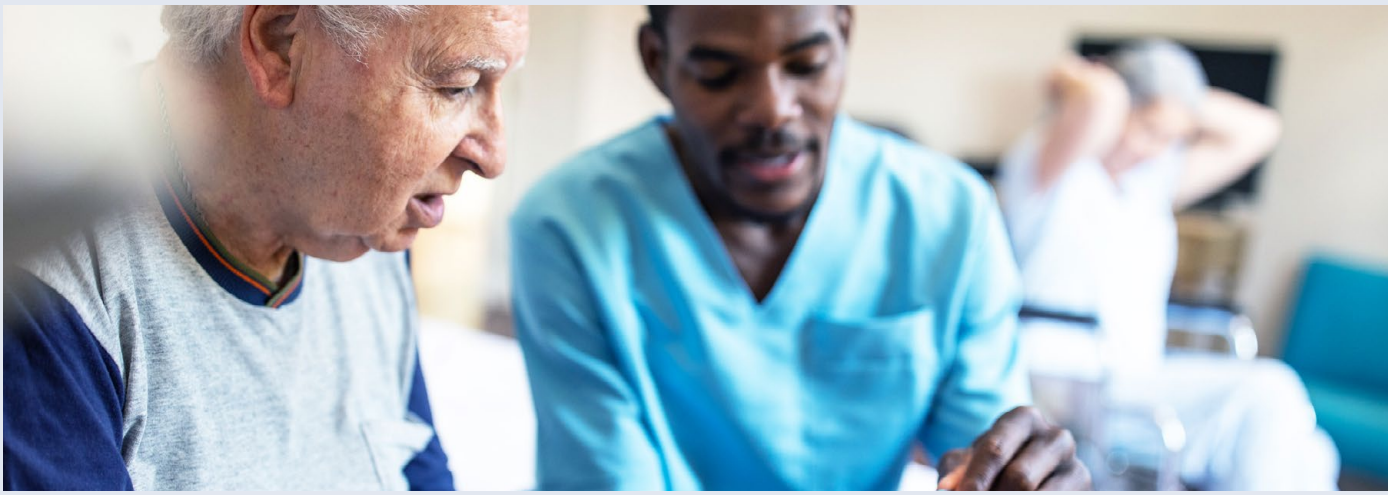


Executive summary

Introduction

Background

The global pandemic has shone a light on the unique challenges within Canada's long-term care (LTC) sector. To address some of those challenges, the Standards Council of Canada (SCC), Health Standards Organization (HSO), and Canadian Standards Association (CSA Group) are collaborating to develop two new complementary National Standards of Canada for LTC. Standards, and conformity to those standards, will help ensure that Canada's long-term care home (LTCH) settings are properly supported, practice increased safety, and that the more than 250,000 residents who call them home are also receiving the quality of care they need and deserve. CSA Group is developing the National Standard of Canada for the operation and infection prevention and control of long-term care homes (CSA Z8004), which will focus on safe operating practices and infection prevention and control (IPAC) in LTCHs.

The public consultation process

CSA Group launched a public consultation process to support the development of CSA Z8004, including enhanced engagement activities that exceed the CSA Group accredited standards development process. Through a series of consultations and surveys, CSA Group reached stakeholders from across the country. CSA Group and collaborating organizations engaged technical experts and targeted audiences to gather their perspectives and input on what the new National Standard should address. All feedback from the enhanced engagement activities will be considered in the development of CSA Z8004.

What we heard

CSA Group and collaborating organizations hosted six targeted consultation sessions. A total of 227 people participated in these targeted consultations. CSA Group also received 776 responses to three targeted surveys distributed to residents of LTCHs, their families, and caregivers, management, and operational staff of LTCHs, and a survey on equity, diversity, and inclusion (EDI).

CSA Group published the following What We Heard reports for each of the six consultations held:

- What We Heard Report: Consultation with Frontline Workers;
- What We Heard Report: Consultation on working with Indigenous Communities;
- What We Heard Report: Consultation with Older Adults, hosted by CanAge;
- What We Heard Report: Consultation with 2SLGBTQI+ Community;
- What We Heard Report: Consultation with Operators and Management, hosted by the Canadian Association for Long-Term Care (CALTC); and
- What We Heard Report: Consultation with Francophone Frontline Workers, hosted by Bruyère, CLRI and Carleton University.

This final report summarizes what we have heard across all engagements with stakeholders, including the consultation sessions and surveys.

Principles

We heard consistenly across engagements that the following principles should inform all aspects of operations, IPAC policies and procedures, and design of LTCHs:

- people-centred care;
- equity, diversity, and inclusion; and
- gender and sexual inclusivity.

Related to people-cented care, participants identified a tension between resident autonomy and safety. This tension emerged in several themes, including IPAC and visitor policies. Many stakeholders stressed the need to balance safety concerns with the mental, social and emotional well-being of residents.

Key themes

We heard about the positive aspects of LTC and many of the challenges experienced by residents, families, caregivers, frontline staff, and operators. Participants identified challenges that emerged during the COVID-19 pandemic related to IPAC, resident well-being, and LTCH design and operation, as well as best practices and solutions to addressing these challenges.

The following key themes emerged from the consultation:

COVID-19

During the pandemic, many frontline staff and operators of LTCHs found it challenging to implement constantly changing policies and procedures due to a lack of coordination and communication. Many felt LTCHs were left to respond independently. Participants working in French-speaking LTCHs in predominantly English-speaking provinces shared that the language difference led to communication challenges—including, in some cases, the need to interpret policy direction and communicate it to employees, families, and residents

Equity, diversity, and inclusion (EDI)

We heard that LTC policies and procedures need to reflect an inclusive approach. For example, we heard that washrooms should be gender-neutral. Also, the language used in documents and forms should be gender-neutral. Participants also recommended that cultural safety training should be delivered to staff to facilitate the delivery of inclusive care and operations, and address inequities.

Training and education

Throughout consultation sessions and surveys, participants emphasized the importance of training and education for staff, residents, families, caregivers, and other visitors. Most of the topics participants recommended were linked to pandemic-related policies and procedures. Frontline staff communicated that IPAC education and training should be provided to all staff working in LTCHs, including those responsible for cleaning and disinfection; housekeeping; heating, ventilation, and air conditioning (HVAC) systems; and maintenance.

Food and nutrition

Food quality and management were a consistent theme. Participants stressed that meals should be appetizing and nutritious and that residents should receive food tailored to their dietary needs and preferences. Many shared that food in some LTCHs is often bland and unappealing. We heard that the design of kitchens should enable residents to participate in meal preparation and that mealtimes should be flexible to accommodate individual sleep-wake schedules.

Infection prevention and control (IPAC)

Frontline staff and operators suggested that IPAC should be focused on the most effective measures and take precautions to avoid negatively impacting residents' quality of life. Participants emphasized the importance of hand hygiene and recommended placing accessible handwashing stations throughout LTCHs. LTCHs also struggled to procure personal protective equipment (PPE), and there was limited space for storage or donning and doffing. Many staff experienced overheating and dehydration while wearing PPE due to a lack of temperature regulation in many LTCHs and staff shortages that made it more difficult to take breaks.

Heating, ventilation, and air conditioning (HVAC)

Participants and respondents stressed the need for HVAC systems in LTCHs that can provide proper heating, cooling, and microbial filtration. Many older HVAC systems lack fresh air exchanges, and many survey respondents emphasized the need to upgrade the systems in older buildings to help ensure all units have air conditioning.

Environmental design

We consistently heard that LTCHs are residents' homes and should be comfortable, safe, inclusive, and culturally appropriate in terms of design. Participants relayed the importance of accessibility and dementia-friendly design to enable residents to safely and easily access common areas and the outdoors. Access to nature and culturally safe spaces were also priorities for many stakeholders.

Some participants emphasized that LTCHs should not be institutional—this was particularly important for residential school and day school survivors who may be re-traumatized by institutional settings. Some suggested that smaller LTCHs are more home-like and better equipped to facilitate IPAC and people-centred care.

Participants emphasized the importance of single-occupancy bedrooms and private washrooms for several reasons—it improves IPAC through physical distancing, enhances privacy and dignity, and allows residents to personalize their living space. However, we also heard that residents who want to live together, such as couples, should be accommodated.

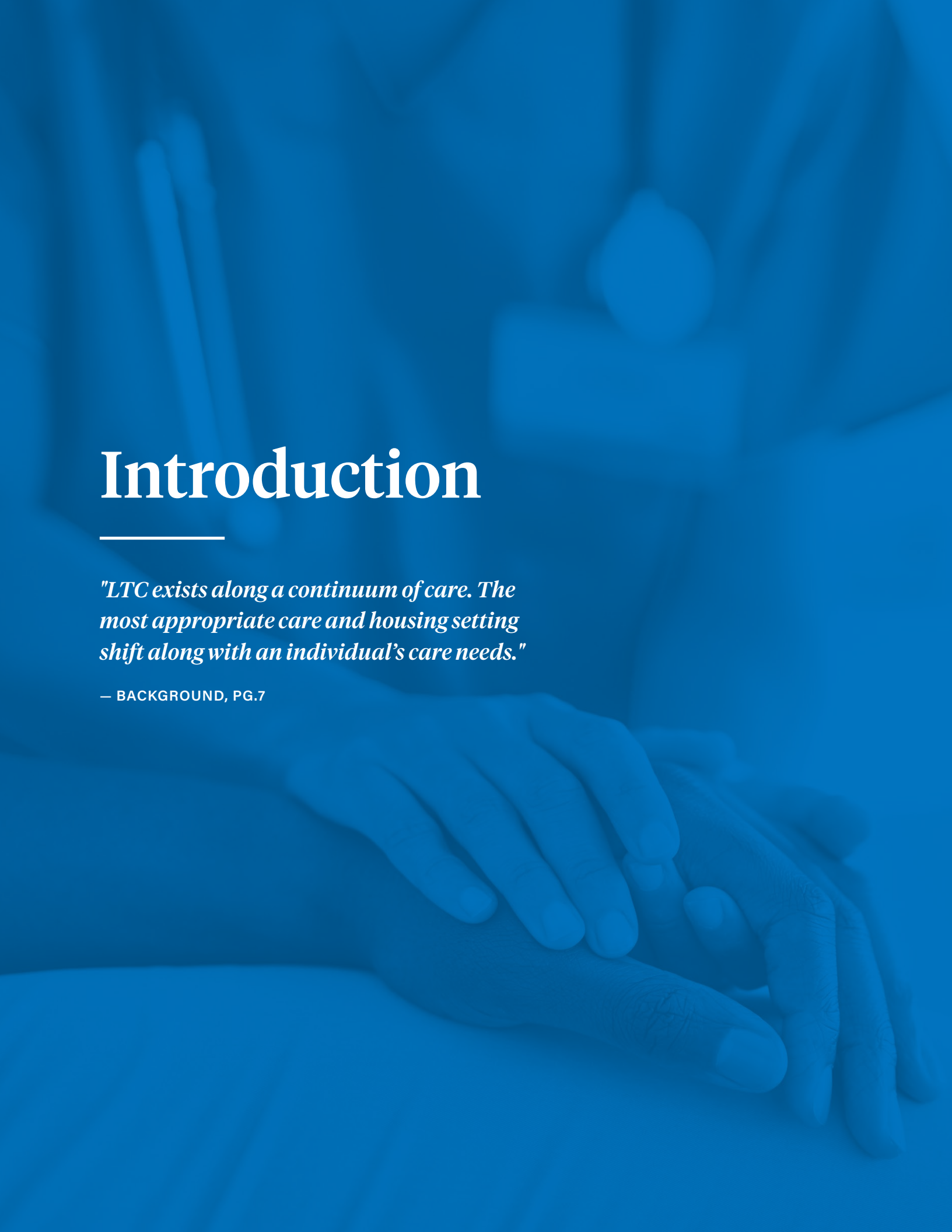
Next steps

Once CSA Z8004 is drafted, it will be available for a 60-day public review period. The 60-day public review of the draft Standard will take place from February to April 2022. This will include CSA Group-hosted information sessions to provide an overview of the draft Standard and highlight key sections to encourage feedback. Comments received during the 60-day public review will be provided to the Technical Subcommittee (TSC) for consideration for the final draft Standard.

The CSA Z8004 standard is expected to be published in December 2022. CSA Group will hold information sessions for different targeted audiences and the broader public to provide knowledge on the new standard and promote awareness of its contents.

For more information, ongoing public updates on the development of CSA Z8004, and to participate in the discussion, please join the CSA Long-term Care Community:

https://community.csagroup.org/community/health-care-safety-and-accessibility/long-term-care-homes



Introduction

"LTC exists along a continuum of care. The most appropriate care and housing setting shift along with an individual's care needs."

— BACKGROUND, PG.7

Background

There are more than 2,000 LTCHs in Canada, which approximately a quarter-million residents call home. LTCH ownership and operation is a combination of public, private for-profit, and private not-for-profit. About 54% of LTCHs are privately owned and 46% publicly owned. In 2018, Canada spent 1.3% of gross domestic product (GDP) on residential LTC, which is above the average for Organisation for Economic Co-operation and Development (OECD) countries (0.85%)—the Netherlands spent the most on residential LTC in 2018 (2.5% of GDP).[1]

The built environment of LTCHs, which can vary significantly, shapes resident experiences and outcomes. LTCHs vary from large institutional models to freestanding household models.

In 2019, approximately 40,000 Canadians were on waitlists for LTCHs.[2] The Conference Board of Canada estimates that the demand for LTC beds will double by 2035, requiring an additional 199,000 beds to meet the demand of our ageing population.[3] Demand for LTC is determined by many factors, including the availability of home care services. While most older Canadians would prefer to age at home with supports, there are significant unmet home care needs in many areas of the country.

LTC exists along a continuum of care—as illustrated in Figure 1 below. The most appropriate care and housing setting shift along with an individual's care needs. Where along the continuum an individual resides and receives care depends on many factors, including the availability of services, housing, geography, income, etc.

Defining long-term care (LTC)

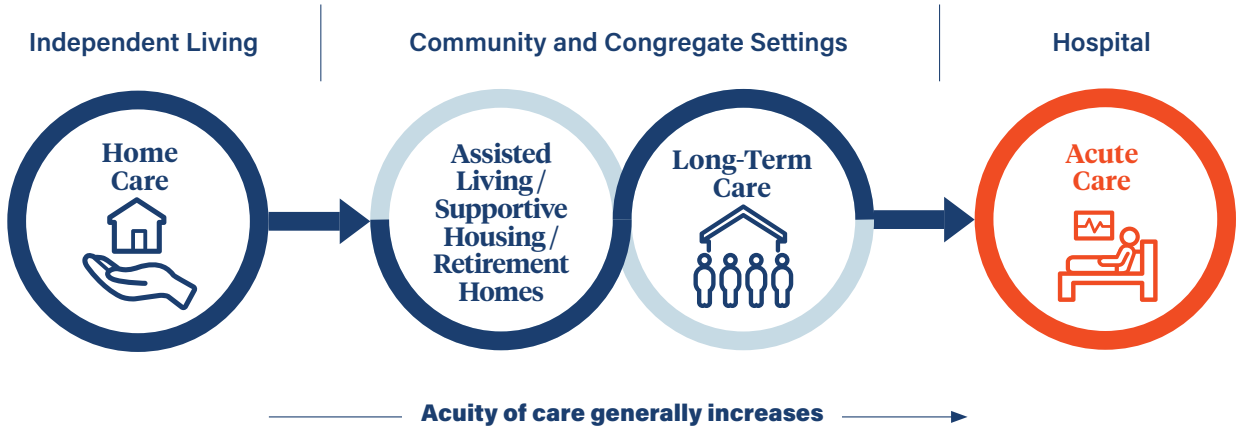
There is no standard definition of LTC or what LTCHs are called within Canada (nursing home, personal care facility, residential continuing care facility, etc.). LTC services vary across the country and typically include bathing, dressing, meal assistance, ambulation, toileting, and behaviour management. These services may be required at any age but are most commonly needed by older people, and the need may be triggered by age or a decline in physical or cognitive capacity.

1 Spending in residential long-term care facilities. Source: OECD. (2020). Spending on long-term care. Available at: https://www.oecd.org/health/health-systems/Spending-on-long-term-care-Brief-November-2020.pdf

2 National Institute on Aging. (2019). Enabling the Future Provision of Long-Term Care in Canada. https://static1.squarespace.com/static/5c2fa7b03917eed9b5a436d8/t/5d9de15a38dca21e46009548/1570627931078/Enabling+the+Future+Provision+of+Long-Term+Care+in+Canada.pdf

3 The Conference Board of Canada. (2017). Sizing up the challenge: Meeting the demand for long-term care in Canada. Available at: https://www.conferenceboard.ca/temp/1b37f2df-73b5-4d72-8a2d-af905dc4aa43/9228_Meeting%20the%20Demand%20for%20Long-Term%20Care%20Beds_RPT.pdf

Figure 1: The continuum of care



Note: This figure is a simplified illustration of the continuum of care and does not reflect all settings or their complexity.

COVID-19 has had an enormous impact on LTC residents, staff, and families. More than 2,500 care homes[4] across Canada experienced a COVID-19 outbreak between March 1, 2020 and February 15, 2021, resulting in the deaths of more than 14,000 residents and nearly 30 staff.[5] As of May 2020, more than 80% of COVID-19 deaths in Canada occurred in care homes—the highest rate among thirty-eight Organisation for Economic Co-operation and Development (OECD) countries and well above the OECD average of 38%.[6]

The Royal Society of Canada's report on the impact of COVID-19 on LTC argues that "[t]he pandemic just exposed long-standing, widespread and pervasive deficiencies in the sector."[7] The report recommends federal, provincial, and territorial governments work in partnership to improve Canada's LTC sector, including developing and implementing national standards.

The Standards Council of Canada (SCC), Canadian Standards Association (CSA Group), and Health Standards Organization (HSO) are collaborating to develop two new complementary National Standards of Canada for Long-Term Care. HSO is developing CAN/HSO 21001:2022 – Long-Term Care Services. CSA Group is developing the National Standard of Canada for the operation and infection prevention and control of long-term care homes (CSA Z8004), which will focus on safe operating practices and IPAC in LTCHs.

What are standards?

Standards set guidelines and establish accepted practices, technical requirements and terminologies for diverse fields, based on available evidence, in order to drive quality improvement. In conjunction with monitoring, enforcement, compliance, and public reporting, standards function as an important quality assurance mechanism. Standards are voluntary and only become mandatory when they are enforced by laws or regulations—they may also be tied to accreditation, certification, funding agreements or quality control measures to encourage uptake.

4 Care homes include retirement homes and LTCHs.

5 Canadian Institute for Health Information. (2021). The Impact of COVID-19 on Long-Term Care in Canada: Focus on the First 6 Months. Available at: https://www.cihi.ca/sites/default/files/document/impact-covid-19-long-term-care-canada-first-6-months-report-en.pdf.

6 Canadian Institute for Health Information. (2020). Pandemic Experience in the Long-Term Care Sector How Does Canada Compare With Other Countries? Available at: https://www.cihi.ca/sites/default/files/document/covid-19-rapid-response-long-term-care-snapshot-en.pdf.

7 Royal Society of Canada. (2020). Restoring Trust: COVID-19 and The Future of Long-Term Care. *A Policy Briefing by the Working Group on Long-Term Care.* Available at: https://rsc-src.ca/sites/default/files/LTC%20PB%20%2B%20ES_EN.pdf. p.5

CSA Z8004 will consider and reference topics such as HVAC, plumbing, waste removal, medical gas systems, use of technology, and cleaning and disinfecting processes. Professor Alex Mihailidis is the TSC Chair and leads the development of CSA Z8004 for CSA Group.

> *"This past year has brought to the forefront significant issues within our long-term care homes. In response, we need to do all that we can to help ensure that these facilities are places where everyone feels cared for in a safe and compassionate way. Working together with stakeholders, experts, and those with lived experiences, we will develop standards to meet these challenges now and in the future."*
>
> **—Dr. Alex Mihailidis**

Consultations

CSA Group and collaborating organizations hosted six targeted consultation sessions with a total of 227 participants. The consultation sessions were completed with the following groups and communities:

Table 1: Consultation sessions

Consultation session	Date
Frontline workers	June 30, 2021
Indigenous LTC frontline workers, operators, and communities	August 4, 2021
Older adults (hosted by CanAge)	August 10, 2021
2SLGBTQI+ community	August 19, 2021
Operational staff (hosted by CALTC)	August 25, 2021
Francophone frontline workers (hosted by Carleton University CLRI, and Bruyère)	August 30, 2021

All sessions were conducted remotely by video conference. Each session began with an introduction of CSA Group, an overview of the standards development process, and the objectives of the session. Following this, participants were divided into breakout rooms with a facilitator and notetaker. Breakout room discussions centred around targeted questions on infection prevention and control and the design and operation of LTCHs. The sessions concluded with a brief concluding summary discussion with all participants in the main room.

Surveys

CSA Group also distributed three surveys targeting the following groups, communities, and subject matter stakeholders:

Table 2: Surveys

Survey	Number of responses
Residents of LTCHs, their families, and caregivers	602
Management and operational staff of LTCHs	136
Equity, diversity, and inclusion (EDI)	38

The survey questions were a combination of multiple-choice questions, rating scale questions, open-ended questions, and demographic questions. Many of the questions were common across all surveys, allowing for the results to be analyzed across all responses. Please see the Appendix A for a more detailed analysis of responses to individual survey questions.

Nearly **70%**

of all survey respondents identified as a family member, friend, or unpaid caregiver to an LTCH resident.

What we heard

Survey respondents and consultation participants shared a great deal about both the positive aspects of LTC and the challenges experienced by residents, families, caregivers, frontline staff, and operators. We heard a number of proposed solutions to complex issues that are explored in more detail in the following sections.

Figure 2 illustrates the most used words in open-ended responses across all surveys—the size of the word corresponds with the relative frequency each word was used. "Residents" was the most frequently used word, followed by "staff" and "rooms"—indicating the importance of these topics.

Figure 2: Word cloud of the most used words across all surveys

Figure 3: Engagement by the numbers

Engagement by the Numbers

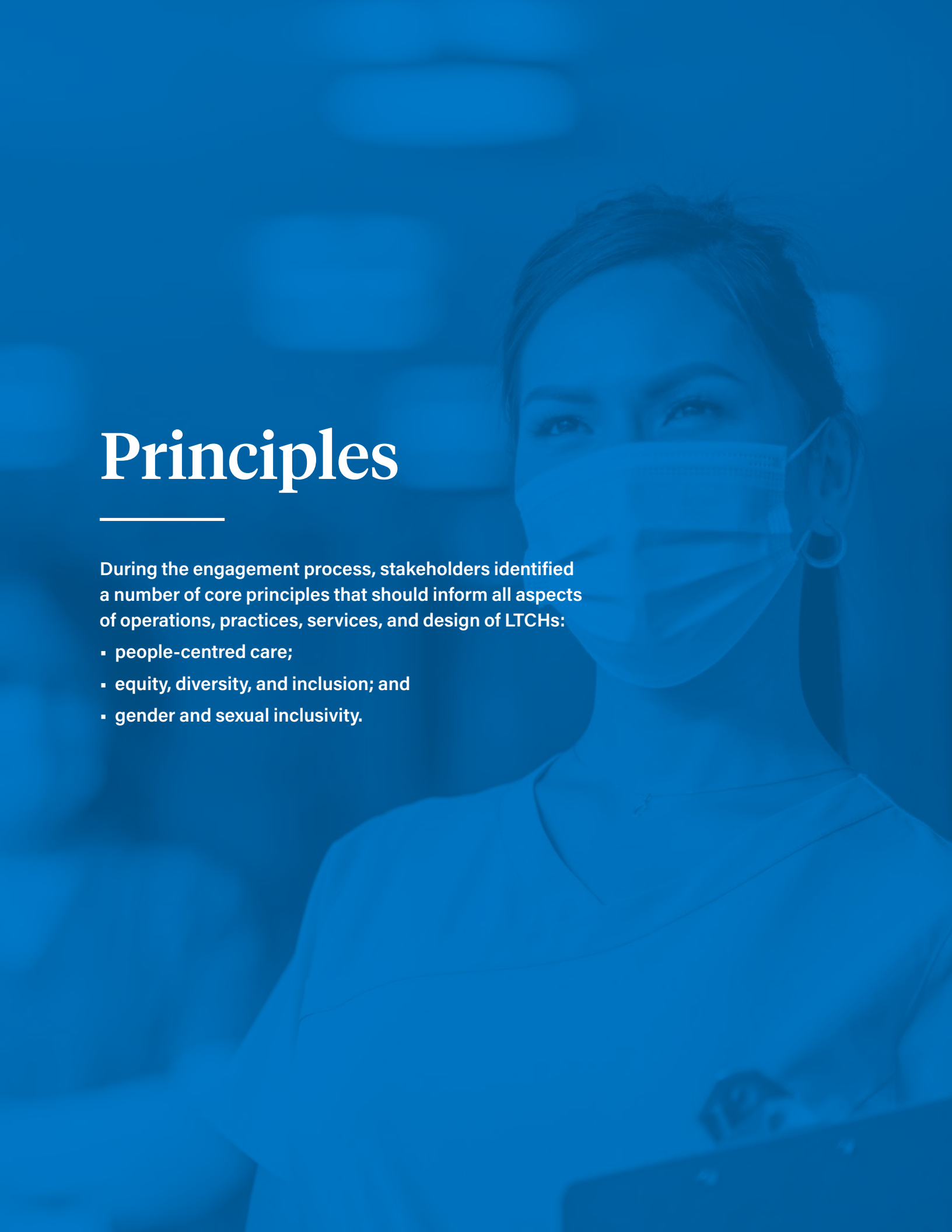
776
Total Survey Responses

6
National Consultations Held

227
Consultation Participants

What We Heard (Top Themes):

- Covid-19
- Training and Education
- Bedroom Design
- Visitor Policy
- People-centered Care
- Privacy



Principles

During the engagement process, stakeholders identified a number of core principles that should inform all aspects of operations, practices, services, and design of LTCHs:

- people-centred care;
- equity, diversity, and inclusion; and
- gender and sexual inclusivity.

People-centred care

We heard consistently from stakeholders across all engagements that LTCHs should apply a people-centred approach to design, operations, IPAC, and care. People-centred care is a model of care focused on treating people with dignity and respect and involving them in all decisions about their health. Many survey respondents and consultation participants emphasized that LTCHs are people's *homes* and that the voices of residents, families, and caregivers should be central at every level of decision-making—across design, operations, IPAC, and provision of care services.

> *"[Long-term care homes] need to be a home, not a hospital."*[8]

We also consistently heard the need to balance resident autonomy and risk. This was particularly relevant in discussions on IPAC. In response to the COVID-19 pandemic, policies and procedures in LTCHs were often focused on minimizing the physical risk of contracting COVID-19 at the expense of mental and social risks, such as increased resident isolation. Operators shared that the focus on physical safety—including an inflexible regulatory environment in some jurisdictions—can at times be a barrier to people-centred care. Many participants emphasized that the core goal of LTC should be quality of life—including safety, but in balance with other physical, social, mental, emotional, and spiritual aspects of well-being.

Figure 4: Balancing risk and resident autonomy

> *"These are people's homes in the last years of their lives. We need to treat people with the dignity and respect of allowing them to be autonomous and to make decisions for themselves (if able) so that they can feel important and comfortable."*[9]

8 Resident, family and caregiver survey respondent.

9 Equity, diversity, and inclusion survey respondent.

In our consultation session with older adults, we also heard that a people-centred care approach should consider the needs of residents living with dementia. Residents with dementia, who make up a large proportion of the LTCH population, are often limited in the space available to them. Due to safety and IPAC concerns, we heard that some LTCHs have limited the access of residents with dementia to the outdoors and other spaces, leading to social isolation. Participants emphasized the need to balance IPAC and other safety concerns with the well-being of residents with dementia.

Equity, diversity, and inclusion (EDI)

Another emerging theme throughout the consultation sessions and survey responses was the importance of providing culturally safe care in LTCHs—including the need for more education and training of management, staff, residents, and families to enable this. Participants and respondents also stressed the need for spaces and programming to support religious and cultural activities.

We consistently heard about the importance of family and community, religious and spiritual needs, access to nature, and access to traditional cultural practices and food in Indigenous cultures, and how these customs and traditions were pertinent to Indigenous people in LTCHs. Participants emphasized that culturally safe care is fundamental to resident quality of life, which demands that LTCH spaces, policies, and procedures be designed with this in mind.

Participants noted that delivering culturally safe care, establishing culturally safe operations, and designing culturally safe spaces require early and ongoing consultation and co-development with the communities being served. There are many distinct cultural practices and traditions, which makes a one-size-fits-all approach inappropriate. We heard that culturally safe designs and operations should result from a purposeful approach rather than being implemented as an after-thought.

"It is important that cultural needs are accommodated" [10]

81%

of survey respondents indicated that the ability of a resident to personalize their room was an important design consideration that significantly impacts residents' well-being.

The importance of language was also consistently raised. Residents and staff often speak different languages, which can be a barrier to operations, care, and socializing. We heard, for example, that language barriers can make it more challenging to communicate IPAC procedures. Participants also highlighted the importance of having someone who speaks the same language as residents available onsite and providing access to activities in their language, such as radio programming, which supports residents to feel at home. It was suggested that having an LTCH dedicated to Indigenous residents could make it easier to design and deliver culturally safe care.

Gender and sexual inclusivity

Our engagement with members of the 2SLGBTQI+ community highlighted the existence of stigma and discrimination within LTCHs related to gender identity and sexual expression. Participants shared that 2SLGBTQI+ community members may hesitate to disclose their sexual orientation or gender identity due to a fear of hostility and discrimination from residents and staff in LTCHs.

Overall, participants emphasized that LTCHs must be safe and inclusive for all residents. Symbolic shifts in LTCHs, such as displaying a rainbow flag, make LTCHs feel more welcoming and are essential steps. However, participants stressed that a culture shift towards more inclusive care must go beyond the symbolic gestures and include systemic changes that address gaps in care for 2SLGBTQI+ residents.

10 Equity, diversity, and inclusion survey respondent.

Participants discussed the idea of designated LTCHs or wings within LTCHs designated for members of the 2SLGBTQI+ community. Some supported the idea, whereas others preferred improved inclusivity and integration with the broader community. Others noted that the demand for designated spaces would depend on several factors, including the size of the LTCH, the size and needs of the 2SLGBTQI+ community, and where the LTCH is located.

Participants also shared their thoughts about helpful ways to raise questions and dismantle assumptions of staff, management, and residents. For example, LTCHs could hold regular informational meetings with staff, residents, community members, and subject matter experts to engage with issues impacting 2SLGBTQI+ residents and other equity-deserving communities. These engagements could include roleplays for instances of misgendering so that staff and management have the active language and tools to create an inclusive, safe and respectful care environment for all residents.

Operations

"Operators shared a common concern that LTCHs were expected to function similarly to hospitals while still delivering the care and services of an LTCH."

— COVID-19 AND CATASTROPHIC EVENT MANAGEMENT, PG.16

COVID-19 and catastrophic event management

Throughout the consultation process, we consistently heard about challenges LTCHs faced during the COVID-19 pandemic. For example, many LTCHs experienced significant challenges with implementing constantly evolving policies and procedures related to IPAC. Operators shared a common concern that LTCHs were expected to function similarly to hospitals while still delivering the care and services of an LTCH. As a result, many residents experienced increased isolation—for example, residents were often forced to remain in their rooms, even during mealtimes. Some participants recommended that catastrophic event management policies and procedures be designed with greater clarity and flexibility for LTCHs and that consideration should be given to the unique needs of LTC residents.

> *"We've heard the worst, but the good LTCH's go quietly about their business of caring for and loving our old folk."*[11]

Our consultation with frontline staff identified new challenges that emerged during the pandemic. Many participants expressed that staff cohorting could have been better coordinated across all staff and sites. The ability of residents to move around the LTCH was another major issue throughout the COVID-19 pandemic. In addition to the harmful effects of social isolation, it was particularly challenging to implement safety protocols for residents.

Dining was also challenging, with limited space to maintain safe distances at mealtimes. Participants suggested that multiple seatings with smaller numbers of residents could allow for safe socializing during outbreaks. Some LTCHs limited potential for COVID-19 transmission by having outbreak units with dedicated staff.

Visitor policies

We consistently heard from residents, families, caregivers, frontline staff, and operators that limits to visitors during the COVID-19 pandemic resulted in social isolation for residents. In some LTCHs, a lack of staff resulted in residents being confined to their rooms for prolonged periods. We heard that resident isolation had a severe negative impact on residents' physical, social, and emotional well-being.

Some participants recommended that guidelines for visitors should be expanded to reflect the multiplicity in who LTC residents consider family or essential supports. This could be done by, for example, expanding definitions of "family" beyond biological/families of origin. We also heard that caregivers should be regarded as crucial members of care teams.

11 Management and operators survey respondent.

> *"If a resident has to isolate, they truly are isolated—from staff, from family and friends, from their designated support persons. For the sake of their mental health, there needs to be some way for the isolated person to have visits from suitably protected people in an isolation space that is large enough to accommodate a distanced visit."*[12]

We heard that Indigenous LTC residents might live far from their families and loved ones, making visiting more challenging. As visitors often must travel a significant distance to visit, it was suggested that they be provided rooms for overnight stays in some instances.

Inclusive policies and procedures

We heard that LTC policies and procedures need to reflect an inclusive approach. For example, participants expressed the need for gender-neutral language in documents and forms. Gender neutrality was equally important when it came to the physical space. This was most evident when participants spoke to the need for gender-neutral washrooms.

We also heard that orientation policies and procedures should be in place to welcome new residents—this would provide staff with the opportunity to better understand residents' histories and needs as they relate to their care. For example, ensuring the correct use of pronouns is an essential component of accommodating residents based on gender expression and gender identity. We also heard that if residents are HIV positive, it is crucial to assess their needs while maintaining their privacy.

> *"There are pockets that are inclusive of specific groups; however, as a whole, there is much work to be done. When designing LTC homes, we need to consider ways to keep connections with broader communities—whether that is intentionally located within communities, spaces that bring communities into LTC homes, etc."*[13]

Participants emphasized the importance of LTCHs formally connecting with the broader 2SLGBTQI+ community and including community members on committees—we heard that some LTCHs had made

inroads in connecting with the 2SLGBTQI+ community. Some participants also emphasized that LTCHs should also have EDI committees to address systemic barriers impacting equity-deserving communities.

Communication

We heard that communication between LTCHs and residents, families, and caregivers is critically important for understanding what is happening in LTCHs and identifying the care needs of residents. Participants emphasized that this is an area that requires improvement in many LTCHs.

> *"Communication is extremely important, especially when loved ones no longer can communicate verbally with the family."*[14]

In our consultations with frontline workers and operators, communication and the challenges of language differences were consistent themes that emerged. We heard that there was a lack of coordination in developing policies and procedures to respond to the pandemic and that many felt LTCHs were left to respond independently. At times, contradictions between provincial and local public health directives created confusion and made it difficult for staff to know what policies to implement. We heard that the issues were partly due to a lack of familiarity with the LTC sector.

12 Residents, families and caregivers survey respondent.

13 Equity, diversity, and inclusion survey respondent.

14 Residents, families, and caregivers survey respondent.

Participants working in French-speaking LTCHs in predominantly English-speaking provinces shared that the language difference led to communication challenges—including, in some cases, the need to interpret policy direction and communicate it to employees, families, and residents. For example, inconsistencies between the English and French documents on visitor policies and procedures led one LTCH to do its own translation of the original English directives.

Staff found it challenging to communicate new policies and procedures, particularly when many families did not agree with them. Some participants suggested that governments should take more responsibility for communicating with families to protect frontline staff from the reactions of frustrated family members.

Training and education

The importance of training and education for staff, residents, families, caregivers, and other visitors was emphasized throughout consultation sessions and surveys. Much of what was shared was regarding pandemic-related policies and procedures. We heard that training and education should be provided to families in advance or as soon as a resident moves in to facilitate visits, communication, and adherence to policies and procedures.

Participants were clear that IPAC training should be for all staff, including support service staff (e.g., housekeeping, food service, maintenance), as well as visitors, caregivers, and outside suppliers such as hairdressers and optometrists. Training should be available both online and in-person, and regular re-training should be required. Participants recommended that education and training resources be user-friendly, encourage self-care, and motivate people to follow guidelines. We also heard that training should be short and accessible, given the staffing shortages in the sector.

Some participants shared the importance of having a dedicated IPAC practitioner in LTCHs to deliver education and training. However, some operational staff expressed concern that dedicated IPAC practitioners can sometimes be a barrier to resident quality of life through an overly narrow focus on IPAC. We also heard a distinction between IPAC and health and safety training—for example, participants shared that PPE guidelines and training should be jointly led by those with health and safety expertise and IPAC professionals.

95%

of survey respondents to the EDI survey supported including training for staff on topics such as anti-racism, indigenous cultural safety training, gender and sexual identity, etc.

Consultation session and survey participants consistently told us that staff should receive EDI and cultural safety training and education to facilitate the delivery of inclusive care and address inequities and gaps in care. Participants emphasized that training and education should be designed and delivered in partnership with the population being served.

We heard from participants that new and evolving COVID-19 directives led to repeated staff training on the use of PPE and other policies and procedures. In addition to the previously mentioned communication difficulties, this contributed to stress for staff. Participants also shared that many employees in LTCHs are not part of a regulatory body that could facilitate training.

Food and nutrition

Consultation session participants and survey respondents consistently emphasized the importance of food, nutrition, and mealtimes for LTCH residents. Participants stressed that meals should be appetizing and nutritious and that residents should receive food tailored to their dietary needs and preferences.

However, many observed that food in LTCHs is often unappetizing. Also, a lack of flexibility in mealtimes to accommodate individual sleeping schedules and a

86%

of survey respondents to the EDI survey supported access to traditional and/or culturally appropriate food and cultural activities.

lack of food choices resulted in many complaints from residents, families, and caregivers. We also heard that meals should be prepared in a central kitchen where residents can participate in cooking if they desire.

> *"I have worked in LTC for close to 20 years, and one of the most common complaints is food quality and management. Food is bland, generally tasteless and often served cold—very unappealing."*[15]

We heard that a significant aspect of providing culturally appropriate and safe LTC services was to ensure that Indigenous residents have regular access to culturally appropriate foods. For example, participants stressed the importance of traditional foods within the Indigenous culture and how it can help residents feel at home. It was noted that designated kitchens might be required for the storage and preparation of wild meats. Regulations vary by jurisdiction in terms of food safety—for example, in Nunavut, traditional foods served raw are available in LTCHs.

> *"Choice of food and meal services are missing in LTC—residents cannot choose what they want to eat and when they want to eat."*[16]

Participants also suggested that design considerations should be made so that residents can harvest their own food in LTCHs, such as plants and berries grown in a garden. Consideration should also be made for space for families and residents to prepare food together and eat together. It was suggested that residents should have their own individual mini-fridges for food storage to prevent cross-contamination.

Waste management

Frontline participants spoke at length about the challenge of dealing with increased waste from outbreak, epidemic, and pandemic-related PPE and the difficulty of doing so safely. We heard that PPE and other items such as rapid tests were disposed of in the regular garbage bins due to a lack of waste receptacles. Some LTCHs were forced to use boxes with garbage bags over them, and others had overflowing waste bins. Participants communicated the need for clear guidelines for waste management and design considerations for waste receptacles within LTCHs.

Quality improvement

We heard from operators of the importance of quality improvement processes and the need to consider the implications of an over-reliance on compliance mechanisms that can impact care delivery. Participants shared that increased compliance measures can lead to a "check-box" approach that takes time away from other tasks and does not necessarily lead to improved quality of life for residents.

We heard that most quality improvement tools do not adequately measure resident quality of life—which participants stressed should be the core objective of LTC. We heard that new standards should consider opportunities to improve data measurement in LTCHs, focusing on resident experience and markers for quality of life. Some participants also stressed the need for flexibility in quality improvement mechanisms, such as audits, to take different contexts into account.

At an organizational level, we heard that quality improvement committees and strong engagement at the Board level are critical to successful improvement projects. We also heard that staff must be involved in developing quality improvement measures as they have on-the-ground expertise and will be the ones implementing changes. Residents and family councils also need to have a voice in quality improvement. Participants also stressed the importance of fostering a safe environment for staff to ask questions and feel supported.

15 Equity, diversity and inclusion survey respondent.

16 Management and operators survey respondent.

Frontline staff and operators shared that a lack of resources, including funding for staff and a shortage of staff with expertise in IPAC, was a barrier to implementing quality improvement and implementing policies and procedures related to COVID-19. Overall, the pandemic has been incredibly challenging for staff in LTCHs. For example, stringent reporting requirements in some provinces took away from the time staff had to spend on programs and services.

> *"The number of staff are often too low to carefully monitor and support residents to practice good hand hygiene and infection control in their work environments... Staff are often struggling to fit in delivering snacks and fluids to residents between meals as there are many competing priorities."*

Sharing best practices

Participants highlighted the opportunity to share best practices as an effective way to improve quality across the sector. However, reporting mechanisms for sharing best practices need to be improved. For example, during the pandemic, it was critical for LTCH operators to rapidly learn best practices for outbreak management from one another. One example referenced in the consultation process was the Seniors Quality Leap Initiative, which shares indicator data for different

homes across North America to enable collaborative quality improvement. Despite this example being cited as a promising practice, participants recognized that challenges and solutions were often unique and context-specific to individual LTCHs.

Infection prevention and control (IPAC)

"We heard that LTCHs should not be treated similarly to hospitals—instead, the focus should be on the aspects of IPAC that are most impactful and do not limit residents' quality of life."

— GENERAL, PG.22

General

IPAC was a consistent topic of discussion across engagements. As discussed earlier, many emphasized the importance of balancing safety and quality of life for LTCH residents. We heard from some participants that LTCHs should not be sterile and institutional as they are residents' homes. In contrast, others emphasized the importance of IPAC through the use of easily cleanable surfaces and materials, and other approaches.

LTCH operators expressed concern that the response to the pandemic led to a greater emphasis on IPAC than on residents' quality of life. For example, residents and staff were no longer permitted to use cork boards in some LTCHs because they are made of porous material. Many participants found this to be an ineffective and disproportionate approach to IPAC. We also heard that the rapid changes in policies and procedures led to constant re-training of staff, which was challenging.

We heard that LTCHs should not be treated similarly to hospitals—instead, the focus should be on the aspects of IPAC that are most impactful and do not limit residents' quality of life. Participants shared that IPAC specialists from the acute care sector, who were sent to LTCHs during the pandemic, often requested changes—e.g., removal of personal items from residents' spaces—that undermined the residentiality of LTCHs. From an IPAC perspective, people's possessions can be viewed as problematic rather than cherished possessions and an essential part of residents' homes.

10%

of survey respondents strongly agreed that LTCHs are currently designed and operated in a way that ensures residents are protected from the spread of disease and infection (30% agreed).

Frontline staff identified the need for multidisciplinary IPAC committees and teams with clearly identified roles and responsibilities. Overall, they recommended that IPAC policies be easy to understand and follow, with clear objectives and evaluation and assessment procedures. Some participants expressed concern with the approach of establishing a dedicated staff member to lead IPAC. When a staff member's singular focus becomes IPAC, this approach can undermine a people-centred approach to care. Alternatively, some participants suggested a team-based approach to IPAC in LTCHs, with a "coach" in each unit responsible for educating and championing IPAC measures, such as hand hygiene for residents, family, and staff.

Hand hygiene

We heard from participants and respondents of the need for handwashing stations to be placed throughout LTCHs and be designed to be easily accessible, with

consideration for non-touch options. During the pandemic, staff did not always have sufficient access to handwashing sinks, which was worsened by converting some staff rooms into PPE storage rooms. Some participants recommended minimum standards for alcohol-based hand rubs, as some LTCHs did not have enough dispensers available. It was also suggested to avoid incorporating countertops for hand hygiene sinks in resident bedrooms that can attract storage of toothbrushes and other personal items, and that hands-free sinks would also be helpful.

> *"Hand hygiene sinks are few and far between, and there are never enough alcohol hand sanitizers at the point of care or even close to point of care."*[17]

Despite training and education, audits in some homes revealed that staff members were not consistently washing their hands when appropriate or for long enough, which was partially due to a lack of handwashing sinks.

Antimicrobial stewardship

We heard from some participants that antimicrobial screening needs to be improved—ideally through automated systems that require fewer staff resources. We also heard the need for improved infection management. Antibiotics are often over-prescribed in LTCHs, which can lead to an increase in antibiotic-resistant microorganisms

Personal protective equipment (PPE)

We heard across engagements the importance of PPE as an essential tool for staff and resident safety during the pandemic. Participants identified several challenges with PPE in LTCHs, including the lack of consistent access and adequate training for its use. We also heard that LTCHs struggled to consistently procure the correct sizes of PPE to fit staff and that availability of space for storing PPE, donning and doffing, and waste disposal was also inconsistent across LTCHs.

Participants stated that there should be standards for the types of acceptable PPE for contact and droplet precautions during an outbreak, as well as hazard assessments to ensure staff are provided proper protection from infection. They also emphasized the need to train all staff within the LTCH and visitors on the appropriate use of PPE—including ensuring fit and proper donning and doffing.

> *"All staff working on the unit need to be properly wearing/using PPE."*[18]

Frontline staff and operators shared that LTCHs often had insufficient storage space for the large amounts of PPE that quickly became necessary during the pandemic. In addition, there were competing demands for space for other functions as well. The existing staff rooms in many LTCHs were not large enough to accommodate staff during meals and breaks with safe physical distancing. As a result, some LTCHs were forced to convert storage space into staff rooms, which exacerbated the lack of PPE storage space. Participants reported the use of creative placement for storing PPE. For example, some LTCHs hung laundry hampers on doors with PPE in them.

17 Residents, families, and caregivers survey respondent.

18 Equity, diversity, and inclusion survey respondent.

We heard that staff wellness was sometimes compromised when using PPE. Some shared that they experienced overheating and dehydration from wearing PPE. This was due to the lack of temperature regulation in many LTCHs and staff shortages that made it more difficult to take breaks. Policies and procedures preventing the removal of masks in clinical areas to drink water and the distance between staff break rooms and resident units were also contributing factors.

Participants recommended clearer signage for PPE storage and disposal and that PPE storage and stations should be ergonomically designed. If PPE needs to be reused, suitable areas for cleaning and storage would be necessary. Finally, we heard that there should be safe areas for staff breaks and hydration.

Cleaning and disinfection

We heard that many LTCH residents shared bathrooms that were not always cleaned in between use. Participants pointed out that funding for housekeeping, depending on the jurisdiction, does not account for the size of the LTCH. It was also noted that cleaning and preventative maintenance of equipment require a system of accountability to ensure these tasks are regularly completed.

A recommendation was made that cleaning products used in LTCHs should be standardized—different LTCHs use different products, which some participants felt could lead to inconsistencies in cleanliness. It was also stated that existing cleaning and disinfection standards might be intended for acute care settings and inappropriate for LTCHs. In designing standards for LTC, participants suggested that all routes of possible transmission should be considered, including air, water, and surfaces.

We heard from participants that cleaning and disinfection in LTCHs have been a challenge during the pandemic due, in part, to a lack of staff and budget constraints. Another contributing factor mentioned was that much of the equipment in LTCHs, unlike in hospitals, is shared. For example, transfer belts are often used on multiple residents and are not always cleaned between use. We also heard that the surfaces of some of the furniture in LTCHs began deteriorating due to repeated cleaning and disinfection.

Design

"In response to the pandemic, some participants suggested that LTCHs should be designed with zones or neighbourhoods, with individual kitchens and dining areas that can be isolated in the event of an outbreak. This would also require staff cohorting by zone to further reduce the likelihood of infectious transmission."

— ENVIRONMENTAL DESIGN, PG.26

Environmental design

We heard from participants that LTCHs need to be designed to be comfortable, safe, inclusive, and culturally appropriate. Many participants emphasized that LTCHs should not be institutional—this was particularly important for residential school and day school survivors who may be re-traumatized by institutional settings. Some suggested that smaller LTCHs are more home-like and would facilitate IPAC and people-centred care.

> *"Shifting towards smaller Green House-style/Eden or Butterfly model of housing—no more homes with more than 200 residents. It is impossible to create a sense of community in these larger spaces, and staff turnover is constant. These state-of-the-art builds almost always feel institutional, minimalist, and cold. Include residents in the discussions to retrofit or build new homes, pick furnishings, etc. We can't rely on interior designers who push hotel/resort-style design; we need more gerontologists consulting on new builds to incorporate inclusive/universal, person-centred, and dementia-friendly design elements so people can age in place."*[19]

In response to the pandemic, some participants suggested that LTCHs should be designed with zones or neighbourhoods, with individual kitchens and dining areas that can be isolated in the event of an outbreak. This would also require staff cohorting by zone to further reduce the likelihood of infectious transmission.

Lack of capacity and the need for cohorting of both staff and residents during outbreaks also require space considerations for common areas, dining, recreation, training, staff spaces, and storage. Many of these spaces were inadequate to permit activities, safe physical distancing, cohorting, or led to poor accessibility. Guidelines for these spaces may be necessary and should consider ergonomics. Participants also noted that dining rooms and overbed tables should be standardized to be more stable and accessible—e.g., to allow them to fit over wheelchairs.

> *"It would be better designed to have residents in smaller pods and smaller common areas/dining room to prevent so many people being in one shared space."*[20]

In order to facilitate IPAC, participants recommended designing LTCHs to promote hands-free pathways, including the use of automation for doorways. We heard that hallways should be designed with enough space to allow for physical distancing. Some LTCHs were able to improve physical distancing by assigning elevators to cohorts, having one-way flow for entrances and exits, and having separate entrances for units to prevent walking through outbreak units. Not all LTCHs would be able to implement this based on design, but participants suggested this should be considered when building new LTCHs.

19 Residents, families, and caregivers survey respondent.

20 Management and operators survey respondent.

We heard that LTCHs serving Indigenous communities should incorporate Indigenous design aspects to feel more comforting and welcoming and connect residents to land-based treatment and healing. Participants also suggested creating a more joyous atmosphere through the use of shapes and colours, large windows that can open so that residents feel closer to nature, and flexible, functional spaces that can be used for different purposes. It was also stressed that LTCHs should be designed to allow for resident privacy and dignity.

Participants across engagements shared that access to nature is critical—this includes outdoor spaces for residents and visitors and gardens and nurseries where residents can participate in plant care and harvesting. The outdoors should be accessible and safe so that residents can explore without requiring assistance from staff. Participants also suggested bringing nature indoors, using plants, outdoor furniture, art, and nature sounds. The importance of residents feeling active and useful was also mentioned—for example, open kitchen designs would allow residents to participate in meal prep and encourage communal dining.

Participants suggested that consideration should be made for how standards might impact LTCHs of different sizes and ages. Existing homes are generally restricted to their current footprint, typically with rooms along both sides of corridors, which is not conducive to creating "neighbourhoods" or giving residents with dementia easy access to the outdoors. When discussing the unique needs of residents with dementia, participants spoke about opportunities for common areas to become reminiscence spaces—for example, a space that looks like an office for residents to "work" in or a nursery for them to interact with a doll.

Bedroom and bathroom design

Participants emphasized the importance of single-occupancy bedrooms and private washrooms for several reasons—it improves IPAC through physical distancing, enhances privacy and dignity, and allows residents to personalize their living space more easily. However, we also heard that residents who want to live together, such as couples, should be accommodated.

88%

of survey respondents identified the number of residents per bedroom as an important long-term care home design consideration for residents' physical, mental, emotional and/or spiritual health.

> *"The current design of LTC homes, specifically shared accommodation, communal dining, and shared washroom areas are not providing enough protection to protect residents from the spread of infection."* [21]

Participants also emphasized the importance of private bedrooms for residents with dementia and a focus on overall dementia-friendly design. For example, if a resident has poor vision, an all-white bathroom may make it difficult to see the toilet. Using contrasting colours—e.g., a black toilet seat—may be helpful. Others communicated the importance of bathrooms having self-closing toilet seats with lids to prevent spraying when flushed to improve IPAC.

Most resident bedroom doors cannot be locked, which participants argued contributes to a lack of safety, privacy, and autonomy of 2SLGBTQI+ residents. For example, we heard in some instances that couples would ask a friend to guard a bedroom door to prevent intrusion on their privacy.

> *"As much as possible, a resident should feel their personal space is just that … personal. While single accommodation works best for many residents, shared accommodation should be based on whether it benefits the two residents involved."* [22]

Participants suggested that residents should have larger beds available, as single beds may be experienced as institutional and hamper the feeling of home. Larger beds also accommodate residents who choose to engage in intimate activities. Participants also stressed that residents should be able to personalize their bedrooms with furniture and decorations.

21 Management and operators survey respondent.

22 Equity, diversity, and inclusion survey respondent.

Materials and finishes

During the consultations, balancing the need for IPAC and ensuring that a LTCH feels like home was brought up several times. In terms of materials, it was suggested that flooring should appear home-like and be easy to clean and disinfect. In terms of furniture material, it should be comfortable and be easily cleaned and disinfected. Participants also recommended that outdoor spaces should be designed to be as natural as possible—for example, rather than concrete paths, some urged the creation of natural and accessible trails.

We heard from participants how important it is for residents to be able to personalize their own space in LTCHs. Safety and IPAC need to be balanced with ensuring the resident feels at home. Materials that are easy to clean and disinfect may lead to the use of shiny non-porous surfaces in LTCHs, which may be less comfortable. Balancing the needs for safety and IPAC from a people-centred approach will be an essential consideration.

We also heard the importance of considering the needs of residents with physical and cognitive difficulties in all aspects of LTC design. For example, participants shared that shiny surfaces create glare, which can be problematic for older adults with and without dementia. Older adults have issues with depth perception, and shiny materials often look like wet surfaces to someone with dementia. Participants also shared that busy surfaces are problematic because they may look like a change in depth, and large dark sections like an entry mat can look like a hole to a person with dementia.

Heating, ventilation, and air conditioning (HVAC)

Participants and respondents stressed the need for HVAC systems in LTCHs that can provide proper heating, cooling, and microbial filtration. This requires regular maintenance for HVAC systems, filtration systems, and fresh air exchanges. Many older HVAC systems have no fresh air exchanges, and many survey respondents emphasized the need to upgrade the systems in older buildings and ensure all units have air conditioning.

> *"Many homes are old and not equipped with proper ventilation systems. They have more than one resident in rooms, so cross-contamination and spread of pathogens are very likely."* [23]

We also heard that in the context of climate change, HVAC systems need to tolerate extreme weather conditions, including winter storms and smoke from wildfires. Some older buildings may require retrofitting, as well as more frequent cleaning, maintenance, and replacement of filters. Participants also shared the importance of traditional practices such as smudging, which may require separate or modified HVAC systems. HVAC standards should consider the need to accommodate cultural practices within LTCH settings.

Technology

Across engagements, participants emphasized the importance of internet connectivity to allow communication with loved ones and caregivers, particularly during the pandemic when visits were limited. It can also allow for virtual health visits, which is important for LTCHs in rural and remote communities. However, many homes lack adequate internet bandwidth or Wi-Fi connectivity to enable digital connections. It was suggested that new LTCH designs consider internet and phone connections and access for residents.

Participants also shared that a lack of technological literacy is a barrier to many residents, which requires enhanced staff support. It was recommended that efforts be made to ensure residents have access to hardware such as tablets, as well as support to use them.

We heard that the digitization of resident information is rapidly emerging and evolving in LTC. However, LTCHs often lack experts to deal with complex issues related to technology, such as cyber security. Some participants shared that this is an area of vulnerability and needs to be considered as the sector evolves. Some participants suggested that technological innovations should be considered and evaluated for their potential to prevent infections—such as digitally tracking illness and infections.

23 Management and operational staff survey respondent.

Next steps

The 60-day public review of the draft standard will take place from February to April 2022.

This will include CSA Group-hosted information sessions to provide an overview of the draft standard and highlight key sections to encourage feedback.

The CSA Z8004 standard is expected to be published in December 2022. CSA Group will hold information sessions for different targeted audiences and the broader public to provide knowledge on the new standard and promote awareness of its contents.

For more information, ongoing public updates on the development of CSA Z8004, and to participate in the discussion, please join the CSA Long-term Care Community:

https://community.csagroup.org/community/health-care-safety-and-accessibility/long-term-care-homes

Appendix A: Survey results

The following charts display the results from the multiple-choice questions, rating scale questions, and demographic questions asked in the surveys. CSA Group distributed three surveys targeting the following groups, communities, and subject matter stakeholders:

Table A1: Surveys

Survey	Number of responses
1. Residents of LTCHs, their families, and caregivers	602
2. Management and operational staff of LTCHs	136
3. Equity, diversity, and inclusion (EDI)	38

Several of the questions were common across all surveys—as a result, a number of the graphs below have a combined sample size of over 700 people. Questions that were only asked on a particular survey have a lower number of respondents.

Figure A1: Do you agree with the following statement? Long-term care homes are currently designed and operated in a way that ensures residents are protected from the spread of disease and infection. (744 respondents)

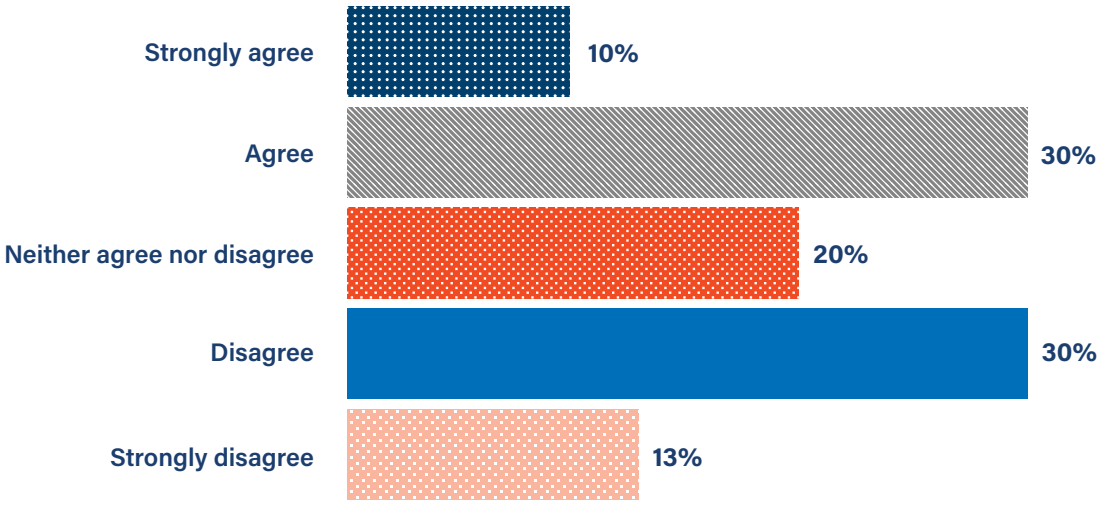


Figure A2: Which of the following are important long-term care home design considerations for resident physical, mental, emotional and/or spiritual health? Check all that apply. (764 Respondents)

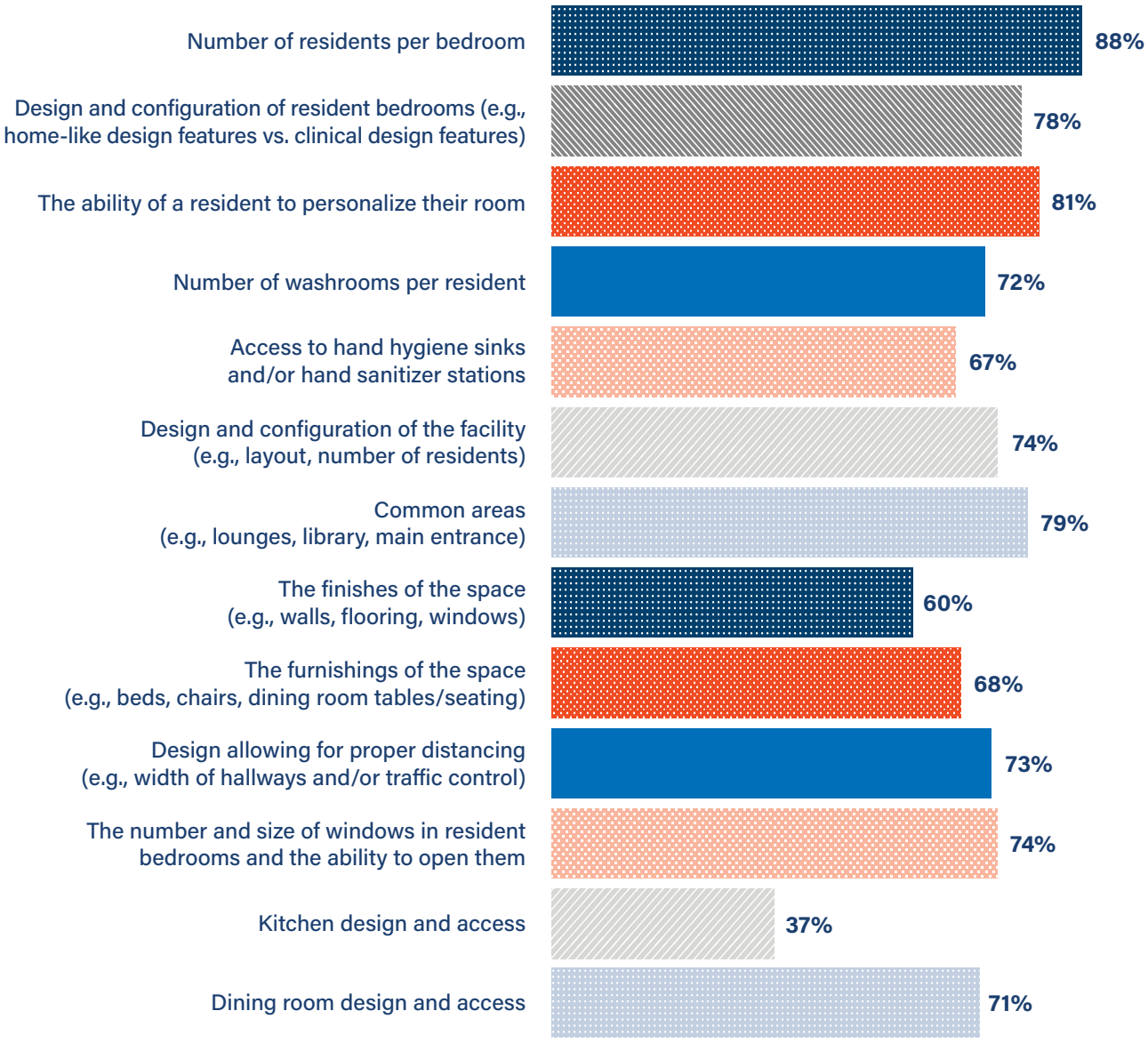


Figure A3: Which of the following are important long-term care home operational considerations for resident physical, mental, emotional and/or spiritual health? (758 respondents)

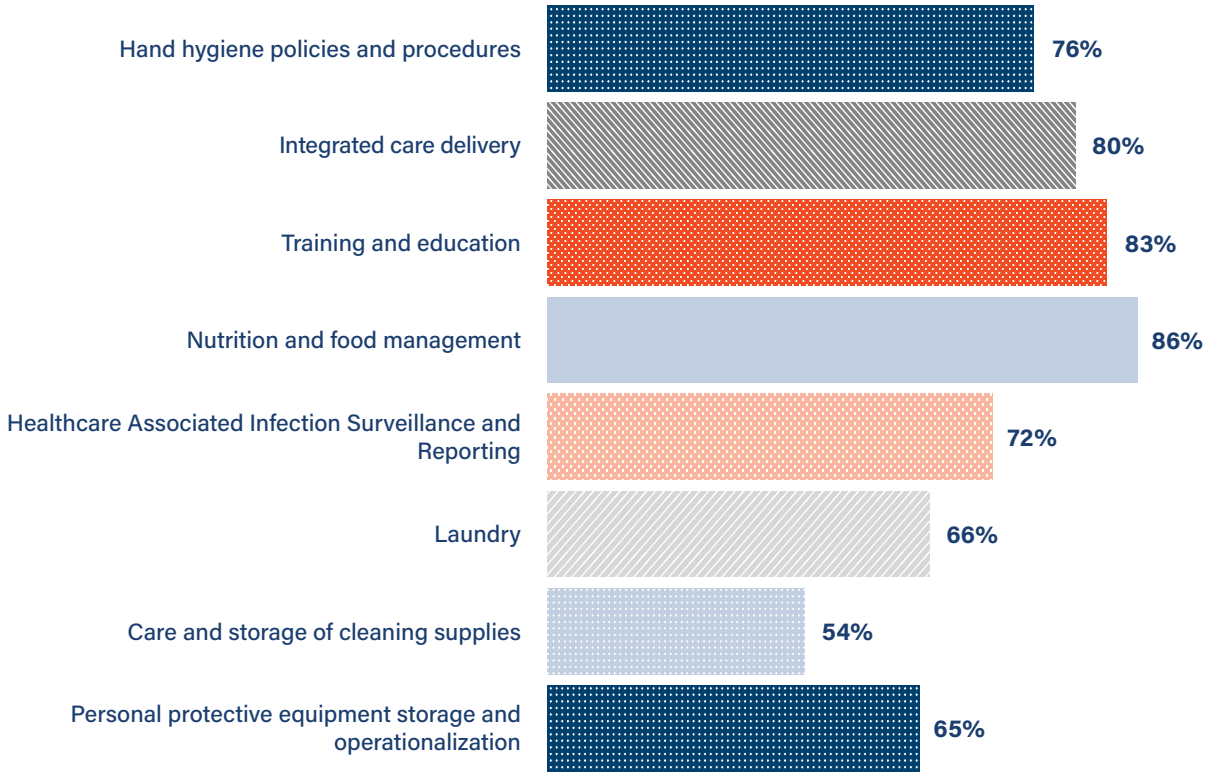
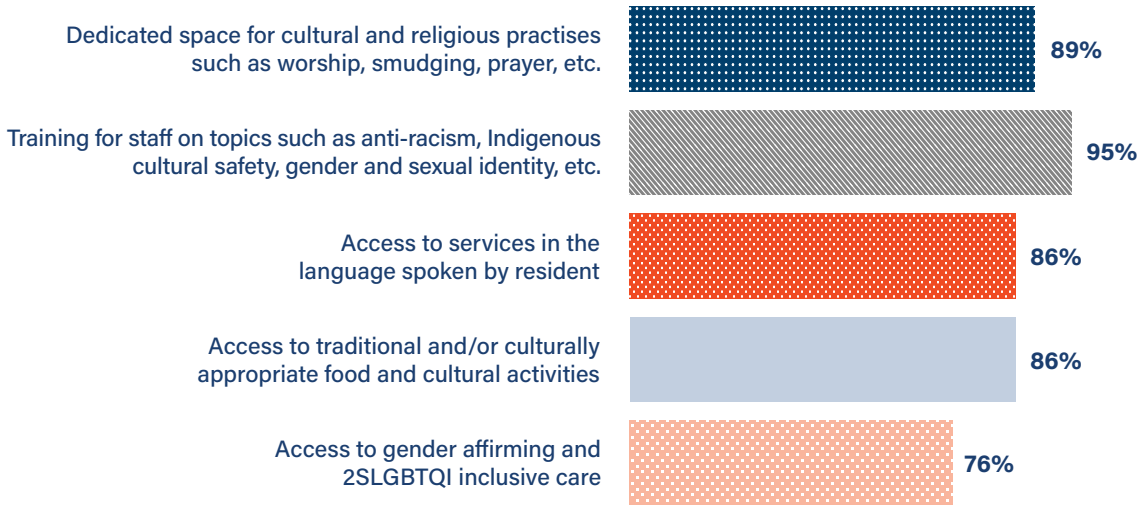


Figure A4: What should the design and operation of long-term care homes include to deliver safe and effective care to residents from diverse cultures, races and/or ethnicities? Please check all that apply. (37 respondents)



Note: This survey question was only asked on the EDI survey.

Appendix B: Survey demographics

The following charts display the results for the demographic survey questions. The same questions were asked on all three surveys, and the results have been combined for this analysis.

Figure B1: Do you identify as (select all that apply): (767 respondents)

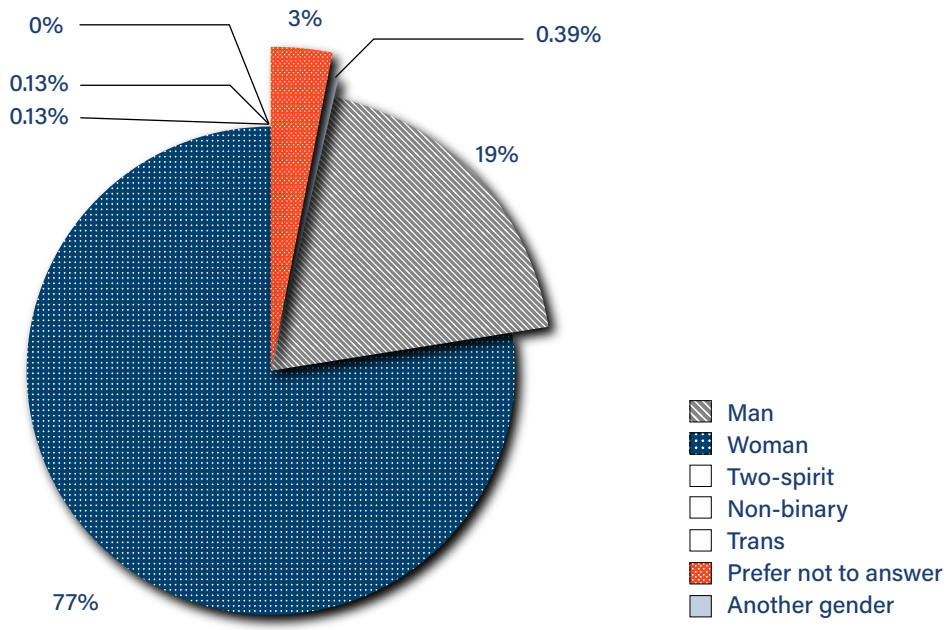


Figure B2: Do you identify as (select all that apply): (732 respondents)

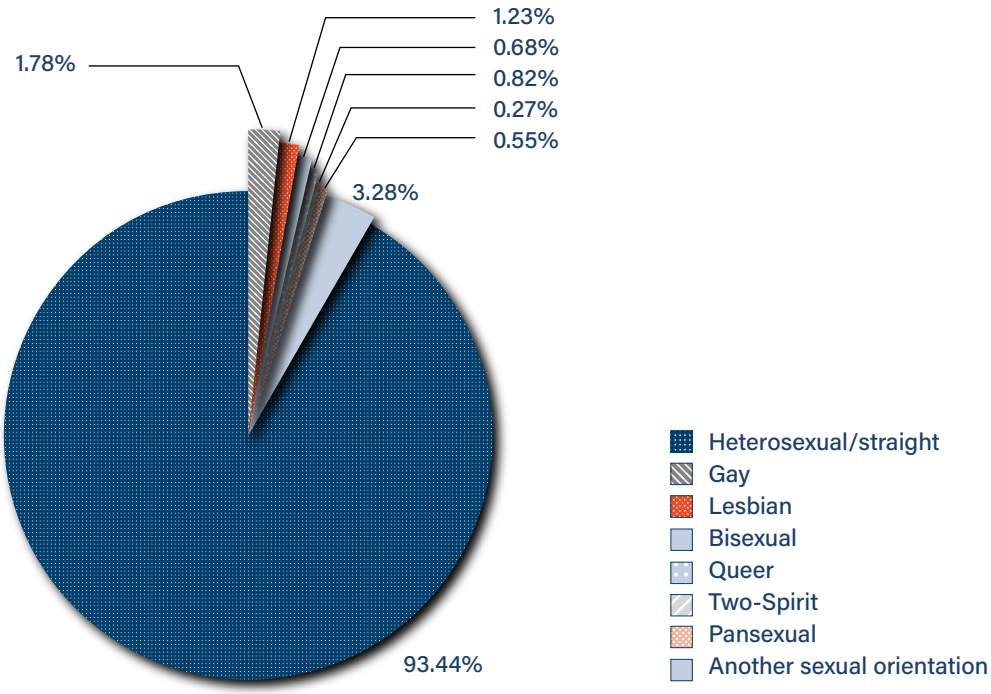


Figure B3: Where do you live? (767 respondents)

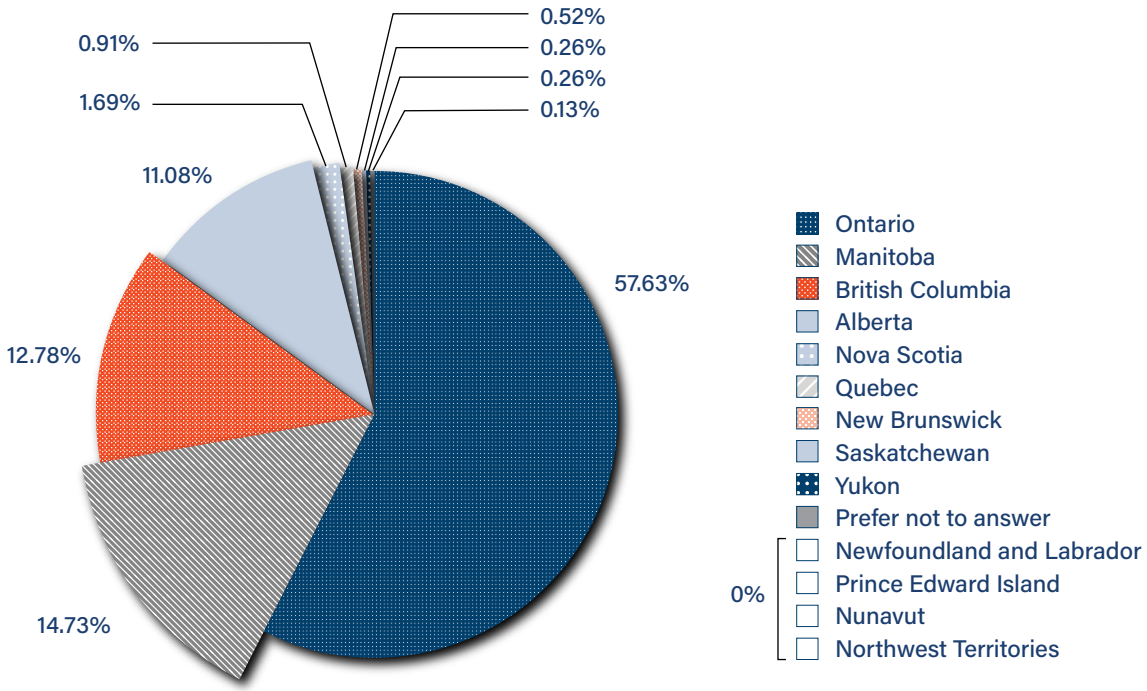


Figure B4: What is your age? (772 respondents)

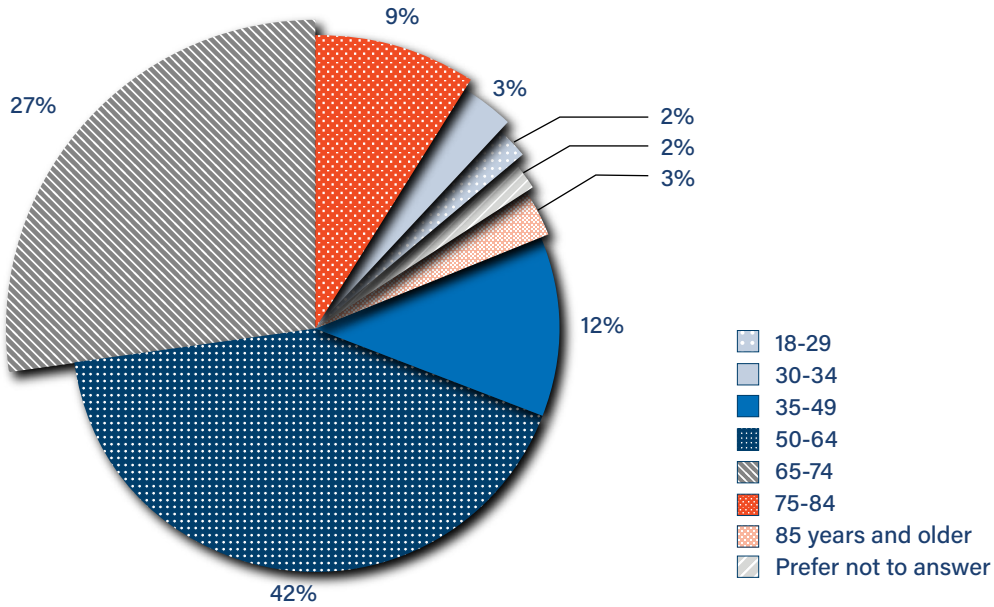


Figure B5: Do you identify as being a/an: (743 respondents)

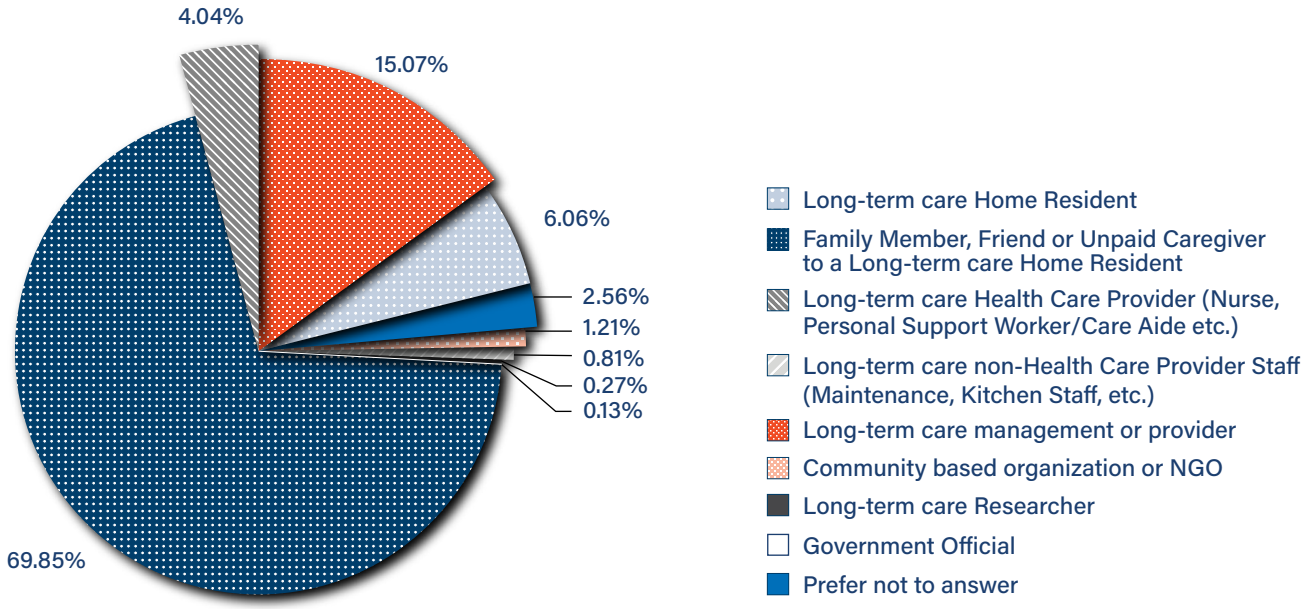


Figure B6: Do you identify as being First Nations, Métis, or Inuit? (732 respondents)

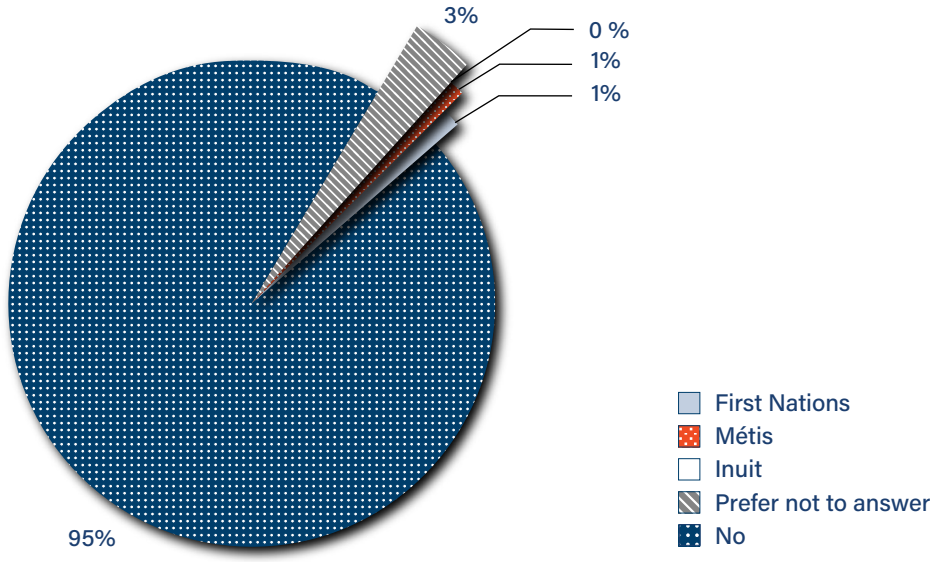


Figure B7: Do you identify as being a visible minority? (767 respondents)

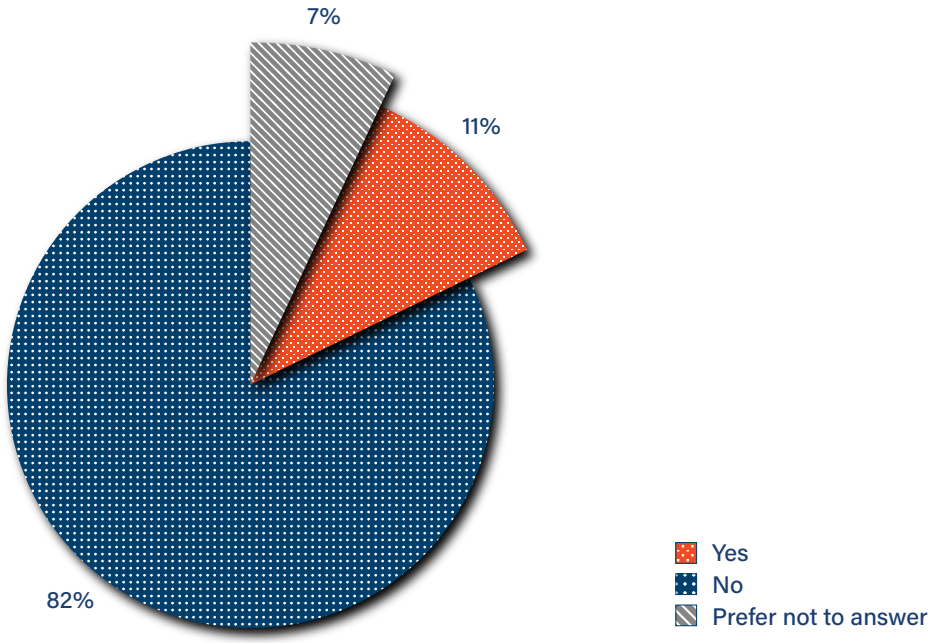
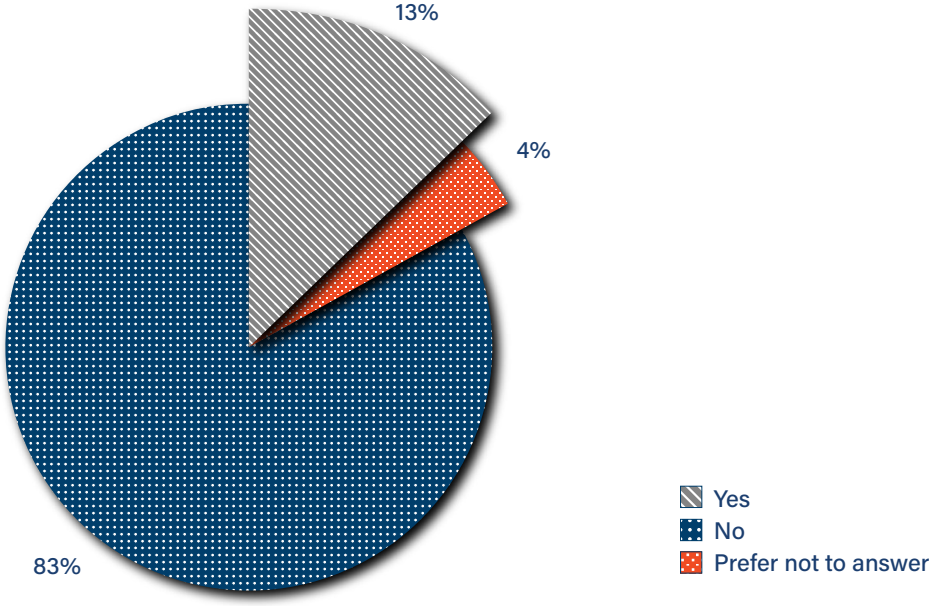


Figure B8: Do you identify as being a person with a disability? (768 respondents)



CSA Group would like to thank the organizations that hosted the consultation sessions and helped organize other public engagement activities:

Canadian Association for Long Term Care

The Canadian Association for Long Term Care (CALTC) is the national voice of long-term care delivering resident-centered care services to seniors across Canada when they can no longer live at home. Since its inception in 2002, CALTC has been working together to share information, best practices, and evidence to improve the quality of care provided to residents in long-term care, no matter where they live. We are committed to ensuring quality long-term care for all.

CanAge
Canada's National Seniors' Advocacy Organization

CanAge is a nonpartisan, nonprofit seniors' organization which educates, empowers and mobilizes people around the issues that matter most to older Canadians. We work collaboratively with seniors, nonprofit organizations, governments, the media and the private sector to bring the voices of seniors to the table. We actively engage in policy creation with the government, work closely with stakeholders, and bring the needs of Canada's seniors to research and engagement.

Carleton University

Carleton University is situated on unceded Algonquin territory beside the historic Rideau Canal, an official UNESCO World Heritage Site in Ottawa, Ontario, Canada.

We are a community of dedicated professionals striving for innovation in research, teaching, and learning.

The Industrial Design (BID/MDes) program prepares students to anticipate psychological, physiological, and sociological factors when making design decisions. Our graduate-level training is committed to advancing research, interdisciplinary design practices, and advanced development in the field of industrial design.

The goal of this comprehensive and participatory study is to contribute to the design of better environments to support the quality of life of LTC residents and staff during pandemic conditions and future infectious outbreaks.

Bruyère

Through the people it serves, the specialized care it provides and the research it conducts, Bruyère plays a critical role in the Ottawa region's health care system. It offers a wide range of services in the community, from hospital programs to long term and primary care, and supportive and independent living for seniors and vulnerable populations. In addition, Bruyère is transforming care through strengths in research, education, collaboration, and innovation.

ONTARIO CLRI Centres for Learning, Research & Innovation in Long-Term Care
BAYCREST • BRUYÈRE • RIA

The Ontario Centres for Learning, Research and Innovation in Long-Term Care (CLRI) strengthen quality of life and care for residents across the province. The Ontario CLRI is mandated by the Ministry of Health and the Ministry of Long-Term Care to be a resource for the sector by providing education and sharing research and innovations to enhance the health and well-being of people who live and work in long-term care. This collaboration with the CSA Group was led by the Ontario CLRI at Bruyère. Find out more at clri-ltc.ca

CSA Group

CSA Group is a global organization dedicated to safety, social good and sustainability. We are a leader in Standards Development and in Testing, Inspection and Certification around the world including Canada, the U.S., Europe and Asia.

The mission of CSA Group's Standard Development organization is to enhance the lives of Canadians through the advancement of standards in the public and private sectors. As such, CSA Group continues to be at the forefront of standards research, development, education, and advocacy.

Prepared for CSA Group by Rådhus Consulting Inc.

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