

Remembering Community Settings:
Exploring dementia-friendly urban design in British Columbian municipalities

by

Maria Przydatek
BA, University of Victoria, 2012

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Supervisory Committee

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Abstract

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Focusing on the relationship between individuals with dementia and their environments, this research explores how to improve quality of life for those with dementia by increasing the capacity of existing urban public spaces. A content analysis of municipal planning documents (N =51) contextualized interviews, conducted with municipal urban planners (N =13) in the province of British Columbia, exploring their perspectives on designing dementia-friendly public spaces.

Seven themes were identified from the findings. Furthermore, planners did not know much about planning for dementia, either suggesting they were perhaps already addressing dementia through other disability guidelines, or saying they did not know what could be done in the urban environment regarding dementia. They were open to learning more about dementia-friendly approaches. Incorporating the key dementia-friendly principles of familiarity, comfort, distinctiveness, accessibility, safety, inclusiveness and independence into age-friendly policy or Official Community Plans would promote designs that benefit persons with dementia, as well as many others with mental and physical impairments.

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Dedication

Dla Dziadka i Babci,
za ich ciekawość świata i miłość zdobywania wiedzy

Chapter 1: Introduction

In 2038, there will be 257,800 new cases of Alzheimer's disease or a related dementia in Canada, equaling 756 million hours of informal care, and a projected economic burden of \$153 billion for that year (Smetanin, Kobak, Briante, Stiff, Sherman, & Ahmad,). In British Columbia (BC), by 2031 25% of the total population will be at increased risk of dementia due to old age (BC Healthy Communities, 2013).

The aging of the Canadian population has increased research and awareness of the potential social and economic impacts of dementia on society, as demonstrated by reports like *Rising Tide: The Impact of Dementia on Canadian Society* (2009). There is also a body of research on how to improve the social and physical well-being of those with dementia. What the literature lacks, however, is an application of the criteria for improving social and physical well-being to the design of public policy and dementia-friendly public spaces. Consequently, this thesis focuses on the relationship between community-dwelling seniors with dementia and their environments, specifically addressing how to improve quality of life for those with dementia by increasing the capacity of existing urban public spaces to accommodate those with dementia. In particular, primary interviews and policy documents were used to explore the perspectives of urban municipalities in the Canadian province of British Columbia on designing dementia-friendly public spaces.

To conduct the study, the thesis first explores the current literature on dementia-friendly public spaces to identify the key principles that should influence public policy on urban design.

It was determined that most dementia-friendly design aspects in the aging literature have been researched from the perspective of indoor environments such as residential homes and hospitals (Mitchell, Burton, & Raman, 2004; Keady et al., 2012). The amount of research on

designing the outside environment to meet the needs of older people is rare compared to the number of studies regarding younger people with physical disabilities (Mitchell et al., 2003). Moreover, there is an even greater lack of research on designing the outside environment for people with dementia (Mitchell et al., 2003). Mitchell et al. (2003) believe a possible reason for this lack of research is based on a misconception that those with dementia tend to remain indoors and do not care about their environments, as well as the perceived low status of aging individuals in Western society.

A critical synthesis of the literature on dementia-friendly urban design illuminated the impact concepts such as enabling independence, increasing safety, and social inclusion have on the physical and social well-being of those with dementia. Furthermore, the academic literature identifies a key set of principles for creating dementia-friendly urban public spaces. This set of principles for meeting the physical and social needs of those with dementia was then applied to understanding the current aging-related public policy of urban municipalities in BC. This policy analysis supplemented primary interviews with British Columbian municipal planners and policy makers. These principles derived from existing knowledge informed interviews with policy makers; the interviews added insight to the extent dementia-friendly principles are embedded in municipal policy and the current barriers in creating dementia-friendly public spaces. The thesis concludes by presenting findings, as well as shortfalls of BC municipal policy for creating dementia-friendly urban spaces. Recommendations will be made for incorporating dementia-friendly consideration into municipal level policy and projects in BC.

Helping to address the shortage of material on dementia-friendly public spaces in Canada, a more comprehensive assessment of current research and policy serves as a basis for

the development of effective considerations for the care of persons with dementia at the community level. Thus this research aims to explore the question “What are the perspectives of British Columbian urban planners regarding dementia-friendly design?” and “Is there consideration for dementia-friendly design principles in municipal urban planning policy and related documents? And if not, should this interest be incorporated, and if so, where?”

What is dementia?

Dementia is a syndrome caused by a combination of progressive illnesses that affect thinking, memory, behaviour, and the ability to accomplish activities of daily living (ADL) (Batsch & Mittelman, 2012). The *Diagnostic and Statistical Manual of Mental Disorders* defines dementia as a class of “disorders...characterized by the development of multiple cognitive deficits (including memory impairments) that are due to the direct physiological effects of a general medical condition; to the persisting effects of a substance, or to multiple etiologies” (Silverman et al., 2013, p. 245). People over the age of 65 are mainly affected; however, there is a growing awareness that people at younger ages are also affected (Batsch & Mittelman, 2012). The most common type of dementia is Alzheimer’s disease (AD), which affects approximately 60% of people with dementia (ibid). The disease is often characterized by symptoms of memory loss, agnosia, apraxia, frailty, and disorientation. Even with symptoms such as memory loss and disorientation, during the years a person lives with the disease as much as 80% to 90% of the brain is still functioning (Zeisel, 2007). This thesis uses the terms dementia interchangeably with Alzheimer’s disease and related dementias (ARD).

It is important to recognize the difference between cognitive impairment and dementia. Cognitive impairment is an inclusive term that describes the decline of a person’s ability around

social and occupational functioning (Silverman, Zigman, Krinsky, McHale, Ryan, & Schupf, 2013). Cognitive impairment is therefore a much broader term than dementia. There is a large consensus that mild cognitive impairment (MCI) usually, but not always, precedes dementia that is associated with older age (ibid). MCI refers to “a state intermediate between ‘normal cognition’ and dementia... [that is not of] sufficient severity to meet diagnostic criteria for dementia” (ibid, p. 246).

What is a dementia-friendly public space?

The Public Health Agency of Canada (2011) states that our physical environments are part of 12 key determinants of health; the design of our environments has a significant impact on well-being and health. The process of aging increases the importance of familiar settings, such as homes and neighbourhoods, for the majority of older individuals (Mitchell & Burton, 2006). Abandoning these spaces can mean the loss of a sense of belonging, self-respect and independence (Blackman et al., 2003). In a broad sense “a dementia-friendly environment can be defined as a cohesive system of support that recognises the experiences of the person with dementia and best provides assistance for the person to remain engaged in everyday life in a meaningful way” (Davis, Byers, Nay, & Koch, 2009, p. 187).

Individuals with moderate or even severe dementia have the potential to stay in their homes. This is recognized by movements towards home-care efforts in some current Canadian policy approaches (ibid). As more seniors are encouraged to age in their own homes, their outdoor environments are conventionally designed for the cognitively able, and thus appear to put stress on the abilities of those with Alzheimer’s disease (Zeisel et al., 2003). In the case of those with dementia, the experience of a changing self along with the progressive loss of

cognitive functions may be exacerbated by inhospitable environments (Mitchell, Burton, & Raman, 2004). Designed for young, able individuals, these settings may magnify feelings of uncertainty, confusion and inability for those experiencing memory loss and declining mobility.

Incorporating appropriate environmental features and behavioural cues into public spaces enables a person with dementia to understand what to do in a particular context and how to find their way (Blackman et al., 2003). Dementia-friendly environments are familiar and calm, supporting emotional well-being and spatial orientation to avoid unnecessary anxiety and frustration (ibid). Dementia-friendly design is considered a humane contribution to reducing symptoms of dementia (Zeisel et al., 2003).

The following explanations of key concepts are a guide to understanding the terminology used for this thesis:

- *Urban planning* – is a technical and political process concerned with the use of land and design of the urban environment, including transportation networks, to guide and ensure the development of communities. It concerns itself with research and analysis, strategic thinking, public consultation, urban design and architecture, policy recommendations, as well as implementation and management. Our environments are not simply static, but reflect human intentions and actions, material circumstance, as well as imposed constraints and structures of the collective society (Brittain, Corner, Robinson, & Bond, 2010).
- *Public space* – refers to the built physical environment that connects our homes with other indoor spaces in our cities. The design of communities and transportation systems can significantly influence our physical and psychological well-being. It is a setting

which is experienced, contains meaning and moulds relationships between people and the processes of daily activity (ibid). Space is not organised in a neutral way, but reflects political priority to certain abilities, and modes of transport (ibid). Consequently, it offers citizens possibilities as well as constrains them through its design or organisation (ibid).

- *Neighbourhood* – while certain research sees the neighbourhood as a small scale society with various physical and social attributes —a micro-culture— from a policy maker’s perspective this space is addressed by its geographical boundaries (Keady et al., 2012). To apply effective policy in creating dementia-friendly neighbourhoods, it is important to combine the notion of micro-culture with the geographical parameters that are currently used by a state administration. However, there is yet to be a consensus-based definition of neighbourhood for dementia studies (Keady et al., 2012). A neighbourhood is the conceptual scale at which this thesis addresses citizenship and change.
- *Design feature* – this term is used interchangeably with design aspect, and indicates an intentionally designed part of the built environment in an urban space. Examples of these aspects or features include elevators, ramps, stairs, plazas or walking paths.
- *Senior* – In the aging literature there is an ongoing debate regarding how to appropriately describe people 65 years of age or older. While there is no consensus as yet, it is important to consider this debate when studying a topic relating to aging. This issue is a subjective one; some researchers argue for the use of specific age brackets when describing a population, for example, people age 75 to 85, so as to avoid connotations or associations readers may have with certain terms. The other terms in question are the words ‘elder,’ ‘older adult,’ and ‘senior.’ Academics, most from outside North America,

suggest that the term ‘elder’ is a more respectful (similar to the way First Nations use the term in association with wisdom); however, contrastingly, the term ‘elderly’ connotes frailty and weakness. A popular term in North American aging literature, researchers use ‘older adult,’ stating it is less “othering” than ‘elder’ or ‘senior.’ On the other hand, in a culture that focuses on youth, the ‘older’ part of ‘older adult’ is not always well-received by the lay population and it is not well defined, leaving it to be broadly interpreted. This would have caused confusion for the researcher and her participants in this study.

The lay press and governments have historically preferred to employ the word ‘senior,’ as it is considered either neutral or connoting a higher position, for example, being a senior manager is a higher, more prestigious position than a general manager. Given that this research is analysing government policy and interviewing municipal planners, the term ‘senior’ was used to reflect the context in which this work is situated and to be more recognizable for the participants. The term elderly was used once in a question probe in the ethics approved interview guide. However, out of the 11 interviews conducted, the probe was only used once, after the participant had already used the term ‘elderly’ in a previous response.

The importance of dementia-friendly public spaces

The issue of dementia, and the quality of life of those affected by it, is especially relevant as the “baby boomer” generation ages. Increasing numbers of older individuals in society will require their needs be met in relation to the products, services, and the places they use (Burton & Mitchell, 2006). The need, and desire, for a good quality of life in older age requires people to have neighbourhoods that they can use, enjoy, as well as be proud to belong to.

Remaining in a familiar home and neighbourhood is increasingly important in the case of those with dementia, since removing them from a familiar environment tends to multiply their confusion, and reduce their ability to cope with the changes they are experiencing (Mitchell et al., 2003). Despite the fact that appropriate design information is required to enable people to live in their homes for longer, a large amount of the current design and planning guidance is vague and difficult to apply, likely due to its complex nature (Burton & Mitchell, 2006). The complexity possibly stems from the difficulty in measuring physical environment interventions and behaviour-related outcomes (Schwarz & Rodiek, 2007). Consequently, solutions and recommendations are not easily reduced into design checklists.

The geography of the city is often experienced as oppressive by many individuals because their needs for accessibility are neglected, and because a high value is placed on 'normal' abilities in the context of socio-spatial designs (Blackman et al., 2003). This value of 'normal' abilities demands self-control, and the ability to use one's body in a particular way for moving in and through public spaces, that may not be attainable by some. The needs of those with ADRD have been entirely ignored in mainstream urban design in part by the value placed on 'normal' abilities (Buffel et al., 2012).

Although increasing accessibility is already in the public eye as a component of enabling seniors to live in their homes for longer, there is much to be desired in terms of effectiveness, enforcement, and implementation (Burton & Mitchell, 2006). Since dementia symptoms may include disorientation, memory loss, poor judgement, language impairment, as well as exacerbations of physical impairments, municipal city planners have many factors to take into consideration. Developing strategies to keep those with dementia in their homes can be good for

the government's budget, particularly for healthcare. This topic is important since simply increasing the time period that people can live at home would help address the growing concern of the future economic burden of crisis care and long term care placements (Innes, 2013). By assisting persons to age in their own homes, with appropriate caregiver supports, inclusive and accessible environments, there is the potential to reduce high direct health costs related to dementia which include long-term care costs, physician and hospital costs, as well as the cost of medication (Dudgeon, 2012). The costs of acute healthcare are higher than the cost associated with supporting the activities of daily living of persons with dementia in their own homes. Staying at home is often what aging people want and what many have argued is best, particularly if they have dementia (Burton & Mitchell, 2006; Blackman et al., 2003). A clear commitment to creating accommodating spaces is necessary to ensure those affected with dementia have the ability to live in their own communities despite their changing abilities (Burton & Mitchell, 2006). Furthermore, employing a dementia-friendly design policy in public spaces will enhance the benefits that may arise for a wider spectrum of populations. For all older people, continued functional activity outdoors is also associated with important psychological, physical and social benefits (Blackman, et al., 2003).

Chapter 2: Theoretical perspective

In developing an understanding of dementia-friendly public spaces and assessing the approaches that BC municipalities enact to be dementia-friendly, this paper operates in the framework of the ‘social model of disability’. In the context of public spaces, the social model of disability aims to “design environments and products to minimise ‘disability,’” and reduce the humiliation which is frequently experienced by those whose needs are not being met or regarded by decision-makers (Blackman et al., 2003; Brittain et al., 2010; Burton & Mitchell, 2006, p.7). The basic principle of this model interprets disability as a denial of civil rights that is caused by exclusionary practices in society. Disability is caused by social, personal, and environmental barriers that hinder a person’s capacities, and if removed would enable them to re-gain their abilities. The basic principle of this model also differentiates impairment from disability, defining impairment as a condition caused by disease or injury. Consequently, the social model de-medicalizes disability, politicizing it as a social issue about the neglect of the universal rights of a certain group of people (Blackman et al., 2003).

In contrast, the historically dominant medical model addresses dementia as a condition in which all functional difficulties and emotional states are attributed to brain damage, often discounting, or overlooking, the impact of the social world in which the person with dementia lives (Davis et al., 2009). The medical model defines dementia as an ‘impairment,’ which based on the previous model places the condition into the purely biological category. As such, it becomes an exception despite the fact that dementia of the Alzheimer’s type may be emerging as a common feature of aging as longevity increases in society; dementia represents an accelerated form of natural aging, however, many more people could develop dementia if they

lived long enough implying it could be a more prevalent feature of longevity (Blackman et al., 2003). While categorization may be useful for organizing medical knowledge (causes and treatments), the dualistic categories typical of the bio-medical model – exceptional vs. normal – create implications beyond the scope of medicine (ibid). If dementia is predominantly framed as an exceptional, purely biological condition, it creates barriers to act on social interventions, such as urban planning and design, as they are perceived as less important compared to pharmaceuticals.

Stigma is one of the expressions of dualistic categorization that goes beyond the scope of medicine. Stigma is a form of categorization in society often used with a lack of sensitivity and attention to consequences. Consider stigma as a unique relationship between attributes and stereotypes that then impacts behaviour (Goffman, 1986). By definition, people perceive an individual with a stigma as not completely human. Based on this assumption we practice discrimination by which we often unthinkingly, but effectively, reduce an individual's life chances and directly threaten their health (ibid; Labrante, 1998). By thinking based on our differences, humans construct a theory to explain the inferiority of others, and to justify the danger they believe 'the others' represent. Stigmatization spoils one's identity, disqualifying a person from social acceptance; it is harmful to social integration and physical interaction (Batsch & Mittelman, 2012). An individual possessing an attribute different from that of others, memory loss for example, particularly if it defines them as bad or weak, discredits their place within society (Goffman, 1986). The attribute of memory loss is such a stigma, something highly discrediting working at a social level to create difference between individuals based on an ingrained cultural hierarchy of cognitive superiority (Dewing, 2008). People with dementia are

subject to the compounded stigma of age and mental disability (Burton & Mitchell, 2006).

Individuals with AD are significantly affected by the reactions of healthy people, and the ways in which others behave towards them (Sabat et al., 2004). For example, healthy people may start taking over a person with dementia's chores because they worry they will not remember how to do them, thereby increasing dependence.

Working to improve the interactions between people with dementia and healthy persons, Thomas Kitwood, a pioneer scholar in the area of dementia, developed ideas that are central to the concept of personhood. Kitwood promoted the concept of personhood as social, meaning that personhood is in part defined by a person's relationships with others as part of the traits possessed by human beings that make them persons (Kitwood & Bredin, 1992). Acknowledging another's personhood is the basis for care and of nurturing moral concern for others (Kitwood & Bredin, 1992). He supports this by discussing how children develop human attributes through a social process, socialization, and not simply through maturation. Kitwood has been especially influential in his argument that it is not only illness which leads to lack of control and influence, but the attitudes of people who ignore, or overlook the views of those with dementia. Kitwood brings attention to remaining abilities of those with ADRD by stressing the importance of establishing relationships of respect and trust that engender in the person with dementia a sense of personal worth, agency, and social confidence.

Kitwood's position highlights the importance of relationships, that both 'us' and 'them' (those with ADRD) are human beings with deficiencies, limitations and both are contributors to the experience of dementia (Kitwood & Bredin, 1992). The dementia journey is often far from a linear progression, and a person's experience of dementia can differ greatly depending on

personal biographical, social and environmental factors (Blackman et al., 2003). Focusing on the person and their experience encourages the cultural change needed to create environments that allow people with dementia to participate in everyday activities rather than be seen as passive ‘empty vessels’. Using the social model and Kitwood’s person-centred approach we contextualize disability as relational and emergent – an outcome of biological, psychological, social and environmental conditions and interactions (Blackman et al., 2003). However, while the person-centred approach has made positive changes in the care of persons with dementia, it is limiting in the area of law and policy due to its apolitical nature (Bartlett & O’Conner, 2007). Since personhood addresses more psychosocial issues, it is too narrow for discussions of power and civil will.

In exploring policy regarding dementia-friendly public spaces, personhood is limiting because it does not frame the person with dementia as an active agent in their neighbourhood. Switching from a focus on personhood to citizenship broadens the approach to dementia by allowing persons with dementia to connect to the greater society (Keady et al., 2012). To better explain the notion of citizenship one can draw on the ideas of critical urban theorist, Henri Lefebvre (1976), insofar that we interpret citizenship as a concept that is not simply nationalistic, and a relationship with the state, but citizenship as a broader definition of engagement with political and civil will reoriented towards communities. The basis of citizenship is inhabitation of a place, rather than simply a national, political identity; this orientation allows us to present dementia as a sociopolitical spatial issue, highlighting the connections among people, cultural assumptions, and political practices (Behuniak, 2010).

Lefebvre (1976) also proposed that space is shaped and moulded by natural and historical elements through a political process, adding complexity to the subject of city planning. He presents planning and designs as a complex tempo-spatial activity which is a way of changing ourselves by changing the city, a freedom to remake our city and ourselves. Consequently, people who live within an urban community have a right to have their interests and needs represented in a neighbourhood's construction and design. They have rights around the production of space – social relations and concrete lived space – that can extend beyond the urban to a general right to participate fully in the decisions that will, and do, shape their everyday lives. The focus is on inhabitants having the right to full and complete usage of the public spaces in their everyday for work and play. Along with complete usage, citizens should have the right to participate centrally in decision-making surrounding the production of urban space. With more citizen involvement, the focus is on use value of a space, not on its commercial exchange value (Purcell, 2003).

By framing those with dementia as citizens, as well as persons, we are able to contextualize the experience in a social and political way, whereby giving people with ADRD agency (Brittain, et al., 2010). Recognizing people with dementia as respected citizens helps promote emancipation, and the connective quality of “power with” another individual (Behuniak, 2010, p. 236). Furthermore, citizenship is used to combat social exclusion and stigma through promoting the status of discriminated groups to persons with power, and entitled to a full life (Bartlett & O’Conner, 2007). Though the counter argument can be made that citizenship assumes full or ‘normal’ cognitive capacity, citizenship should not be dismissed too readily in the case of those with dementia, since developing an inclusive understanding of citizenship can engage with

persons at early to moderate stages (ibid). By linking this notion of citizenship to future urban design policies, the research will be guided based on the principle of adapting the environment to the person and not the person to the environment (Blackman et al., 2003). This critical orientation draws attention to issues of power and social justice for marginalized groups in society, and seeks to influence positive change (Patton, 2008).

Empowerment and public policy as health promotion

The social determinants of health are a broad range of interactive personal, social, economic and environmental factors which impact the health status of individuals and populations. These potentially modifiable determinants of health are a fundamental concern of health promotion. Health promotion utilizes action and advocacy to address not only determinants which are related to individual actions, such as health behaviours and lifestyles, but also factors such as income and social status, education, employment and working conditions, access to appropriate health services, and the physical environments. The combination of these living conditions impacts health outcomes (WHO glossary, 1998).

One of the most significant health promotion documents is the Ottawa Charter (1986) which identifies the concept of community action for health. This concept is closely related to the concept of community *empowerment* and citizenship. The World Health Organization (1998) defines an empowered community as one:

in which individuals and organizations apply their skills and resources in collective efforts to address health priorities and meet their respective health needs. Through such participation, individuals and organizations within an empowered community provide *social support for health*, address conflicts within the *community*, and gain increased

influence and control over the *determinants of health* in their *community* [emphasis in the original] p. 6.

While there are increasing improvements to citizen power and participation, the community that people live in is established in significant part through political processes that include urban planners at the municipal level. Urban planners play a large part in the creation of communities through policy, and reports, that then impact citizen's everyday lives. A substantial part of the decision-making about what a community will look like, at both a design and social level, stems from the principles and values that guide its creation. By affecting these principles, values and perspectives, one can impact action since "policy formulation does not, often, conform to being a rational process influenced by rational scrutiny," but is impacted by the interests and values of decision-makers who create planning initiatives and the direction of future action (Harris, Sainsbury, & Kemp, 2014, p. 13-14). Efforts to systematically and routinely include health and equity in all areas of public policy are already present in approaches such as "Health in All Policies".

The researcher contends that urban planning with dementia friendliness in mind is an empowering practice that strengthens the autonomy of others. Thoughtful environmental design enhances the physical and cognitive capacities of persons living with dementia (deVries & Traynor, 2012). Furthermore, empowered relationships between communities and their policy makers around concerns such as dementia can aid in creating health-promoting conditions.

While urban design and public spaces are not responsible for human interaction, they can help create favorable situations for it, by including people in the urban environments and reducing barriers in their communities. This thesis is situated in the discourse around municipal

planning and urban design, as well as how to incorporate all citizens fully – including those with dementia. Through asking persons in municipal governments about their ways of engaging with citizens with dementia, we can better understand the current perspectives of BC's urban municipalities to the design process that makes communities dementia-friendly. The final recommendations from this research are based on this conceptual framework, the key principles identified in the literature, and on what is reported by participants in this study.

Chapter 3: Review of the literature

Firstly, an evolution of urban planning approaches will provide an overview of how planning has developed over the 20th century. This overview will help contextualize interviewees' perspectives and discourse on urban planning. Secondly, a literature review of designing for dementia will critically address the principles of familiarity, comfort, distinctiveness, geographical accessibility, safety, inclusiveness, independence, and citizenship.

A brief history of urban planning

Urban planning has its origins in public health, aiming to address pollution, sanitation, disease, and overcrowding which were a serious concern in developing industrial cities in the 18th and 19th century. In 1876, the British physician Benjamin Ward Richardson wrote *Hygeia, City of Health*, proposing sewage handling, water purification, public health inspectors and park initiatives. The following brief history of urban planning was based on the writings of Walter Rybczynski (2010).

Charles Mulford Robinson crusaded for urban beautification in his 'City Beautiful' movement, which emphasised monumental urban landscapes that aimed to promote civic pride, drawing heavily on the French beaux arts tradition. He emphasized the importance of establishing the architectural character of cities. The focus was on creating clean, aesthetic spaces that were often grandiose and that ambitiously mimicked classical architectural forms. He emphasized the role of civic clubs and art organizations in planning city spaces, as he believed civic art was particularly important in encouraging public-spiritedness.

The next large movement was triumphed by Ebenezzer Howard, and came to be known as the 'Garden City'. Garden Cities were small in size, aimed to combine the best of city and

country; in actuality they formed the basis for early suburbs. It was the early beginning of modernism movement, and efforts to orderly separate parts of the city. Howard's work is famous for separating the central city using greenbelts. His layouts had a great influence on the development of modern city planning, and on post World War II town planning policy in the United Kingdom.

In the United States, the first three decades of the 20th century symbolized a drastic change in the character of city planning. The focus shifted from the aesthetic to scientific management, top-down approaches that placed faith in social engineering. Le Corbusier was a prominent figure of at this time and heavily impacted the skyline of American cities with his 'Radiant City' movement. In the 1920s he promoted the idea of skyscrapers in parks – using uniform, simple, tall buildings in a park setting. He advocated for tall, high density buildings to allow more surface area to be used for greenspace, and multilevel traffic system to manage the intensity of traffic. He thought that the modern city should be ordered, logical with isolated centres for certain activities.

In contrast to Le Corbusier, Frank Lloyd Wright wanted low-density spaces. He was creator of the 'Broadacre City', which he envisioned as a decentralized, car-dependent society. He wanted families to have detached, single-family dwellings on 1-acre lots connected by freeways. His vision became the American standard in the 1950s. The influence of the car on city planning, especially in America, is considered to have had a detrimental effect on its walkability and connectivity. The post-war, suburbanised city was built predominantly for economic reasons in which livability was largely ignored until very recently.

Jane Jacobs was a seminal personality in 20th century urbanism who critiqued the Radiant and Broadacre City movements and focused on the ‘social role’ of spaces. She argued for rebuilding cities in a way that reinforced traditional urban attributes such as lively streets. She praised complexity, diversity, short street blocks and mixtures of old and new development, as well as mixed-land use (commercial, cultural, residential). She felt that the nature of city life was “messy” and that sanitizing the urban environment was hurting its vitality. Her writings were particularly notable because they were based on her sidewalk level observations, as compared to previous urbanist writings that were based on a bird’s eye view. Given her street level orientation, she also saw citizens as being instrumental in shaping city development.

Like Jacobs, Lewis Mumford was opposed to the Radiant City; however, unlike Jacobs he was a proponent of Howard’s Garden City. He disagreed with her views on urban parks, high-densities and artistry in cities. Mumford was the first notable critic of sprawl, and argued planning should emphasize organic relationships between people and spaces. He feared economic functions would overtake local community culture.

Today, the main tool of planners is zoning, and much of that has to do with an economic perspective of protecting (or raising) property values. They work within a strong private development industry that drives many large scale commercial and residential projects. Certain movements, such as New Urbanism and SmartGrowth are putting forward principles to increase the livability, walkability, and sense of community that was not the focus of planning in the 20th century. Other local movements, such as the urban agricultural movement is a sort of DIY self-organization movement by citizens who wish to create sense of community without much

government input. These movements are addressing issues about how to create sense of place in a way to improve the planning of the last half century.

Cities are competing for people; how they develop, whether they will be livable, walkable, healthy, and engaging influences their prosperity. With mass urbanisation and increasing populations the important issue of the 21st century will be how to connect demography and urban design – how to intersect architecture, urban planning and the health of human beings. Rapid urbanisation leads to rapid urban growth that is not always planned. An effort towards bottom-up approach to create strategic responses is much needed. The critical challenge will be how to create a humane environment through urban design. The discussion of dementia is an important piece of this larger puzzle as longevity and an aging population are part of the future.

Designing for dementia

A critical synthesis was conducted to explore aspects of urban design that address the needs of those with dementia. This review is critical because of its aim is to question and develop what it uncovers in the literature. This review makes use of available data obtained through searches using the Google Scholar database, as well as Academic Search Complete, and Medline in Full Text databases available through the University of Victoria (UVic) library. The databases were chosen based on UVic librarian suggestions in the areas of Public Health, Environment, Public Policy, Social Work, Aging, and Public Administration. Searches were carried out using the following nine key words “dementia-friendly; Canada; environment; Alzheimer’s disease; citizenship; health; policy; neighbourhood; public spaces; communities; capable; aging; urban planning.” Due to a lack of consensus regarding terminology in this area of study, this wide range of key words was used to minimize missed literature.

Articles selected from the database searches address dementia design in outdoor urban public spaces and use key words in relationship with each other. Certain articles are being included in the analysis that do not address outdoor environments because of their insight in linking design features with physical and social benefits for people with dementia. The information is divided into a number of non-mutually exclusive categories related to well-being. Research included in this review uses both qualitative and quantitative methodologies, including mixed method designs. All articles in the literature review are published between 2000 and 2013, and include the views and needs of those with dementia, since much of the research is based on observations and conversations with those with dementia and their families.

The purpose of this synthesis is, first, to compile the most current research on dementia-friendly urban design to provide guidance for the policy analysis by identifying key principles in designing dementia-friendly public spaces. Second, providing an overview of the research in this area helps to create an informed set of guiding questions for policy analysis and for interviews with municipal government policy makers, urban planners and design consultants. These guiding questions focused the analysis of public policy and interviews with key policy makers to identify best practices and barriers to developing dementia-friendly public spaces. This resulted in an assessment of the policies and interviews using the principles identified in the literature.

Currently, the needs of individuals with dementia are informing the design of day centres and residential homes; however, the issue of accessibility to public spaces has been mostly overlooked. This is a concern because an outdoor environment that is perceived as harmful and dangerous by seniors puts them at risk of becoming isolated (Blackman et al., 2003).

Furthermore, the public outdoor setting is a place for healthy physical activity that positively impacts the symptoms of dementia (Keady et al., 2002).

Given that about 80% of people with dementia continue to live in their own homes, including a third of people experiencing severe dementia, and almost a quarter living alone, connecting these seniors with their physical and social environments is very important (Blackman et al., 2003; Mitchell et al., 2003). By rearranging or adapting our public spaces, impairment may be lessened and a person with dementia may be able to complete tasks for themselves, gaining the ability to access, negotiate, and utilise the outside environment essential for the successful enactment of activities of daily living (Mitchell et al., 2003).

The incapacity of the current urban environment to accommodate the changing needs of those with dementia to help them lead as normal a life as possible is concerning since our North American population is rapidly aging. Improving an individuals' connection to their community through accessible public spaces is important in helping them maintain a good quality of life. Table 1 synthesizes key principles, and design features that operationalize them, from the literature. These key principles and features can help to guide evaluation of public policy and planning as dementia-friendly and allow an assessment of current policies and practices. Evidence of the design features, or lack thereof was examined in BC public policy and in the interviews with municipal planners and policy makers.

Seven broad key principles were identified as the main factors to be considered when designing dementia-friendly urban spaces. The researcher also added another principle, citizenship, to reflect the theoretical perspective of this work as well as to reflect a less explored, yet valuable, concept in the literature. The addition of this principle reflects the critical reading

of the literature that has been undertaken to develop important principles. See Chapter 2 for the importance of using citizenship and the notion of inhabitance to engage with people with dementia in community decision-making.

Table 1: Key principles and their design feature indicators in policy (units of analysis: words and phrases)

	<u>Principles</u>	<u>Potential design feature indicators in policy</u>
1	Familiarity	"fits appropriately into existing", memorable, heritage, traditional, histor* ¹ , artifact*, "historic preservation" "historic landmark", "unifying architecture" "local context" "local neighbourhood identity" "similar design features", familiar*
2	Comfort	proximity, "urban furniture" "street furniture", bench, "sign height" "streets for living" "lower traffic" woonerf, "traffic calming", seating, "weather protection", patio, "outdoor seating", comfort*
3	Distinctiveness	"easily identifiable", individuality, "water features", "public art", "unique character", distinguishable, "legible signage" "legible sign", "community character" "unique neighbourhood identity" "architectural character" façade, blank walls, landmark, clarity, colour, "wall pattern", pattern, distinctiv*
4	Geographical accessibility	curb, sidewalk, slope, stairs, ramp, "public transportation", transit, crossing, crosswalk, pedestrian*, "audible signals", walk*, scooter, "mixed land use", wheelchair, mobility, "unrestricted access", "universally accessible" "grade changes", access*
5	Safety	tactile strips, patterns, falls, "trip on" "trip over" CPTED ² , "eyes on the street", visibility, "personal security", "feel safe", "aging safety", "crime prevention", safe*, securit*
6	Inclusiveness	includi*, inviting, welcom*, divers*, "sense of place" "sense of identity" "social interaction" "sense of community", universal, age-friendly, "usable for diverse groups", dementia-friendly
7	Independence	connectivity, independ*, "aging in place" "adaptable housing" "remain in place" "sense of ownership" "independent living", aging, "enhanced wayfinding" "tactile wayfinding" "age in place" "task orientated sign"

¹ * at the end of a root word searches for all possible endings of the root word. For example, histor[y], historic[ally]

² Crime Prevention Through Environmental Design

8	Citizenship	"age specific participation" "civic engagement" "participating in community development", citizen*, "community based partnership", "information sharing" "public awareness", engag*, collaboration, "senior organization" "senior group" "citizen control", consultation, advis*, "advisory committee" "citizen decision making"
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The design features contribute to the operationalization of the principles in dementia-friendly planning. They become the finite embodiment of that idea in the public space. For example, if an urban planning project discusses the height of signage on roadways, this would be the specific consideration of “signage,” but relates to multiple general principles, such as “familiarity,” “accessibility,” “independence,” and “safety”. It is thus evident that both the key principles and their operationalization are fluid, and in no-way mutually exclusive because of their complex and interconnected nature.

Familiarity.

At present, a greater emphasis has been placed on the poor fit between psychomotor capacities and the composition of urban spaces, than between psychological capacities and the composition of urban spaces (Blackman et al., 2003). Furthermore, Mitchell and Burton (2010) state that “familiar surroundings enable people to recognize and understand their surroundings, which helps to prevent and alleviate spatial disorientation and confusion and to aid short-term memory” (p. 15). The key principle of familiarity addresses the psychological by referring to the recognisable nature of urban public spaces, and the extent to which older persons can easily understand and navigate their environments. Familiarity helps in wayfinding because people are more aware of where things are located, especially if they lived in a neighbourhood a long time, and encounter them on a regular basis.

For most individuals, the major symptoms of cognitive changes will include spatial disorientation and short-term memory loss, which in turn will lead to confusion, agitation, and possible anxiety. Cognitive impairment is also associated with progressively decreasing abilities in route planning, as well as poor short-term memory which negatively affects the retrieval of information on places, alternative routes, previous mistakes, or the use of spatial and verbal information (Mitchell et al., 2003). Furthermore, the loss of higher cognitive skills impairs spatial planning, decision-making, spatial memory, and mental mapping. Consequently, people with dementia find it difficult to use unfamiliar environmental cues and are often challenged in navigating rapidly changing urban environments (Blackman et al., 2003). Consequently enhancing existing environments is considered better than re-developing an area to change locations of shops and landmarks (Burton & Mitchell, 2006).

Familiar streets, for example, have a hierarchical design in which main streets are wider than side streets. Built and natural landscapes can also be supportive in enabling a person who experiences memory loss to re-position themselves and continue with everyday activities, through the use of familiar landmarks such as churches, trees, and towers (Brittain, et al., 2010; Mitchell et al., 2010; 2006).

Furthermore, using familiar landmarks as tools may reduce fear or embarrassment of getting lost due to the route layout or becoming unsure of where to go. The loss of a familiar environment, or the imposition of complex settings, has been established as a compounding factor to disorientation, and further reduces coping abilities of people with dementia in the built environment (Blackman et al., 2003). Studies have demonstrated that unfamiliar settings, such as

hospitals, increase the likelihood that those with dementia will injure themselves due to increased disorientation and anxiety (Blackman et al., 2003; Mitchell et al., 2003).

Familiarity also refers to the use of long-established forms for designing open spaces, buildings and landmarks. When designing buildings, following familiar visual styles that are not ambiguous reduces levels of disorientation and confusion, as well as levels of frustration and anxiety, because people know what is expected of them in those spaces (Burton & Mitchell, 2006). Familiarity can also encompass design of street furniture, such as bus shelters, telephone booths, and benches. Not only do older individuals prefer traditional designs because they are familiar with their aesthetic, but also that persons with ADRD cannot identify what modern types of street furniture are, and are afraid they will not use them appropriately (Burton & Mitchell 2006). Though persons with dementia are able to learn new information, it will never become an automatic memory and they will require clear, regular reinforcement (Burton & Mitchell, 2006).

Figure 1. Modern (left) versus traditional bench (right)



Guided by the principle of familiarity, one can use design features to engage with the existing capacities of those with dementia. Accordingly, familiarity is essential in dementia-friendly planning as it has been shown to reduce delusions, agitation, anxiety and risk of falls, all symptoms indicative of poor objective quality of life (Keating & Gaudet, 2012). Addressing

familiarity allows planners and architects to engage an individual's psychological, and emotional abilities, to help them navigate their neighbourhoods.

Familiarity, and the maintenance of ties with historical and traditional designs, is not always a priority in modern architecture, or in community renewal projects. In cases where a modernized (relating to the characteristic style of the present or immediate past) agenda has removed familiar landmarks and other features, there are possible strategies for reintroducing more traditional designs into the community. The development of the landscape of the community can be influenced by city archives and photographs, speaking to seniors about what they experience as memorable landmarks and features of the community. One cannot assume that a community will always look the same, but change can be gradual, connect with the past, as well as make considerations for all groups within the general population. It is furthermore necessary to understand the drivers behind planning changes in the community, such as larger immigrant populations or changing industry. Consequently, activities such as collecting comments from seniors cannot be done under the assumption that the senior population is homogeneous.

Comfort.

The principle of comfort refers to how the environment enables persons to visit places of their choosing without mental or physical discomfort (Mitchell and Burton, 2010). This highlights the importance of enjoyment while being outside of the home. Comfort is often associated with calm, welcoming, informal, pedestrian-friendly spaces. Persons with dementia tend to avoid noisy, busy streets, and find side streets more comfortable as well as more accessible. Mobility concerns, such as difficulty with balance and gait, make busy places such as

shopping centres or main streets potentially inhospitable, thus perceived as threatening or distressing (Blackman et al., 2003). Efforts such as the pedestrianisation of town centre streets is a good example of limiting sensory overload, since it protects pedestrians from traffic pollution and danger, and also creates a calmer and quieter public space that can reduce the incidence of disorientation and confusion (Blackman et al., 2003). Providing comfortable urban spaces is important for people with dementia because interacting with nature or being outdoors supports multi-sensory stimulation, which has positive effects on people's emotional, mental and spiritual well-being (Keady et al., 2012).

Due to decreased stamina in aging adults, urban furniture is also an important part of comfort as it is a normative rest stop, and place to sit while assessing one's surroundings (Blackman et al., 2003). Limited public restrooms and places to rest are recurrently mentioned as reducing quality of daily life and comfort when out in the community (Buffel et al., 2012). Placing services and facilities within walking distance of dwellings, along roads with adequate sheltered seating, lighting, as well as well-maintained paving would be improve comfort by addressing mobility and physical frailty (Mitchell et al., 2003).

Distinctiveness.

The key principle of distinctiveness, relates to the way public spaces provide a clear image of what their use is, and where they lead. Distinctive features captures people's attention and aid in orientation and wayfinding (Mitchell & Burton, 2010). Character should be noted as something that is derived partly from personal experience and emotional connection as it is the historical value, age and style of a place. Distinctiveness helps one understand where they are, and identify which way they should go. Connected with the principle of familiarity, distinct

places reflect local character through built form, design features, colours, and materials that give the streets and buildings their own identity within the local neighbourhood. Often long established landmarks are retained and designs familiar to older people are positioned at decision points for ease of understanding where they are. These types of landmarks are often better than crowded signs. An abundance of signage is an example of a how a design feature addressed at alleviating disorientation, may in fact increase confusion because of the reduced ability to manage external stimuli (Mitchell et al., 2003; Zeisel et al., 2003). Clusters of signs are too difficult to read because they are too cluttered, and too complicated (Burton & Mitchell, 2006). Consequently, intentional design choices must be made so they avoid sensory overloads. Signs placed at eye level, well illuminated and containing simple, explicit information are good. Employing realistic symbols and large dark lettering on light backgrounds also makes signs easier to read and interpret (Mitchell et al., 2003).

Distinctiveness helps to reduce disorientation and verbal agitation through increasing sensory comprehension in those with dementia. Instead of too much signage, effective wayfinding design features include historic landmarks, ‘neighbourhood’ decorating schemes, sculpture, paintings, or architectural features such as personalized doorways (Davis et al., 2009). Furthermore, associations with familiar placement of garden features, bright flowers or scented plants, trees, or water features, bird baths, and benches are often more effective and distinctive, than signage (Mitchell et al., 2003). According to Mitchell et al. (2003) legibility and clarity are especially important at decision points, such as intersections, junctions and corners, since people with dementia are more likely to become disorientated when in those spaces. Blackman et al. (2003) report that individuals with dementia require short, direct routes without dead ends, as

well as small and explicitly designed spaces which are likely to be less disabling than long, uniform, and repetitious streets and building frontages. Designing small street blocks with direct, and connected routes with good visual fields, as well as varied urban forms, and distinctive architectural features could enhance successful orientation and wayfinding (Mitchell et al., 2003; ibid, 2004). Distinctive urban environments can reduce spatial disorientation and diminished wayfinding ability to improve the autonomy and security of those with dementia.

Geographical accessibility.

The key principle of accessibility addresses how urban public spaces enable persons with ADRD to reach, enter, use and walk around places they need or want to go to. Due to the progression of dementia and changes to the urban landscape, accessibility is characterized as a constantly changing experience between the person and public spaces. Accessibility refers to both physical accessibility and geographical accessibility that allow people to move and appropriate space through ease of movement from one area to another. Local services are perceived to be accessible when they are within a comfortable walking time, about 10 minutes, along wide flat sidewalks with ground level pedestrian crossings (Brorsson et al., 2011). Accessibility is perceived as worse when service personnel, representing a familiar interaction, are replaced by technologies, and when walking routes are noisy, and crowded (Brorsson et al., 2011).

Individuals with dementia may experience poor concentration, communication, and reasoning skills that further aggravate the problems caused by memory impairments making it difficult for them to seek help or follow directions. Consequently, an essential part of planning dementia-friendly communities is the construction of meaningful decision points that might

assist persons in finding their way on their own since seniors , especially those with dementia, rely on their immediate local area for support and assistance with services (Buffel et al., 2012; Davis et al., 2009; Mitchell et al., 2006;). The negative effects of complicated environmental layouts, such as blind bends and dead ends, increase the likelihood a person with dementia will become disoriented at decision points, and become unable to navigate independently (Mitchell et al., 2003). Furthermore, ground level crossings, as well as gentle slopes rather than steps increase the accessibility for older persons. While lighting and pavement maintenance may be difficult to control, well lit areas with non-slip, non-glare surfaces positively impact accessibility.

An inclusive, accessible environment is one that assists in fostering independence and assisting in wayfinding. Stable and meaningful environmental cues are needed to assist a person to effectively use their local area when they develop dementia. An accessible local environment needs to be predictable, recognizable, and unlikely to invoke stressful new situations which cannot be managed by a person with ADRD (Blackman et al., 2003). Blackman states that the urban design considered most beneficial for orientation and wayfinding is a visual hierarchy of wider streets for main routes and narrower streets for secondary routes, with a variety of street frontages that obviously define spaces, buildings and uses.

Creating accessible types of ‘lifelong’ communities requires interventions across housing, street design, transportation, and improved proximity of neighbourhood services to support feelings of safety, comfort, and security in old age.

Safety.

Urban spaces possess hazards that are potentially dangerous to any inhabitant, but they pose even more of a threat to people who experience cognitive or physical impairments. The principle of safety addresses how persons with ADRD should, as much as possible, move around outside without fear of tripping or falling, being attacked, or fear of coming to harm (Mitchell & Burton, 2010). The duality common to aging individuals of the safety and security of their homes, and the danger and inhospitableness of the outdoor environment, is especially relevant to those with dementia. Only when people perceive the outdoors to be safe, can they enjoy being out in the community. The possible benefit of using safe outdoor environments is an ameliorated quality of life, especially if the environment is inclusive of a range of physical and cognitive abilities (Zeisel, 2007). Consequently, safety is a key consideration for enabling independence, and enabling aging adults to use public spaces.

The use of proper design during the construction of the outdoor environment increases safety, leading to greater independence, which is also associated with fewer falls (Zeisel et al., 2003). Encouraging exercise through well maintained sidewalks would be beneficial for physical well-being. An activity such as walking is positively related to vascular health, an important fact since a number of vascular risk factors are linked with increased risk of AD (Keady et al., 2012). Due to the shuffling, and often poorly balanced gait typical for people with dementia, poorly maintained, uneven or steep surfaces increase the risk of falls and therefore restrict activity (Blackman et al., 2003; Mitchell et al., 2006). High friction materials such as gravel or cobbles, areas with complicated patterns, colours and materials are also likely to contribute to unsteadiness and disorientation (Blackman et al., 2003). Unsteadiness is a serious issue as it may

lead to falls, the most common cause of death from injury in persons 75 years or older (Burton & Mitchell, 2006). The prevention of falls is an important concern for seniors as bone fractures can escalate to more serious conditions. The presence of handrails on outdoor staircases or inclines is helpful in fall prevention.

Pedestrian crossings are not especially safe, and have been identified as major hazards for falls in frail older persons. Buffel et al. (2012) state that there are concerns that the standard period for crossing the street is too short to allow senior pedestrians to safely reach the other side. According to their research, a 2006-2008 study from Manhattan, New York, found that pedestrians aged 60 and over comprised close to 47 per cent of fatalities, even though they constitute only 17 per cent of the population.

Pedestrian crossings are not the only challenge for seniors; there are low quality structural features in urban environments, such as broken stairs, dim lighting, and crumbling sidewalks, that are barriers to physical mobility (Buffel et al., 2012). Poorly lit areas may also contribute to a sense of unease during winter months when it gets dark outside faster. Changes in lighting levels, and changes in ground surfaces, are also ways to draw attention to certain areas or discourage their use by seniors (Davis et al., 2009).

Regarding construction of pathways, smooth, plain, level, non-slip and non-reflective paving is the most effective surfacing for people with dementia in particular and older people in general. Difficulty navigating can be caused in part by perceptual skills, reaction times, and a limited ability to distinguish certain colours, depths, shapes and sizes. In the case of impaired depth perception, sharp colour or pattern contrasts tend to be misinterpreted as differences in level and reflective floors as wet and slippery. Chessboard squares, or repetitive lines, and poor

textural contrasts between walls and floors, may cause dizziness or confusion for those with dementia (Blackman et al., 2003).

According to Mitchell et al. (2003), a yellowing of the lens of the eye, colour agnosia, which occurs during the aging process, affects the ability of people with dementia to distinguish certain colours. The red-orange spectrum appears to be less problematic in comparison to colours on the blue-green spectrum, with all colour vision disappearing in those with severe dementia (Mitchell et al., 2003). Consequently, colour coding is not often a useful navigation tool for people with dementia because it is too complex to understand or see. A distinctive change in floor colour however, can be helpful in discouraging entry into hazardous areas if following the traditional schematic of red equaling stop (Blackman et al., 2003).

Inclusivity is also an essential part of addressing the risk discourse that many seniors use when describing their neighbourhoods and their feelings of safety in public spaces (Keady et al., 2012). Older persons express fewer problems relating to safety and security when they have the chance to engage in community discussions regarding what their neighbourhood should look like (e.g. political participation) (Buffel et al., 2012).

Inclusiveness.

The principle of inclusiveness is the presence of practices in which different groups of persons are culturally and socially accepted, welcomed, and treated as equally important. Inclusiveness addresses a sense of belonging, feeling respected, and manifests as supportive energy, and commitment from community. In the literature, it is identified by interest in the lived experience of dementia, legitimising and respecting persons with ADRD, their feelings and their experiences.

While physical and cognitive considerations are essential in designing environments that are navigable for individuals with dementia, all persons, no matter their label – impaired, diseased or ‘normal’ – are entrenched in networks of social relationships (Blackman et al., 2003). Consequently, the social and emotional experiences that are part of our daily existence must be considered in quality design. While architecture is not responsible for human interaction, it can help create favorable situations for it by including people in the urban environments and reducing barriers in their communities.

For neighbourhoods to be considered sustainable and inclusive, they should allow for equality of access and opportunity regardless of ability or age. One of the barriers to accessibility and belonging is social stigma, which keeps people with dementia indoors (Blackman et al., 2003). This stigma is associated with many of the behavioural symptoms of dementia, such as aimless wandering or aggression, which risks causing humiliation or shame in the public settings (Blackman et al., 2003). What is less often understood is that these stigmatizing behaviours are often acted out in an attempt to express discomfort or distress caused by surroundings, rather than caused by symptoms of brain damage (Blackman et al., 2003).

Stigma is part of an experience of social exclusion, the lack, or denial of resources, rights, and services, and the inability to participate in ‘normal’ activities and relationships in which the majority of people partake (Keating & Gaudet, 2012). The concept of social exclusion can be significant when a person has dementia, as it is often indicative of the moment at which others stop behaving as they would towards a person living in their community. While it can be questioned whether lack of community involvement of persons with dementia is the result of stigma and social exclusion, or of declining personal resources, barriers should not be imposed

on their being able to engage if they decide to. Furthermore, Ogg (2005) found that densely populated urban environments are often not adapted to the needs of older persons, and to combat social exclusion, mobility and spatial considerations are increasingly being recognized as important dimensions of citizenship and social inclusion.

Physical environments can support social interaction, and sense of self, through design features that are inclusive of varying abilities (Davis et al., 2009). Given the increasing size of many urban centres, “many groups within the older population feel largely excluded from the ambitious plans [producing ‘mega-cities’]” for globalization (Buffel et al., 2012, p. 601). Furthermore, older persons have been mostly invisible in discussions around the impact of urban change. Buffel et al. (2012) reported on a large study (600 participants) of people aged 60 and over living in inner-city London, Liverpool, and Manchester, that found seniors felt a “strong sense” of being “excluded” from many institutions that influence the quality of life in their communities. One can only postulate that seniors with ADRD would feel even more isolated from such decision-making.

Despite being removed from the conversation, older persons have a large body of knowledge about, and commitment to, the communities which they inhabit that is advantageous for urban planners (Buffel et al., 2012). Engaging with seniors, those with and without dementia, can improve the aesthetic and add a historical personality to a community. Regarding commitment, Buffel et al. (2012) also reported on a study composed of 100 municipalities in Belgium, finding that older persons have strong attachments to their locality. The importance of older persons maintaining social engagements and contacts was demonstrated by Yevchak et al. (2008) in their review on promoting cognitive health. The review found that seniors with

increased levels of perceived isolation and feelings of disconnection had twice the likelihood of experiencing more rapid cognitive decline, even showing outward signs of AD without pathological features on autopsy (Yevchak et al., 2008). Furthermore, findings of research conducted in the Netherlands and UK show that those who evaluate their neighbourhood negatively are more likely to be lonely than those who judge their neighbourhood quality as high (Buffel et al., 2012). Consequently, one can note the importance the social, emotional and cognitive as integral roles in well-being and perceptions of the environment. If our society is to support people aging in place, efforts are required to encourage inclusion of seniors, as well as further explore the value and role of the everyday public spaces in the health and wellbeing of those living with dementia.

Through education and awareness-raising that those with dementia require meaningful activities that draw on past roles and experiences, those in front-line community occupations may be able to better understand how to assist those who appear to be aimlessly wandering and support their sense of belonging (Davis et al., 2009). Combining simple information to support people in the community with understanding and better design, policy-makers and planners can work together to reduce the feelings of humiliation and ostracism outside the home.

Stimulating, mixed-use, external environments are also important for those with dementia; findings from Mitchell and Burton (2004; 2006; 2010) show that urban squares with shops and cafes and offices are informal spaces where people fearful of losing their ability to act in social settings feel more welcome and safe, in comparison to formal spaces. This may be because persons with ADRD, or associated behavioural symptoms, can become anxious and further isolated due to the risk of embarrassment in public spaces (Brittain, et al., 2012). Informal

spaces are perceived to be more unscripted and lively, and do not demand one remember a set social script or scrutinized behaviour to interact. Possible wandering can be interpreted as strolling and others in the environment are less likely to judge their behaviour.

Given that living at home links the past with continued membership to a social network, the environment is another thread that can be designed as a stabilizer for a person with ADRD in an existence threatened by a wide range of losses (Blackman et al., 2003). Connecting the social and physical environments together reinforces the benefits of a well-designed urban setting to support the unique needs and abilities of those with dementia and their families (Davis et al., 2009).

Independence.

As a key principle, independence refers to the freedom of persons from the control of others, and their ability to make their own decisions. Since persons with dementia experience changing cognitive and emotional capacities, independence also means their capacity to act for themselves is supported and respected. A well-designed built environment can enhance independence, which in turn has an impact on quality of life factors such as confidence, health, and self-respect (Keating & Gaudet, 2012).

In the mild to moderate stages of dementia, individuals are still able to maintain their ability to cope and do things independently. Assistance is increasingly required over time until, and as capabilities decline and frailty increases, people experience a growing restriction of independence and lifestyle. The anxieties of a changing reality force people with ADRD, and their families, to make changes or feel worry they may not have considered before. Restrictions are frequently imposed by caregivers or others who fear that the person with dementia may be

injured if ‘allowed’ to act autonomously (Brittain, et al., 2010; Mitchell et al., 2003). These anxieties and restrictions can be a challenge when accessing the outdoor environment. One should note that these limitations are in part influenced by biomedicalised discourse about risk and surveillance, which still surrounds the daily activities for people with dementia (Brittain et al., 2010). That is not to suggest that these concerns are not real, but instead address the fact that the influences of this discourse can assist in changing perceptions and highlighting different approaches to caring for those with dementia.

For aging persons, retaining the ability to participate in activities that take place in outdoor public spaces is important, endowing them with a sense of freedom (Britain, et al., 2010). Allowing persons to enact their own interests and their own motives for activities enables them to have a personalized purpose. Purpose is an important part of one’s own self confidence and perceived competence (Brorsson et al., 2011). Continuing to do activities in public spaces by themselves, or with others, for as long as possible is important in maintaining a sense of self with activities and places (Brorsson, et al., 2011). Consequently, supporting independence to the extent possible through doing activities of daily living with persons with ADRD is better than doing things for them.

Impositions on independence often result in a sense of low self-esteem, social isolation, and loss of control over one’s own life, and identity, which can be devastating especially if combined with decreased activity outdoors – an activity associated with social and health benefits (Blackman et al., 2003; Mitchell et al., 2003). It is suggested that if people with dementia avoid the outdoor world, it is likely to contribute to a loss of autonomy and health status (ibid). The use of public spaces by those with ADRD demonstrates a form of resistance

whereby they can challenge dominant narratives and perceptions of old age that have traditionally excluded them from planning decisions. Balancing the rights and risks of people with dementia is necessary for enabling independence. However, this is problematic for formal carers, since the fear of litigation is central in the management of risk for people with ADRD (Brittain et al., 2010). Fear of risk as a concern for informal caregivers is more tied to safety and concern for their relative.

Therefore, to support the independence of those with dementia means constructing appropriate built environments, home-care supports and resources, as well as reducing barriers to participation in their local neighbourhoods through the use of historic landmarks, appropriate design materials, wide sidewalks and strategically placed urban furniture. Some examples of supports include physical features, such as hand rails, and behavioural cues in different spaces using familiar, traditional, and legible signage that indicate explicit purpose of the space.

Citizenship.

Being socially included helps people with dementia and their carers remain engaged in the civil decisions of their communities. Social inclusion promotes feelings of safety and comfort, as well as value for a particular group of people. Furthermore, citizenship and participation is important in relation to health promotion. Health promotion is defined as a process of enabling persons to improve their health, as well as increase their control over their well-being (WHO glossary, 1998). Consequently, the role of “participation is essential to sustain efforts [and actions]. People have to be at the centre of health promotion action and decision-making processes for them to be effective,” and that includes urban planning initiatives as built environments impact health (WHO glossary, 1998, p. 2).

Value for the voice of the people, including those with ADRD, plays a role in how citizens are engaged by their governments. Broadly speaking, citizenship involves duties, rights, and membership in a political community of some kind. Citizenship is a social contract between people and the state in which people consent to be ruled in exchange for certain privileges and protections (Purcell, 2003). However, from the theoretical perspective of this research (see page 13) the state need not be the only affiliation of citizenship, instead citizenship can be to a community. Citizenship does not only have to be expressed through national ties, but through inhabitation, and appropriation of space in which one lives, loves, works, and plays; this approach assumes local differences in the creation of space. Space is not considered to be a neutral, apolitical space, but is a product of political and historical contexts of society (Lefebvre, 1976). It is shaped by the people who use it every day, the people who oppose its physical form or purpose, and people in power who can change the rules of its use.

While the full extents of the revolutionary implications of Lefebvre's ideas are not explored in this thesis, nonetheless, his ideas allow for a valuable exploration of citizenship. Based on the right to the city, inhabitation of an area should provide one with the right to the use of all areas of a neighbourhood or city. Those who inhabit should have practical rights of a citizen enabling them to both the appropriation of space and participation in creating neighbourhoods. Appropriation refers to complete usage of urban spaces in one's every day to live, work and play, occupy, characterize, and represent, with the main focus being the use of a space (Lefebvre, 1976). Participation gives inhabitants of a neighbourhood the right to a central role in decision-making surrounding the production of urban space (Purcell, 2003). It confers on them a key voice, engaging to better understand their lived experiences, needs and wants.

According to the literature, persons with dementia have limited legal rights given their cognitive abilities, which do not extend to the degree presented by Lefebvre. However, persons with ADRD can be engaged in research through walking interviews, in-depth interviews, and virtual reality technologies to better understand their needs in urban public spaces. People with dementia may feel they have valuable contributions to make to the community and should be enabled to do so. An individual with mild or moderate dementia may still be strongly concerned with maintenance of a valued social role, as an engaged member of the community with as much need as any other citizen to collaborate on the use of land, street design or accessibility to public transport.

This requires us to view urbanism as a physical organization of coexistence which is exemplified by the social values of versatile collective spaces, and common, everyday civility (Gutierrez, 2011). Working with this perspective allows us to begin to integrate the needs and engagement of minority citizen groups into our physical urban landscape.

Summary

In conclusion, this thesis is based on the theoretical assumptions that persons with dementia have rights to environmental, spatial and social justice within a city. Furthermore, they are citizens who have the right to be included and to access their everyday environments, as well as contribute to the creation of public spaces. While there is a consensus that the environment contributes to a solution to the difficulties of living with dementia, there is also agreement that it should pose as little barrier as possible for persons with ADRD in their everyday lives.

Accessing and engaging with public spaces is important for not only physical health (staying active), but also for emotional and psychological health, since public spaces influence a person's

sense of self. Furthermore, by applying the concept of citizenship, we acknowledge how a place can be both politically and physically shaped by inhabitants.

This review highlights the principles in the literature regarding the design of dementia-friendly urban public spaces, such as familiarity, safety, inclusion, and legibility, which will positively change our environments. However, there are certain efforts that can enhance accessibility by combining the concepts of familiarity and comfort (Brorsson, et al., 2011). For example, within the literature there are strongly held beliefs that an appropriately-designed built environment can enhance autonomy, independence, encourage social interaction, and improve wayfinding among seniors with ADRD – all concepts that are supported by a comfortable and familiar environment (Keating & Gaudet, 2012). Furthermore, the symptoms of dementia such as memory loss, wandering, disorientation, and apraxia can be decreased through proper design solutions that make efforts to include familiar local elements and place value on people's comfort. Currently, senior isolation and exclusion are exacerbated by urban environmental and design barriers, but also affect senior engagement in planning and as valued citizens. If they are not considered to be active users of public spaces, they may be left out of the discussion and their contributions not asked for. A sense of disregard can lead to people not feeling comfortable sharing in the planning process.

Drawing on the principles and design features identified in the literature for designing dementia-friendly communities, an analysis of policy was conducted. Design features within policy included: sidewalks, accessibility to public transportation, urban furniture, parks, signage, and connectivity, lighting and mixed land use. These features, given their context, may be

indicative of a principal theme of dementia-friendliness. See Table 1 for the key principles and the design features potentially indicative of their presence in policy.

Guided by these concepts, an inquiry into BC policy documents aimed at if, and how, the principles are recognized and developed in policy documents; if the potential design feature indicators from Table 1 are mentioned; if and how persons with dementia are encouraged to be involved in planning; if there is mention of citizenship; and how comprehensive and applicable the policies and guidelines are for planners. During interviews, participants were asked questions to better understand government's perspective and approach to dementia-friendly communities and design. Regarding the concrete applicability of dementia-friendly approaches, questions covered barriers, resources, opportunities and considerations of policy-makers and planners regarding dementia-friendly design.

Chapter 4: Methods

This thesis was conducted using multiple methods: a content analysis of government policy, as well as interviews with municipal decision-makers and planners. The interviews are contextualized in the broader findings from policy in British Columbia. The use of multiple methods represents an attempt to study and contextualize dementia-friendly design (Johnson & Turner, 2003).

Many studies already engage with those with dementia. While future studies are needed to continue to develop the connections between outdoor spaces and dementia, there is a larger gap in the literature regarding the perspective of government on creating dementia-friendly spaces. Consequently, this research aimed to understand the point of view of government decision makers and planners regarding the creation of dementia-friendly public spaces.

As this research explores how to improve the dementia-friendliness of urban public spaces, the researcher draws on a critical framework. In particular, it draws on the theoretical works of critical urban theorist Henri Lefebvre, influenced by a heteroclitic reading of Marx, as well as by the writings of Nietzsche. Lefebvre's approach is "more a sensibility," that lends itself to a complex discussion, such as that of urban design (Lefebvre, 1996). Lefebvre does not offer a clear theory (he can be quite vague and obscure); rather his discussion stimulates the readers to develop their thoughts on his linkages between time, space, rhythm, and citizenship. His open approach links theory and practice, and reveals the continual movement between concepts and terms. The researcher felt this mirrored a fluidity and complexity similar to that of urban planning discipline. Furthermore, drawing on the concept of citizenship, also from Lefebvre, the

findings were judged in terms of their potential effects on political engagement of people with dementia in creating public spaces (See Chapter 2).

Part I: Analysis of policy documents

To assist in the critical analysis, the researcher used the principles derived from the literature (Table 1) to guide her policy analysis and thereby comment on the depth of consideration given to dementia-friendly design principles in policy. A documentary analysis of existing policies was conducted to understand their substantive content. In keeping with the critical framework, during evaluation, the researcher addressed whether the themes were mentioned at all, or if they were mentioned in connection with public spaces specifically. These principles also informed the interviews with policy makers regarding barriers, opportunities to implementing the identified principles and the concept of citizenship. In the final stage of data analysis, the researcher compared the findings from the interviews and the policies. The researcher looked for evidence of, and absence of, the key principles or if they were enacted using the design features of the key principles.

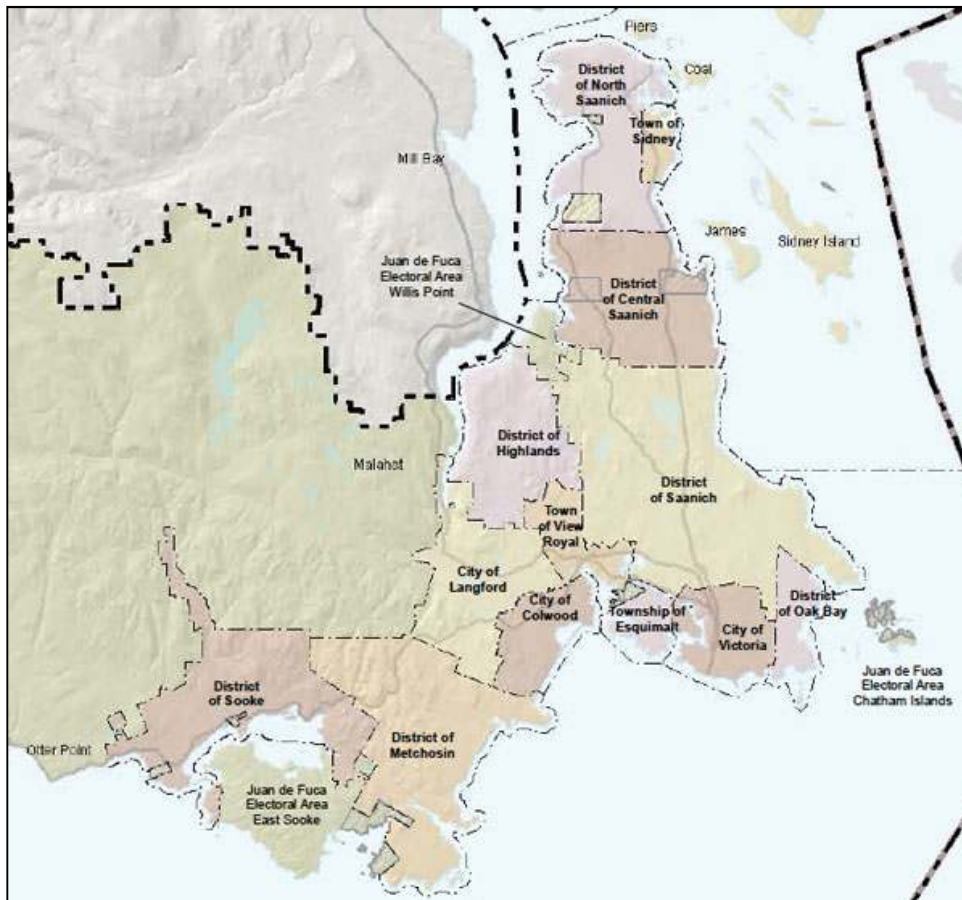
Inclusionary criteria for municipalities.

The municipalities were selected from the Greater Vancouver Regional District and the Capital Regional District, the two largest regional districts (BC Stats, 2013). See Figure two and Figure three on the next page for maps of these regions. They are currently estimated at having populations of 2,443,744 and 376,422 respectively and representing 61.55% of the total BC population (BC Stats, 2013). Municipalities were the only focus of this study as they are the level of government with primary legislative, financial and implementation responsibility for planning initiatives.

Figure 2. Map of Greater Vancouver Regional District



Figure 3. Map of Capital Regional District



To be included in the study, each municipality had to satisfy the requirements of Statistics Canada's definition of a population centre, formally known as an 'urban area'. The term 'urban area' was discontinued in the 2011 census and replaced with the term 'population centre' (POPCTR). This study uses the term population centres and municipalities to refer to the areas researched for the study to be consistent with current definitions in policy. Population centres are used since the researcher is not exploring rural areas in the study.

A POPCTR has a population of at least 1,000 and a population density of 400 persons or more per square kilometre, based on the current census population count. All areas outside population centres are classified as rural areas. This was especially important when including district municipalities (DM) as they often have very low densification (see Table 3 for inclusion justification of DM in this research). Taken together, population centres and rural areas cover all of Canada.

Population centres are classified into three groups, depending on the size of their population:

- small population centres, with a population between 1,000 and 29,999
- medium population centres, with a population between 30,000 and 99,999
- large urban population centres, with a population of 100,000 or more.

Given the above definition, the following table illustrates the municipalities included in the study. Municipalities are categorized as district municipalities (DM), cities (C), towns (T), village (VL), island municipalities (IM) or regional district unincorporated area (RDR).

Table 2: Municipalities in BC

Municipality	Designation [1]	Population Est. 2013 [2]	Included in Study? [3]	Reason for exclusion [4]
Capital Regional District		370,912		
Central Saanich	DM	15,817	Excluded from Study	Population density, 385.6 ppl/km ² , is below the 440ppl/m ² threshold.
Colwood	C	16,405	Included in Study	
Esquimalt	DM	16,389	Included in Study	
Highlands	DM	2,186	Excluded from Study	Population density, 55.7 ppl/km ² , is below the 440ppl/m ² threshold.
Langford	C	32,834	Included in Study	
Metchosin	DM	5,130	Excluded from Study	Population density, 67.6 ppl/km ² , is below the 440ppl/m ² threshold.
North Saanich	DM	10,973	Excluded from Study	Population density, 297.7 ppl/km ² , is below the 440ppl/m ² threshold.
Oak Bay	DM	17,657	Included in Study	
Saanich	DM	110,879	Included in Study	
Sidney	T	11,191	Included in Study	
Sooke	DM	12,363	Excluded from Study	Population density, 201.6 ppl/km ² , is below the 440ppl/m ² threshold.
Victoria	C	82,959	Included in Study	
View Royal	T	10,858	Included in Study	
Unincorporated Areas	RDR	25,271	Excluded from Study	Not a formal municipality.
Greater Vancouver District		2,451,783		
Anmore	VL	2,235	Excluded from Study	Population density, 74.1 ppl/km ² , is below the 440ppl/m ² threshold.
Belcarra	VL	633	Excluded from Study	Population, 633, is below the 1,000 population threshold.
Bowen Island	IM	3,475	Excluded from Study	Population density, 67.9 ppl/km ² , is below the 440ppl/m ² threshold.
Burnaby	C	234,559	Included in Study	
Coquitlam	C	138,722	Included in Study	
Delta	DM	101,910	Included in Study	
Langley, City of	C	26,301	Included in Study	
Langley, District Municipality	DM	112,440	Excluded from Study	Population density, 338.2 ppl/km ² , is below the 440ppl/m ² threshold.
Lions Bay	VL	1,353	Included in Study	
Maple Ridge	DM	79,142	Excluded from Study	Population density, 285.1 ppl/km ² , is below the 440ppl/m ² threshold.
New Westminster	C	68,280	Included in Study	
North Vancouver, City of	C	50,918	Included in Study	
North Vancouver, District Municipality	DM	87,342	Included in Study	
Pitt Meadows	C	18,648	Included in Study	
Port Coquitlam	C	59,060	Included in Study	
Port Moody	C	34,479	Included in Study	
Richmond	C	201,303	Included in Study	
Surrey	C	504,661	Included in Study	
Vancouver	C	640,915	Included in Study	
West Vancouver	DM	42,032	Included in Study	
White Rock	C	19,248	Included in Study	
Unincorporated Areas	RDR	24,127	Excluded from Study	Not a formal municipality.
Notes:				
[1] Legend from BC Statistics: DM - District Municipality; C - City; T - Town; RDR - Regional District Unincorporated Area; VL - Village; IM - Island Municipality				
[2] All municipalities with a population greater than 1,000 and a population density greater than 400 ppl/km ² are included in the study.				
[3] BC Statistics. (2014, January 31). 2013 Sub-Provincial Population Estimates. Retrieved from http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx				
[4] Statistics Canada. (2012, October 24). 2011 Census Profile. Retrieved from http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E				

Given the inclusion criteria for municipalities shown in Table 2, 24 of the 36 municipalities were selected for the study.

Inclusionary criteria for policy.

Policies included in this study are dementia, aging, or urban planning related, publicly available, written in English, and published since 2002. Furthermore, municipal policy is the main focus as urban planning falls within this jurisdiction. Municipal level government addresses local community planning, policies and programs. Focusing on the ‘neighbourhood’ as the stage for the conversation on dementia and the built environment is appropriate not only on a political level, but also on a personal level to address community inclusion of those with dementia (Keady et al., 2012).

Publically available documents were collected from the municipal websites. Only official documents, surveys and reports were used. Agenda and committee minutes were not included because the content may not have made its way into official policy or to the planning department. Searches were conducted using the words “health, policy, dementia-friendly, age-friendly, and urban planning” on the municipal websites, as well as manually searching the planning and development pages of the municipal websites.

Selected documents.

Dementia-friendly policy enacts efforts that allow people the flexibility and ability to carry on living in their community with changing abilities (Burton & Mitchell, 2006). This research included current, publically available dementia-friendly policy, Official Community Plans (OCP), and age-friendly policies from BC urban municipalities. Given that the only consistent policy between the communities was the OCP, this was used as a basis of comparison across the communities, as the most comprehensive, planning related document that was produced by every municipality. The OCP provides goals and policies about public spaces,

parks, and urban design. It is a legal community planning document used in the management of a city's economic, social, land use, urban design, transportation, servicing and environmental future (Richmond OCP). It contains "visions, goals, objectives, policies, guidelines and land use designations that reflect overall community values that have been determined through a public consultation process" (Richmond OCP, p. vii). It is important to note that Vancouver uses a different OCP structure. Vancouver has multiple 'local area plans'. These plans "provide long term guidance and direction for land use and service planning on a variety of topics, including social amenities, health, livelihoods, community wellbeing, land use, urban design, housing, transportation, parks and public spaces, cultural infrastructure, heritage features and community facilities" (Downtown Eastside Local Area Plan, p.19). Consequently, it is comparable to an OCP.

Publically available policy, official survey reports informing policy relating to urban planning, age-friendliness, and dementia-friendliness policy documents were also included when possible. Grant applications were not included because grants were for one time projects.

Within the parameters of this study, policy was defined as a principled guide to action taken by administrative branches of government on issues relevant to their citizens. Policy is an important aspect to address, as it sanctions planning and design of urban spaces (Gutierrez, 2011). Questions to be answered from this analysis, based on the identification of key principles, included the following:

1. Is there a place to put dementia-friendly design policy within age-friendly policy?
2. What are planner's attitudes, perspectives and concerns regarding dementia-friendly design?

3. If a general, umbrella policy is found are there grounds to suggest that there is a need to address dementia-friendly principles more specifically within this broader policy?

A total of 51 documents were included in the study. The documents were separated into three categories: Official Community Plans (n = 29³), Age-friendly documents (n =11), and other relevant documents (n =11). Please see Appendix II for the full list of titles.

Content analysis.

A content analysis was conducted on the policies, a technique that allows the researcher to make inferences from the texts and compare the content of the policies to the academic literature (Krippendorff, 2012). The number of occurrences of a reference was recorded, as well as the length of the statements, and the operationalization of the principles. Using this technique allowed the researcher to explore the texts “systematically,” and was selected because of its usefulness in organizing complex documents (Krippendorff, 2012, p.22). This empirically grounded method provided an account of what messages are contained within the written instructions of organizational structures that later influence choices made about planning. This exploratory process using content analysis produced a quantitative description of the content of the documents using objective and systematic counting and recording strategies (Neuman & Robson, 2009). For example, counting the number of times a politician says the word ‘vote’ when speaking at a political rally. This systematic coding procedure enabled the researcher to compare, analyse, and reveal themes, topics, values, and operationalizations in documents serving as a medium of communication for government action or government policy direction (Neuman & Robson, 2009).

³ Since Vancouver does not have one OCP, the representation of Vancouver community plan was comprised of 5 randomly selected smaller community plans within the Vancouver municipality. See page 54.

However, it is also important to note that the “generalizations that researchers make on the basis of content analysis are limited to the cultural communication itself” and “content analysis cannot determine the truthfulness of an assertion” (Neuman & Robson, 2009, p.221). This means that any findings from the analysis are limited to the context of BC municipal political documents in planning, and furthermore, the analysis cannot determine whether its findings are truly being acted upon in the municipality. For example, in Quebec the government presented an action plan developed by a panel of experts called *Relever le défi de la maladie d’Alzheimer et des maladies apparentées*⁴ (2009) (Dudgeon, 2012). It had announced that it would be implementing recommendations from the widely hailed plan, but as of 2011 it has yet to be resourced (ibid).

Version 10 of NVivo research software was used to locate key words, ideas and phrases to better understand what is currently included in the documents. Using this program allowed the researcher to be thorough in her investigation of the documents. Words and phrases, based on the literature review, from Table I were used to understand the data. NVivo analysis of the documents was conducted using word frequencies, text queries, cluster analysis, charts and manifest and latent coding by the researcher. The manifest and latent coding was conducted by reading the broad context of the identified phrases and words from the frequencies and queries.

Part II: Interviews

In-depth interviews with policy makers and planners explore what principles they consider to be a part of dementia-friendly communities as well as how they see their role in the creation of these urban public spaces. Interviews permit the researcher to have an undiluted focus on the

⁴ The Challenge of Alzheimer’s disease and related disorders

participants to hear their perspective on the urban public spaces that they have helped create. The added insight from decision-making municipal planners and policy makers illuminated the complexity, detail and context that was not evident in the documentary analysis. The interviews are also informed by Lefebvre's linking of theory and practice, the linking of their experiences of the reality of urban planning with the experience and ideas in policy and the literature.

The majority of studies included in the literature review were based on the views and observations of those with dementia and their families. However, in answering the question "what are urban municipal perspectives on/understandings of creating dementia-friendly urban public spaces in British Columbia" it is important to consider the wide range of municipal planners, policy makers and consultants that inform urban planning policy. In speaking with these government municipal planners and policy makers, one can begin to understand their perspective of the principles outlined in the literature by people with dementia. These key policy players include architects, urban designers/planners, engineers, private developers, and government policy-makers (both municipal and provincial) (Burton & Mitchell, 2006). With these municipal planners and policy makers one can discuss the factors required to implement the design aspects people with dementia need to feel safe and empowered in their communities from their perspective.

Interview sampling.

A stratified sampling technique was used to select participants based on specific criteria associated with the research question (see below). Interviews were conducted with municipal level policy makers, and planners, in the urban planning departments in B.C.'s two most populous regional districts. The potential interviewees were selected based on information posted

on government websites of the included municipalities as well as by calls made by the researcher to the municipal planning departments.

Individuals were selected based on the following stratified sampling design. The 24 municipalities selected from the regional districts that fit the POPCTR definition were divided into equal categories of large, medium, and small based on population. In each size category, the municipalities were divided based on the age mix of the population, ‘more seniors’ or ‘less seniors’ based on average of adults age 65+ in British Columbia. Then the municipalities were separated into those that have age-friendly policies and those that do not have age-friendly policies. These categories were identified using BC Age-friendly designation as well as whether they have specific age-friendly policy documents. The sample evolved naturally as data were being collected. Thirteen individuals were interviewed, which suggests is within the range (2 to 25) sufficient to reach saturation for a qualitative study (Creswell, 2007). The sample size depended on the researcher’s ability to gain access to eligible participants.

Table 3: Stratified Sample Design and Interviewed Municipalities

Municipality size by population	Small (1,000 - 29,999) (9 municipalities)				Medium (30,000 - 99,999) (8 municipalities)				Large (100,000 +) (7 municipalities)			
	More Seniors		Less Seniors		More Seniors		Less Seniors		More Seniors		Less Seniors	
Age-friendly Policy	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Participants in Study	White Rock	Langley, City of	Sidney	View Royal	West Vancouver	Victoria	New Westminster	Langford	Saanich	—	Burnaby	Richmond

Inclusion criteria for interviewees.

The eligibility criteria for participants were as follows. Each participant had to be an employee of a municipal government that works with the planning department in a policy or project capacity. They were required to have:

- At least two years of experience in the policy or planning department
- Speak proficient English
- Work for a municipality in the aforementioned regional districts

Participants were recruited through phone calls and emails. Once municipalities were stratified, if an urban planner for a given municipality was not available to speak with the researcher, a social planner for the community was contacted. Interviews were always sought first with the urban planner, and secondly with the social planner in the community. Social planners are decision-makers who attempt to achieve the best results, and social benefits, for the citizens in their community.

Interviews.

Interviews with municipal planners were conducted to gain insight into how they perceive the issue of dementia-friendly environments, and how their comments fit with theory, the principles, and content of policy. These connections between policy and participants were evaluated and critiqued based on the principles from the literature, and then used to then generate suggestions for enacting change for the benefit of those with dementia. These interviews were exploratory, open-ended in nature, and followed a question guide to ensure the conversation stayed on the general subject of ‘dementia-friendly’ spaces. The interview questions are found in Appendix III.

A total of 11 interviews were conducted with 13 participants. Of the 11 interviews, two were group interviews involving two participants from the municipality. All interviews were digitally recorded (with permission) either in person (n =7) or by phone (n =4). According to the literature on ‘similarity of responses,’ the difference in data quality between face-to-face and telephone interviews is quite small (Bowling, 2005). The two methods also result in small differences in the amount of information provided (not the researcher’s experience – all but one person interviewed by phone spoke for more than 45 minutes), and there is little evidence of acquiescence (agreement) bias operating more with phone or face-to-face interviews (ibid).

Afterwards the interviews were transcribed and summarized using the words of participants. The interview recordings were transcribed, summarized (e.g. without “ums,” “ahhs,” etc.), using participant’s words directly into MS Word and analysed in the program. In addition, goals and values sections from the OCP were inserted where planners referred the researcher to the OCP regarding the principles and goals that guide their work. A summarized transcript was provided to the participants to allow them to focus on what they said, not their pauses, or ‘ums’. The interviews spanned from a range of 38 to 84 minutes.

Confidentiality was respected and the researcher did not share any of the information provided during the study with anyone, except those working on the research project, specifically Dr. Joan Wharf-Higgins and Dr. Neena Chappell, the researcher’s supervisors. The researcher did not share the identities of people she met, saw or spoke to regarding the interviews, with anyone outside of the project.

The participants were not anonymous from the researcher, as their names and contact information are public knowledge and posted on municipal government websites. The researcher

included identifying information in association with participant quotes by way of pseudonyms. The researcher did not include participants' initials or names to comply with their consent forms. See consent form in Appendix III.

Consistent comparative method of qualitative analysis.

A consistent comparative analysis, using analytic strategies from grounded theory was employed to conduct the analysis of the interviews. The analysis addressed the perceptions that urban planners had of dementia-friendly design and planning, as well as their inclusion of principles derived from the literature. It was used to identify patterned meaning in the dataset through familiarisation with the data, data coding, and theme development.

This form of qualitative data analysis is iterative and the procedure takes place during and after the data collection. Continuous review and theme emergence within the data makes the process reflective and rich (Jaffe & Miller, 1994). The data underwent multiple rounds of coding. To aid the researcher, the key principles were colour coded throughout the content coding process, and framed from the specific perspective outlined in Chapter 2. In addition to colour, italics, bolding and bullets were used to differentiate and organize the text by context. A first round of coding to highlight principles found in the literature and to explore if these concepts were represented in the interviews, while a second round of coding addressed any new subjects that arose from the participants themselves. The transcribed documents were coded into categories that store similar data in one place and complement the coding from the literature review. This grouping of similarities, noting differences, permitted the researcher to identify any new information emerging from the data.

Findings were developed based on a consideration of key principles (see Table 1) and from the presumed importance of citizenship, health, dementia, and the social model of disability and the principles identified in Chapter 3. The goal is confirmation and elucidation of municipal government perspectives on creating effective dementia-friendly public spaces that will improve quality of life for their citizens with dementia, rather than a discovery of new key principles.

Rigor: Validity, and representativeness

Trustworthiness (rigor) is an important aspect of qualitative research, especially given the goal of being able to present conclusions and recommendations that decision-makers and planners can interpret as legitimate (Schwandt, Lincoln, & Guba, 2007). The criteria for trustworthiness are: credibility, transferability, dependability, accuracy (ibid). These criteria were addressed in a range of ways. For example, the interview data was subject to the technique of member checking (respondent validation). Member checking was conducted by providing all participants the opportunity to read over and make alterations to their transcripts using the track changes feature in MS Word. This was done to: a) verify any errors in the transcription, b) challenge or clarify any statements participants made, and c) reinforce equal collaboration between researcher and participants. Of the 13 participants, 8 participants from 6 interviews chose to send the researcher changes to their transcripts.

Summarized transcripts were returned to participants and any modifications necessary were completed as a result of this check. Furthermore, the credibility of the data was addressed by triangulation, the cross-checking of data using different sources, as well as peer debriefing (ibid). The researcher debriefed with her supervisors regarding particularly challenging interviews, as a form of catharsis, and as to become aware of her position towards the data.

Influenced by grounded theory strategies, the researcher also wrote memos after each interview to record her perceptions, feelings and attitudes towards the data and participants. This was a way to uncover any assumptions on the part of the researcher. This also added to the richness of the researcher's reflection on her work. Through contextualizing the study in detail, one is able to improve transferability (ibid). Furthermore, a level of self-reflection was conducted to ensure that others are not diminished by the process and recommendations of this thesis (ibid).

The validity of the results has been ensured through the use of appropriate qualitative research criteria. Together the following criteria guarantee findings accurately describe the experiences of the persons interviewed. The criteria below are outlined in Creswell (2007):

1. The findings are a credible interpretation of participant meanings. To ensure credibility, participants were invited to check their transcripts, and the researcher uses their words to illustrate her interpretations.
2. The research is authentic. To ensure authenticity, a broad range of participant experiences are reflected in the analysis, and not only those that support the researcher's interests. This means that both reoccurring opinions and deviant cases will be explored.
3. The researcher is self-critical and reflexive. To ensure reflexivity, the researcher maintained a journal in which she wrote memos about her experience, thoughts and reactions during the data collection and analysis process. This was done to increase awareness of what perceptions and understandings she brings to the research and how they influence her research.

In qualitative research, including multiple perspectives and personal experiences to the data increases the representativeness of the information. Representativeness was ensured through

digitally recording each interview and transcribing using participant's own words (and member-checking) to provide a reliable representation of the interviews conducted. Inter-coder reliability was difficult to ensure as the researcher was the only one coding the transcripts; however, the iterative process of analysis assisted the researcher in developing consistent codes and themes.

Ethics

This research proposal received full ethics approval (number 14-002) from the University of Victoria Human Research Ethics Board on January 17, 2014. Participants of this research reviewed the informed consent form and were given the opportunity to ask questions prior to the interview. The participant consent form is included in Appendix III.

Chapter 5: Results

The following chapter documents the results of this research. It is divided into two main sections, documents and interviews. The documents section includes word frequencies, findings regarding the key principles, as well as findings regarding the inclusion of dementia specifically. The interview section includes a description of interview participants, interview themes and subthemes, and highlights what planners said that was not revealed by the documents included in the research.

Documents

Content analysis involved an assessment of a document in objective and quantitative terms to help contextualize participant perspectives (Neuman & Robson, 2009). The content, values, and principles that exist within the documents represent the structure of the municipal government's approach to planning. Fifty-one documents were searched for this study. For each principle, the researcher constructed a list of possible design features (words and phrases), but often had to rely on her reading of the policy to assess if the word was being used in the body of the text or simply as document header, or title. While content analysis cannot uncover the intentions of the persons who created the policy documents, given that these documents present guidelines for planners and decision-makers we can infer that there may be effects of the messages, or lack thereof, on the practice of those municipal employees.

The analysis of the documents was conducted focusing on specific topics – dementia, and urban planning– as well as the eight key principles identified in the literature. To begin the analysis a ‘general word frequency’ of the documents was conducted using the NVivo program.

General word frequencies.

The word frequencies are objective counts of the words in the documents; consequently they do not illustrate the context of the words in question.

Table 4. Top 30 most frequent words in age-friendly documents

Frequency	Word	Count	Similar Words
1	seniors'	1035	senior, seniors, seniors', seniors'
2	older	843	older
3	servicing	745	service, services, servicing
4	community	663	communicate, communicating, communication, communications, communities, communities', community, community'
5	adult'	614	adult, adult', adults, adults'
6	aging	569	age, aged, ageing, ages, aging, aging'
7	responding	536	respond, respondent, respondents, respondents', responding, responds
8	city	385	cities, city
9	Burnaby	374	Burnaby
10	housing	374	house, housed, houses, housing
11	programs	326	program, programmed, programming, programs
12	plans	320	plan, plan', planned, planning, plans
13	needs	294	need, needed, needing, needs
14	living	278	live, live', lived, lives, living, living'
15	provide	272	provide, provided, provider, providers, provides, providing
16	health	271	health
17	activity	269	activate, active, active', actively, activities, activity
18	survey	269	survey, surveyed, surveying, surveys
19	engagement	263	engage, engaged, engagement, engages, engaging
20	informed	261	inform, informal, informant, information, informational, informed, informing, informs
21	support	253	support, supported, supporting, supportive, supports
22	friends	253	friend, friendly, friends
23	access	245	access, accesses, accessibility, accessible, accessing
24	using	224	use, used, useful, uses, using
25	homes	218	home, homes
26	including	218	include, included, includes, including
27	participation	207	participant, participants, participants', participate, participated, participates, participating, participation
28	55	201	#55, 55
29	years	198	year, years
30	group	194	group, grouped, groups, groups'

Table 5. Top 30 most frequent words in Official Community Plans

Frequency	Word	Count	Similar Words
1	areas'	13163	area, area', areas, areas'
2	develops	12576	develop, developable, developed, developed', development, developer, developers, developers', developing, development, development', developments, develops
3	community'	11582	commun, communal, communally, communicate, communicated, communicates, communicating, communication, communications, communities, community, community', community's major
4	Plans	11576	plan, plan', planned, planning, plans
5	Using	9483	use, use', used, useful, usefulness, uses, using
6	City	9181	citi, cities, city
7	Builds	7780	build, building, building', buildings, builds
8	design'	6511	design, design', designate, designated, designates, designating, designation, designations, designed, designers, designing, designs
9	Parks	6008	park, park', parked, parking, parking', parks, parks'
10	providing	5662	provid, provide, provided, providence, provider, providers, provides, providing
11	street'	5481	street, street', streets, streets'
12	lands'	5385	land, landed, landing, landings, lands, lands'
13	Policy	5122	policies, policy
14	housing'	5042	hous, house, house', housed, houses, houses', housing, housing'
15	centre'	5036	centre, centre', centred, centres, centres'
16	Public	4908	public, publically, publication, publications, publicity, publicize, publicized, publicly
17	including	4767	includ, include, included, includes, including
18	Spacing	4311	space, spaced, spaces, spaces', spacing
19	residential	4239	residential, residentially
20	Services	4010	service, serviceability, serviceable, serviced, services, servicing
21	New	3858	new
22	neighbourhoods	3851	neighbourhood, neighbourhood', neighbourhoods
23	commercially	3765	commerci, commercial, commercialization, commercialized, commercially
24	Siting	3743	site, site', sited, sites, sites', sites'in, siting
25	Support	3567	support, supported, supported', supporter, supporters, supporting, supportive, supports
26	permitting	3407	permit, permits, permitted, permitting
27	accessing	3145	access, accessed, accesses, accessibility, accessible, accessing
28	Locals	3084	local, localities, localized, localizing, locally, locals
29	Regions	2925	region, regional, regional', regionalizing, regionally, regions, regions'
30	Within	2853	within

Table 6. Top 30 most frequent words in related documents

Frequency	Word	Count	Similar Words
1	community	1341	communicate, communicated, communicates, communicating, communication, communications, communicators, communities, community
2	city	1189	cities, city
3	plans	794	plan, planned, planning, plans
4	services	711	service, serviced, services, servicing
5	developments	682	develop, developed, developer, developers, developing, development, developments, develops
6	provide	628	provide, provided, providence, provider, providers, provides, providing
7	social	626	social, social', socializing, socially
8	Burnaby	621	Burnaby
9	responsibility	618	response, responses, responsibilities, responsibility, responsible, responsive, responsiveness
10	accessible	572	access, accessed, accessibility, accessible, accessing
11	housing	538	house, houses, housing
12	engaging	533	engage, engaged, engagement, engages, engaging
13	using	478	use, used, useful, uses, using
14	support	474	support, supported, supporter, supporting, supportive, supports
15	public	459	public, publication, publications, publicize, publicizing, publicly
16	informs	417	inform, informal, informally, informant, informants, information, informational, informative, informed, informing, informs
17	design	393	design, designate, designated, designates, designation, designations, designed, designer, designers, designing, designs
18	including	389	include, included, includes, including
19	issues	387	issue, issued, issues
20	programs	380	program, programmed, programming, programs
21	areas	371	area, areas
22	Langley	363	Langley, Langley's
23	participation	354	participant, participants, participants', participate, participated, participates, participating, participation
24	processing	333	process, processed, processes, processing
25	builds	330	build, building, buildings, builds
26	mm	308	mm
27	needs	301	need, needed, needs
28	works	297	work, worked, working, works
29	health	290	health
30	councils	289	council, councils

Urban planning and design.

The legislation in BC states that every community is required to have an OCP; a high level document that is reviewed approximately every 10 years, and that relays the community's goals, principles, values, and then provides the broad guidelines for achieving those objectives. The OCP is the large document that filters down into other pieces that "should really heavily impact the type of development you are seeing, the set standards and principles we are standing up to" according to LR (New West). The OCP is a "land use and policy document that guides planning and decision-making, and drives the planning process" according to LT (Langford). The importance of this document was evident at the interviews, since planners brought their OCP unprompted to 6 out of 11 interviews.

While the OCP contains the key principles guiding planning, a query was conducted to determine when there was a mention of urban planning principles in all 51 documents searched. The search was conducted using the following terms "'design principles" OR "built environment principles" OR "design features" OR "built environment features" OR "urban design" or "urban planning"' to see how the policies mentioned urban planning or design principles. Only 33 documents contained these terms. To have a better understanding of the context of the results the researcher verified the computerized search by reading the contexts of the terms located by the NVivo program.

The Pitt Meadows Accessibility Guide states that historically, "while not the rule in landscape architecture and urban planning, traditional architectural praxis has often assumed that form-making is an autonomous act that is divorced from social responsibility, civic engagement, and environmental stewardship" (p. 77). This quote shows the progression of the

attitude towards development and planning as approaches in current OCPs that explicitly focus on community consultation, accessibility, inclusion, and sustainability (a broad term address later on). Currently policy highlights *thoughtful, consistent, well-scaled* urban design as a powerful tool to improve the quality of life for community members as well as enhance the attractiveness of a community (a point that is associated with more jobs, more investment and increased residency in an area). This terminology begins to appear in documents that have been either written or amended within the last two and a half decades.

The search also revealed that the key tools that the City has to influence planning, engineering and design are “zoning, development permits, design guidelines and other municipal bylaws” (New Westminster Community Plan, p. 107). Municipalities also consider themselves active in influencing urban design through regulatory roles. OCPs make mention of examples such as crime prevention through design, which involved strategic door and window placement, improved lighting, additional security cameras, and panic buttons.

While many of the key words used in this search were also used as labels, in definitions, section titles, and in relation to development permits, the most common design terms were those of ‘universal design’ or ‘adaptable design standards’ which refer to designs that accommodate a range of mobility challenges that affect people throughout the life course, emphasizing inclusion and ‘fit’ in the neighbourhood for all. It is a design feature that is good for everyone no matter their particular needs. Universal design values were outlined as design strategies that place societal needs at their core, such as physical disability.

Those communities with social plans were all more likely to directly address health (n =12), for example Burnaby, with its Social and Sustainability Plan for example Burnaby, with its

Social and Sustainability Plan, identified physical activity, healthy eating, clean air and provision of high-quality water as important areas of focus for design to improve the health of community members, and mention designing for all segments of the population, making note of seniors and persons with disabilities. Furthermore, the Social and Sustainability Plan looked to promote urban design with ‘character’ which has been identified as “public art iconic architecture, water features, playful sidewalk patterns and inscriptions, floral displays, historical monuments” (p. 65). Their working group was also guided by the theme of an age-friendly city with the specific topics of “mobility for all,” “urban design,” “age-specific participation” and “social connections”. They also worked with topics such as “participation in community life,” “multi-use public spaces,” and “public safety and security” and “community cohesion” that are relevant to the principles, such as safety, inclusion, accessibility, guiding this study. Most other policies reflect the topics that encourage physical movement, and improve the attractiveness, pedestrian environment, and livability of an area.

Urban design principles are also mentioned in association with preserving green spaces and public parks. Some of those principles for Environmentally Sensitive Areas (ESA) are beneficial for the principles of this study. For example, planting native materials and preserving parklands would be related to the key principle of familiarity as they would be maintaining continuity from the past – of the way the land used to look and of plants that are common to the area and have likely been growing there for decades. This also foreshadows the connection that planners make between health and environmental sustainability in their interviews.

Further to the principles identified in the literature review, the frequency of mentions of the principles and their design features⁵ follows:

1. Familiarity – mentioned 1330 times in 38 sources
2. Comfort – mentioned 520 times in 34 sources
3. Distinctiveness - mentioned 1149 times in 37 documents

When discussing local contexts and distinctive design principles, an interesting result was that Port Moody’s OCP was the only one that looked to integrate a “West Coast sensibility (consideration of the natural aspects of light, air, mountains, and water) in urban design” (p. 88). Another example of integrating local character and familiarity was identified in the Coquitlam OCP document. Their policy objectives include “an urban design approach that respects existing community character, and allows for unique neighbourhood identity...” (p. 4-3).

4. Geographical accessibility – mentioned 2330 times in 45 sources
5. Safety – mentioned 596 times in 43 sources
6. Inclusiveness – mentioned 524 times in 43 sources
7. Independence – mentioned 286 times in 40 sources
8. Citizenship – see following section

The term ‘urban design’ was also located in the titles of contributors to the documents. These contributors are architectural firms, planning companies, non-profits, and other stakeholders.

⁵ See Table 1

Citizenship.

The North Vancouver District OCP (2011) included a very powerful statement relating broadly to citizen control through the inclusionary notion of ‘sense of place’ — “A centre cannot be said to have a sense of place unless people care deeply about it and think of it as ‘theirs’” (North Vancouver District, p. 2002). Notably, in the Langley Social Plan, community service groups are charged with the primary responsibility to implement public education of social service issues (including support for vulnerable populations to access info and services, public awareness of existing program and services): “community group activities around social and urban planning initiatives; networking and information sharing; mobilization and engagement...ongoing public awareness and advocacy”.

However, often the engagement or contribution to the document was mentioned in relation to the local architects, as well as planning, research and architectural consultants and private firms. In the case of seniors, when a search for content relating to “senior citizenship,” “senior engagement,” “senior advocacy,” and “senior citizen” was conducted, only 10 references resulted.

The following is a table modeled on Arnstein’s Ladder of Citizen Participation (1969) to better organize and visualize the language of citizenship and engagement used in the policy documents. Arnstein outlines the degrees of participation in civil decisions from non-participation to citizen power. The distinction in engagement and language describing citizen inclusion in planning and policy is important since the role of meaningful “participation is essential to sustain efforts [and actions]. People have to be at the centre of health promotion action and decision-making processes for them to be effective,” and that includes urban planning

initiatives as built environments impact health (WHO glossary, 1998, p. 2). Furthermore, the following table provides a comparison of the level of engagement solicited from the general public versus how planners view including persons with dementia in the civil decision-making process (see Chapter 5, interview section).

Table 7: Analysis using Arnstein's Ladder of Citizen Participation as applied to policy documents

Ladder of Citizen Participation with Word Frequencies				
Degrees of...	Type of Engagement	Description	Coding in Policy Analysis	Word Frequency in Policy
Citizen Power	Citizen Control	Citizens can govern a program or project in full charge of policy and managerial power; able to negotiate; composed of community leaders	"citizen control" OR "citizen governance" OR "community leadership" OR "citizen leadership" OR "community leader" OR "community decision" OR "community governance"	15 references in 9 documents
	Delegated Power	Dominant decision-making by citizens; full managerial power exists in their hands on policy boards; assure accountability	"citizen decision making" OR "community decision making" OR "citizen policy board" OR "community policy" OR "civic engagement"	227 references in 16 documents
	Partnership	Power redistribution through negotiation and trade-offs with 'powerholders'; ie. Joint policy boards, planning committees and with organized power-base in the community; citizen veto power	"joint policy board" OR "planning committees" OR "citizen veto" OR "community based partnership" OR "participating in community development" OR "community collaboration"	7 references in 4 documents
	Placation	Citizens advise, but not power to make decisions and receiving superficial information; ie. advisory committee; ie. Placement of handpicked 'worthy citizens' on boards, but citizens are still being planned for	"citizen advisory board" OR "community advisory committee" OR "neighbourhood advisory committee" OR "community advise" OR "citizen advice" OR advis*	192 references in 37 documents
Tokenism	Consultation	Hear and be heard, but lack of power to change the status quo because there is no assurance concerns will be taken inot account; ie. Attitude surveys, neighbourhood meetings, and public hearings	community consultation OR "community consult" OR "citizen consult" OR "citizen consultation" OR "community survey" OR "neighbourhood survey" OR "public hearing" OR "citizen survey" OR "neighbourhood meeting"	99 references in 26 documents
	Informing	Hear and be heard, but lack of power to change the status quo; one-way communication with news media, pamphlets, posters providing superficial information	news media OR pamphlets OR posters OR "information sharing" OR brochures OR "public awareness"	107 references in 25 documents
Nonparticipation	Therapy	Citizen educated/ cured by 'powerholder'; meetings to adjust attitudes of citizen to those of the larger society/ 'powerholders'	"citizen education" OR "knowledge sharing" OR "community attitude" OR "education meeting" OR "information meeting"	4 references in 3 documents
	Manipulation	Citizen educated/ cured by 'powerholder'; engineering support	"corporate support" OR "support from corporation" OR "community support"	42 references in 21 documents

Dementia.

Of the 51 documents included in the study, only six mentioned the word dementia or Alzheimer’s specifically. This was determined using a word frequency searching the text for the words “dementia OR Alzheimer’s OR ‘Alzheimer's disease’ OR ‘vascular dementia’”. Of the six documents, three are from the municipality of Vancouver, and the others are from Saanich, New Westminster and Burnaby (all medium or large municipalities). The words “dementia” and “Alzheimer’s” were mentioned a total of 76 times in age-friendly documents and only once in the OCP documents for a total of 77 times. Dementia appeared 58 times while Alzheimer’s 19 times.

Table 8: Frequency of dementia in age-friendly documents

Frequency	Word	Count	Similar Words
156 th	dementia	57	dementia
512 th	Alzheimer	19	Alzheimer

The context in the majority of cases was citing the Alzheimer’s Society of British Columbia as a services resource, or in the case of Vancouver documents, the Alzheimer’s Society of British Columbia was mentioned as a collaborator on the document 14 times. Dementia was mentioned in the context of raising awareness and developing inclusive, dementia-friendly programs that also consider multiculturalism (Vancouver OCP).

The Vancouver Age-friendly Action Plan (2013) is the most comprehensive in its scope in terms of specifically including those with dementia. The plan made mention of inclusion of persons with dementia and their caregivers in affordable programming (fitness, education, and support groups) as well as mention of education for city workers regarding dementia by hosting workshops with the Alzheimer’s Society of British Columbia. This education would help front-

line city workers to recognize the symptoms of dementia, and help if people become lost. There is also significant focus on the provision of information to businesses, firemen, and police regarding dementia awareness. Furthermore, improving a recently started action on internal alert protocols on missing, vulnerable persons is a focus area in the plan.

The Seniors Engagement Toolkit (2011) document from New Westminster refers to dementia in their ageism section, explaining that “all seniors will eventually experience dementia” is a false attitude and assumption made about seniors. Second only to Vancouver, New Westminster is moving towards the inclusion of dementia in its social planning approach in its collaboration with Fraser Health, the United Way and the Alzheimer’s Society of British Columbia.

Interviews

Participants were from 11 municipalities in the CRD and the GVRD. One section of the stratification (large municipality, more seniors, and no age-friendly policy) did not fit any municipality; while Delta was closest to fitting that category, employees at the municipality declined to participate in the research. All persons in Delta related to planning with publicly available information were contacted. Despite their non-participation, the study still included 13 people, 5 women and 8 men. In two municipalities, group interviews with two people were conducted. Participants in this study were representative of a range of levels of planning (technicians to directors) and included recent and past graduates from planning programs. Though this information was not formally requested, some participants shared their year of graduation and the university they attended: four attended schools in Western Canada, five in Eastern, and four did not say.

Participants identified themselves as:

- Directors or managers of urban planning departments
- Community planners
- Landscape architects
- a Planning technician
- a Planning analyst
- and a Park planner

Table 9: Planners, positions and the size of the municipality where they work

Planner pseudonym	Position	Municipality size
Deanna	Planner	Small
Geordi	Planning Technician	Small
Worf	Director of Development Services and Economic Development	Small
Tasha	Director of Development Services and Economic Development	Small
William	Planner	Small
Jean-Luc	Senior Community Planner	Medium
Wesley	Senior Planner, Urban design	Medium
Beverly	Planning Analyst	Medium
Guinan	Senior Planner, Long Range Planning	Medium
Keiko	Parks Planner	Medium
Miles	Manager of Community Planning	Large
Reginald	Urban Design Planner	Large
Alexander	Manager of Policy Planning	Large

Interview themes.

The following table and the numbering system are used to organize the interview themes reported in this section.

Table 10: Interview themes and subthemes

Interview themes	Interview theme subthemes
1.0 Contributing to making better places: “the most effective way to change the world”	
2.0 Public servants to the citizens of their municipalities: “our job is to respond to the community”	
3.0 Planning as a balancing act and negotiation: “communities are always evolving, nothing is static”	3.1 Good planning is planning for everyone 3.2 Indoor private spaces versus outdoor public spaces: possible with public/private partnership 3.3 Future versus past design forms: “refinement of what was back then and taking it to the next level” 3.4 Citizen input versus expert advice: inviting opinion and explaining information 3.5 Contextual approaches versus general principles/theoretical approaches: applying new urban design with an application in our community
4.0 Planning for the future using sustainability: “making the planet a better place”	
5.0 Conflicts and challenges: “we have to pick our battles”	
6.0 Health: “providing healthy spaces for people to move around”	
7.0 “Dementia is a tricky one”	7.1 Perception of people with dementia: part of the aging population 7.2 Designing for dementia: “what can the urban environment do to influence them [people with dementia]?” 7.3 Dementia-friendly principles: “might be some things we are doing already help” 7.4 Support regarding dementia-friendly design and planning: social planners, services, and sources

1. Contributing to making better places: “Most effective way to change the world”(Reginald)

Planners are part of how communities are growing and developing. They shape the form of the city, and all spoke passionately about the profession and their work. Planners enjoy seeing ‘tangible’ changes and improvements in their municipalities and regions, to both public and private spaces. It is considered a “challenging profession, but a very rewarding one as well” (Worf) since it contributes to the wellbeing and quality of life of many people.

Participants feel that they are trying to design a place that is open to transition and transformation so that it can be better and better all the time. Planners want to shape positive change: “In terms of how we can set that structure of the city to make it a better place for people to interact is the main role for planning from my perspective” stated Miles. The general perspective is that “cities are marvelous places and anything we can do to make it a more positive place is a good thing” according to Wesley. There is an interest in how to make spaces useful and pleasing to people so that these spaces are set up for public enjoyment and city life. They also spoke of improving their local areas, but also considered the broader environment: “frankly there are environmental factors that you try and aim for, to make the planet a better place, a greener place” (Keiko).

2. Public servants to the citizens of their municipalities: “our job is to respond to the community” (Keiko)

Participants often referred to themselves as planners, but also used the term ‘public servant,’ for example “as a public servant, I think about my impact a lot and how what I do will affect other people’s lives, thousands of people for generations to come” (Tasha). They see

themselves as responding to the needs of the community residents and demographic needs of the municipality: “That is our job as public servants is to respond to the community” (Keiko). Their “aim is to address the needs of the population otherwise we would not be doing what we do” (Worf).

3. Planning as a balancing act and negotiation : “communities are always evolving, nothing is static” (Worf)

Planning was expressed to be, what the researcher would call, ‘an art of the possible.’ Every planner was balancing what was ideal with what was feasible in their context, yet they were aware that that balance manifests differently in different places: “so it needs to be a balance and that balance is very subjective” (Wesley).

3.1 Good planning is planning for everyone

Participants aim to plan spaces that are suitable, accessible and useful for all people: “ideally you are planning for it to be accessible or useful for all, and it captures everyone” (Geordi). While they aim to address the needs of the population, there is an awareness that certain groups have particular needs that should be addressed: “on one hand we are always looking to be as accommodating as possible through design, through policy and regulation, on the other hand we constantly run into notions of the opposite – in taking specific steps to address certain age groups are you excluding others” (William). The goal is to implement changes that will have a wider impact, with benefits for different groups rather than aimed at one group in particular: “I kind of wonder, I think it would be interesting to use it as a lens on how we look to do planning, but in many respects, good planning is planning for everyone, trying to accommodate all ages and abilities and having that perspective” (Miles).

There is a struggle to plan for the specific needs of a particular group within the broader population, as one aims to always capture as many people within the design. Despite arguments against using particular approaches to planning that may limit capturing the whole population; an element of subjectivity is present. For some a particular design approach is easier to implement and argue for than another:

I get kind of nervous when it focuses too much on end-of-life, seniors. I think it is very important that this conversation start with children, because so many things you can do for them that are good for everyone, and similarly, if you are dealing with someone with mobility, disability, so someone in a wheelchair, a lot of things you do for them makes it easier for other seniors also to be mobile and independent around our community, curb let downs and tripping hazards. (Jean-Luc)

Universal design is a term used throughout the last 30 years that looks to provide public spaces designed with all people in mind. It aims to create an equitable environment that addresses both human and environmental concerns, focusing on ethical design. Advances in technology have reduced sanitary health risks (the obvious consequence of the built environment), but newer risks, such as chronic illnesses, need to be better defined within the parameters of approaches that address all, such as universal design. What was once considered ‘universal’ may no longer be considered such as the demographics of the population shift and different concerns arise, such as increased longevity with an illness or frailty.

3.2 Indoor private spaces versus outdoor public spaces: possible with public/private partnership

Common practice is to trade density and height for more open public spaces. This approach means that higher buildings will be built, consequently increasing the likelihood of underground parking, and shared public spaces; this places the financial constraint on the private

developer not the city for the development (and sometimes maintenance) of those public spaces. While public spaces are appreciated, height and density are often cited as contested issues in communities. This theme was noted because often when speaking about dementia, interviewees directed the conversation towards indoor spaces rather than outdoor ones. It will be addressed in more detail in section 7.2.

Depending on the community there are different opinions on the partnerships with developers. The consensus is that developers are influential and can provide needed financial backing for projects. Some small communities see them as bringing in better market standards into buildings that go above and beyond requirements. For some municipalities it is an essential partnership: “What has been possible in Langford has been because of the public/private partnership, and grant/funding from other levels of government” (Guinan). Other planners see developers as caring only for the bottom-line: “it is so important in these high density, mixed use environments to provide healthy public spaces for people to get out and walk and to be active. We both try very hard for that, and push for that but it can be challenging because it costs the developer more money, it always comes down to costing the developer more money” (Keiko). The private-public partnership is however a necessary one in planning.

3.3 Future versus past design forms: “refinement of what was back then and taking it to the next level” (Reginald)

Miles said that “designing [a] community where people can thrive and succeed...it seems that planning communities in the past has been a bit backwards so we are working to undo some approaches from the past to foster more of a people centric approach as opposed to a more car-centred design.” Planners consistently report that as one moves forward with a project, there is a

critique of what came before and what can stay for the future. Planners see themselves as having a significant impact on future generations. Planning is for current generations, but planners feel an obligation to envision a much longer time period and to future generations. Wesley says “planning is very much an ongoing art form, it is mouldable, times change, and ideas you had 30 years, five years ago, five weeks ago may not be the right fit anymore.”

They are also interested in how new development relates to the older buildings; participants struggle with a back and forth whether to demolish the old to replace it for an opportunity for creativity and advancement, or to keep it as a symbol within the community.

3.4 Citizen input versus expert advice: inviting opinion and explaining information

Balancing the notion of planning what people want, and what a planner considers is best is a challenge. Placed with the responsibility of a lasting built legacy, planners are keen to do what is best. Their expertise is required by council: “I believe we leave a lasting impact, I think we play an important role in assisting and guiding decision making so the best quality decisions are being made supported by evidence based technical information” (Worf). Negotiating at public hearings, open houses, and other community events, planners are constantly balancing their expertise and the opinion of the persons living in their community. Planners make recommendations and advise council, developers and citizens, but they do not have the final say – consequently, projects may take on different forms and may be altered through the process of approval.

3.5 Contextual approaches verses general principles/theoretical approaches: applying new urban design with an application in our community

Planners identified their goals as “contextual, because of the things you do are so different, so your goals shift depending on the task” (Jean-Luc). This means that while there may be a wrong answer, “there is never an inherently right answer, it is just targeting perhaps an intersection that has the most pedestrian traffic or an intersection that is near a concentration of housing for seniors or near schools” (Jean-Luc). Particular design features are perhaps better suited for certain places. Even within municipalities there are smaller communities that may have particular contextual needs: “in terms of building form, there are contextual things you have to look for, high-rises are not necessarily a bad building form, but right beside a single family home it might be...it might not be appropriate” (Jean-Luc) or “[you want streets to be safe and straight, but] you also want to have some sense of mystery, surprise, stimulation in a city – so you need a good balance” (Wesley).

Planning is a work in progress without a formulaic answer that has to be moulded and looked at in context: “draw from these broader theories and a lot of that is dependent on the context we are working on and what is achievable in that space and in that policy area...depending on what sphere we are in and what some of the implicit community values are it leads to an overall philosophy” (Miles). For example, future planning on the mainland focuses on mostly on redevelopment of urban areas, and bridging urban and rural areas on the island. Both areas may require different approaches for the type of development they are working towards, such as densification and sidewalk development respectively. The main approaches mentioned by planners are: universal design, New Urbanism, SmartGrowth and 8 to 80 Cities.

4.0 Planning for the future using sustainability: “making the planet a better place” (Keiko)

As part of future planning, “we are dedicated to sustainability...that means whatever we do today, will create a city that will be better for the next generation” (Alexander). Sustainability was identified as key to “leaving a better situation for future generations” (Miles); however, it does not have a concrete definition: “the sustainability lens which we have been trying to define better more recently” (Beverly). Three types of sustainability were identified: social, economic, and environmental. Social sustainability is a tenant of inclusivity, accessibility for people to no matter what kind of ability they had. Social sustainability also included a concern for economic sustainability, insofar as walking and biking are considered universally accessible forms of transportation for people of any means. They are a means by which to provide equality by building walking and cycling facilities because they are given treatment and access to transit just like anyone else. Economic sustainability also refers to bringing in appropriate businesses to communities and providing jobs for people in the municipalities.

The third and most prominent type of sustainability in the interviews is environmental sustainability. A large part of the discussion centred on the use of cars vs. no cars. This topic entered into the conversation very often; is part of the current health debate centreing on the bike versus car. The bike is considered better for the health of the natural environment, and has the added benefit of getting people physically active. This again presumes that people have able, ‘normative’ bodies that can make use of the bicycle. It also focuses the conversation, narrowly, on what can be done for a definition of health relating to fitness. Furthermore, the bike is seen as part of the solution to traffic and commuting problems in the lower mainland municipalities.

5.0 Conflicts and challenges: “we have to pick our battles” (Guinan)

Planning is a very collaborative and interdisciplinary field. Not only do planners work with citizens, but they also work with other municipal departments, especially engineering.

Planners find it challenging to work with citizens who oppose any change: “If they are against it but won’t discuss why, they say ‘well, it is a done deal,’ well it is if you won’t actually engage with us and tell us why. So that can be a challenge” (Jean-Luc). The natural course of urban spaces is to develop; consequently planners have a hard time responding to community groups that do not want to see any change in their municipality. They often identified older citizens to be a part of these groups.

Interdepartmental conflict is also challenging. Different aspects of design are located within different departments: “Even sidewalk widths are really dictated by development standards which are planning, but a lot of it is engineering” (William). Historically, engineers and planners do not see eye to eye; however, good communication is key to implement the overall vision, and interdisciplinary meetings are forums for that communication within the municipality. Engineers work closely with planners around issues such as sidewalk width, and planners (n =5) explained that the two have different perspectives. Engineers are more direct, linear in resolving solutions to a problem with a feature in the built environment, while planners are more circular in their approach, exploring the impact of that physical feature beyond its mechanical properties, to explore its social impact. Consequently there may be disagreements regarding the value of a particular feature, it may solve the mechanical problem at hand, but not be aesthetically pleasing, welcoming or engaging for people. Planners, as most municipal departments, are also constrained by financial concerns: “we are always fighting over a limited

piece of budget – but by always preparing for opportunities we can make changes when there is the chance” (Beverly). Cost often forces compromises in design and planning: “for example, some see art as a luxury when we have other demands on transport” (Wesley). Consequently, planners have to pick their projects carefully:

[An]ongoing struggle as a planner...we do have these overarching design guidelines that would drive a beautiful development, such as adding in public spaces, built to the human scale, but then you have reality, where there is the developer, time and money (it is all time and money), so yes we do have a vision and expectation, but sometimes it is a struggle to get that out of the developer, so we have to pick our battles...and that is a common struggle across all municipalities (Guinan).

The challenge of finding financial resources not only impacts the projects themselves, but also limits the available staff to complete the work. Planners are thus very busy and do address things that are not what they have learned about, seen happening or had inquiries and complaints about. It is not for a lack of care for the subject, but its location on the priority list.

6.0 Health: “providing healthy spaces for people to move around” (Keiko)

The question is often addressed in part using sustainability and natural environment health, which led the researcher to understand that the participants often see wellness as embedded in social and environmental sustainability: “Generally trying to move towards a more sustainable environment is the main health focus for our municipality” (William)– human health is dealt with indirectly. However, with such a large, vague and multi-faceted idea as sustainability, concrete issues can be lost and principles can become platitudes. This will be addressed later on in the discussion.

When asked directly about health, planners pointed out that there is a fairly clear link between physical activity and health. This led them to state that driving is not very healthy, but improving walkability, cycling infrastructure, access to parks is good:

there is a lot of knowledge about the importance of walking, the importance of social connections on your physical health, and so I think we build those things into our day to day practice, but I do not think we typically cite health as a reason for doing that necessarily – think it is just understood that the more people walk the better, and the more connected they feel to community the better the health outcomes (Jean-Luc).

The larger and medium municipalities mentioned health more directly as part of planning:

“The design of our communities has such a huge effect on health outcomes” (Miles). Four participants mentioned disease impacted by the design of our physical environments, citing obesity, cardiovascular disease, mental health (stress) and cancer in their responses. One participant told the researcher that a medical doctor was quoted in the OCP stating that the community planning division has as much or more impact on health as doctors or hospitals. On the other hand, some planners were not sure if health could be a value or the explicit reason for a particular design; consideration for physical disabilities, such as wheelchairs and walkers, was expected as part of the principles of accessibility. Beyond physical accessibility, a ‘sense of place’ has been found to have benefits for well-being (Frumkin, 2003). Given this link between well-being and place, as well as the historical roots of urban planning in public health, an intentional focus on health may advance the planning discipline. Furthermore, having a sense of belonging, of familiarity, in a place is suggested to assist in recalling memories, and promoting feelings of value that consequently have a positively affect psychological wellbeing (Frumkin, 2003; Mitchell & Burton, 2006).

7.0 “Dementia is a tricky one” (Reginald)

7.1 Perception of people with dementia: part of the aging population

Participants only shared a couple of sentences regarding their knowledge of dementia, but it is worth exploring to provide context for what influenced planners’ dementia-friendly design

responses. While dementia is “not a big D disability in the sense of the word that we are familiar discussing it” (Jean-Luc) people assume it has similar design implications. Others picked up on a nuance: “our understanding of disability should be broader. Often times it just focuses on physical disability and barriers” (Miles). Miles also acknowledged “it [dementia] is a unique set of circumstances, where you are basically dealing with someone who is completely unaware of where they are, so from that perspective it could present a unique set of challenges.” Participants stated that dementia was also unique in that it can be different from day to day; it was however seen as a continuous deterioration. The outdoors were seen as a potential way of healing persons with dementia, at least making them feel better: “taking a person with dementia out, just to be in the fresh air and watch other people, can be very meaningful for them, uplifting for them, so it is important we have these accessible spaces near assisted living facilities so they can go to these spaces –so it is easy for caregivers to take them for a walk. To make sure they still have a good quality of life” (Guinan). One participant also hoped that one could maybe reduce dementia with walkable, enjoyable environments, and stated that the longer you are stimulated in life then maybe it would make dementia occur later.

Only one person refused to discuss dementia stating that “dementia relates more to the medical system than the local government system” (Worf). As a medical issue, dementia is seen more as an indoor concern, since people with dementia assumingly are supervised at all times when outside the home. Participants shared that while dementia-friendly design may not be currently actively addressed in outdoor public spaces, indoor care facility design and housing design is valuable: “I guess the problem is if we look at what the typical dementia person is – walking, rolling or bedridden – most of design would happen in the building. If you have

dementia, you are probably walking down the street with someone else with you in that sense” (Alexander).

7.2 Designing for dementia: “what can the urban environment do to influence them [people with dementia]?”

One person said they do take people with dementia into account when planning, ten said no, and two said maybe. Six participants stated that they had never talked about dementia in an urban planning sense: “people in population health talk about it, but never once have I heard about it at planning conferences or talks” (Guinan). One planner said they have heard of dementia and planning, and six did not say if they did or not: “I have heard about dementia and planning but only in passing so, I don’t know of the direction it would take quite frankly” (William).

Eleven planners did not know what dementia-friendly design might look like: “I do not know what developments with a dementia focused lens would look like. Not to say it is not important, I just have not come across it before” (Geordi). They had a difficult time imagining what could be done specifically to help those with dementia. They were uncertain of how one would make a place welcoming to persons with dementia: “at this point, I am lacking any information about what a person with dementia would need. We are not thinking about that necessarily” (William). Others turned their focus on the indoors: “I think there is housing that is focused on dementia care, but I do not know that public space [planners] have necessarily turned their mind to it, and I do not even know what that would look like” (Jean-Luc). Deanna stated that “consistently we [as a society] lose dementia patients from our facilities. So they are not completely helpless, and they can be very clever. Are there ways we can make sure that when

they do get going that we can present [changes] so that they are less susceptible to confusion and fear? It is a good point, what can be done?"

Furthermore, planners (n =5) were not certain if dementia-friendliness was already something they were doing, or if it was any different from what was current practice:

I am sure there would be benefits to having an [dementia-friendly] environment in that sense, but I do not know if the requirements would be any different than what we would hope to build anyway... I am not sure if there are any specific differences in terms of urban design or engineering requirements for people with dementia beyond what we should be doing as far as infrastructure and signage upgrades, design as far as parks or park scale, or creating a legible environment, I do not know if there is a specific requirements that would be beyond our best practices for creating design standards. (William)

I think probably a lot of people would have trouble understanding what it is and how to do it, because I think dementia has...at a point people start thinking of dementia as very debilitating, so at that point then there is not a lot you can do probably, it's the point when they need supervision, but before that point I do not think there is a very good understanding of what would help. It might be some things we are doing already help, accidentally or coincidentally, but I do not know what specifically there would be. (Jean-Luc)

Furthermore, planners questioned why dementia specifically should be the approach and what kind of benefits residents would see from it. They proposed other 'conditions' that they considered valuable approaches to planning, such as child-friendly design, age-friendly design, and design for the visually impaired. They suggest that various considerations for disabilities also serve other populations and perhaps implicitly they were already doing something to assist people with dementia:

I get kind of nervous when it focuses too much on end-of-life, senior. I think it is very important that this conversation start with children, because so many things you can do for them that are good for everyone, and similarly, if you are dealing with someone with mobility, disability, so someone in a wheelchair, a lot of things you do for them makes it

easier for other seniors also to be mobile and independent around our community, curb let downs and tripping hazards. (Jean-Luc)

Two planners said that they thought dementia-friendly design should and is likely to happen presently. Eight planners thought it might happen under certain circumstances, such as higher prevalence in the community and if community groups actively petitioned for chances to be made specifically regarding dementia, and three planners said dementia-friendly planning is not likely to happen at this time, explaining that not much is known about it. Furthermore, they were not really aware of the prevalence of dementia, whether a large enough segment of the population was affected to necessitate a response: “a growing population of people with dementia would influence us...we would have to be approached by representatives of that group during the consultation process, so if that is a real issue facing the municipality we will respond” (Guinan). One planner said that a dementia-friendly lens to planning will happen when more people are affected by the disease:

I think [a dementia-friendly lens] will be forced on society because there will be so many people wandering around with dementia that they will realize something will have to be done, or if the research is done, it will provide a city with an opportunity to experiment how it can be incorporated into current process...I mean as you find with many of these impairments, often trying to address one person’s impairment helps everyone else in the community and so we can usually find something that one population needs that greatly benefits the rest of the population. (Reginald)

The majority of planners said that the “incentive for planning for dementia would have to come from the community,” (Deanna), but currently they have not had to design public spaces for those with the disease. Given their limited knowledge of dementia and how to respond to it, they suggested a bottom-up approach to implement this perspective into planning and suggesting that “if it was brought to our attention through some specific needs, that would be something we

could definitely keep in mind when drafting regulation, policy, but it would really be depended on the willingness of the municipality, like cost vs. benefit” (William).

A couple of planners cited the age-friendly approach as an example of a response to the needs of the growing aging population in the province: “trying to build with accessibility in mind given the baby boom demographic, and keeping aged residents in mind when we design trails, cycle lanes, and walkways” (Keiko). Another planner stated: “I think it is important to incorporate their (people with dementia) needs into the age-friendly design. There is a big focus at the provincial government level on age-friendly design, that is where we received our grant, and I think one aspect of that is because of the rise of dementia” (Guinan). Participants were not directly asked about their philosophy about responding to the needs of people; however, given the general underpinnings of the profession, planners are ultimately concerned with the person, and their social wellbeing. Parallels with this point of view can be draw to Kitwood’s concept of personhood and person-centred care. However, when providing responses about what they considered to be dementia-friendly, only four planners explicitly referred to supporting social relationships for those with ADRD through building empowering public spaces.

7.3 Dementia-friendly principles: “might be some things we are doing already help” (Jean-Luc)

Planners appeared to find it challenging to consider and think of the guiding principles, values or theories that they implement in their work. One planner explained that principles are “pretty straightforward, and they are so simple you tend to not think about them because it is things like equality of access, openness, if we are talking about public spaces it is about ensuring

they are accessible, safe, not set up to fail” (Jean-Luc). The following principles identified in the literature were addressed by planners unprompted to varying degrees throughout the interviews.

Familiarity

Only three interviewees explicitly stated the value of familiarity, of the community and homes for people, particularly seniors. Miles states:

Building on pedestrianization – to make spaces more intuitive, more recognizable, more favourable to people who are walking, typical I guess of people with dementia, so there is wayfinding to provide that sense of familiarity, there are public benches to let people rest and find their bearings, active store fronts to allow for casual interaction, maybe some reassurance from someone there...a chance to build community acquaintances.

For others the value of familiar heritage was an important part of the community identity and sense of continuity:

[a] huge component of that in New West is heritage, we really identify heritage as being a defining part of New West, it was the original capital and we have some of these buildings that have been here since 1886 and we want to maintain the story that that tells and the history of New West through that, you see a very different type of development as a result, that is built around downtown main street. (Beverly)

Others indirectly expressed the principle of familiarity through the use of predictable, and consistent, design to which people could become familiarized, such as certain tactile queues on the sidewalks.

Comfort

When explaining comfort, planners most often used the example of providing more seating to ensure that public spaces were pleasant. Reducing traffic noise was another consideration of comfort, for example through pedestrian streets. Most responses discussed comfort in passing: “fit into the community that is a big one, neighbourliness, having spaces that are comfortable” (Jean-Luc).

Distinctiveness

Planners mentioned public art as a way to beautify an area and it is also a way to add distinctiveness to spaces: “there are also the bigger cultural pieces, making sure there is that art component, ability to create in the city – we are trying to make that more of a guiding principle as we move forward” (Beverly). Other ways of creating distinctiveness were identified as “having a legible environment, a sense of place, and I think that would certainly help someone with dementia who is living in a community. Having an environment where there is more of a human scale, walkability, a lot of landmarks” (William). Distinctive landmarks do not only have to be built, one planner shared a story where she had “created a tactile garden that also made noise, and was wheelchair friendly and easy to find your way around because it was small and circular, and it was scented for different times of the year, lots of benches and parking, and it was a small circular area” where she thought one could take a person with dementia (Keiko).

Accessibility

All planners were aware of and keen to discuss accessibility. Their point of view stemmed from the consideration of physical impairments. They commonly considered smoother sidewalks (also considered safer), appropriate ramp access for people with wheelchairs, as well as curb letdowns and eliminating tripping hazards from sidewalks as important. Accessibility was cited as key to affecting how people can get around the city, and part of that included trail connectivity, primary and secondary trails so that people would not suddenly come to the end of these paths but be able to connect to other parts of the community. Another part of accessibility was a planning focus on densification – increasing town centre populations. Increasing localized populations and development capacities is seen as a means for more people to support more

businesses closer to their homes. Planners also highlighted they were working on disability access to public washrooms in public spaces.

Safety

Safety was addressed mostly (n =10) by mentions of safe curb letdowns at intersections, good lighting, quality sidewalks and crosswalks with audio. Shortening the length of the crosswalk was also proposed by one planner. When discussing seniors, falls prevention through the use of railings, ramps and smooth surfaces was the response from all planners.

Not only was the physical environment addressed but crime was a concern of planners. They wanted to make sure there is good surveillance in public areas. People are a form of security (until there are too many), so the concept of eyes on the street, or a populated sidewalk, or a busy street at night was popular as a way to prevent crime.

Despite sharing these ideas one planner raised the point that “if some can’t understand a system of signals that means danger or safety, I do not know what else you can do apart from the person needing to be supervised when they are out” (Jean-Luc). Studies show geographical variability in disability among seniors, exemplifying that reducing place-based risk factors influences health and mobility (Frumkin, 2003). As stated in Chapter 2, impairment is biological while a disability is considered to be influenced by social, political and cultural norms that pose barriers to people who do not behave within the predetermined ‘norm’. Thus improving the design of public spaces can reduce disability while increasing safety.

Independence

Miles stated that “one of the big values is to allow people to stay in their neighbourhoods, and age in place, and that is one of the challenges – providing a range of housing types for

people to allow people to move to something smaller or that has support services to assist them as they progress through that condition” (Miles). He was most explicit in his concern for persons aging in place; however half of the planners discussed the importance of varied property types to allow persons to downsize their homes in the community. It is seen as a way to make taking care of the home more manageable for seniors living independently

Good, uniform wayfinding signage was also seen as a way to assist people in navigating spaces and helping them move around independently. Currently, many planners felt that in their community signs were of limited use, even in unfamiliar new areas (n =7) they were often positioned incorrectly or too high, and were not uniform and legible enough. Many were brainstorming how to improve their signage.

Inclusiveness

Along with accessibility and safety, inclusion was a priority for municipalities wanting to be more welcoming to residents. This was especially so for communities that were undergoing demographic changes due to rising housing costs and densification. The planners in those communities wished to provide people who had lived there for many years with affordable housing options. Furthermore, inclusion and interaction within informal spaces were also highlighted as important for the feeling of equality in the community. Non-commercial, informal settings are, however, harder to provide as they do not generate direct income for the developer. In addition, a couple of planners proposed spaces for intergenerational use to provide a way to connect children with seniors (generally considered more isolated than other people). Regarding dementia planners considered social inclusion as beneficial:

Social interaction for people with dementia seems important, and for people with dementia, routine is important, walking the same route every day seeing the same people. Looking out for each other, and saying Hi to each other (Guinan).

Quite frankly I am not sure I understand enough about dementia to have anything [to say]...I can speak more broadly about people with mental health issues I think anytime you are in an environment where there are opportunities for passive reflection, and opportunities to interact and feel socially engaged with the community is a good thing. I think a lot of the problems are brought on by social isolation (Miles).

Designing to help foster a 'sense of place' for people includes social, physical, physiological, and spiritual health outcomes (Frumkin, 2003). While having a sense of place or inclusion was mentioned by planners, it was not developed because planners lacked the empirical evidence (regarded as the driver of current policy initiatives) concerning its implications for dementia, and health in general. Persons with ADRD can be included in spaces not just through accessibility and safety, but also through the memories and emotions that can be stimulated by places (ibid). Furthermore, inclusion in a community has been suggested to improve the more walkable a neighbourhood becomes, an important feature of accessibility for those with ADRD as well (ibid).

Citizenship and public engagement

For those with dementia, the planners did not know how they would engage them but stated patience was probably important. Currently, they are unsure if they engage with people with dementia in the policy process, but if they do it is not done through the planning department. This quote is summative of the planners' responses to engaging with those with dementia:

Yes, well, social planning may well do that or they may talk to their healthcare provider who could speak for them if that is fair...Well if you ask what do you want...a person with dementia, and I do not know that much about it, they might not know what to say,

they might not know what they need, but their doctor or nurse or care provider would know and we would talk to them. (Alexander)

One participant responded more strongly by saying:

we do not focus on dementia – we focus on areas where community stakeholders play an active role in being involved in decision-making issues and people with dementia are not usually actively involved in decision-making. There are healthcare professionals looking after them. (Worf)

Regarding the general population, the consensus was that people cannot be forced to participate, but you can make it easier for them to engage through the use of websites, social media pages, and emails. Mailed surveys and letters to neighbours of a new development were common practice, but identified as expensive. Ads were also taken out in local newspapers to advertise open houses for certain developments. While some municipalities were actively trying to brainstorm ways to engage creatively with citizens through going out into the community, others do not solicit civic engagement and do so only on a site by site basis. They engage with certain groups when they feel they need to engage that group.

For some of the planners, resident attendance to an open house or a public hearing is a sign of bad planning and a failure to satisfy the community. This appears to be explained by the fact that all planners say they hear mostly from people who are upset or angry. They have to remind themselves that for all the angry people, there are more who did not attend because they did not have a problem.

7.4 Support regarding dementia-friendly design and planning: social planners, services, and sources

Planners were asked who they would turn to for assistance if they were working on a dementia-friendly planning project. Most planners said they would look to their local community organizations such as the Social Planning and Research Council of British Columbia, Advisory

Committee on Disability Issues, Sources Community Resource Centre, United Way, or other community organizations dealing with disability. One planner said they might speak with housing providers that build spaces for those with dementia, and one planner also said she would speak with the Centre on Aging at the University of Victoria. Four planners all from medium and large communities said they would speak with their social planners first. Another four planners said they would speak with Vancouver Coastal Health, Fraser Health, or Island Health (respective of their location) to see if they had any information or recommended organizations to turn to. Others suggested that they would see what other municipalities had done on the subject and talk to planners there to get their perspective. Some people were not sure where to turn, but said they could probably find something on the internet or in the literature. The Alzheimer's Society of British Columbia was only mentioned once regarding collaboration on indoor issues and providing the Society with funding for community services in the municipality.

Figure 4. Summary of key points from the interviews

Key points from the Interviews
<ul style="list-style-type: none"> • Contributing to making better places now and for the future • Check Official Community Plan for principles/values • Projects are contextual • Following citizen lead/ Addressing community concerns • Increasing walkability and active transport • Little to no knowledge on dementia considerations in urban planning

What do the planners say that their documents do not reveal?

These points are listed in no particular order; however they are intended to add depth to the analysis and understanding to the research. What may be apparent on the level of policy may not be as clear in practice and vice versa. Policy and practice may be misaligned at times because of more frequent revisions to best practices, or because of contextual differences in the field. The following are some variations between policy and interview findings:

- There are complex barriers to creating environments – financial and political – that were mentioned by nine planners.
- All planners felt they had little knowledge of dementia-friendly design and they were uncertain of it, but there is interest in learning about this approach.
- Planners default to what is in the OCP (n =6) and over half had a hard time abstracting to principles, though in discussion questions the principles come out more subtly.
- Planners acknowledge that what is written in an OCP or other documents does not always come to fruition. Policy often lags behind best practices.
- All interviews revealed the importance of collaboration and communication between departments in the municipality despite conflicting perspectives.
- In one case, a community was identified as age-friendly by the provincial government, but the planners were not aware that the community was doing anything along those lines.

Chapter 6: Discussion

“Design is ideas and policy, and principles...solving physical, social problems that are complex and infinite and uncontainable and you are trying to bring them into the best material expression possible...into a finite object.” – Wesley

The following chapter is organized along four discussion points that are inclusive of both the policy documents and the interviews. This discussion aims to illuminate how planners perceive a dementia-friendly approach to planning and if there is a place for it within current policy documents. The discussion points are as follows:

1. The importance of guiding principles.
2. Planners’ perspectives on dementia-friendly planning and design.
3. Is there a place to put dementia-friendly design within current policy?
4. If a general, umbrella policy is found, are there grounds to suggest that there is a need to address dementia-friendly principles more specifically within this broader policy?

Planning is a balancing act – an art of the possible. As part of the process of redesigning spaces created with approaches that have fallen out of favour, planning is currently at a special point in its history. Especially in countries redeveloping their cities, planners have to ask themselves about how to facilitate interaction, and how to rethink what was done in the past so that the future is better, and more environmentally sustainable. A compelling driver for current planning trends is the rise in public discussion regarding technology and its effect on children, the question of reconnecting with nature and outdoor activities such as walking and biking. While seniors may not be as compelling as children, given the youth-focused culture we live in, this discussion regarding dementia-friendly design is important in rethinking urban spaces, and the populations they will serve in the future. With the rise in chronic disease and the aging of the

population, this approach offers an opportunity to support healthy behaviours throughout the life course, and to include those experiencing both mental and physical impairments. With its roots in public health, and its ability to influence behaviour through physical form, planning is located at an influential intersection to provide design that promotes health and inclusivity in public spaces.

1. The importance of guiding principles

Ideas are what drive cities forward – these large immense projects cannot be assembled focusing only on concrete small pieces such as pipes or buildings. What is needed is a strong (yet flexible) set of ideas, principles, which guide an interdisciplinary team of people in designing spaces that address the needs of people from every walk and stage of life. While these principles may exist in certain design features mentioned by planners, or are laid out in the OCP, they were not readily top of mind for many planners interviewed for this research. The question about principles, concepts, and values caused many to hesitate for quite some time. It was not an easy question to answer, nor was it always answered with broad abstract ideas or visions. More often than not (n =8), the researcher was directed to examine the OCP.

The importance of this study of principles and perspectives is supported by Bennett and Howlett's (1992) notion of social learning, 'framing' which refers to the underlying ideas and paradigms of broader policy goals which affect the policy-makers' capacity to change society, and frame the work and direction of planners (Harris et al., 2014). Changes in the thinking underlying a policy refer to changes of actors' interests, values, and learning, ultimately influencing structural procedures, mandates and rules (Harris et al., 2014). This speaks volumes

to the importance and power of clear, explicit principles, goals, and values that guide any type of collaborative work and action.

Dementia, to be considered a key concern of planning policy, cannot be framed in terms of hospitals, incapability, and seclusion. Rather, using the key principles outlined in this thesis, such as inclusion, independence and citizenship, one can present a different, relevant, and helpful perspective on what urban design can do for those with dementia.

While the key principles are important, one can have communities where the policy appears promising, but the guidelines are not specific enough to give them meaning. It is often a negotiation with the guidelines – some people will say the more general they are the better, but at some point they need to involve specifics. Since planners comment on the need for concrete information, treating 'age' as a single category can be unhelpful for planners in designing nuanced urban spaces. Using dementia, and its principles, as an example can serve to expand planners' understandings of the various needs of people as they age.

A balance of both principles and specific design aspects will create a better system with robust guidelines that speak to performance – what public spaces should be – and then to best practices documents that help planners and policy makers visualize and understand what can be applied to specific circumstances. The importance and sharing of the principles is not only relevant for government workers, but also for developers. A planner stated that it is easier to work with contractors and developers when everyone is informed of the reasons and benefits of changing guidelines for development.

2. Planners' perspectives on dementia-friendly planning and design

Given that the overall goal is to plan for everyone, to make a space that is designed for all segments of the population, many (n =9) participants did not really see how dementia-friendly design would be applicable as a driver in mainstream planning, since it focuses on a subset of the population. A couple of planners saw an overlap with age-friendly community planning, disability planning, and child-friendly planning, while others wondered how much of dementia-friendly planning was already included in planning without them being aware it. Most were simply uncertain as to what would be considered positive for persons with ADRD. However, when asked to brainstorm ideas for changes in the built environment that they would consider dementia-friendly, responses included smoothing sidewalks, improving curb letdowns, providing more urban furniture, park spaces, and better lighting. These meso-level ideas were dominant; the ideas were not the micro-level design specifications nor were they citing macro-level principles other than safety, accessibility, and inclusion. These three were the dominant principles mentioned by planners in relation to dementia. Very few planners mentioned familiarity and distinctiveness, and little to no direct mention was made of independence and citizenship for those with dementia. From discussions with planners it appears that planners do not necessarily need to add more design features or spend more money on dementia-friendly design, but a need to refine what they already do to address persons whose bodies do not conform to the 'normative' abilities typically focused on in socio-spatial designs (Blackman et al., 2003). This value of 'normal' abilities demands self-control, and the ability to use one's body in a particular way for moving in public spaces, that may not be attainable by some, including those with ADRD (Buffel et al., 2012). It is the quality and consistent upkeep of current public

spaces (e.g. smoothing cracked concrete) that may offer solutions to certain micro and meso-level issues of technical specifications and individual design features. Opening the conversation that persons with dementia are living in our communities, and that our public spaces should be accessible to them is a step towards establishing relationships of respect and trust, drawing attention to the remaining abilities of those with ADRD. Engendering a sense of personal worth, agency, and social confidence, and enabling inclusion through thoughtfully designed public spaces combats stigma experienced by those with ADRD.

Planners did however express an interest in learning more about what dementia-friendly design might entail. This led the researcher to the conclusion that planners are generally open to the idea of considering dementia in their planning because of a universal interest in better serving all persons within the community. However, because they know little about dementia-friendly design they are hesitant as to its implications or usefulness. Furthermore, given the various trends and movements within planning in the last century, there is hesitation to adhere or pigeon-hole oneself into one lens or point of view.

Famous urban planner and architect Walter Rybczynski (2010) states that “planning theories come and go, [but] their built expressions survive for a long time” (p.26). This may explain why so many planners exercised caution when considering the value of dementia-friendly design, as they were uncertain of its impacts on future generations. However, dementia is part of the future as the population ages and lives in the community for longer. It is therefore important to vocalize and consider it in urban planning policy and design. A true population-based health strategy addresses a problem that has yet to fully develop, such as dementia

(Kansagra & Farley, 2011). Furthermore urban planning policy and guideline changes are within the power of local policy makers to implement.

Given that planning is a complex, fluid, interdisciplinary field, many planners raised the question as to whether or not they are already addressing the same things needed for dementia-friendly design in their design approaches for disability. However, all the focus is on physical disability, as it is easier to associate a change in the physical environment with an improvement in wheelchair accessibility, than to consider changes that would benefit those with mental impairments. As dementia is a combination of both, it offers a planning challenge in which planners may stretch their understanding of the psychological and social implications of a welcoming physical environment.

In addition to a focus on physical disabilities, more current terms were proposed when a approach was mentioned by a planner, such as ‘child-friendliness,’ ‘universal design,’ ‘new urbanism,’ and ‘sustainability’. These terms are more trendy and easier to ‘sell’ than an approach focusing on aging, dementia, or seniors. One model that could potentially include a dementia-friendly approach is the 8-80 cities model. As it includes both youth and seniors, it could serve as a more popular vehicle for the inclusion of dementia that would eliminate some discomfort planners appeared to feel towards an approach specifically focusing on dementia. However, some planners expressed concern that terms such as age-friendliness and sustainability get passed around too often and are not well defined, becoming less concrete and comprehensive for planners in practice; they become platitudes rather than enactors of tangible urban design changes. Consequently, clear communication of the guiding principles for dementia-friendliness

and their usefulness for planners is the first step to attaining quality environments friendly to people with ADRD.

3. Is there a place to put dementia-friendly design within current policy?

In past decades there has been a tactical positioning of the relevance of health to planning policy. This has already made an impact on urban planning discourse; however, most of this discourse is situated in increasing activity-based transport stemming from concerns of obesity and carbon emissions. Showing how people with dementia are impacted by planning policy, especially given government ‘aging in place’ discourse, is a way to include it as a key part of health discourse in planning.

Given the reading of the policy documents as well as their analysis, the researcher identified a gap in addressing dementia in relation to planning within the age-friendly documents. The aging population is not a homogeneous group and including specific consideration for the most vulnerable of that group will not only have benefits for all, but will prevent planners from overlooking those with both mental and physical impairments.

One of the participants voiced an idea many planners seemed to share: “I do not know if it falls under another category for me, because it seems that some of the needs of those with dementia are similar to other needs of the aging population, so maybe calling it age-friendly design might be more [practical], because when we start singling out different groups it can be difficult” (Guinan). While certain design features can be good for everyone, not just people with dementia, we must remember that these features that are good for everyone may be essential for others. Given that persons experiencing dementia will live for on average of eight to ten years after their symptoms begin (that can vary considerably given age of person affected), with

predictions that the average duration of early-stage dementia is around six years, considering them as experiencing the built environment is important for their quality of life (Brookmeyer, et al., 2007).

4. If a general, umbrella policy is found, are there grounds to suggest that there is a need to address dementia-friendly principles more specifically within this broader policy?

National policy and research on dementia in general, including research on dementia-friendly communities and design has been more prominent in the United Kingdom, and little information appears to have made its way to planning in BC (Banerjee, 2012; Dudgeon, 2012). It appears that in the United Kingdom, efforts in dementia-friendly communities are mostly policy-driven and more explicitly stated than in BC, where efforts are more community-driven and implicitly covered in current design guides and age-friendly rhetoric (Banerjee, 2012). BC is still in the early stages with age and dementia-friendly communities and much more can be done to improve policy and design guidelines in this area. This statement is not to undervalue the work already started in Vancouver and New Westminster.

If dementia-friendly design were to be a part of planning in every municipality, the OCP is where a commitment could be made to dementia-friendly design as it is the key document for planners that guides all subsequent development. The OCP is the Official Community Plan for each municipality and is the most important document in terms of community planning and vision. All the planners suggested the researcher read it to become aware of the principles and values that guide their work. However, given that the OCP is meant to be a broader policy document, it may be more appropriate for a detailed guide to dementia-friendly design in age-friendly policy initiatives. In addition to working with urban planners, larger municipalities like

Vancouver have social policy departments or social planners on staff with whom to collaborate on this issue. Fraser Health also has department of the Healthy Built Environment that may prove to be a connection between the Health Authority and municipality on this issue.

As planning has its roots in public health, it surprised the researcher that more was not said about health, and that planners often cited health as implicit in policy, or not being well enough addressed by their planning efforts. In the researcher's opinion there appears to be a gap to bridge between the work of health authorities and planners regarding the capacity of the built environment as a health-promoting space and tool.

While it may be challenging to place health issues, of any kind, into other policy arenas, high-level, cross-government mandates could be a helpful tactic in situating health within policy (Harris et al., 2014). Regarding dementia, there is currently a movement towards forming a national strategy by organizations asking the government to organize efforts, which should not only focus on caregiver, medical, and service supports, but should also include the built environment and our public spaces, given the government policy trends towards supporting 'aging in place' through homecare (Chappell & Hollander, 2011). A holistic national policy could be motivational for communities and provide direction. Furthermore, including outdoor spaces may help reduce assumptions that persons with dementia do not go outside.

Summary

There is a big component missing in terms of explicit intent regarding dementia-friendly design principles. Implicit consideration of these principles is not enough if they are to be adhered to and implemented to make a substantive difference in the lives of people with

dementia and their caregivers. Mere indirect inclusion in policy does not translate into application and implementation of principles or ideas.

Inclusion in policy is a good first step, but it does not automatically translate into the built form in the urban environment, especially since development and construction are long-term projects. Furthermore, not all things in all places must be redeveloped for people with dementia; however at the very least, timely maintenance can make many sidewalks and crosswalks more accessible for those with ADRD.

With the rise of city populations, and chronic health concerns, the built environment has a key role to play in promoting health. Through the engagement of all citizens, and the centring of policy around the maximization of human vitality, potential and health, we can use quality, healthy, built environments as part of a set of holistic preventative measures against chronic disease (Nykiforuk et al., 2013). Behaviours depend on context, and if one can produce more favourable, friendly context for those with dementia, one increases the likelihood of positively influencing behaviour, health, and quality of life.

Reflections on the interviews

The group as a whole were very socially conscious, interested in doing good things for their community and making a positive change. The researcher had a sense of open-mindedness from the majority of participants; they all acknowledged that continuous learning is a key part of planning.

The interview process itself was a learning experience, after which 12 out of 13 participants said they would like to know more about dementia in planning as well as the results of the research. The majority (n =6, and six did not respond, one said yes) had never considered

dementia in planning, with one participant stating that dementia was a medical concern, not a local government concern, thus not a subject he felt comfortable discussing.

For the researcher, it was difficult not to probe questions without leading the participants to an area of interest. This was especially noted when the researcher was asking about principles and values. Taking note of her initial desire to guide the participants, the researcher probed with an open-ended neutral rephrasing of the question, for example, “Could you provide me with more detail as to what you mean by that?” When the question was restated the responses provided were restatements of the previous answer, with participants defaulting to the OCP.

Despite this referral to the OCP, accessibility and sustainability were key ‘buzzwords’ in these responses. Planners also acknowledged they have an impact on accessibility and inclusiveness in the community. Most did not speak directly to the health benefits of applying these principles in practice.

The interview was difficult to steer if the participant had a pre-set idea of what he or she wanted to talk about. Despite probes and reverting to the questions, the researcher felt that some participants did not really listen closely and chose to spend more time discussing what they thought was relevant. This led to one participant spending more time on transportation and ‘green’ concerns, and one participant spending more time on indoor spaces and buildings, for example speaking about building code and apartment design.

The researcher also had the impression that most participants were unclear, confused and uncomfortable with discussing dementia in planning. This could be caused by multiple, personal or professional reasons, such as family experiences or being concerned not knowing about the subject would negatively portray the municipality. However, the researcher suspects their

discomfort was because they did not know anything about the subject, they had not prepared for it, and the municipality was not doing anything regarding dementia in a planning way. Despite any initial discomfort, all but one person brainstormed on the topic of dementia to answer the interview questions.

Future research directions

Developing this research, future studies should focus on the discussion regarding dementia and disability. What should the relationship between dementia and disability be in the context of planning and designing dementia-friendly spaces? How do we broaden our understanding of disability? Speaking with planners and following-up with their requests for information may help guide these research questions, and inform planning practice. Furthermore, linking dementia literature with literature on New Urbanism, or therapeutic gardens, may provide potential developments in the key principles, as well as the integration of dementia-friendly design in city or park planning. In addition, continuous research in the public health and psychology literature, linking the quality of the built environment with health outcomes, will help build the body of evidence to support future government policy action.

Most importantly, future research should actively engage with persons with dementia to include their voices in the literature. Currently, the voices of those with dementia are not represented enough in the aging literature, and not at all in the planning literature. Conducting observational walking interviews would be an appropriate way in which to gather information on people's experiences of their outdoor environments. By speaking directly with people with dementia, researchers will gain a deeper understanding on their needs and wants with regard to support and quality of life.

Chapter 7: Conclusion

Just as care at a facility may affect the symptomology of dementia, so can the quality of the environmental design affect behaviour, for better or for worse (Blackman et al., 2003). Significant amounts of research highlight the significance of public spaces in the material, political, and sociological shaping of a community (Gutierrez, 2011). Drawing on Lefebvre's work, and the social model of disability, we also see that spaces are a social product of those communities, a complex construction based on values and principles. This work addressed the perspectives of urban planners on the principles involved with the production of dementia-friendly urban spaces, and uncovered the balancing act planners engage in on an everyday basis to plan their communities.

Regarding individuals with dementia, an accessible physical environment can assist them in achieving their full potential and avoid causing them unnecessary disability (Davis et al., 2009). As they age, many persons will share the experience of forgetfulness and confusion at times, yet not be diagnosed with dementia. A dementia-friendly environment is thus in the interest, and needed by, of a wider population which will benefit from designs that aid navigation and comfort. Memory loss is a part of the human experience in general, and environmental designs that aid in orientation, navigation and enjoyment of public space will have benefits that extend well beyond individuals with dementia (Blackman et al., 2003).

The forces of urbanization and population aging have been identified as being part of the most significant social patterns influencing life in the twenty-first century (Buffet et al., 2012). While there are admirable efforts in inclusive design, problems remain with the scope, effectiveness and enforcement of measures aiming to reduce the inaccessibility of public spaces,

and transport for people with sensory or physical impairments (Blackman et al., 2003). Urban renewal efforts in age-friendly, or dementia-friendly, policy need to move beyond being speculatively worthwhile to being confirmed worthwhile efforts in improving livability for citizens. This research has demonstrated how dementia-friendly design fits within planning policy, and highlighted its key principles which are closely aligned with age-friendly planning efforts. Developing these approaches will translate into policy that promotes health, and consideration for all citizens. Until a time when cures are found for all forms of dementia, the best hope for persons with ADRD is to concentrate on efforts to improve quality of life (Davis et al, 2009; Mitchell et al., 2003). As Howard Frumkin noted in his 2003 publication *Healthy Places: Exploring the Evidence*: “Some places are romantic, and some places are depressing. There are places that are peaceful, places that are frightening and places that are safe. We like some places better than others. Place matters” (p. 1451).

Potential recommendations

Advocating for changes to the BC Building Code to improve accessibility through “universal design” or “dementia-friendly” design is a possibility using concrete design guidelines based in academic research, for example, from Burton and Mitchell (2006). Advocating for these changes may benefit from organizational support from subject matter experts, such as the Alzheimer’s Society of British Columbia. This recommendation stems from the work done on the Vancouver Aging Action Plan, in which dementia was an important feature. Close collaboration with the Alzheimer’s Society of British Columbia is likely part of the reason for the prominence of dementia in this plan. Engaging with organizations such as the Alzheimer’s Society of British Columbia, and producing research supportive of initiatives such as aging in

place, pressures government (at all levels) to fulfill commitments to the Madrid Accord (2002) on age-friendly cities and to promote better health for seniors.

Conducting incremental testing of new principles for urban planning and design on certain streets or areas of a municipality or neighbourhoods with higher senior populations may help address financial constraints of implementing large projects. This would provide the opportunity to get citizen feedback, and make improvements. This could also be conducted through the integration of Health Impact Assessments into the planning process. Furthermore, if researchers were to engage with policy-makers and planners to design evaluations before policy is enacted, data could be collected about the impact of the new design features before and after its implementation, or compare it to other communities that do not have the new feature in place.

While not all urban design interventions are required in every community, the guiding principles allow planners to reflect on what is essential, and to gain feedback from citizens inspiring further application and consideration of persons with dementia in planning.

Knowledge exchange

In many cases the interventions with the greatest impact on population health are those relating to policy and environmental changes (Kansagra & Farley, 2011). Consequently, the value of sharing and applying relevant research, such as this work, far outweighs any challenges that are part of the long process of applying research to practice. Translating large bodies of academic, scientific work into nuanced, effective and contextualized planning policy is ongoing.

In speaking with people now about considering dementia-friendly built form in planning, this research offered an opportunity for planners to consider the issue and become aware that the urban environment has a role to play in assisting persons with dementia in maintaining a good

quality of life, and opened a door for exchanging knowledge on this subject. All but two participants expressed an interest in receiving a summary and resources on dementia-friendly planning. This basic exchange of knowledge should be followed up with the creation of a useful medium of dissemination of information, which the researcher is currently brainstorming. Sharing information on this subject of dementia-friendly planning can benefit the discipline of urban planning by expanding the understanding of the nuanced needs of the population being planned for. This approach is also beneficial in that it provides a concrete health-related concern, dementia, against which to compare and assess the design features being implemented in communities. It also encourages planners to engage with citizens with ADRD who have previously not been considered during the planning process and focus on a segment of the population that is predicted to significantly increase in the coming generations. Dementia-friendly design forces a public conversation on a subject that is often stigmatized, feared and avoided.

An online guidebook or phone application to dementia-friendly planning may be a useful tool to assist planners with understanding and addressing dementia in their community. Furthermore, it may make urban planners more aware of their current practices that are also dementia-friendly so that they might consider them versus other alternatives. There are strong opportunities for creating an engaging, interactive, best-practices guide using current computer or phone 'app' technology. Given current technological trends in mobile smartphone and tablet use, and application is an easy, modern and unthreatening way to introduce new concepts to urban planners. The researcher is working on a model of an application at this time. Given the contextual nature of planning, this application could provide the initial ideal design features that

could then be taken and applied by planners working in a particular area. Furthermore, it could provide a platform for planners with expertise in one area to connect with planners who have strengths in a different area or have implemented an approach which they wish to adopt. Given that professionals and the public expect recommendations, especially relating to health, to be supported by research, this medium would provide a platform for instantaneous dispersal of scholarly recommendations and reviews on how their implementation works in practice (Frumkin, 2003). This would serve as a way to help planners learn continuously and to keep up to date with current literature and others in their field. Furthermore, in academic circles, knowledge can be disseminated through journals such as *Disability & Society*, *Health & Place*, *Canadian Institute of Planners Journal*, *Journal of Aging Studies*, or the *Journal of Urban Design*.

This research, with its findings of planner perspectives, offers insights into knowledge integration in practice and policy. Knowledge integration is more attentive to how research is reproduced, rather than assuming that what is produced in academic circles will funnel down into policy and practice (Green, Ottoman, Garcia, & Hiatt, 2009). Through active discussion and use of up-to-date design tools, research is more likely to come into effect. Consequently, the researcher will take opportunities to present at planning conferences, continuing education workshops, or through regular correspondence with interested planners to make sure they are supported in integrating dementia-friendliness into practice. She hopes to be supported by other interested planners and organizations doing similar work. Given that the field is so complex, interdisciplinary workshops with health professionals, transportation engineers, environmental psychologists and geographers would provide a nuanced understanding of the connections

between health and place, as well as the opportunity to share a vocabulary and evidence on these issues, and hear each other's perspectives.

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Appendix I: Policy Documents

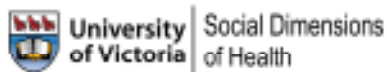
List of policy documents include in research:

1. Burnaby – Voices of Burnaby Seniors: A Survey of Burnaby Citizens 55 years and Older (2007); Burnaby Social Sustainability Strategy (2011); OCP⁶
2. Colwood – City of Colwood Planning and Development Guide (2009); OCP
3. Coquitlam – OCP
4. Delta – OCP
5. Esquimalt – OCP; Strategic Priorities at the Township of Esquimalt (2013)
6. Langford – OCP
7. Langley, City of – OCP; City of Langley Social Plan (2007)
8. Lions Bay – OCP
9. New Westminster – OCP; Seniors Engagement Toolkit (SET) (2011); Age-Friendly City Initiative: Consultation Results Report (2009)
10. North Vancouver, City of – OCP; City Shaping: An Age-Friendly community summary (2011-2012)
11. North Vancouver, Municipal District – OCP
12. Oak Bay – OCP
13. Pitt Meadows – OCP; Universal Design Guidelines for Outdoor Spaces: Plan and Design for Choice, Ensuring Accessibility (2010)
14. Port Coquitlam – OCP
15. Port Moody – OCP

⁶ OCP – Official Community Plan. All OCPs are those currently being used and available from the municipality.

16. Richmond – OCP; Parks, Recreation & Cultural Services Older Adults Service Plan:
Active and Healthy Living in Richmond (2008-2012)
17. Saanich – OCP; Age-Friendly British Columbia: Saanich Summary (2013); Global Age-Friendly Cities Project: Saanich Report (2008)
18. Sidney – OCP
19. Surrey – OCP
20. Victoria – OCP; Strategy to Improve: Civic Engagement at the City of Victoria (2012)
21. View Royal – OCP; View Royal Strategic Plan (2006-2008)
22. Vancouver – OCP (Downtown Eastside, Norquay, Point Gray, West End, Mount Pleasant); An Age-Friendly Action Plan: Report back on addressing the needs of persons with dementia and the Seniors Dialogues (2013); The Age-Friendly Action Plan: A Safe, Inclusive and Engaging City for Seniors (2013-2015); Land Use and Development Policies and Guidelines: Enhanced Accessibility Guidelines (2013); A Healthy Vancouver for All: a Healthy City Partnership MOU between the City of Vancouver and Vancouver Coastal Health (2013)
23. West Vancouver – OCP; Age-Friendly British Columbia: West Vancouver Summary (2013)
24. White Rock – OCP

Appendix II: Informed Consent form



Participant Consent Form

Community Settings: British Columbian perspectives on designing healthy urban public spaces

You are invited to participate in a study entitled *Community Settings: British Columbian perspectives on designing healthy urban public spaces* that is being conducted by Maria Przydatek.

Maria Przydatek is a graduate student in the department of Social Dimensions of Health at the University of Victoria and you may contact her if you have further questions by phone at 778-679-5442 or by email at mprzy@uvic.ca.

As a graduate student, I am obligated to conduct research as part of the requirements for a Master's degree in Social Dimensions of Health. This research is being conducted under the supervision of

Dr. Neena Chappell and Dr. Joan Wharf Higgins. You may contact my supervisors at:

Dr. Neena Chappell

tel.: 250-472-4465

email: nlc@uvic.ca

Dr. Joan Wharf-Higgins

tel.: 250-721-8377

email: jwharfhi@uvic.ca

Purpose and Objectives

The focus of the study is to learn about how British Columbia's urban municipal governments create healthy urban public spaces. My research will gather information on the perspectives, and values, for implementing healthy communities. This knowledge will add to the literature on the social dimensions of health and urban design. The objective of this study is to understand participants' perspectives on creating future healthy urban planning policy.

Importance of this Research

It is important that our urban public spaces be considered when discussing health, so that we can live well in our communities as we grow and change. This is especially relevant in industrialized countries, where an ever growing proportion of the population is living in urban settings.

Understanding the perspectives of those working in policy and urban planning is an important component of developing effective and comprehensive policy in urban planning.

Participants Selection

You are being asked to participate in this study because of your involvement in municipal government policy making and/or urban planning in a community included in this research.

What is involved?

If you consent to voluntarily participate in this research, your participation will include a one hour long interview with me. The interview will take place at the location of your convenience or over the phone. The interview will be recorded, and written notes will be taken by the researcher. Later a transcription will be made. You will be contacted by me after your interview to review the summary of your interview transcription for accuracy. This should take up an additional 30 minutes of your time.

Inconvenience

Participation in this study may cause some inconvenience to you, as the interview requires an hour of your time to complete and you will be asked to read over your summarized interview transcription after the interview. The interview can be scheduled at your convenience, and you can review the transcript at your leisure.

Risks

There are no known or anticipated risks to you by participating in this research.

Benefits

Although I cannot guarantee any direct benefit to you for participation in this study, you will have contributed to efforts directed at improving the lives of persons in our society. Applying your knowledge will enhance the understanding of how communities and cities impact health. By improving understanding of this issue, developments can be made to better adapt policy and public spaces to the needs of all people.

Voluntary Participation

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be used only if you give permission to use it. If you withdraw, you may also choose to withdraw just your demographic data, just your interview data, or all your data from the study at no consequence. If you withdraw, a Withdrawal form will be emailed to you to confirm your decision and which data need to be removed from the study.

On-going Consent

To make sure that you continue to consent to participate in this research, upon every contact with you, I will clearly explain that you can withdraw from the study at any time. Possible ongoing contact includes: setting up the interview, the interview, and review of summarized transcription.

Anonymity & Confidentiality

Your anonymity cannot be protected from the researcher conducting the interview. However, no identifying information will be attached to your responses unless you specifically state that you consent to having your name, job title, or geographical location attributed to your comments. Furthermore, any information collected will be kept confidential by the researcher and her supervisors.

The confidentiality of the electronic and audio-recorded data will be protected by being kept on the researcher's password-protected computers in a password secured folder. Hard copy data, consent forms and handwritten notes, will be kept in a locked drawer in a locked office at the Centre on Aging, University of Victoria.

Dissemination of Results

It is anticipated that the results of this study will be shared with others in the following ways: thesis, journal articles, executive summaries, and presentations at scholarly meetings.

Disposal of Data

All paper copies of consent forms and handwritten notes will be scanned and kept as electronic data for five years. After five years, all electronic and audio-recorded data from this study will be erased from the researcher's password protected computers. All paper copies of documents will be shredded after I, the researcher, submit my study to the University of Victoria in 2014.

Contacts

Individuals who may be contacted regarding this study include Maria Przydatek, Dr. Neena Chappell and Dr. Joan Wharf Higgins. Please refer to the beginning of this form for contact information. In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca). Do you have any questions?

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to participate in this research project.

Name of Participant

Signature

Date

PLEASE SELECT STATEMENT only if you consent:

Confidentiality

I consent to be identified by name /credited in the results of the study: _____
(Participant initials)

I consent to have my responses attributed to me by [name] in the results: _____
(Initials)

I consent to have my responses attributed to me by [job title] in the results: _____
(Initials)

I consent to have my responses attributed to me by [municipality] in the results:
_____ (Initials)

Future Use of Data

I consent to the use of my data in future research: _____ (Participant initials)

I **do not** consent to the use of my data in future research: _____ (Initials)

I consent to be contacted in the event my data is requested for future research: _____
(Initials)

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix III: Interview Questions

Indented questions are probes.

Approximate time: 60 min.

Hello, it's Maria. I appreciate you agreeing to share your experiences with me for my thesis research. I am looking forward to hearing your thoughts on the role of urban planning in creating healthy communities. Just before we begin, I wanted to check in if you have any questions about the consent form or the study in general?

Just to go over some of that information, I wanted to make sure you know participation is voluntary, and there are no consequences for withdrawing at any time. Also, there are no consequences to you if you would like to have your interview, and demographic data removed from the study. If you have any questions at all about the study or your participation at any point in time, please get in touch with me. My email and phone number are on the consent form, but I will give you my email at the end of the interview as well.

1. To start, could you tell me your job title and a bit about your work?
 - 1.1. What interested you in the profession?
 - 1.2. What are your goals as a planner?
2. What types of guiding principles/directives inform your work?
 - 2.1. How well do you think they reflect the general population's needs?
 - 2.2. How well do you think they reflect the needs of the elderly?
3. In your experience, is there a lot of time spent on revisiting values during the design process?
 - 3.1. Why or why not?
 - 3.2. What are some values you like to see guiding policy and design?
4. What part of policy that you use is most effective in your opinion?
 - 4.1. Is there a part of policy that is most helpful for you?
 - 4.2. Are there design guides/resources that you have to implement?
 - 4.3. Is there a list of principles/directives used when implementing and developing policy?
5. What kind of values/principles/directives? Tell me about your community's population and how it influences your planning.
6. Is there an engagement process to talk with the general public?
 - 6.1. What does it look like?

- 6.2. What types of people do you talk to?
- 6.3. Do you use their life histories in designing the environments? / How do they engage with you? How does the process of engagement look?
 - 6.3.1. Why or why not?
 - 6.3.2. How do you use them?
7. Are there health considerations that you take into account when planning?
 - 7.1. What are they?
8. Do you take vulnerable people into account?
 - 8.1. What are some examples of vulnerable people/population within your community?
9. What sort of (dis)abilities do you consider when starting to plan a public space?
 - 9.1. Do you take people with **dementia** into account?
10. Would you engage persons with **dementia** in the policy and planning process?
 - 10.1. If yes, how?
11. What do you think are the possible health implications for making **dementia**-friendly environments?
 - 11.1. For not making **dementia**-friendly environments?
12. Do you (policy-makers) think that there are any barriers to creating ‘**dementia**-friendly’ communities?
 - 12.1. What are they?
 - 12.2. In your opinion, what might be their cause?
13. Do you think that there are incentives to creating ‘**dementia**-friendly’ communities?
 - 13.1. What are they?
 - 13.2. What are there opportunities to make communities more inclusive?
14. What values would you draw on to create a dementia-friendly community?
 - 14.1. What resources would you need? Guidelines?
 - 14.2. What organizations would you turn to for assistance?
15. If you were in designing a ‘**dementia**-friendly’ outdoor public space, given current planning regulations, what design features would you work on first and why?

16. Do you think you could transfer any of the guiding principles from your other planning projects to inform designing something friendly for people with dementia?
17. Do you think dementia-friendly design is likely to happen?
 - 17.1. Why or why not?
 - 17.2. When? Where?
 - 17.3. Under what circumstances would it become part of the mainstream?

Thank you very much for your thoughtful answers. I really think you offer a valuable perspective. As you can see, within healthy communities, I am not only interested in the social dimensions of health and urban design, but also about how they apply to persons with dementia. Your comments have been most insightful for my work. Is there anything you would like to add in terms of dementia specific urban planning?

I would like to take this moment to see if you have any more questions or comments about the research? If any concerns or questions come up, please do not hesitate to contact me. My number is...

Lastly, I would like to give you this gift card as a thank-you for your time. Even if at any time you withdraw from the study, you can keep it.