Feasibility of Memory Care Neighbourhoods

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Introduction

The increasing prevalence of dementia and related cognitive impairments among Canada's aging population presents significant challenges for long-term care systems, families, and policymakers. As of January 2025, the Alzheimer Society of Canada estimates that 771,939 people in Canada are living with dementia, with projections suggesting more than 1.7 million could be living with the condition by 2050 [1, 2]. By the 2040s, it is expected that over 20,000 people will be diagnosed with dementia every month across the country [3]. Provincial projections indicate that Ontario, Quebec, British Columbia, and Alberta will experience the largest increase in dementia prevalence due to population growth and accelerated aging trends. Notably, Alberta is projected to experience a 286% increase in the number of people living with dementia between 2020 and 2050 [1].

According to the Canadian Institute for Health Information, dementia is "not a normal part of aging", although it is more common in older adults [4]. In the 2023-2024 fiscal year, the Canadian Chronic Disease Surveillance System identified 499,905 cases of dementia among individuals aged 65 years and older in Canada [2]. Dementia disproportionately affects older age groups; approximately 3 in 4 individuals living with dementia were aged 75 and older at the time the condition was first recorded. The average age at diagnoses is 81 years for women and 79 for men [4]. By 2050, approximately one million women will be living with dementia in Canada, reflecting both the longer life expectancy of women and the overall growth of the aging population [1].

As dementia progresses, many individuals require care environments capable of supporting increasingly complex cognitive, behavioural, and physical needs. Historically, dementia care within continuing care settings has relied on highly controlled environments, including locked or restricted-access neighbourhoods designed to reduce risk associated with wandering and elopement. While these measures aim to enhance physical safety, they also generate ethical and clinical debates regarding the balance between protection and preservation of autonomy, dignity, and quality of life.

In response, dementia care has shifted toward person-centred models that emphasize meaningful engagement, independence, and supportive living environments. Within this evolving approach, unlocked or open dementia units have emerged as a potential alternative to traditional restrictive settings, using environmental design, staffing practices, and programming to balance safety with freedom of movement. International examples from countries such as the Netherlands, Sweden, Japan, and Australia demonstrate how less restrictive, homelike care environments may improve quality of life and reduce responsive behaviours. In Canada, long-term care policy increasingly emphasizes person-centred and dementia-friendly care, yet the implementation of unlocked dementia units remains inconsistent across jurisdictions and organizations. As healthcare systems seek sustainable and responsive approaches to dementia care, understanding the feasibility and implications of an unlocked neighbourhood design is essential for informing future practice and policy.

Types of Dementia

The Canadian Institute for Health Information defines dementia as an umbrella term describing a group of symptoms that affect brain function and represent a chronic, progressive condition that increases in severity over time [4]. Symptoms may include declines in memory, planning, judgement, and language abilities, as well as physical and behavioural changes such as weak and stiff muscles, mood alterations, impaired coordination, and a loss of bladder control [4].

Under the umbrella term, there are several types of dementia characterized by different pathological processes and symptom presentations. Table 1 summarizes common types of dementia and their defining features.

Table 1: Types of Dementia [3, 4]

Dementia Type	Description
Alzheimer's Dementia	Alzheimer's dementia results from damage to brain cells that lead to

	progressive declines in memory and cognitive function over time. The key neuropathological features include the accumulation of amyloid plaques and neurofibrillary tangles in the brain.
Vascular Dementia	Vascular dementia occurs when blood flow to the brain is reduced or interrupted due to blocked or damaged blood vessels, resulting in impaired cognition, thinking, and motor function.
Frontotemporal dementia	Frontotemporal dementia is a group of rare disorders that primarily affect the frontal and temporal lobes of the brain. Initial symptoms include changes in personality, behaviour, or language, while motor symptoms may develop as the disease progresses.
Lewy Body Dementia	Lewy body dementia is associated with abnormal deposits of the protein alpha-synuclein, known as “Lewy bodies”, within the brain’s nerve cells. This type of dementia shares several features with Parkinson’s disease and may occur alongside or following a diagnosis of Parkinson’s disease.
Mixed Dementia	“Mixed” dementia refers to cases where multiple pathological processes contribute to cognitive decline. This is more common in older adults, where comorbid conditions may simultaneously influence the manifestation of dementia symptoms.
Young-Onset Dementia	

	Young-onset dementia refers to dementia diagnosed in individuals under the age of 65. These cases are more likely to have genetic or atypical causes and may arise from a variety of neurological or systemic disorders.

Alzheimer's disease is the most common type of dementia, accounting for approximately 60% to 70% of dementia cases in Canada [2]. It is important to distinguish between Alzheimer's disease and Alzheimer's dementia, as outlined by the Alzheimer Society of Canada [3]. Alzheimer's disease refers to the underlying pathological process that causes changes to brain structure years before any noticeable symptoms such as changes in cognition, mood, communication, or behaviour [3]. Comparatively, Alzheimer's dementia describes the later stage of the disease, where impairments with thinking, memory, mood, behaviour, and communication are more pronounced [3]. Vascular dementia is the next common type, representing approximately 20% of all dementia cases [3, 5].

Social Determinants of Health and Comorbidities

Dementia is frequently accompanied by multiple chronic physical and mental health conditions that reflect broader patterns of aging and health inequities. The development and progression of dementia and associated comorbidities are influenced by social determinants of health, including access to healthcare, income, education, social inclusion, and living environment. These factors can shape disease trajectory, functional ability, and overall quality of life for individuals living with dementia.

Determinants of Health & Social Determinants of Health

The determinants of health are the broad range of personal, social, economic, and environmental factors that influence individual and population health outcomes, including gender, access to health care services, income, and

social status [6]. Social determinants of health represent a subset of these broader determinants and refer specifically to social and economic conditions that shape an individual's position within society [6]. This includes income, education, or employment, as well as experiences of discrimination, racism, and historical trauma [6]. Differences in these determinants contribute to health inequalities across populations [6].

The incidence, prevalence, and mortality risk of dementia increases with age and are influenced by social and demographic factors. Women are more likely to receive a dementia diagnosis compared to men, reflecting biological and longevity-related differences in population distribution [2]. Socioeconomic factors also play a role in dementia risk and outcomes. Lower socioeconomic status is associated with modifiable risk factors for dementia including diabetes, hypertension, depression, alcohol consumption, and lower levels of formal education [2]. Comparatively, individuals with higher socioeconomic status may benefit from earlier detection and diagnosis, improved access to effective treatment, and greater availability to specialized services, which may contribute to better disease management and outcomes [2, 4].

Comorbidities

Many individuals living with dementia also experience multiple co-occurring chronic conditions, commonly referred to as comorbidities [7]. Comorbidities may be present prior to dementia diagnosis, although certain conditions, such as traumatic brain injuries and chronic obstructive pulmonary disease, have been observed with similar likelihood of occurring before or after dementia diagnosis [7]. Provincial data from British Columbia, Prince Edward Island, Ontario, and Quebec indicate that the proportion of older adults living with dementia who have five or more comorbidities exceeds 50%, which is more than double the rate observed among older adults without dementia, at approximately 25% [7].

The most common comorbid conditions associated with dementia include cardiovascular diseases, such as hypertension and stroke, diabetes, and age-related musculoskeletal conditions including osteoarthritis and osteoporosis [7]. The high burden of comorbidity contributes to increased clinical complexity and greater vulnerability to acute illness. Additionally, during the

early stages of the COVID-19 pandemic in Canada (January 2020 to February 2021), dementia was reported on 36% of COVID-19 death certificates, representing the highest proportion of any comorbidity recorded [2]. This elevated risk is likely associated with the combined effects of advanced age, cognitive impairment, and the concentration of people living with dementia in long-term care settings during the pandemic period [2].

Economic Impact

As of 2020, the total annual economic cost of dementia in Canada was estimated to be approximately $40.1 billion, or about 67,200 dollars per person(s) living with dementia (PLWD) [8]. These costs include direct health care expenditures, such as hospitalizations, emergency department visits, and other medical services, as well as indirect costs related to productivity losses associated with informal caregiving and workforce participation changes among caregivers [8]. Provincial cost variations exist across Canada, with the lowest estimated annual cost per PLWD reported in Prince Edward Island at approximately $52,900 and the highest in Alberta at approximately $83,500 [8]. These differences are influenced by population age structures, patterns of informal caregiving, provincial wages, and variations in local health care service costs [8]. It is predicted that the annual economic costs of dementia may increase by as much as 275% over the next 30 years [8].

According to the Canadian Centre for Economic Analysis, more than half of the total economic impact of dementia is associated with informal caregiver activities rather than direct medical costs, highlighting the substantial societal burden related to informal caregiving [8]. In 2020, approximately 350,000 care partners supported PLWD, providing an average of 26 hours of care per week [3]. This represents roughly 470 million hours of unpaid care annually, equivalent to approximately 253,000 full-time jobs and an economic value exceeding $7.3 billion [3]. Care partners are broadly defined as family members, friends, or neighbours who provide unpaid support, with most care partners being adult children of PLWD [1, 3]. Women comprise more than half of the informal caregiving population [1, 3].

Many PLWD are admitted to long-term care sites during the progression of the disease due to behavioural and psychological symptoms of dementia, as well as care partner exhaustion [9, 10]. Among older adults living with dementia who are aged 65 years and older, more than 40% reside in long-term care [4]. Of those who transition to long-term care following home care services, approximately 33% experience some level of cognitive improvement and reduced hospitalization rates, potentially reflecting access to preventative services, continuity of care, and more comprehensive chronic disease management available within long-term care environments [4].

Within long-term care, economic costs associated with dementia can be conceptualized in two ways. The first includes individuals whose primary reason for long-term care placement is dementia, where full costs are largely attributed directly to the condition [8]. The second includes individuals admitted for other health conditions where dementia is a contributing factor to care complexity and resource utilization [8].

Care Approaches

Care approaches specific to dementia have evolved over time, shifting from task-oriented, risk-averse models toward person-centred and relational frameworks. Historically, continuing care settings reflected a biomedical or "medical-somatic" model in which dementia was primarily treated as a physical disease to be managed, rather than as a neurocognitive condition requiring psychosocial and environmental support [9, 11]. Contemporary care approaches adopt a more holistic perspective that recognizes well-being as encompassing not only physical health, but also quality of life, existential health, social and societal participation, cognitive and perceptual functioning, and engagement in activities of daily living [12]. Within a person-centred care approach, there is a philosophical commitment to the principle that all individuals have an equal right to dignity, respect, and meaningful participation within their living environment [13].

Yet emerging research suggests that person-centred care alone insufficiently captures the interdependencies and reciprocities

essential to caregiving relationships [14]. Relationship-centred care has been proposed as a complementary framework that emphases the importance of social connections, mutual interaction, and the integration of relationship-building into the daily lives of residents and caregivers [14].

Thriving

The concept of thriving has emerged as a theoretical lens in health and social care research, originating from studies examining residents and their lived experiences in continuing care settings and the conditions that contribute to a meaningful and fulfilling life while living in continuing care [15]. At its core, thriving encompasses multiple dimensions of well-being, including engagement in meaningful activities, quality relationships with caregivers, family members, and peers, access to outdoor spaces, and supportive physical environments [15]. Resident well-being is also closely linked to the degree of comfort and adjustment individuals experience within their living environment, including whether they feel settled and have developed a sense of belonging in the place where they reside [15]. In terms of assessing thriving, the Thriving Older People Assessment Scale (TOPAS), developed by Berland and Kirkevold, is a self-reporting tool that is utilized to measure place-related well-being developed from residents lived experiences in relation to living in a continuing care environment [15].

Although closely related, thriving and quality of life represent distinct but complementary concepts. While quality of life broadly reflects subjective well-being, thriving places greater emphasis on the interaction between the individual and their environment, particularly in relation to adaptation and settlement within continuing care settings [15]. Theories of institutionalization further explain how individuals may modify their behaviours when entering an institutional setting, as residents may internalize environmental norms as well as the accompanying role (i.e. client, resident) associated with settings such as long-term care [16]. Consequently, individuals, especially vulnerable populations, may overlook their own initiative and personal agency, contributing to outcomes such as apathy, lethargy, passivity, and a diminished sense of self and purpose [16].

Factors that may facilitate successful adaptation to continuing care environments include preservation of autonomy, personalization of living spaces, maintenance of meaningful belongings, and the development of social relationships [16]. The ability to retain personal identity and establish a sense of home within the care environment is therefore considered fundamental to supporting resident thriving in continuing care settings [16].

Care Models

Care environments vary substantially in their design, philosophy, and degree of environmental restriction. Broadly, these models can be understood along two intersecting dimensions: the extent to which care settings resemble traditional continuing care environments versus home-like living arrangements, and the level of environmental control implemented to manage safety risks.

Traditional models have historically emphasized medical oversight and structured routines. In comparison, home-like approaches prioritize smaller-scale domestic environments that support familiarity and activities of daily living. Within dementia care, memory care neighbourhoods may also be conceptualized along a continuum of environmental restriction, including closed, semi-open, and open neighbourhood models. These categories reflect different strategies for balancing resident safety with freedom of movement and autonomy within the care environment.

Walking with a Purpose & Freedom of Movement

“Walking with a purpose”, formerly referred to as “wandering” is a common behavioural expression observed among PLWD [17]. Anderson et al. suggest that walking itself is not inherently problematic; rather, it may represent a meaningful activity used to engage in exercise, relieve boredom, manage stress, or regain a sense of control and autonomy [17]. This shift in terminology reflects a growing recognition toward acknowledging that individuals may have an identifiable purpose for walking even when that intention is not immediately recognizable [17]. Contributing factors to walking with a purpose

may include overstimulation, under stimulation, or reduced opportunities for choice and independence [17].

Given the prevalence of purposeful walking in dementia populations, supportive wayfinding systems are essential to maintaining both safety and independence. Wayfinding refers to the cognitive and behavioural processes involved in understanding one's position in space, identifying a destination, planning and following a route, recognizing arrival, and navigating return pathways when necessary [18]. Dementia can impair wayfinding abilities though difficulties with path integration, including reduced awareness of position, speed, and direction, as well as disruptions in cognitive mapping that affect the mental representation of physical environments [18].

Freedom of movement refers to the ability to independently move from one location to another [12, 16]. Evidence suggests that freedom of movement is associated with multiple dimensions of health, including mental functioning, perceptual experience, existential well-being, daily functioning, and social and societal perception [16]. In long-term care settings, residents naturally move more freely as they participate in outdoor, domestic, work-related, and other activities of daily living [14]. Despite the positive correlation between freedom of movement and the health of PLWD, safety concerns may contribute to continued reliance on locked entrances and environmental restrictions [16]. Organizational norms, regulatory interpretations, and professional responsibility expectations may also influence communication practices and contribute to anxiety or moral uncertainty among staff when considering less restrictive environments [16].

Traditional Settings

For PLWD, traditional continuing care settings can be experienced as restrictive or institutional in nature [14]. In Canada, many long-term care settings adhere to traditional designs that reflect conventional design principles that resemble hospital environments and align with general building and safety guidelines [11, 19]. These settings face criticism for prioritizing biomedical and task-oriented models of care, with a greater emphasis placed on physical health management than on psychosocial, environmental, and non-

pharmacological needs of residents [13, 19]. As a result, care delivery in traditional settings reinforce highly structured routines that are rigid and provide limited flexibility or opportunities for resident-directed activity [14].

Evidence suggests that traditional continuing care environments may not effectively support everyday functioning. Consequently, residents may experience monotony in daily routines, limited engagement in meaningful activities, and a starkness of the physical environment [14, 19]. Additionally, residents residing in traditional settings are more likely to be inactive, demonstrate neuropsychiatric symptoms (i.e. agitation and depression), and face restrictions in autonomy due to physical and chemical restraints [12, 14]. The use of physical or pharmacological restraints may further contribute to reductions in independence and self-determination.

Current development and planning processes for dementia care environments also often involve limited participation from residents, families, or frontline care providers, which may reduce the alignment between built environments and the lived experiences of individuals residing in these settings [14].

Home-Like Environments

According to PLWD, the concept of home is associated with a secure and familiar place that is clean, well maintained, and allows personal belongings to remain in stable and meaningful locations [20]. Further, home-like environments incorporate open floorplans, accessible garden spaces, visual and physical links between outdoor and indoor areas, reduced visibility of clinical equipment, and have generationally appropriate furnishings [18].

Evidence suggests that home-like care environments may promote resident participation in everyday activities, enhance quality of life, and support greater levels of social interaction and engagement [21]. These settings may also contribute to improved satisfaction among both residents and staff [21]. In small-scale, home-like continuing care models, a sense of home is reinforced through lower resident-to-space ratios, individualized care approaches, opportunities for privacy, flexible routines, and environmental features such as domestic-style furnishings, non-institutional clothing norms for staff, and easier access to outdoor and community spaces [21].

Nonetheless, the presence of institutional or restrictive practices can diminish the therapeutic potential of home-like environments. For example, limiting resident access to kitchen areas without staff supervision or restricting movement through locked exits may reduce opportunities for autonomy and meaningful engagement, even when other home-like design elements are present [22].

Levels of Environmental Restriction

Dementia care environments are commonly differentiated by the degree to which resident movement is physically restricted. Strategies used to monitor or limit freedom of movement may include alarm systems, locked or controlled-access doors, physical barriers, and, in some cases, chemical restraint through sedating medications [18]. These approaches are conceptualized along a continuum of environmental restrictions consisting of closed, semi-open, and open neighbourhood models. Each model reflects differing assumptions about safety, risk, autonomy, and professional responsibility within continuing care.

Closed neighbourhoods rely on locked doors or controlled access points to prevent independent exit from the neighbourhood [12]. These settings are often designed to reduce elopement risk and are often used for PLWD who have been assessed as having higher risk of wandering or exit-seeking behaviours [12, 16]. Although closed neighbourhoods may provide clear risk-management strategy, they have raised ethical concerns related to autonomy, dignity, and the psychological effects of confinement [12]. Prolonged environmental restrictions may contribute to increased neuropsychiatric symptoms, including agitation, social isolation, resistance, distress, and severe behavioural disturbances, potentially influenced by sensory impairment or sensory processing abnormalities [10, 12, 16].

Semi-open neighbourhoods represent an intermediate approach in which residents may have greater freedom of movement within the neighbourhood itself, while exits are secured, monitored, or alarmed [12, 16]. This model attempts to balance internal mobility with perimeter safety by permitting independent movement within a defined environment while maintaining oversight of entry and exit points. Access to enclosed outdoor spaces, such as secured gardens, is commonly incorporated within semi-open designs [16]. Evidence suggests that

transitioning from closed to semi-open environments may be associated with improvements in behavioural symptoms, quality of life measures, and social interaction as residents often perceive these settings as more home-like and socially supportive [12,16].

Open neighbourhoods minimize or eliminate physical barriers restricting resident movement [12, 16]. Both open and semi-open neighbourhoods are aligned with broader deinstitutionalization and person-centred care philosophies by challenging rigid role expectations traditionally associated with long-term care environments [13, 16]. Open environments support freedom of movement, which is associated with dignity, identity preservation, opportunities for meaningful participation, and thriving [13, 15]. Further, autonomy and maintenance of personal identity are fundamental for PLWD; therefore, it is pivotal that care environments and programming should be responsive to individual residents' preferences, interests, routines, and lived experiences [14].

Modifying the Physical Environment

Modifying the physical environment is a foundational component of transitioning toward less restrictive dementia care models as environmental design influences the quality of life and care experiences of older adults living with dementia, as well as staff care practices [11, 13, 14]. Thoughtful environmental design can support wayfinding, reduce responsive behaviours, and promote independence in activities of daily living by creating familiar, meaningful spaces that maintain connections to family and community [14]. Features that support occupational engagement include atmospheric characteristics, colour palate, lighting, the use of personal and non-personal objects, and the design of communal spaces for both residents and staff [18].

Although the precise mechanisms remain under investigation, resident behaviour and daily functioning are understood to arise from the interaction between the needs and abilities of PLWD and their

surrounding environment, highlighting the importance of person-environment fit [14]. In less restrictive settings, architecture and environmental design assume a primary role in supporting safety, independence, spatial orientation, self-esteem, and overall well-being [20]. Additionally, evidence suggests that well-designed, supportive environments may contribute to reductions in anxiety, agitation, aggression, and fall risk [22].

Rather than relying primarily on locked doors as the main risk-management strategy, environmental design can be used proactively to reduce distress, minimize hazards, and encourage independent movement. Three major environmental themes influence social interaction and care experiences: ambience and atmosphere, spatial arrangement, and sensory stimuli [13]. For PWLD, environmental influences on daily life include physical (i.e. interior design, outdoor areas, architecture, sensory elements, built environment), social dimensions (i.e. interpersonal interactions and community context), and organizational dimensions, including institutional culture, values, and attitudes toward dementia care [14].

Key Modifications

Key modifications often focus on improving visibility and navigability, consistent with dementia design principles that emphasize the importance of allowing individuals to see and be seen, thereby supporting independence for PLWD [18].

Floorplans

Floorplans should prioritize intuitive layouts that are easily navigable and memorable for residents [23]. Design features that encourage wayfinding include accessible activity and social spaces that residents can visually identify and approach, seating areas located along walking routes, and unobstructed views of key destinations such as entrances and communal areas [23]. Clear sightlines allow staff to provide passive supervision without creating a sense of surveillance, while circular or continuous walking pathways can reduce frustration associated with dead ends and purposeful movement [23]. For example, circular hallway configurations are generally more conducive of wayfinding compared to identical or mirrored floorplans, which may increase confusion among residents [23].

Spatial and Interior Design

Accessible spatial design that allows flexibility in activity participation can further promote autonomy and social engagement [11]. Visual sightlines are particularly important because they can compensate for cognitive challenges associated with spatial orientation and mental mapping abilities that are affected by dementia [18]. For instance, providing visual access to outdoor spaces from private and communal areas can help residents orient themselves to time of day and seasonal changes while also encouraging independent access to outdoor environments [23]. Additional wayfinding supports may include the use of contrasting colours, personalized memory boxes, individualized door markers, and recognizable environmental landmarks. These features can assist residents in navigating spaces more independently and may help reduce anxiety or exit-seeking behaviours associated with spatial disorientation [23].

Interior design elements also contribute to creating supportive care environments. Smaller household layouts, access to shared kitchens, comfortable living areas, and reduced institutional features can help establish a domestic atmosphere that encourages participation in daily activities. Removing unnecessary furniture and limiting excess cabinetry can improve visual accessibility and spatial navigation [24]. Environmental factors such as lighting, noise levels, and flooring surfaces should also be carefully considered to enhance safety and sensory comfort, particularly for individuals experiencing perceptual changes associated with dementia [24]. As sensory environments can influence stress and behavioural responses, spaces should be designed to maintain a calming atmosphere while also supporting functional activity. Both excessive brightness and high noise levels may act as environmental stressors for people living with dementia [13,17].

Signage should be positioned at appropriate heights and should incorporate high-contrast, non-reflective designs using a combination of text and images to reduce cognitive load and support comprehension. Environmental cues should be simple, clear, and easily recognizable to assist orientation and navigation while minimizing confusion [14,23].

Exit Management

Exit management strategies also differ in open or less restrictive dementia care models. Rather than relying on permanently locked doors, organizations may employ delayed egress systems, discreet door alarm technologies, or environmental design techniques that reduce the visual prominence of exit points. Design strategies may include concealing exit doors behind artwork or wall panels that match surrounding surfaces, camouflaging door handles, and using horizontal grid patterns on flooring near exit areas [17, 23]. These floor patterns typically consist of eight or more parallel strips of paint or tape, which can create the visual perception that the surface is difficult to cross, thereby discouraging exit-seeking behaviour without the use of physical restraints [17]. Similarly, environmental stimuli such as high-gloss flooring, alternating tile colours, or carefully managed lighting may reduce the visibility of exit pathways. Such approaches are considered alternatives to more restrictive interventions by influencing movement behaviour through environmental cues rather than physical barriers [17].

In settings that aim for fully open access, exit doors may be positioned to open toward administrative or staff-monitored areas where residents can be gently redirected or supported by staff if needed [13, 23]. Research has shown that allowing residents to manipulate door mechanisms or access locked exits when appropriate may contribute to perceptions of autonomy and self-determination [16]. To improve safety and reduce accident risk, doorway edges should be highlighted using contrasting colours to enhance visual distinction and spatial orientation [23]. This principle can also be applied to door handles and other frequently used fixtures to improve recognizability, usability, and ease of navigation for PLWD [23].

Secured Outdoor Spaces

Secured outdoor courtyards or gardens can provide safe spaces for independent movement and access to fresh air, helping to reduce restlessness, enhance quality of life, and supportive purposeful walking behaviour [15, 17]. These spaces allow for greater freedom of movement within a defined and controlled perimeter. For example, evidence suggests that access to a dedicated “wander garden” reduced the need for psychotropic medications and decreased

agitation levels for residents [17, 20]. Additionally, studies indicate that quality of life may improve when residents have opportunities to engage in a variety of meaningful activities across both indoor and outdoor environments that are familiar, accessible, and composed of a balance and between private and community spaces [14]. Outdoor environments should be designed to promote confidence and spatial control through features such as single-entry access points, consistent pavement colouring, continuous walking loops without dead ends, and intersecting pathways of varying lengths to support choice and movement variability [23]. Unrestricted outdoor access may require operational guidelines to address safety risks associated with adverse weather conditions or other environmental hazards [23].

International Comparisons

Internationally, long-term care practices for PLWD reflects diverse approaches to environmental restriction, person-centred practice, and freedom of movement, shaped by variations in policy frameworks, cultural values, and health care system structures. In Canada, research on specialized dementia care neighbourhoods and dementia-friendly environmental design is emerging, with studies demonstrating associations between greater freedom of movement and improvements in quality of life, reductions in behavioural symptoms, and more positive perceptions of autonomy and safety among residents, families, and staff [11]. At the policy level, national and provincial frameworks increasingly emphasize least-restrictive care principles and relational models of care. Yet, implementation of fully open dementia units remains inconsistent across provinces, often influence by regulatory interpretation, liability concerns, and organizational risk tolerance.

One of the most significant developments in Canada is Providence Living at The Views in Comox, British Columbia, which opened as the country's first publicly funded long-term care home based on the dementia village concept [25]. The model represents a departure from traditional care environments by prioritizing resident autonomy, choice, and engagement in meaningful daily activities within a home-like setting [25]. Through its "Home for Us" initiative, the site aims to transform care delivery from a traditional clinical model

toward a social-relational, resident- and family-centred model that emphasizes emotional connections, familiarity, and resident-directed living [26]. Residents live in smaller households of up to 12 private suites [26]. Shared kitchens, dining areas, and living spaces encourage participation in everyday activities such as meal preparation and social interaction [26]. The physical environment is intentionally designed to be barrier-free and interconnected, with secure interior courtyards providing unimpeded access to the outdoors while maintaining overall safety [26]. In addition, supportive technologies, including location monitoring systems, enable staff to maintain awareness of resident movement and respond promptly, when necessary, thereby promoting freedom of movement without relying on locked doors [26].

European Approaches

European approaches to dementia care have increasingly emphasized small-scale, home-like environments and reduced reliance on physical restrictions, reflecting a broader commitment to autonomy and person-centred practice within continuing care systems. The Netherlands and Sweden are often cited as leading examples of these approaches, both prioritizing architectural design, care philosophy, and social policy frameworks that support independence and normalized daily routines.

In the Netherlands, dementia villages and semi-open neighbourhoods allow residents substantial internal freedom of movement within secured perimeters, shifting the emphasis from containment to environmental enablement. For example, green care farms combine agricultural activities with dementia care in an integrative approach that provides meaningful activities to enhance quality of life and encourage a home-like feeling [11, 14]. Further, specialized dementia care is frequently delivered through dementia special care units (DSCUs), which emphasize multidisciplinary care tailored to the needs of people living with dementia [10]. These teams often include elderly care physicians, healthcare psychologists, nursing staff, physiotherapists, occupational therapists, speech therapists, and dietitians, allowing for comprehensive and individualized care planning [10].

Sweden has similarly adopted models that emphasize small-scale living arrangements and integration of daily activities into care

environments. Canada and Sweden face comparable demographic trends, with projections indicating that by 2040 approximately one in four individuals in both countries will be aged 65 or older [13]. Yet the organization of long-term care differs significantly between the two systems. While Canadian long-term care homes are licensed and regulated by provincial governments but may be operated by public, private, or non-profit providers, Swedish elder care is primarily organized through municipal social care services [13]. As a result, Swedish dementia care environments often prioritize home-like settings, smaller household units, and strong access to outdoor environments as part of routine care practices.

Across both countries, policy frameworks and cultural norms appear to support a higher tolerance for autonomy-related risk, enabling greater experimentation with less restrictive dementia care environments compared to more risk-averse systems.

Australian Approaches

Australia reflects a more structured and clinically mediated pathway toward dementia care reform. Through initiatives such as the Specialist Dementia Care Program, Australia has developed purpose-built small-scale units designed to support individuals with complex behavioural and psychological symptoms of dementia [27]. While many of these settings maintain secured perimeters, the internal environments are designed to minimize traditional characteristics and enhance engagement through domestic layouts and flexible routines.

An illustrative example is Kambera House in Canberra, Australian Capital Territory region, which opened in 2021 and provides an alternative model of care for individuals living with younger-onset dementia [21]. The home was designed to address limitations associated with traditional aged care environments by creating a supportive living setting that emphasizes autonomy, engagement, and individualized support [21]. Smart technologies are integrated into the environment to support residents, families, and staff, including 4D radar sensing and falls-detection technology such as Livius [21]. The staffing model also reflects a departure from traditional institutional care structures. Staffing ratios approximately are one staff member to every three residents, and staff members are referred to as" house companions" [28]. Staff do not

wear uniforms and participate in household activities, including preparing and sharing meals alongside residents [28].

Compared to the Netherlands and Sweden, Australia maintains a somewhat stronger emphasis on formalized behavioural management frameworks alongside environmental redesign. This positions Australia between traditional secured models and fully open village-style concepts, emphasising internal autonomy while preserving perimeter control.

Japanese Approaches

As a super-aged society, Japan projects that 1 in 4 citizens will develop dementia by 2045 [29]. In response, Japan has developed a distinct approach to dementia care though its group home system, which differs structurally from both European and Australian approaches. Japanese dementia group homes are typically small-scale residencies embedded within local communities, most commonly accommodating six to nine residents [30]. Rather than focusing on large-scale architectural transformation of traditional institutions, Japan's strategy emphasizes decentralization and normalization through community-based living arrangements [30].

Within these homes, the physical environment is intentionally modest and domestic in character, typically including private bedrooms, shared kitchens and living areas, and access to small outdoor spaces such as gardens or balconies [30]. While some perimeter security measures may still be present, the small scale and relational orientation of care reduce the visibility and perceived impact of environmental restriction. In group homes, staff function as companions, memory guides, crisis preventers, and facilitators of daily life, developing close personal knowledge of residents and supporting their participation in everyday activities [30]. Research suggests that these smaller, relationship-based environments may contribute to lower levels of agitation, greater preservation of dignity, and more stable daily routines that support cognitive functioning and well-being among residents [30].

Compared with European dementia village models, which rely heavily on architectural innovation and large-scale environmental design, Japanese group homes operate on a more intimate and community-

integrated scale. This approach prioritizes social cohesion, routine, and meaningful participation in daily life as central components of dementia care.

Feasibility of Transitioning to an Open Neighbourhood

The feasibility of transitioning from a closed or semi-open dementia neighbourhood to an open neighbourhood depends less on physical infrastructure alone and more on organizational philosophy, care practices, and workforce readiness. While unlocking doors may appear to be a straightforward environmental modification, open models require broader systemic change. Successful transitions typically involve a strong leadership commitment to person-centred and least-restrictive care principles, clear governance structures, and transparent communication with families and regulatory bodies [31]. Organizations must shift from a primarily containment-based risk strategy toward one grounded in individualized assessment, relational engagement, and proactive support for residents [31]. Leadership plays a critical role in enabling this shift by involving staff in decision-making, modelling person-centred approaches, supporting capacity building, and ensuring that policies and procedures align with these principles [31].

Regulatory considerations also influence feasibility. In many Canadian jurisdictions, legislation does not explicitly mandate locked dementia units. Rather, sites are required to demonstrate due diligence in managing resident safety. This allows for open models in principle, provided the comprehensive risk assessments, documentation processes, and elopement response protocols are in place. Nonetheless, perceived liability concerns and inspection pressures can generate hesitancy among administrators, making cultural and policy interpretation as influential as formal regulations. For example, the Appropriate Use of Antipsychotics (AUA) Initiative in Alberta informs and reinforces amendments to the Continuing Care Health Service Standards [32]. This quality improvement initiative provides care teams with guidance regarding the assessment and

management of responsive behaviours associated with cognitive impairment and appropriate use of medication in older adults [33].

Environmental design and staffing capacity further shape implementation. Open neighbourhoods function most effectively in settings with clear sightlines, accessible outdoor spaces, and smaller household-style configurations that support supervision without overt restriction. Equally important is workforce readiness: staff must be skilled in dementia-responsive communication, dynamic risk assessment, and de-escalation techniques [31]. In organizations where care remains highly task-oriented or staffing levels are limited, the transition may be more challenging.

Recommendations

As long-term care organizations increasingly explore alternatives to closed dementia neighbourhoods, transitioning to open neighbourhood models require careful planning across leadership, policy, environment, and workforce domains. Evidence from dementia-friendly environments and international models suggests that successful implementation depends not only on architectural design but also on enhanced cultural readiness, risk management strategies, and sustained staff engagement.

Leadership and Organizational Culture

A shift toward open neighbourhoods must begin with strong leadership commitment to person-centred and least-restrictive care principles. Organizations should establish a clear vision that prioritizes resident autonomy, dignity of risk, and meaningful engagement while maintaining appropriate safeguards. Leadership can support this shift by embedding these values in strategic plans, policies, and quality improvement initiatives. Transparent communication with families, residents and staff is also critical.

Regulatory and Risk Management Frameworks

Organizations considering open neighbourhoods should review provincial regulatory requirements and develop clear governance structures for risk management. This includes establishing protocols for individualized risk assessments, documentation processes, and response procedures for exit-seeking behaviours. Rather than relying solely on environmental restriction, organizations can implement proactive approaches such as behavioural monitoring, individualized care plans, and collaborative decision-making with families. Engaging regulatory bodies early in the planning process may also help clarify expectations and reduce uncertainty related to inspections and compliance.

Environmental Design Strategies

Physical design plays a significant role in supporting safe freedom of movement. When transitioning to open neighbourhoods, organizations should evaluate whether the built environment supports clear sightlines, intuitive layouts, and dementia-friendly wayfinding systems. Access to safe outdoor spaces, walking loops, and smaller household configurations can reduce agitation and support purposeful movement. Environmental features such as colour-coded landmarks, personalized doorways, and unobtrusive safety technology may further assist residents in navigating spaces independently.

Technology can support open neighbourhood models by providing discreet safety mechanisms without relying on locked doors. Other examples include wearable location devices, sensor-based alerts, and automated door notifications. When used ethically and transparently, such technologies can help staff respond quickly to potential safety concerns while maintaining residents' freedom of movement.

Workforce Preparation and Training

Workforce readiness is essential for maintaining safety in open environments. Staff must be equipped with skills in dementia-responsive communication, dynamic risk assessment, behavioural support, and de-escalation techniques. Training programs should emphasize recognizing triggers for distress, supporting purposeful walking, and engaging residents in meaningful

activities. In addition, staffing models may need to shift away from task-oriented routines toward relational care approaches that allow staff to spend more time observing, interacting with, and supporting residents.

Strengthen Interdisciplinary Collaboration

Transitioning to open environments benefits from collaboration across disciplines, including nursing, recreation therapy, occupational therapy, social work, and environmental design specialists. Interdisciplinary teams can jointly assess environmental risks, develop care strategies for residents who are walking with a purpose, and identify environmental and programmatic modifications that support independence.

Incremental Implementation and Evaluation

Organizations may benefit from adopting a phased approach when exploring open neighbourhoods. Pilot projects within a single neighbourhood can allow teams to evaluate operational challenges, staff experiences, and resident outcomes before scaling the model more broadly. Continuous evaluation, including feedback from residents, families, and staff, can help refine policies, identify training needs, and demonstrate the impact of open environments on resident wellbeing.

Further, outcome indicators that evaluate the impact of transitioning to open neighbourhoods should be defined. Metrics might include quality of life, behavioural symptom frequency, use of restraints or antipsychotic medications, falls or exit incidents, staff satisfaction, and family perceptions of safety and wellbeing. Monitoring these indicators allows organizations to demonstrate outcomes and refine policies over time.

Early Engagement of Residents and Families

Successful transitions to open neighbourhood models require meaningful engagement with residents and families. Organizations should create structured opportunities, such as advisory groups, town halls, or co-design workshops to discuss the goals of the transition, address safety concerns, and incorporate lived experiences into planning. Transparent communication can help build

trust while ensuring that families understand how freedom of movement and dignity of risk are balanced with safety measures.

Developing Individualized Risk Profiles

Rather than applying environmental restrictions uniformly, organization can adopt individualized mobility and risk assessments that guide decision-making for each resident. Care plans should consider factors such as cognitive status, mobility, history of eloping, and personal preferences. This approach aligns with person-centred care principles and allows residents who can safely benefit from greater autonomy to do so while maintaining safeguards for those at higher risk.

Meaningful Activity and Daily Life Programming

Open environments are most effective when paired with robust activity programming that encourages engagement and purposeful movement. Programs may include domestic activities, outdoor gardening, walking groups, intergenerational programming, or partnerships with community organizations. By encouraging connections with the surround community, open neighbourhood models can be strengthened as well. Partnerships with schools, volunteer groups, cultural organizations, and neighbourhood associations may create opportunities for residents to participate in events or activities beyond the immediate care setting. These opportunities help reduce boredom and agitation while reinforcing the philosophy that residents are active participants in daily life and society rather than passive recipients of care.

Conclusion

The design and organization of dementia care environments play a critical role in shaping the daily experiences, autonomy, and wellbeing of people living with dementia in long-term care. Historically, dementia neighbourhoods have often relied on locked or highly restrictive environments to manage safety risks associated with behaviours such as wandering or exit-seeking. While these approaches were frequently implemented with the intention of protecting residents, growing evidence suggests that overly restrictive environments may inadvertently limit independence, engagement, and quality of

life. As a result, there is increasing recognition that dementia care should balance safety with opportunities for freedom of movement, meaningful activity, and social participation.

International models demonstrate that alternative approaches are possible. Small-scale living environments, dementia villages, and community-based group homes in countries such as the Netherlands, Sweden, Australia, and Japan illustrate how dementia care settings can support greater autonomy while still maintaining appropriate safeguards. These models emphasize home-like design, purposeful movement, and person-centred care practices that encourage residents to remain active participants in daily life. Within Canada, emerging initiatives and evolving care philosophies reflect similar interest in reducing environmental restriction and exploring open neighbourhood approaches.

Yet, transitioning from traditional closed units to more open models requires more than architectural changes. Organizational culture, leadership commitment, staff training, and regulatory interpretation all influence the feasibility of implementing less restrictive environments. Successful implementation depends on aligning environmental design, workforce capacity, and risk management strategies with a broader commitment to dignity, autonomy, and individualized care.

Ultimately, the movement toward open dementia neighbourhoods reflects a broader shift in long-term care toward environments that enable people living with dementia not only to be safe, but to live with purpose, connection, and dignity. By prioritizing person-centred principles and thoughtfully balancing safety with autonomy, long-term care organizations can create environments where residents are supported not merely to reside, but to thrive.

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