Respect and Social Inclusion

How this domain relates to active ageing

Social inclusion and respect are important predictors of overall health and well-being for older people (WHO, 2003). In particular, social inclusion is essential for 'participation' - a key determinant of active ageing (WHO, 2007).

The impact of social inclusion/exclusion:

Social *inclusion* is characterized by societal elements that would include active participation by citizens, equality of opportunities, and basic levels of well-being (Sen, 1999). People who are socially included have greater access to resources – economic as well as those which come from living within a society such as social networks and supports (Shaw, Dorling, & Smith, 1999, p.223). Social *exclusion* overlaps with 'poverty' and 'deprivation', and refers not only to the economic hardship of relative economic poverty, but also incorporates the notion of the process of marginalization – how individuals come, through their lives, to be excluded and marginalized from various aspects of social and community life (Shaw, Dorling & Smith, 1999).

There are many negative health outcomes associated with social exclusion. According to the World Health Organisation, social exclusion is socially and psychologically damaging, materially costly, and harmful to health including premature death (World Health Organisation, 2003, p.16). The mechanisms through which social exclusion impacts health have been articulated by the World Health Organization in its 2008 report *Understanding and Tackling Social Exclusion*:

> Constitutively exclusionary processes restrict participation in economic, social, political and cultural relationships which negatively impact on health and wellbeing. Instrumentally, these restrictions result in other deprivations, e.g. poor labour conditions or absence of paid work, leading to low income, poor nutrition, etc., which contribute to ill-health (p. 8).

Studies examining the consequences of social exclusion for older populations demonstrate social isolation predicts numerous health problems such as morbidity and mortality from cancer and cardiovascular disease (Hawkley, Burleson, Berntson, & Cacioppo, 2003; Hawkley & Cacioppo, 2003), re-hospitalization (Mistry, Rosansky, McGuire, McDermott, & Jarvik, 2001), as well as a myriad of mental health consequences such as depression (Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006).

The processes of social inclusion/exclusion:

Factors that impede social inclusion include poverty, gender, disability and racism (Viswanathan, Shakir, Tang, & Ramos, 2003). In the case of older populations, social exclusion is often a result of structural inequalities experienced in early life such as education, employment and healthcare, all of which are exacerbated by social determinants such as gender and ethnicity (Wilkinson, 1996).

Stigmatization and marginalization including ageism, also contribute to the social exclusion of older people. Ageism – the prejudice or discrimination against or in favor of any age group (Angus & Reeve, 2006, p.139; Butler, 1975) – is a form of discrimination that, unlike others such as racism and sexism, is widespread, overlooked and accepted in western cultures (Cuddy, Norton, & Fiske, 2005; Nelson, 2005; E Palmore, 1999). Indeed, as Butler and the Anti-Ageism Task Force at the International Longevity Center highlight, ageism is "strikingly evident" in many arena's within the United States including the workplace, healthcare and media (ILC-USA Anti-Ageism Task Force, 2006, p. 4-13). Ageism obscures understanding of aging processes, reinforces structural inequalities, and shapes patterns of behavior in both older people and other members of society (Holstein & Minkler, 2003; Thornton, 2002; Tornstam, 1992). Indeed, gerontologists argue negative ageist attitudes may be at the root of some of the worst problems that can affect older people (Angus & Reeve, 2006) including elder abuse (ILC-USA Anti-Ageism Task Force, 2006; K. Quinn & Zielke, 2005; M. J. Quinn & Tomita, 1986).

Ageism and in particular institutional ageism (see ILC-USA Report, 2006 for a description of the various types of ageism), also manifests itself in exclusionary practices such as age segregation. For example, age is often used to organize community-based recreational activities such as youth recreation leagues and senior centers. Although indeed, some older adults prefer inter-cohort leisure experiences, it has been suggested that organizing activities according to age can interfere with social inclusion by "blocking essential opportunities for individuals to meet, interact, and move beyond "us versus them" distinctions (Hagestad & Uhlenberg, 2005, p.349).

The impact of negative age stereotypes:

Societal goals of respect and social inclusion are challenged by negative stereotypes and media images of aging that persist within mainstream culture; instead of reflecting the contribution, strength and resourcefulness of older people they are often depicted as weak, useless and dependent. This is particularly true for older women (United Nations, 2002, p.38). The literature highlights two key ways in which negative age stereotypes impact the well-being of older people – as individuals and as a specific social group.

Individual impact. Negative stereotypes are capable of adversely affecting cognitive and physical outcomes of older persons (Donlon, Ashman, & Levy, 2005, p.307). Scholars working in the area of identity and aging argue the negative stereotypes to which older people are commonly exposed create significant challenges for their sense of self (Sneed & Whitbourne, 2005, p.386). Research studies additionally demonstrate negative age stereotypes increase cardiovascular stress in older persons as well as impacting the ability of older people to respond to stressors in their environment (Levy, 2003, p.207).

Specific social group impact. At a broader level, ageist attitudes and stereotypes can negatively influence government policy and programming for older populations. There is some research to suggest age discrimination plays a substantial and negative role in generational equity debates and can impact government decisions related to resource allocation for older populations (Garstka, Hummert, & Branscombe, 2005; Robertson, 1997).

Social inclusion is one of the most robust predictors of health among older people and a key determinant of active ageing. Social inclusion is imperative both as a rights issue, in terms of changing patterns of social and economic exclusion, as well as a health issue, in terms of promoting, maintaining and improving the health and well-being and active ageing of older people. The current literature in this area makes it clear that age-friendly cities are socially

inclusive cities where all citizens, regardless of age, are respected and have opportunities to participate and contribute.

Respect:

There is very little empirical research dedicated to exploring 'respect' and the related health impact of this kind of social behavior. One study was located in which survey research was used to examine "rudeness" in America (Farkas, Johnson, Duffet, & Collins, 2002). Eighty eight percent of survey respondents indicated they "often or sometimes come across people who are rude and disrespectful" (p.11). Findings also describe older Americans as having better experiences than younger people when it comes to civility; 59% of people over 65 (compared to 39% of people under 30) give people excellent or good grades when it comes to treating elderly with respect and courtesy (p.12). In other research, 84 older adults (60+) were asked to indicate on a list of 20 examples of ageism (e.g., denied medical treatment, ignored by waiter) if, and how often, they have experienced that event. Thirty percent of respondents indicated they had been "treated with less dignity and respect" (E Palmore, 2001).

Social inclusion and respect from a NYC perspective

The way in which a city is perceived and experienced by its inhabitants, including whether it is considered a socially inclusive or exclusive environment in which to live, depends on individual circumstances (e.g., SES, personality) as well the social and material conditions of the environment. Certain characteristics of New York City play a role in the processes of social inclusion including diversity, segregation, and the cost of living.

New York City is one of the most racially and ethnically diverse cities in the world (Taylor & Lang, 2005). Included within this diversity is a large immigrant population; 44% of adult New Yorkers are foreign born (New York City Department of Health and Mental Hygiene, 2006). The ethnic diversity of New York creates an enormous challenge to those interested in promoting a socially inclusive society. In particular, social inclusion in a multicultural city such as New York requires extensive translation services to ensure residents have meaningful access to City programs, services and activities.

Social inclusion can also be compromised by segregation – a phenomenon that can be reflected spatially as well as along racial/ethnic and socioeconomic lines (Wallace (R Wallace, Wallace, Ahern, & Galea, 2007). New York City is one of the most segregated places to live in the United States (Charles, 2003; Massey & Denton, 1993).

Finally, as mentioned previously, poverty and social inclusion are interconnected such that people with lower socioeconomic status (SES) tend to be more socially excluded than those with a higher SES. New York is ranked the fifth most expensive city in the world in which to live (Employment Cities Abroad (ECA) International, June 2008). The high cost of living in New York City is a financial burden for many residents and can increase their risk of living in poverty. For example, researchers studying the rent affordability problem in New York City report falling real incomes and rising rents have created housing costs that are a significant burden to residents (Been et al., 2005, p.1).

Social inclusion and respect for older New Yorkers specifically

Certain groups of older New Yorkers are at an increased risk for social exclusion – those who are immigrants, poor, and/or disabled.

There are a substantial and growing number of minority elders in NYC. According to the 2000 Census 12% of foreign born New Yorkers are over the age of 65 and nearly one in every two elderly New Yorkers is part of the city's ethnic minority population (New York City Department of Health and Mental Hygiene, 2006; US Census 2000). Materials, products and programs that are culturally as well as linguistically appropriate are necessary to ensure these elderly New Yorkers have the opportunity to participate.

Other social and demographic factors such as gender, disability, and poverty combine with age to increase the possibility of stigmatization and challenge social inclusion and individual feelings of respect. Disability, described as activity limitation, increases with age. In New York State, 34% of residents aged 65-74 and 46.4% of residents aged 75+ report an activity limitation (New York State Department of Health, 2003). This is similar to New York City where 46% of residents over the age of 65 live with disability (J. Walker & Herbitter, 2005, p.9). Negotiating the physical environment associated with fast-paced large urban centers such as New York City can be incredibly challenging particularly for individuals with limited mobility and may create additional barriers to social inclusion for older residents. Poverty represents another potential barrier to social inclusion. New measures of poverty that take into consideration the high cost of living in New York City indicate 32% of older New Yorkers live in poverty; more older women than older men live in poverty (New York City Center for Economic Opportunity, 2008).

One of the potential consequences of social exclusion and age discrimination for older people is elder abuse. There have been two ways in which this relationship has been explained. First, it has been suggested that ageism in the media is a causation factor for elder abuse (e.g., ads which objectify seniors as disposable or expendable perpetuate abuse of the elderly) (Ward-Hall, 2004). Secondly, ageism has been linked to the way in which denial and rationalization has been used by those who perpetuate elder abuse (Laws, 1995b; Tomita, 1990). It is difficult to determine the prevalence rates of elder abuse as it is understood to be underreported due to issues of fear and stigma. Taking these issues into consideration, however, it has been estimated that one to three million older Americans are victims of abuse (Lachs & Pillemer, 2004).

Objective for Action: To promote respect and social inclusion for older New Yorkers

A socially inclusive city, in which older residents are respected, is a place where they feel a sense of ownership and belonging. When elderly citizens are out in the city, actively engaging with its people and places, they demonstrate a sense of entitlement that is only possible when they are *included* and *respected* members.

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Information and Communication

How this domain relates to active ageing

"Communication is the foundation of human interaction and optimal survival is dependent upon our ability to transfer and receive information" (D'Wynter, 2006, p.256).

Communication is vital to the well being and active aging of older adults (Hummert & Nussbaum, 2001). The availability and access to information and effective forms of communication are predictors of overall health and well-being for older people. In particular, information and communication are essential for optimizing opportunities for 'good health' and 'participation' - key determinants of active ageing. "Seniors who cannot gain access to information and services because of illiteracy, language barriers, lack of technological knowledge, or a general lack of awareness about the help that is available are at a severe disadvantage when trying to connect with others" (J. Walker & Herbitter, 2005, p.7). When individual abilities to communicate are compromised, or channels of communication are unsuccessful and information fails to reach older people, their independence is threatened, their ability to access services is diminished, and their opportunities to participate in society are severely reduced.

Information Access and Older People:

Research indicates older people are looking for specific kinds of information. In a study of the information needs of the elderly, Williamson found the top three topics of information sought by this group were (in order) health, income and finance, and recreation (Williamson, 1995). Municipal and state governments play an important role in providing these kinds of information. Studies exploring the information needs and behavior of older people highlight two key sources for information for older populations – the media and informal sources.

Media:

Like other age groups, older adults spend considerable time consuming mass media (Robinson, Skill, & Turner, 2004). Research indicates television viewing increases over the lifespan and older adults watch more television than any other age group including children (Simmons Market Research Bureau, 1997). Television has been found to be an effective communication medium and information source for public health messages (Connell (Connell & Crawford, 1988).Other forms of media that are consumed regularly by older adults include the radio, newspapers and magazines (Robinson, Skill & Turner, 2004).

Informal Sources:

Informal networks are also important sources of information for older people. In a longitudinal study of 202 elderly people, Williamson (1995) found they relied most heavily on others within their social networks for information. Other studies demonstrate the telephone is one of the most important modes of communication for the elderly (Haddon, 2000). The significance of informal channels for information has implications for Age Friendly City initiatives. For example, targeting younger family members and neighbors may be a very effective way in which to disseminate information to older people.

Key Issues in Information and Communication:

Information and Communication Technologies (ICT)

Interacting with technology is essential in today's society. Technology can be a support for information sharing and communication, it also however, can operate as a barrier for some people. Technology, and in particular computers and the internet, is used extensively in the delivery of information today and individuals who do not have access, or the ability to use these technologies, are at a social disadvantage.

Research indicates the use of computers is a minority activity among older adults, especially when compared with the use of older technologies such as DVD players and cell phones. Although studies have found it may take some older people longer to adopt new technologies and they may require more training to learn to use them, studies on the use of technology by older adults reveal they are willing and able to adopt new technologies (Melenhorst, Rogers, & Caylor, 2001), and the number of older people becoming "silver surfers" is growing fast (Selwyn, Gorard, Furlong & Madden, 2003). According to recent surveys, 35% of people over 65 access the internet and 40% use (U.S. Department of Commerce, 2002). Research also illustrates that once online older people are "enthusiastic users" of the internet and in particular are attracted to "communication and information searches" (W. Rogers, Mayhorn, & Fisk, 2004, p.i).

Research illustrates computer use is stratified by gender, age, marital status and educational background (Selwyn, Gorard, Furlong, & Madden, 2003), and various issues have been identified that may impede the use of technologies by older people. In a study that asked older adults to describe their difficulties with new technologies, researchers found 47% of problems were related to individual health problems and in particular functional limitations (visual, hearing and mobility) (W. A. Rogers, Meyer, Walker, & Fisk, 1998). Socioeconomic status has also been associated with reduced computer use: research has shown those with less education, lower income as well as ethnic minorities lagged behind in internet usage (Lenhart et al., 2003), a phenomenon most pronounced with those over the age of 55 (Fox, 2004). In other research that explored the reasons for non-use, other variables were found to be significant; researchers report non-use may be more about the perceived lack of benefit, attraction, interest, or usefulness rather than access or feeling alienated from new technologies. Indeed, they explain, "the use of mobile phones in our sample refutes the notion that older people practice a blanket rejection of new or unfamiliar technologies" (Selwyn, Gorard, Furlong & Madden, 2003, p.577). Based on their findings authors suggest "rather than trying to change older adults, older adults should be involved in changing ICT" (p.578). Other reasons some older adults may not be accessing computers relate to message design, lack or inadequate training or a combination of the two.

Individual Functional Ability

Elderly people are often challenged by biological, physiological and neurological changes that affect the quality of their communication as well as their ability to effectively receive and interpret incoming communication. Communication impairments can significantly reduce quality of life for older people (D'Wynter, 2006; Erber & Scherer, 1999). Age-related changes in sensory and cognitive function in particular can have a serious and negative effect on communication.

Reduced sensory function is widespread among older people and one of the most common impediments to effective communication. Many older people with hearing and vision loss experience reduced communicative capacity (Erber & Scherer, 1999, p.4) which negatively impacts quality of life for the elderly, their families and their loved ones (Kirkim, Serbetcioglu, Odabasi, & Mutlu, 2007). Hearing loss is one of the most prevalent chronic conditions in the elderly population affecting an estimated 32% of individuals older than 65 and over 50% of individuals older than 75 (Centers for Disease Control and Protection, 2007). The ability to see and interpret visual stimulus (including written materials) is central to human communication (D'Wynter, 2006) and age-related changes to vision are prevalent among older people. The Centers for Disease Control and Prevention (2007) report 14% of individuals older than 65 and 22% of individuals older than 75 experience vision trouble.

Reduced cognitive function also challenges the efficacy of communication among older people. Word retrieval, ideation (formation of an idea), written or spoken sentence production and understanding, attention and concentration, and memory are all important to successful communication. Research has demonstrated age-associated cognitive decline (mild and more severe forms including dementia) increases with age and is a prevalent condition even among the young-elderly (Schonknecht, Pantel, Kruse, & Schroder, 2005).

Culture and language

Cultural as well as linguistic differences can create barriers to effective communication (D'Wynter, 2006) and culturally appropriate information has been shown to enhance the effectiveness of health communication programs (Kreuter & McClure, 2004). Researchers examining quality of care with 122 Chinese and Vietnamese-American patients argue linguistically and culturally appropriate healthcare services may lead to improved health and quality of care for patients with limited English language skills (Ngo-Metzger et al., 2003).

Cultural ageism can also be a barrier to communication (Nussbaum & Baringer, 2000). Research indicates patronizing talk, referred to as "elderspeak" – a slow, exaggerated speech that has been described as very similar to baby talk – is a common feature of intergenerational communication that can negatively impact communication (Kemper, 1994).

Health Literacy

Health literacy is the ability to read and comprehend basic health related materials such as prescription bottles and appointment slips. Research illustrates individuals with lower levels of health literacy have worse health, lower use of preventative services, and increased risk of chronic disease (Gazmararian, Williams, Peel, & Baker, 2003). Among community-dwelling elderly people, inadequate health literacy was found to predict mortality (Baker et al., 2007)) and is independently associated with poorer physical and mental health (Wolf, Gazmararian, & Baker, 2005).

Information and communication from a NYC perspective

As mentioned previously, New York is one of the most multicultural and multi-lingual cities in the world. This diversity plays a role in the effectiveness of information and communication systems across the city. Recognizing the need and importance of culturally and linguistically relevant information, local and state governments have been acting to ensure equal access to

information for all residents of New York. For example, in July 2008 Mayor Bloomberg signed the City's first Language Access Executive Order (Executive Order #120) which requires all city agencies to provide language assistance in the top six languages spoken by New Yorkers – Spanish, Chinese, Russian, Korean, Italian and French-Creole.

A second issue affecting communication and information sharing in New York relates to the noise associated with large urban centers. Noise pollution is unwanted human-created sound that has the effect of being annoying, distracting, painful, or physically harmful. Research has shown noise exposure is a public health concern that impacts many activities of daily living including communication (Passchier-Vermeer & Passchier, 2000). Noise may be increasingly significant for older people whose communication abilities (e.g., hearing) may be compromised. According to the New York City Department of Environmental Protection, noise complaints are the number one quality of life issue for New York residents. In July 2007, New York City's new noise code (Local Law 113 of 2005) was imposed. Presented by Mayor Bloomberg, the legislation provides the first comprehensive overhaul of the New York City Noise Code in over 30 years.

A large urban center such as New York also offers certain communication and information advantages. As the largest hub of media production in the United States and also the nation's largest media market, New York is a major global center for the television, music, newspaper and book publishing industries. Taking into consideration the diversity of New Yorkers, the city also has, for example, a major ethnic press with 270 newspapers and magazines published in more than 40 different languages. The vast and comprehensive media outlets located within the city of New York provide extensive opportunities for organizations and governments seeking to communicate with, and provide information for, residents.

311 is New York City's phone number for government information and non-emergency services. In April 2008 Mayor Bloomberg announced the expansion of 311 to include human service referrals, creating the nation's largest social service information and referral center. All calls to 311 are answered by a live operator, 24 hours a day, seven days a week and immediate access to translation services in over 170 languages is available. The service is well-used with a weekly call volume over 40,000.

Information and communication for older New Yorkers specifically

Current status of older New Yorkers:

- Approximately 27% of older New Yorkers speak English less than "very well" (J. Walker & Herbitter, 2005). In some neighborhoods however, linguistic isolation is particularly concentrated. For example, in Manhattan's Chinatown two thirds of persons over 65 years of age are "linguistically isolated" (Gusmano, Rodwin, & Schwartz, 2008)/
- According to the 2005 American Community Survey, over 16% of older New Yorkers had sensory disabilities involving sight or hearing (from Laurie need to check)

New York Programs and Organizations Promoting Communication among the Elderly:

"Many of the most serious challenges of aging – limited mobility, isolation, reduced income, and the need for health care information and assistance – are well suited to technology-based solutions," declares the Web site of a New York City non-profit called Older Adults Technology Services (OATS). "Yet seniors are often excluded from these opportunities due to lack of access to technology and training." OATS is one of the organizations that aim to provide this training, with the goal of "enhancing the social and civic engagement of older adults."

Information is not reaching older adults in New York:

Information, including health and city programming messages, is ineffective if it does not reach its target audience. A 2003 national survey of older adults found that one in five (20%) adults aged 65 and older does not know whom to call for information about local services (AdvantAge Initiative, 2004b). A lack of awareness of services has been reported in New York City by Walker and Herbitter (2005) in their report *Aging in the Shadows* and in the Council of Senior Centers & Services of NYC document *Growing Old in New York City: The Age Revolution* (2006). An Age Friendly New York is a city in which older residents are both aware of the avenues of communication and information and they are readily available and accessible to them.

Despite the incredible variety and volume of media available to New Yorkers generally, a search of these resources (radio, television, and newspapers) indicates very little is targeted to older residents specifically.

Objective for Action: To improve the efficacy of communication and information delivery processes for older adults in New York City.

Effective communication and access to information are key predictors of active ageing and essential components of age-friendly city initiatives. Possible areas for action that emerge from the literature and are consistent with the findings include improving health literacy, educating communicators and information designers and distributors, and addressing individual communication disorders.

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Civic Participation and Employment

How this domain relates to active ageing

Engagement in life is positively linked to quality of life and is an essential component of active ageing (World Health Organisation, 2007). Two important arenas of engagement for older adults are civic participation and employment. Civic participation and employment impact several determinants of active ageing including "economic", "health", and "social" (World Health Organisation, 2002a).

An age-friendly city is an inclusive city of opportunities where older people have a range of meaningful civic and employment options available and accessible to them.

Civic Participation:

Civic participation (also referred to as civic engagement) is described as citizen action that has public consequences for communities and the polity (Christiano, 1996). Based on findings from a survey of 254 retired people, Kaskie and Gerstner (2004) argue that when applied to older people, civic participation should be defined as a role that involves voluntary or paid participation in an activity that occurs within an organization that has a direct impact on the local community. There is a substantial body of literature examining the role and benefit of civic participation in the lives of older people. A review of this work illustrates the primarily positive influence of this form of engagement to the health and quality of life of older people.

Civic participation can take many forms including civic service, volunteerism and mutual aid. Researchers in this area have highlighted two key spheres of civic participation (McBride, Sherraden, & Pritzker, 2006):

a) Social - actions that connect individuals to others and that relate to care or development (e.g., donating, contributing to, and volunteering for individual, group, association, or non-profit organizations)
b) Political – behaviors that influence the legislative, electoral or judicial process

<u>Benefits of civic participation:</u>

There has been a great deal of research attention focused on the benefits of civic participation and results suggest this form of engagement is advantageous for older people, others, and communities. In terms of individual benefits, civic participation has been positively associated with better physical and mental health in older adults (Fried et al., 2004; Kaskie, Imhof, Cavanaugh, & Culp, 2008). Research on volunteering specifically has reported reduced mortality (Musick, Herzog, & House, 1999), and higher levels of well-being (measured by self-rated health, functional dependency and depressive symptomology) among older volunteers (Morrow-Howell, Hinterlong, Rozario, & Tang, 2003). In a longitudinal study of 300 women, Moen and colleagues (1992) found participating in community organizations was associated with better health. Results from intergenerational volunteer programs such as Experience Corps, illustrate

positive health benefit (improved physical, cognitive and social activity) for older adult participants while simultaneously improving educational outcomes for children (Fried et al., 2004).

Studies on mutual aid indicate providing aid to friends and family is positively related to mortality and functional status, as well as positive well-being (Krause, Herzog, & Baker, 1992). In addition to physical health benefits, Hinterlong and Williamson (2006) report civic engagement has also been shown to enhance social support networks, increase ones social status, and reinforce personal knowledge and skills.

Civic participation by older people has also been shown to benefit others and communities. In a study of mutual aid Barker (2002) reports more than two thirds of older Americans (over 60 years of age) provide assistance to friends and neighbors, a service that reduces social isolation and delays the need for formal paid services for those supported. Children and youth also benefits (e.g., improved learning and attendance rates) from educational programs in which older adults are involved (Wheeler, Gorey, & Greenblatt, 1998). Civic participation by older adults also helps to build strong and supportive communities, indeed, "civic engagement is a vital element in the maintenance of healthy, livable communities" (Hinterlong & Williamson, 2006, p.14).

Motivation and predictors of civic participation:

People's motivations for civic participation vary although most reflect a sense of civic responsibility (Burr, Caro, & Moorhead, 2002). Research has shown that in several areas of civic participation (volunteering, giving to charities, and participation in civic associations) there is a core group of individuals who are responsible for the majority of contributory effort and the individuals in this core tend to be older (Reed & Selbee, 2001). Two common civic behaviors for older people are voting and volunteering (McBride, 2006). A significant number of older adults participate in politics through voting; according to the US Census Bureau (2006), 79% of citizens 55 years of age and older were registered to vote and 72% of them voted in the 2004 election. A considerable number of older Americans also spend their time volunteering. Based on data from the Current Population Survey (a survey of 60,000 American households conducted by the U.S. Census Bureau and the Bureau of Labor Statistics), volunteering rates for people over 65 years of age was 23.5% in 2005. These rates were similar to other age groups – teenagers and adults 45-64 years of age – however older adults are the most likely group to serve 100 hours or more a year (Corporation for National & Community Service, 2006). Other common forms of civic participation are mutual aid/care giving to friends, family and neighbors, and donations (time or monetary) to community groups and organizations including non-profit and religious groups.

Several key predictors of civic participation are identified in the literature. These can be divided into individual-level and community-level predictors. The most salient predictors at the individual level are health, age and socioeconomic status including education and income (Burr et al., 2002; Hendricks & Cutler, 2004). At the community-level, predictors of civic participation are reportedly linked to social cohesion and social capital. Social cohesion and social capital are similar community development concepts used to describe "the extent of connectedness and solidarity among groups in society" (Coleman, 1990; Putnam, 2000). The community characteristics that promote civic participation are: length of residence in the neighborhood and residential stability (Kang & Kwak, 2003). Many older adults are long-standing residents in their communities and maintain a strong desire to age in place; according to survey data from AARP

(2006), 95% of American adults over the age of 75 expressed a desire to remain in their local community. Promoting and facilitating aging in place benefits the community by providing stability and enhancing social cohesion which, in turn, encourages civic participation among all community residents including the elderly.

Employment:

There is a great deal of diversity of employment experience among older adults including work that is part time, contract or consulting, self employment, flexible hours and job-sharing, and full-time. According to a report from the Retirement Policy Center at The Urban Institute in Washington D.C., a significant number of older Americans participate in the labor force (Johnson, 2007):

	Men		**Women**	
Age	**65-69**	**70-74**	**65-69**	**70-74**
Employed	37.8%	25.8%	27.8%	16.3%
Self-employed	34.8%	45.3%	21.3%	25.2%
Worked part-time	42.3%	62.2%	58.6%	73.1%
Worked part year	29.7%	37.1%	30.7%	34.0%

Based on data from the 2004 Health and Retirement Study (HRS)

Between 1977 and 2007 employment of workers 65 and over increased 101 percent.

Between 1995 and 2007 the number of full-time workers nearly doubled while part-time rose 19%. Currently 56% of older workers are employed full-time (U.S. Bureau of Labor Statistics, 2008).

A review of the literature on aging in the workplace reveals several key areas of research – benefits of labor force participation, motivation for employment, and retirement.

Benefits of employment:

It has been reported that there are financial benefits for older people who continue to participate in the workforce as working longer increases lifetime earnings and shortens the period over which retirement savings must be spread (Johnson, 2007). Research exploring the benefit of employment indicates working in old age also has psychological advantages. In particular prolonged employment can be helpful in maintaining meaning and sense of purpose as well as preserving identity for older people (Calvo, 2005; Hao, 2008). Findings from studies examining social roles and aging report occupying multiple social roles, including employment, is beneficial to the health of older people and in particular reduces risk of depression (Adelmann, 1994; Moen et al., 1992). Volunteering has been found to complement formal employment and research has shown that together they support positive life satisfaction (Van Willigen, 2000) and protect mental health (Hao, 2008). There has also been some research to indicate that individual benefits of employment are associated with type of job and that

"undesireable" jobs (those that have excessive demands or otherwise cause dissatisfaction such as work that is physically exhausting, stressful and tedious) can negatively affect health and in particular psychological health (Luoh & Herzog, 2002).

Continued workforce participation by older populations is also seen to benefit others. There is concern that skills and knowledge are being lost as older workers retire and through continued employment older workers serve as mentors and trainers transferring skills and knowledge to younger employees. It has also been suggested that putting off retirement will benefit society as boosting labor supply at older ages increases government tax revenue and may help to ensure workers will not have to pay higher taxes to support more retirees, employers will not face labor shortages, and retirement benefits will not be cut – common concerns as the baby boomers begin to retire (Johnson, Mermin, & Resseger, 2007).

Motivation:

Some older workers *want* to continue working and others *need* to do so for financial reasons. Several studies have examined the motivational factors associated with employment among older adults and findings reveal older adults are likely to have different objectives and motivations for participating in the labor force than their younger counterparts (Loi & Shultz, 2007; Rau & Adams, 2005). In a survey of 254 retired Californians, Kaskie and Gerstner (2004) found that among those who had returned to work or had bridge jobs, 70% indicated they did so because they want to remain active, be engaged with others, and make a contribution to their local community. Research by Dendinger and colleagues (2005) supports findings from earlier research (Mor-Barak, 1995) to indicate older workers want to remain working for reasons that include but extend beyond providing financial means including social status, social interaction, personal achievement, generativity, daily structure and a sense of productivity. Concerns regarding personal finances and health benefits are motivational factors for continuing employment; some older people are financially unable to consider retirement (Deninger et al., 2005). Indeed, Kaskie and Gerstners (2004) study reports 30% of older adults who returned to work did so for financial reasons alone.

Retirement:

Research exploring paid work among older adults has focused on the impact of retirement and involuntary job loss (Hao, 2008). Retirement is a milestone and a major life transition for older persons (Kim & Moen, 2002). However, the experience of retirement is variable – promoting a sense of well-being in some and leading to diminished well-being among others (Kim & Moen, 2002). The transition to retirement is not a homogeneous experience and the literature demonstrates a continuing trend towards what Hansson et al., (1997) described as "blurred" retirements – uncertain starts, reentries, bridges, phase-ins, and unemployment turning to retirement.

Research on retirement illustrates it is a complex process affected by an assortment of variables including prior psychological resources, financial circumstances, and gender (Kim & Moen, 2002).

Retirement is not a common experience and retirement policies that are based on labour market experience favor men; a majority of women currently receiving pensions will have experienced either part-time or disrupted paid employment, and received lower incomes than men (Bond & Corner, 2004).

Barriers to civic participation and employment:

Social and physical barriers can limit civic participation and employment opportunities for older adults. In an examination of the effects of civic engagement on older adults, Hinterlong and Williamson (2006) report the talents and capabilities of older people are often systematically discounted – a societal attitude that can negatively impact individual choices for participation. Research has demonstrated many examples of age discrimination in the labor force which impact employment experiences and opportunities for older people. For example it has been noted that dismissal without cause occurs more often among older employees (Gunderson, 2003), that older workers are more likely to be laid off (Reynolds et al., 2005), and employers are less likely to call back older job applicants for interviews (Lahey, 2005). Some argue mandatory retirement policies are a form of age discrimination; mandatory retirement is particularly problematic for some groups, notably women and new immigrants because it can prevent them from accumulating seniority-based service credits and wage increases that can augment pension benefits. Recent reports suggest age discrimination in employment is not uncommon; the U.S. Equal Employment Opportunity Commission reported 19,103 charges filed under the Age Discrimination in Employment Act (ADEA) in 2007 (U.S. Bureau of Labor Statistics, 2008).

Physical barriers can also limit civic participation and employment opportunities. For example, among registered voters who do not vote, older people are the most likely to report they were unable to do so because voting was inaccessible to them. The key barriers reported were illness or disability (46%), transportation problems (5%), and bad weather conditions (1%) (U.S. Census Bureau, 2006).

Cautions and concerns regarding civic participation and employment:

There has been some scholarly writing from a critical perspective on the topic of civic engagement that cautions us to be aware of the potentially negative consequences of promoting a healthy and productive aging agenda in which civic participation is necessary (Martinson, 2006; Martinson & Minkler, 2006). Authors argue that the dynamics of civic engagement can be exclusive, i.e., may only be applicable to those of privilege with 'free time', those who are 'healthy', etc. (McBride, 2006, p.67). There is additional concern that this agenda implicitly suggests that older people may be of lesser value if they are not able to contribute to the market economy through employment, volunteerism or other forms of civic engagement (S. Katz, 2000; Martinson & Minkler, 2006). The work from this perspective highlights the way in which structural factors – social, economic and institutional – impact individual choices such that poverty, education, cultural norms, mental or physical disabilities, family obligations, and other factors will influence whether or not an older adult engages in volunteerism (Martinson, 2006).

Critical social researchers also report on the way in which certain kinds of volunteering, such as advocacy and social justice work, are often underrepresented in conventional notions of civic engagement for older people. They argue there is a need to expand our frameworks of civic participation to include the work of organizations such as the Gray Panthers and other grassroots movements led by older adults that focus on broad social change objectives (Martinson & Minkler, 2006, p. 323).

To summarize, there is extensive evidence that civic participation promotes life satisfaction and well being among older people (Hao, 2008) and is important for the overall vitality of American life (Burr et al., 2002). However, initiatives and strategies to promote civic participation must be cognizant of the particular ways in which engagement is conceptualized, and the implicit meanings associated with how it is promoted among older populations. Participation must be meaningful to an individual to be health-benefiting. The goal for age-friendly cities is, therefore, not to be prescriptive in their message, but rather to promote, support, and facilitate a wide range of opportunities for meaningful civic participation among older residents.

Civic participation and employment from a NYC and older New Yorkers perspective

New York City has an average annual volunteer rate of 17.1%, with 2.5 million volunteers serving 314.8 million hours per year. New York is ranked 48th within the 50 largest cities in the U.S. in terms of volunteer rates (Corporation for National & Community Service, 2006).

A recent report by the New York Community Trust and the United Neighborhood Houses of New York found New York offers a range of opportunities for the civic engagement of older people, particularly for volunteering (United Neighborhood Houses, 2007).

The unemployment rate in New York City (5.9%) (August 2008) is lower than in the rest of the country (6.1% August 2008) (U.S. Department of Labor, 2008). According to the New York State Department of Labor, the 2007 statewide Labor Force Participation Rate (LFPR) for those aged 45 to 54 years was 80 percent, for those aged 55 to 64 years was 62.4 percent and for those aged 65+ years was 15.5 percent. For New York City, the LFPR was 59.1 percent, compared with 74.4 percent for those aged 45 to 54; 58.2 percent for those aged 55+ to 64; and 15.1% for those aged 65 and over.

Employment rates and opportunities for older New Yorkers will be, in part, a product of income insecurity for this population. According to data collected by the New York Citizens' Committee on Aging (2006), a significant number (34%) of older New Yorkers are pessimistic about having the financial resources necessary to live comfortably in retirement.

New York State Human Rights Law prohibits age discrimination and applies to any employer with four or more employees. "Age" is not defined under the law. According to the Annual Reports from the New York State Division of Human Rights, in FY 05-06, 17% of their cases were age discrimination cases. This is up slightly from FY 04-05, where 16.2% of cases were age discrimination. New York City prohibits discrimination under the City's Human Rights Law. The City law applies to employers with four or more employees and does not define "Age." City-level data on age discrimination complaints is not immediately available.

Objective for Action: To protect and expand opportunities for civic participation and employment for all older residents of New York.

The challenge is to develop ways of leveraging engagement by all older adults who have the interest. Age-friendly cities concerned with expanding opportunities for civic participation and employment will need both individual and structural-level (i.e., build institutional capacity for engagement) initiatives.

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Social Participation

How this domain relates to active ageing

'Participation' is one of the three core pillars of the active ageing framework and represents a significant domain for age friendly cities (World Health Organisation, 2002a). Social participation is related to all of the determinants of active ageing and in particular 'social' and 'health'.

Our understanding of the importance of social participation to the health of older people is rooted in the 'engagement in life' literature. 'Engagement in life' is based on activity theory, an early theory of aging that emphasized the link between activity and health and well-being (Havighurst, 1961). Most models and theories of successful or healthy aging, such as Rowe and Kahn's Model of Successful Aging (1997; 1998) include engagement in life as a key component and findings from this perspective have consistently reported a positive relationship between activity and life satisfaction (Garfein & Herzog, 1995; Menec & Chipperfield, 1997).

Social participation is an essential element of engagement in life for older people. Social participation refers to both formal (e.g., religious participation, recreation groups, meeting attendance) and informal (e.g., telephone contact, visiting with friends and family) free-time social activity (Utz, Carr, Nesse, & Wortman, 2002).

Data collected from *The American Time Use Survey* (United States Department of Labor, 2007) indicates older adults (over 65 years of age) spend on average 6-7 hours/day participating in leisure activities which include watching television, socializing and communicating and recreational/physical activities.

Health benefits of social participation:

Today there is an extensive body of literature dedicated to exploring the relationship between social participation (including engagement in life and social engagement) and health among older people. Findings from this work illustrate social participation can positively impact general health, cognition, and emotional well-being:

- Researchers in Britain analyzed the relationship between health and social participation using data from over 12,000 respondents aged 50+ and found those who were actively engaged in forms of social participation were less likely to report poor general health or depression (Higgs, Nazaroo, & Hyde, 2004).
- Using the longitudinal data from the Berlin Aging Study, researchers explored the relationship between active engagement in life and cognitive decline. Results support the work of others (Mackinnon, Christensen, Hofer, Korten, & Jorm, 2003; Smits, Vanrusselt, Jonker, & Deeg, 1995) to suggest that an engaged and active lifestyle in old and very old age may alleviate cognitive decline (decline in perceptual speed) (Lovden, Ghisletta, & Lindenberger, 2005).
- Similar findings were reported by researchers from Spain; results from a longitudinal study of community dwelling people over 65 indicate infrequent participation in social activities, few social ties and social disengagement are risk factors for cognitive decline among community-dwelling elderly people. Study findings also highlighted gender as a

predictor of social participation; the nature of the ties that influence cognition were different for men and women such that engagement with friends seemed to be protective of cognitive decline in women but not in men (Zunzunegui, Alvarado, Del Ser, & Otero, 2003).

- Other work on social participation and aging illustrate its utility as a coping mechanism for bereavement, loneliness and grief after the loss of a partner (Utz et al., 2002). Analyzing secondary data to explore the effect of widowhood on older adults social participation (N=297), Utz and colleagues note 87% of widowed persons (over 65) surveyed indicated they tried to keep busy and get involved in some activity as a way to cope with the death of their partner.

Predictors for social participation:

A review of the literature highlights several key predictors of social participation for older people. These can be organized into individual, environmental and societal factors.

Individual:

Age, living arrangements, socioeconomic status, ethnicity, mobility, gender, sexual orientation, and subjective factors such as personal beliefs, expectations and attitudes and personality, and lifestyle behaviors have been identified as individual-level predictors of social participation:

- Research has demonstrated many individual-level factors are predictive of social participation in older populations including In a study of 189 community dwelling people over 55 researchers report social participation significantly decreases with advancing age (particularly after 75 years of age). Findings also demonstrate that gender and living situation shape social participation; participants living at home with a spouse or other(s) had higher levels of social participation (Desrosiers, Noreau, & Rochette, 2004).
- Analyzing longitudinal data from the Berlin Aging Study, researchers learned social participation is cumulative and changes are best explained by age and health although education and occupational resources also predicted higher levels of participation (Bukov, Maas, & Lampert, 2002).
- Age also impacts social participation via the life cycle, i.e., as people age and experience life cycle transitions (e.g., retirement and empty nest) their patterns of social participation change. For example, retirement shapes social participation; research has demonstrated increased community participation among retirees (Alpass et al., 2007). Widowhood can also play a role in patterns of social participation. Analyzing data from the Changing Lives of Older couples Study conducted in Detroit Michigan, researchers report widowed persons had higher levels of informal social participation than non-widowed persons whereas formal social participation levels were similar for the groups (Utz et al., 2002).
- Results from a large-scale research project on care giving in the gay and lesbian communities in New York City suggest friends play a significant role in the social networks of aging gay men (Shippy, Cantor, & Brennan, 2004). Two hundred and thirty two gay men ages 50-82 reported an average of five friends with whom they were close. Although respondents indicated their biological families were close to and maintained contact with them, they were most likely to turn to partners for support, followed by friends.

Environmental Factors:

Although there has been less research on the environmental factors affecting social participation, 'access' can be identified as a key issue. Access includes availability and awareness of programs and activities as well as physical access issues such as transportation, safety and location. Data from a multiethnic sample of adults in New York City, Baltimore, and Forsyth County, NC, (n=2723) suggests availability and proximity of recreational resources increases individual rates of social participation and in particular engagement in recreational activities (Roux et al., 2007).

The potential of supportive living environments to foster social integration and to optimize formal and informal networks has been suggested. Findings from a study of ethnic minority elders living in two low income public housing buildings in East Harlem demonstrate that elders with supportive housing are more socially integrated, have better psychological outcomes and use significantly more informal (versus formal) supports when in need (Cleak & Howe, 2003).

Societal Factors:

Two main societal factors that impact social participation have been identified in the literature – social beliefs and attitudes including prejudices such as ageism, sexism, racism and homophobia, and social cohesion. Scholars examining the ways in which ageism, aging and social participation are related suggest negative attitudes toward older people, internalized stereotypes and ageism are possible obstacles for social participation" (Solem, 2005).

Social participation and social cohesion are positively related. Social cohesion (also referred to as social capital) is the quality of social relationships and the existence of trust, mutual obligations and respect in communities (Putnam, 2000). Studies exploring social cohesion have found informal and formal social participation is more common in communities with high levels of social cohesion and that social cohesion helps to protect people and their health (Kawachi et al., 1996; Putnam, 2000). In terms of older adults specifically, findings are similar. Analyzing data from the Aging in Manitoba survey (1,267 respondents, 60% women, aged 69–101), Bailis and Chipperfield (2002) report 'collective self-esteem' (an individual's self evaluation as a member of a social group) may protect the health of older adults whose feelings of personal control over health are low. In research examining social participation and trust in urban, semi-urban and rural settings, findings suggest when measured at an individual level (e.g., trusting attitude) high social capital promotes health among older people (Nummela, Sulander, Rahkonen, Karisto, & Uutela, 2008).

Social Isolation and Loneliness:

The opposite of social participation is social isolation and loneliness. Townsend (1957) makes a useful distinction between social isolation and loneliness: social isolation is an 'objective' assessment based on the number of social contacts and loneliness is a 'subjective' assessment based on 'an unwelcome feeling of lack or loss of companionship'. According to the World Health Organization (1999), social isolation leads to ill health. As a consequence of the stigma associated with loneliness, researchers have argued it is difficult to assess the extent of loneliness among older people (Bond & Corner, 2004). Survey research on the prevalence of loneliness among older adults suggest feeling lonely is not uncommon; 9% of respondents reported they were always or often lonely, 37% sometimes lonely and 54% never lonely (Victor et al., 2002). In other research, keeping active was found to be central to combating loneliness

and maintaining a good quality of life (Victor, 2006; Victor, Scambler, Bowling, & Bond, 2005; Victor et al., 2002).

Social support and social support networks:

"Friendship, good social relations and strong supportive networks improve health" (WHO, 2003). Social participation (both formal and informal) involves others in an older person's social network. A review of the psychosocial research dedicated to healthy and active aging reveals social support and social networks are among the most significant determinants of active ageing.

Social support:

Social support is a social determinant of health that makes an important contribution to both physical and mental health. Indeed, according to the World Health Organization, inadequate social support is associated with increased mortality, morbidity, psychological distress and decreased overall health and well being (Marmot & Wilkinson, 1999; World Health Organisation, 2003).

Social support is defined broadly in the literature as the assistance and protection given to individuals (Hinson-Langford, Bowsher, Maloney, & Lillis, 1997). A more nuanced understanding of social support describes it as reciprocal, a characteristic that predicts its sustainability (Hooyman, 1983; Shumaker & Brownell, 1984). A review conducted by Hinson-Langford and colleagues (1997) highlights four key categories of support: emotional, instrumental, informational, and appraisal (p. 96). The positive relationship between social support and the health and well-being of older people is well-established and findings suggest social support operates as a protective health factor for older people (Cassell, 1976; Sauer & Coward, 1985; M. Stewart, 1993) as well as being a predictor of healthy aging. Researchers report the need for social support increases over time for older people (Garfein & Herzog, 1995; Gurung, Taylor, & Seeman, 2003) and the most salient determinants for older populations are: frequent (Garfein & Herzog, 1995) and sustained (Vaillant & Vaillant, 1990) visits with family; having 5 or more personal contacts (Cohen, Hyland, & Devlin, 1999; Strawbridge, Cohen, Shema, & Kaplan, 1996), including telephone contact (Garfein & Herzog, 1995); and participating in group activities (E. Palmore, 1979). Social support is also described as gender specific: older men receive the majority of their support from their spouse, whereas older women derive most of their support from friends and relatives (Gurung et al., 2003).

Social support networks:

Social support operates within a structure or a social support *network* and it is now widely recognized that belonging to such a social network has a powerful protective effect on health (Berkman, Glass, Brissette, & Seeman, 2000; World Health Organisation, 2003).

Social support networks is a term developed by Wenger (1984) to describe the structure and support functions of older people's families and friendship networks.

There is considerable variation in the social networks of older people and while some support older people to remain socially active, research indicates not everyone is endowed with a social network capable of doing (Wenger, 1992). Based on a mixed-method longitudinal study of

aging in rural communities in North Wales, Wenger developed a typology of the informal support networks of elderly people. Consisting of both structural as well as interactional components, the five types of support networks were summarized as: the family dependent support network, the locally integrated support network, the local self-contained support network, the wider community-focused support network and the private or restricted support network (p.152). Wenger reports that network types are predictive of service use and availability of informal support. According to Litwin (2001), network type is correlated with morale. Analyzing secondary data compiled by Israeli Central Bureau to Statistics (n=2,079), Litwin (2001) examined the relationship between these five network types and morale. He reports that people who maintain diverse or friends' networks reported the highest morale whereas those in exclusively family or restricted networks had the lowest (p. 516). Findings from a cross-national (countries include Canada, the United States, the Netherlands and Israel) study illustrate that the networks of the elderly are: relatively small compared with the general population; composed primarily of family; and may be changing from independent type social networks to less independent types (Litwin, 1996). Aging research indicates social networks are positively associated with health status and well-being (Gurung et al., 2003). Investigators report social support networks are associated with higher physical (Michael, Colditz, Coakley, & Kawachi, 1999) and cognitive (Seeman, Lusignolo, Albert, & Berkman, 2001) functioning. Seeman and colleagues (2001) speculate social networks may operate as a buffer, mitigating the effects of cognitive aging.

Social networks provide social interaction and support to older people and make an important contribution to overall health and quality of life. Social networks are not static however, and there is evidence that older peoples' social networks both change (over the life course) and are changing (from a societal perspective). From a life course perspective there is research to suggest that social networks decline with advancing (Moen et al., 1992; Sauer & Coward, 1985), there is also a reduction in both the amount and variety of social interactions that occur with others (Sauer & Coward, 1985, p.7). Findings from other work suggest the changing cultural patterns in families are causing changes in social support networks. Family has always been the most important informal support for the majority of older people (Hooyman, 1983; Nocon & Pearson, 2000). Today, however, researchers have observed non-family support and in particular friends and neighbors, are becoming increasingly important to aging individuals. This has been explained in part by the 'changing face of social networks' (R. B. Walker & Hiller, 2007) and in particular the changes in the availability of family support. The geographic dispersion of families, the increased time pressure on dual-income families and couples choosing to have children later in their life course means familial support for older parents is often less available today than in the past (Nocon & Pearson, 2000; R. B. Walker & Hiller, 2007). Beyond friends and families social networks based on individual and mutual interests are important. For example a report on aging artists argues that not only does art give artists meaning in their lives, it also significantly enhances their social networks (Jeffri, 2007). Religion and spirituality has been shown to play a particularly important role in the social networks of some older adults. Studies from a variety of faiths including Islam, Judaism and Christianity report religious affiliation not only supports social participation for older people (Cullinane, 2008), it can provide meaningful social roles (Ajrouch, 2008; Atchley, 2008), it can be a source of joy and zest for living (Chenfeld, 2008), and faith can serve as an important source of coping (McFadden & Kozberg, 2008).

Social participation from a NYC perspective and older New Yorkers perspective

A number of older adults in New York are at risk for social isolation (J. Walker & Herbitter, 2005):

Selected characteristics of persons age 65+	New York City	Nationwide
Living alone, non-institutionalized	32%	28%
With disabilities	46	42
Difficulty going outside the home because of disabilities	8	5
Below poverty level	18	10
Speak English less than "very well"	27	7
Never married	11	4
Divorced, separated, or widowed	51	45

(From: *Aging in the Shadows: Social Isolation among Seniors in New York City*, 2005. Source: U.S. Census 2000)

- Size of city – both enhance and overwhelm social activity
- New York offers many opportunities for social participation
- Recognized as a city of neighborhoods – supportive of social engagement
- City has many resources which facilitate social participation

Objective for Action: To promote, maintain and develop pathways and opportunities for meaningful social activity for all older New Yorkers.

Social interaction is a basic human need – it promotes self-worth, provides a sense of purpose and engages us in the affairs of others, the community and the world at large (CMHA, 2002, p. 20). Social scientists are now convinced that social participation and support are critical for the physical and mental health of older people (Blazer, 2005, p. 497) and therefore represent an essential area of intervention for age-friendly cities.

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HOUSING

How this domain relates to active ageing

Housing is an important predictor of security – one of three core pillars of the World Health Organizations Policy Framework for Active Ageing – and safe, adequate housing is essential to the well-being of older people (World Health Organisation, 2002a).

As the focal point of life and activity for the elderly, the home environment has been identified as a significant *place of aging*. This is particularly true for very old people, most of whom spend the majority (80%) of their time in their homes (MM Baltes, Maas, Wilms, Borchelt, & Little, 1999; M. Baltes, Wahl, & Schmid-Furstoss, 1990).

Aging in place

Aging in place is used extensively among policy makers and health and social service providers to describe individuals that remain living in their current home environments (for as long as possible) rather than relocate (Ponzetti, 2003). Research indicates that the majority (93%) of older people in the United States are aging in place in their communities (U.S. Census 2006 figures), that most (90%) prefer to do so (AARP, 2006) (Callahan, 1992; Tilson, 1990), and that abandoning these environments (relocating) may be detrimental to their health (Andrews & Phillips, 2005).

In the research literature, aging in place is understood as a complex set of processes mediated by individual, institutional and other social forces (Cutchin, 2003). Several factors have been identified that influence the experience of aging in place – the individual and their changing health, income, marital status, the aging of the environment including the residence and the proximal neighborhood, the changing 'fit' of the individual to their environment, and the public policy environment (Pynoos, 1990). Despite its appeal to both older people and policy makers, some scholars have warned against romanticizing or simplifying aging in place. Katz (2005) reminds us that homes can be isolating places for older people who live alone (p.204) and Twigg (2000) research on home residents and visiting home-care workers highlights cases of theft and elder abuse for some people aging in place. In their research on community and later life Gilleard and Higgs (2005) observed that some older people, particularly those most vulnerable (without sufficient independent or family resources and therefore financially dependent on government benefits), age in place simply because they have no other choice (p.128).

The relationship between housing and health

"As well as providing shelter from the elements, housing can provide refuge in a social and psychological sense - a home can confer safety and privacy" (Shaw, 2004, p.408).

Physical environments can either facilitate or inhibit individual health status and community social cohesion (Government of Canada, 2006, p.18) and research indicates the home environment is a significant determinant of the health and well-being of older people. Positive housing conditions can provide a deeper sense of meaning in life, an enhanced sense of control,

and positive self-esteem (Harrison (Harrison & Heywood, 2000; Windle, Burholt, & Edwards, 2006). Alternately, housing disadvantage has been linked to depression (R. Stewart, Prince, Harwood, Whitley & Mann, 2002, p.1091) and other mental and physical health problems (Weich et al., 2002). Some have argued "good quality housing is the foundation of community care programs" (Means, 1991)– a health services and delivery model many countries either currently embrace or are moving toward.

The relationship between health and housing is complex and includes both objective and perceived aspects of housing (Matte & Jacobs, 2000; Nygren et al., 2007). Findings from two survey studies on social inequality and housing in Canada (n=528; n=650) highlight several key housing factors that impact self reported and mental health status – the meaning people invest in their homes, their level of satisfaction with their homes, and the amount of control they were able to exercise in the social and economic aspects of their dwellings (Dunn, 2002; Dunn & Hayes, 2000). Summarizing the research on housing and public health, Shaw (2004) reports that housing affects health in a myriad of ways (physically, socially, and emotionally) and at various levels (individual household, neighborhood). Quality, design and location are three features of housing that have been found to play a key role in the quality of life of older people.

Housing Quality:

There is considerable evidence to suggest the physical conditions and quality of the home environment impact both physical and mental health (Evans, Wells, Chan, & Saltzman, 2000; Thompson, Petticrew, & Morrison, 2002). Homes with poor heating or cooling systems or inadequate ventilation can create cold, damp and moldy environments which have been associated with numerous adverse physical health conditions including respiratory disease, aches and pains, allergies, asthma, headaches and fever (Howden-Chapman, 2004; Matte & Jacobs, 2000). Older people are especially vulnerable to inadequate heating; in places with colder climates, cold was found to be a predictor of poorer overall health status among older people (Windle, Burholt & Edwards, 2006). In other research, peaks in mortality have been observed among the elderly during winter months and particularly in cold winters (Aylin et al., 2001). Homeowners maintain a certain level of personal control over their physical environment (e.g., availability of space and material features such as heating and air conditioning) that is not enjoyed by (Knapp, 2006).

Housing quality can also affect the mental health of older people. As Clark and others explain, our houses are symbols of ourselves; they are mirrors reflecting who we are, what we have accomplished, and what we stand for (Evans, Wells, & Moch, 2003). Most (80%) of older Americans own their homes (U.S. Census Bureau, 2008), something that can be a source of pride and promote self-esteem among older people. A home can, however, also represent a burden that is detrimental to health. The deterioration and maintenance responsibilities of dwellings can be very stressful to older people (particularly those financially and socially vulnerable). As McNiven (2004) reports, housing for this population can be a 'double-edged sword' – both the main source of wealth (equity) while simultaneously providing the most financial burden on an older person (p. 14).

Housing Design:

> In any country where the housing stock includes stairs, narrow doorways, inaccessible toilets and bathrooms, or rooms too small or cold to be used, people whose mobility is diminished by illness, accident or old age will find themselves disabled by their homes" (Heywood, 2004, p.129).

The design of home environments can impact older people's sense of autonomy and plays a key role in their ability to live independently. The dependency that unsuitable housing forces on people with disabilities including older people negatively impacts their mental health by causing fear, anger, frustration and eventual depression (Heywood, 2004, p. 136). In this way suitable housing is seen to reflect independence and self-worth whereas inadequate housing can reflect helplessness. In a study that examined the relationship between housing, socioeconomic status and self-reported health, researchers conclude that features of the domestic environment, particularly those related to the exercise of control, are significant predictors of mental health (Dunn, 2002).

Research examining housing design and quality of life among older populations suggest accessible and barrier free housing promotes quality of life and independence. Findings from a large-scale research study on housing adaptations in England and Wales (Heywood, 2004) illustrate the benefits of well-designed housing on the health of residents. Researchers conclude that housing adaptations positively influenced both physical and mental health; that these benefits were long-term, and that they extended beyond the individual to also benefit the health of other family members (p. 129). These findings are supported by other research conducted with residents of a communal housing project for seniors in Japan (Migita, Yanagi, & Tomura, 2005). Findings from this study demonstrate limitations to the physical layout and architectural design of spaces directly impact the mental health of older people by shaping the sense of autonomy of residents. Housing design also impacts independence by playing a role in 'fear of falling'. The fear of falling is a concern for many older people and contributes negatively to mental health.

Housing Location:

The location of housing within a particular neighborhood plays a role in individual health status. As Shaw (2004) explains: "People do not just live in houses: They live in and experience neighborhoods" (p. 412). Aspects of neighborhoods that have been identified as having an impact on health are: boarded up buildings, trash accumulation, graffiti, and the presence or absence of local resources such as parks and recreational facilities (Dunn, 2002; Howden-Chapman, 2004; Knapp, 2006). Research examining the relationship between depression and measures of the built environment found the prevalence of depression was associated with particular housing features independent of individuals' socioeconomic status and internal characteristics of dwellings (Weich et al., 2002, p.428). This work highlights the importance of extending health promotion efforts beyond the amelioration of risk factors operating at the individual or household level to the contexts (neighborhoods) in which people live. Among older people housing location, including perceived safety and proximity to family, services and transportation is a significant determinant of social interaction and a key to quality of life (WHO, 2002; Migata, Yanagi & Tomura, 2004).

The housing for some older people is located within a NORC. NORC's (Naturally Occurring Retirement Communities) are communities that have naturally developed a high concentration of older residents because older people tend to either remain in, or move to these communities when they retire (Masotti, Fick, Johnson-Masotti, & MacLeod, 2006). NORC's are a growing area of interest for researchers, planners, policy-makers as well community organizations. Findings from NORC research suggest that living within a NORC can benefit the health of older residents by facilitating greater activity and promoting feelings of well-being (Masotti et al., 2006).

Neighborhoods are not static and consequently, the relationship between housing location and health for older people is a dynamic process. Places transform over time as significant sites disappear and neighborhood social compositions change. These changes, including the disappearance of local stores and important historical sites may render these places less familiar and/or appealing to those who have either chosen, or are compelled to age in place (Gilleard & Higgs, 2005).

Housing, Health and Poverty

Housing is about social relations and inequalities; housing, health and poverty are empirically related and conceptually intertwined (Shaw, 2004). Housing reflects a particular social position and the status and alternately stigma of owning versus renting and whether the renting is private versus public has been observed. Researchers speculate that the impact of housing on mental health is related to a persons feeling of self-esteem as their level of achievement vis-à-vis the outside world is reflected in the quality of their housing (Evans, Wells, Chan & Salzman, 2000). Dunn's (2002) research on housing, health and socioeconomic status supports the notion that housing, as a concrete manifestation of socioeconomic status, plays an important role in the social production of health inequality (p. 671). In Spain researchers report "owning a house has more potential than income for reducing health inequalities" (Costa-Font, 2008, p.478). Analyzing survey data from 729 individuals over 55 in researchers found housing equity exerted a significant influence on both health and disability in old age (Costa-Font, 2008).

Poverty is also connected to housing and health through *housing cost burden*. The economic security of people aged 65 and older depend not only on their economic wealth but also on their ability to meet ongoing hosing costs. High housing costs make it more difficult to purchase groceries and transportation and access healthcare and medicine (Knapp, 2006). High housing costs also may mean homeowners defer needed home repairs or are unable to pay property taxes and risk losing their home; renters may be evicted if they are unable to pay their rent. "Fuel poverty" (the inability to heat the indoor environment to healthy levels) is a consequence of low income and a particular problem among the elderly population (Howden-Chapman, 2004; Howden-Chapman, Signal, & Crane, 1999).

Many older people who own their homes are considered 'asset-rich and income-poor' (Howden-Chapman, Signal & Crane, 1999). These individuals own their homes and live mortgage-free, however, they are also on fixed incomes that can be insufficient to cover the remainder of their other housing (taxes, repairs) or living expenses.

Despite the overwhelming preference of older Americans to age in place, a recent National Survey finds that overall, one third (31%), or more than 10 million adults age 65 and older in the U.S. have housing cost *burden* (housing expenses exceed 30% of an individuals income) and about one of six (15%) have *severe burden* (housing costs exceed 50% of income (AdvantAge Initiative, 2004a). Women and ethnic minority seniors have the highest levels of poverty and therefore are the most vulnerable to housing cost burden.

Housing from a NYC perspective and older New Yorkers specifically

In a recent book *Growing Older in World Cities* (Rodwin & Gusmano, 2006) Kenneth Knapp (2006) has written a comprehensive summary of the housing of older New Yorkers. For a thorough understanding of this situation, readers are encouraged to examine Knapp's full text.

The following are some of the key highlights from this review:

Housing in New York is diverse: New Yorkers live in dwellings twenty stories above the street as well as in basements underground; they live in single unit structures and buildings comprised of 100 units or more; 65% of them are renters some of whom live in rent-stabilized apartments some in public housing and others in unregulated residences. Of the home-owners, some live in traditional owner-occupied homes others in private cooperatives, condominiums or regulated units.

Tenure and regulation status:

- Homeownership in New York City is well below national averages (in the rest of the country homeowners outnumber renters almost two to one but the opposite is true in New York) however citywide, ownership is more common among older (49%) than younger residents (33%).
- There are housing tenure disparities between rich and poor neighborhoods in all 5 boroughs.
- Many low and middle-income renters in NYC receive direct or indirect rent subsidies and renters of all income levels have access to indirect rent subsidies through New York's rent-control and rent-stabilization laws.
- About 54% of older renters in New York City live in rent-regulated apartments, and 25% live in subsidized housing.

Housing conditions:

- According to most measures, homeowners fare better than renters.
- Stairs are a key structural issue affecting older New Yorkers. Sixteen percent of older New Yorkers live in walk ups, 41% of older residents live in one- or two-family homes and 43% in multi-units with elevators. Most buildings of all types have steps leading to the entrances.
- Nearly 100% of occupied dwellings have complete bathroom and kitchen facilities.
- Older residents have more space than do younger ones and homeowners have more space than renters.

- 3% of older New Yorkers occupy buildings that do not provide them with safe or adequate shelter. This is more common among renters than home-owners. 9% of older New Yorkers report boarded up buildings in their neighborhoods

Housing costs: 35% of household income for older renters, and (24%) for owners is applied to housing costs.

Other notes related to housing and older New Yorkers (from the Office of the New York City Public Advocate:

- Many seniors in New York experience housing insecurity - affordable housing is severely limited and there are long and often closed waiting lists
- Rates of homelessness for the elderly in New York is rising – the number of people 65 and older in the homeless shelter system in NYC rose by more than 30 percent and of homeless people who live o the streets, 20% are over 55 years of age

Objective for Action: To ensure all older New Yorkers have the opportunity to live in safe, clean, and affordable housing.

Housing is an essential strategy area for age-friendly cities: "Investment in housing can be more than an investment in bricks and mortar: It can also form the foundation for the future health and well-being of the population" (Shaw, 2004, p. 397).

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Transportation

How this domain relates to active ageing

Transportation is an important component of the physical environment and a key factor influencing active ageing (WHO, 2002). Transportation has an impact on the social participation, security, independence and overall health and well-being of older people.

Terminology: "mobility" and "transportation"

In the aging literature, the term "mobility" is often used in place of, or interchangeably with, the term "transportation". Mobility has several different meanings; when addressing the issue of transportation it is best understood as "the ability to move from one place to another" (Wallace & Frane, 1999).

Transportation, mobility and health:

"To live independently and age successfully, older Americans must be able to maintain a mobile lifestyle" (AARP, 2004).

Transportation/mobility has been linked to health and quality of life in myriad of ways including enhanced social functioning, engagement in life, independence, and access to health and other needed services (Rittner & Kirk, 1995). Transportation has been described as a "quality of life agenda" for older adults providing important opportunities for socialization as well as access to desired locations (National Center on Senior Transportation, 2008). Driving in particular has been associated with higher levels of life satisfaction, higher adjustment, less loneliness and better perceived control (RB Wallace & Franc, 2002). Walking, cycling and the use of public transit are forms of transportation that promote individual as well as societal health by providing exercise, reducing fatal accidents, increasing social contact and reducing air pollution (WHO, 2003).

Transportation options and older adults:

Older adults utilize a variety of transportation options including driving, walking, public transit, paratransit or access-a-ride services, private (taxi) and specialized transit services. In North America, driving, walking, and public transit are the main transportation options utilized by older adults.

Driving:

Regardless of where they live in the United States, most older adults (both men and women) rely on the automobile as their main mode of transportation and use driving to maintain connections in the community to friends and relatives, attend social activities, obtain medical care and shop (Stav, 2008). Eighty percent of Americans over the age of 65 are licensed to drive (Federal Highway Administration, 2002) and for 90% of older adults, the transportation mode of choice is the private automobile (Rosenbloom, 2004). There is considerable research

dedicated to the various issues related to driving and aging including the impact of 'giving up the keys', safety and the prevalence of accidents, and the relationship between driving and life satisfaction among this age group. Findings from this work include:

- Evidence to suggest that decline in driving-related abilities are not a result of age per se, but rather are primarily the result of medical conditions such as Alzheimer's or Parkinson's disease (Dobbs & Carr, 2005).
- Compared to younger drivers, older drivers are at an increased crash risk per mile driven. According to a report by the CDC (online 2008), drivers ages 80 and older have higher crash rates per mile driven than all but teen drivers. Older drivers are also more likely than younger drivers to die from injuries sustained in motor vehicle crashes.
- Findings from a systematic review of the literature related to the effects of drivers license policies and community mobility programs on older adult participation illustrate it may be possible to reduce traffic crashes, traffic violations and traffic-related fatalities through re-licensing policies requiring in-person renewal and vision testing as well as driving restrictions (Stav, 2008).
- The most important functional abilities for safe driving are good vision (day and night), certain aspects of physical fitness (head-neck flexibility, leg strength), cognitive abilities (working memory, visual search and visualizing missing information (Staplin, Gish, & Wagner, 2003).
- Reviewing the literature on transportation and aging, Dickerson and colleagues (2007) report several areas of support for safe driving among older drivers – screening, rehabilitation (compensating for limitations), education and training, vehicle modifications, improved roadway design and signage, and finally, when necessary, supporting transitioning to non-driving.
- Driving cessation among older adults is a difficult transition with significant consequences; more than 50% of non-drivers age 65 and older – or 3.6 million Americans – stay home on any given day partially because they lack transportation (Bailey, 2004). Stopping driving can be deleterious for older people's depressive symptoms, and, according to some research, the negative consequences of driving cessation are not mitigated by having a spouse drive them (Fonda, Wallace, & Herzog, 2001). Driving cessation is described as most often occurring along a continuum and decisions to stop or reduce driving are influenced by a number of factors including physical health, mental health, and available financial resources (Dellinger, Sehgal, Sleet, & Barrett-Connor, 2001).

<u>Walking:</u>

More than half of older Americans walk as a regular activity however they use walking as transportation much less frequently than older adults in other countries. For example, Americans over 65 make 8% of their trips on foot or bicycle whereas in Germany older adults make 50-55% of all trips on foot or bicycle (Bailey, 2004). The benefits of walking for older adults are well-established in the literature and include improved cardiovascular fitness and physical performance, enhanced cognitive function, and higher levels of life satisfaction (Fisher & Li, 2004; Simonsick, Guralnik, Volpato, Balfour, & Fried, 2005; Weuve et al., 2004; Wong, Wong, Pang, Azizah, & Dass, 2003). Findings from the Women's Health and Aging Study (a longitudinal cohort study, n=1002) suggest that even a small amount of regular walking outside

of the home can confer short-term protection from further mobility loss in functionally limited older women (Simonsick et al., 2005).

In other research, the relationship between neighborhood design and the walking behavior of older residents has been examined. Findings suggest that the 'walkability' of neighborhoods can have a significant impact on the health and well-being of older residents. Evaluating the association between neighborhood walkability and depression in older adults, Berke and colleagues (2007) report that in older men, walkable neighborhoods can provide a buffer or protect against depressive symptoms. Using 'home age' as a proxy for features of the urban environment (e.g., density and street design) that mediate walking behavior, Berrigan and Troiano (2002) report that walking is more common in neighborhoods with older homes, i.e., communities where there are more likely sidewalks, denser interconnected networks of streets, and mixed business/residential land use. Safety (street traffic and safe crossings) is one of the most significant characteristics of walkability and a key predictor of walking behavior for older adults (Balfour & Kaplan, 2002; Y. Michael, M. Green, & S. Farquhar, 2006; Nagel, Carlson, Bosworth, & Michael, 2008). According to AARP (2008), pedestrian fatality rates for older Americans are more than 70% higher than for those younger than 65. In addition, summarizing the literature that examines the relationship between the built environment and physical function among older adults, Brown et al., (2008) conclude that among community-dwelling elders, less walkable neighborhoods appear to be linked to reduced physical functioning (p.1300).

Public Transit:

According to the U.S. Census Bureau, more that 21% of Americans over the age of 65 do not drive and are twice as likely as younger people to have a disability. This trend, in combination with the increasing older adult population, will have a substantial impact on public transportation systems (Rosenbloom, 2003). In addition, community and public transportation systems are under pressure from two shifts in health care and service delivery – increasing number of chronic patients and increasing dependence on outpatient care. Together these phenomena are generating support for immediate planning to meet the needs of an aging population, as well as much more investment in public transportation (Tucker, 2005).

There are a limited number of studies exploring the relationship between public transit and aging experience and processes specifically. The work that has been conducted indicates that for older adults who live in the suburbs, a system that links the city core with outer regions is important (Fobker & Grotz, 2006). Research has also highlighted various public transit conditions that discourage use among older people including missing or late transit (buses, trains, subways) lack of shelters, problems getting on and off, dirty windows that restrict visibility, fear of injury, unsympathetic drivers and occasional confrontations with other passengers (Rittner & Kirk, 1995). In studies exploring the impact of neighborhood design on active aging, researchers report that the need for public transportation increases as ability to drive or health decreases, public transit is an important aspect of walkable neighborhoods, and public transportation service is sometimes limited in lower-income neighborhoods (Balfour & Kaplan, 2002; Y. Michael et al., 2006).

Older adults also use paratransit and private transit (e.g., taxis, limousines) services for their transportation needs although much less frequently than the private automobile, walking and public transit. For frail older persons, paratransit and specialized transportation are the only feasible modes of transportation, other than getting a ride for others (Bailey, 2004).

Key Factors influencing transportation patterns and use:

The empirical research on transportation use illustrates that the decisions, choices, patterns for use and overall experiences of transportation for older adults are based on a number of individual, social, and environmental factors. A summary of many of these and other important determinants of transportation use among older adults were highlighted in a report prepared by the Beverly Foundation (2003) – Transportation Alternatives for Seniors. Results from the foundations national research program on senior transportation and mobility illustrate transportation choices for these populations are determined by five key 'senior friendly' attributes:

1. **Availability:** Transportation exists and is available when needed (e.g., transportation is at hand, evenings and/or weekends).
2. **Accessibility:** Transportation can be reached and used (e.g., bus stairs can be negotiated; seats are high enough; bus stop is reachable).
3. **Acceptability:** Deals with standards relating to conditions such as cleanliness (e.g., the bus is not dirty); safety (e.g., bus stops are in safe areas); and user-friendliness (e.g., transit operators are courteous and helpful).
4. **Affordability:** Deals with costs (e.g., fees are affordable, fees are comparable to or less than driving a car; vouchers/coupons help defray out-of-pocket expenses).
5. **Adaptability:** Transportation can be modified or adjusted to meet special needs (e.g., wheelchair can be accommodated; trip chaining is possible).

Other research supports their conclusions, for example, gender, socioeconomic status and ethnicity have been found to play a role in transportation options and choices for the elderly. A study exploring gender and transportation access among community-dwelling seniors (n=839) reports women, older people, and those with lower incomes were more likely to experience problems accessing and using transportation than other older adults (Dupuis, Weiss, & Wolfson, 2007; Rosenbloom & Winsten-Bartlett, 2002).

<u>Safety:</u>

Safety is an important theme in the aging and transportation literature:

- Transportation safety has been linked to continued engagement in community life and to social interactions necessary for health and well-being (Dickerson et al., 2007). Safety can refer to issues related to safe travel (accidents) as well as to personal fear (fear of crime).
- Fear of crime and fear of falling are the most salient forms of fear affecting older people's transportation processes and experience. Fear of crime has been linked to personal characteristics such as age (increasing age=increasing fear) and sex (elderly women feel especially vulnerable) as well as the environmental factors (e.g, incivilities such as graffiti or poor lighting=increased perceptions of fear) (Davidson, 1999; Doran & Lees, 2005). Mobility patterns are affected, and opportunities for activity reduced, when elderly people feel unsafe (e.g., when waiting at a bus stop or using a public parking lot) (Fobker & Grotz, 2006). Among older adults, safety emerged as the most

significant factor to limit walking for everyday activity as well as exercise (Y. Michael et al., 2006).

- Fear of falling has emerged as an important area of inquiry among gerontological researchers and practitioners. The link between fear of falling and the restriction of activity (mobility) has been explored and findings suggest that although more commonly limiting the activity of older people with a history of falls (Arfken, Lach, Birge, & Miller, 1994), this kind of fear also has an impact on the activity of non-fallers (Howland et al., 1998). There are both psychological as well as physiological factors that pay a role in a person's fear of falling. Examining the associations between fear of falling and functional and psychological factors, researchers report physical factors and in particular visual disability were the most powerful determinants of "fear of falling limiting activity" (Martin, Hart, Spector, Doyle, & Harari, 2005).
- Safe travel research with older adult populations includes driving accidents and pedestrian safety. Pedestrian safety, especially as it relates to street and traffic design has been identified as an important transportation issue for all citizens and represents a particularly salient issue for older people whose mobility maybe slowed or impaired. Recent polls and studies report: 42% of Americans believe "dangerous intersections make crossing the street difficult in the area close to where [I] live" (Russonello, 2003) and studies illustrate traffic signals are out of sync with the walking speed of older pedestrians. In a study in Los Angeles researchers (Hoxie, Rubenstein, Hoenig, & Gallagher, 1994) found 27% of older pedestrians are unable to reach the opposite before the light changed; three-quarters of older adults interviewed stated that fear kept them from crossing streets as often as they would like to. Traffic calming strategies such as roundabouts, installing walk signals and lengthening the signal times, and maintaining sidewalks have been found to dramatically increase safety in certain neighborhoods (Staplin, Lococo, Byington, & Harkey, 2001).

As well as improving transportation and mobility options through design strategies (such as the traffic calming strategies mentioned above as well as elevators in subways, 'kneeling' buses, well-lit pedestrian walkways), individual-level approaches also report success. In particular, the literature focuses on the use of mobility aides as an effective way for some older adults to negotiate transportation barriers.

Mobility aides are a type of assistive device (AD) (or assistive technology - AT) which are defined as "'any device or system that allows an individual to perform a task that they would otherwise be unable to do, or increases the ease and safety with which the task can be performed' (Cowan & Turner-Smith 1999). Aides range from manual devices such as canes, crutches and walkers to motorized scooters and wheelchairs.

Research exploring mobility aides is predicated on the notion that mobility is a prerequisite for most of the activities of daily living and mobility aides are a viable and effective way in which to address the individual mobility needs among older populations. Findings from this research illustrate that the use of mobility aides among older people is common, the devices are used both inside and outside of the home, usage changes (increases) over time, they are often used in combination with each other, devices change over time and may be used in combination with each other (Lofqvist et al., 2007). Researchers indicate older people use MA's to support their

mobility which, in turn, contributes to their ability to function independently, feel safe, and engage in life. Despite their widespread use and commercial visibility, researchers have identified a lack of awareness of AD's as a significant barrier to their use (Roelands et all, 2002).

Transportation from a NYC perspective and transportation for older New Yorkers specifically

In 2006 AARP New York conducted an extensive survey study to examine transportation issues among older New York residents. The random sample (n=1,128) included members age 75 and older from the following counties: New York, Queens, Kings, Bronx, Rockland, Nassau, Suffolk, Westchester, Putnam, Orange, and Richmond. Some of the key findings from this study include:

- The majority of respondents (60%) generally drive to the places they want to go.
- Those without a license are more likely to get a ride with others (58% vs. 27% licensed), walk (41% vs. 33% licensed), or use public transportation (40% vs. 29% licensed).
- More than eight in ten (81%) older New York metro respondents report getting out of their home three or more times per week. However, about one in six (16%) only get out once or twice—if at all—and those without licenses are twice as likely to be homebound this often (35%).
- Most respondents say transportation problems do not interfere with their ability to get to where they want to go. However, those with licenses are more apt to be satisfied with how they get around their community than those without a license (83% vs. 67%).
- More than eight in ten (81%) respondents indicate public transportation is available in their community. Of these, about two-thirds (67%) report a public transportation stop is less than one-quarter of a mile from their home. Few respondents report difficulties when using public transportation. The top three things liked most about public transportation are: it gets them where they want to go (69%); it is affordable (67%); and it is convenient (61%).
- Of respondents who are licensed and have driven during the past two months, more than half (55%) agree it would be difficult for them to remain in their current neighborhood if they were unable to drive. Nearly six in ten (58%) respondents indicate they would be likely to choose a new neighborhood with better public transportation if they were no longer able to live in their current neighborhood. The two modes of transportation most desirable in a new neighborhood are community/senior vans (37%) and buses (31%).
- **Race:** Compared to white respondents, African American respondents are less likely to have licenses (62% vs. 79%) and more often use public transportation as their primary mode of transit (48% vs. 29%). In addition, African Americans are more likely to report having problems while using public transportation, such as getting a seat (63% vs. 44%), having shelter from the weather (76% vs. 58% and being worried about crime (61% vs. 35%). Moreover, African American respondents are less likely to say they have no problems getting to key destinations, such as medical appointments (59% vs. 70%) and activities with family (53% vs. 67%). All together, African American respondents get out of their homes less frequently than white respondents do (5 times/week: 37% vs. 54%).
- **Income:** Those with incomes below $20,000 are least likely to get out of their homes more than five times a week (32% vs. 79%). In fact, those with incomes below $20,000

are substantially more likely to have problems using public transportation and getting to places such as medical appointments (30% vs. 7%) and grocery shopping (18% vs. 8%). Not surprisingly then, those with low incomes are more likely to express dissatisfaction with their ability to get around in their communities (13% vs. 2%). However, high income drivers more often say they would have difficulty remaining in their current neighborhood if they were no longer able to drive (23% vs. 12%).

- **Residence:** City dwellers, suburbanites, and small town residents also experience transportation issues differently. Most notably, those who reside in suburbs or small towns are more likely than their city counterparts to say they could no longer reside in their current neighborhood if they were no longer able to drive (suburb, 42%; town, 47%; city, 13%). Additional differences include: City dwellers are least likely to have a driver's license (city, 68%; suburb, 81%; and town, 88%), and are more likely to walk, (city, 52%; suburb, 25%; and town, 19%), ride public transportation, (city, 52%; suburb, 19%; town, 9%), or take taxis (city, 26%; suburb, 8%; town, 3%) to where they need and want to go. City-dwellers who use public transportation are more likely to experience difficulties with being able to find a seat, (city, 52% vs. suburb, 36%)4 and the condition of public transportation stations and vehicles (city, 42% vs. suburb, 35%).

Objective for Action: "Accessible and safe mobility for life" - To protect, develop and expand a variety of accessible transportation pathways and opportunities that enable older New Yorkers to fully access the city – its resources and its people.

Transportation represents a basic human need for people of all ages and is linked to independence, autonomy, and quality of life (Dickerson et al, 2007). Accessible transportation and safe mobility are essential to continued engagement in civic, social and community life for older New Yorkers and therefore an important priority area for an age-friendly city.

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Public Spaces

How this domain relates to active ageing

The physical and social environment plays an important role in active ageing (World Health Organisation, 2002b). Public spaces, including parks, streets, markets, and cultural centers, are essential spaces for active ageing providing opportunities for social and civic participation and engagement in life for older adults.

Public spaces and health:

Place is a key concept in geography that is described fundamentally as a "portion of geographic space" (Gesler & Kearns, 2002, p.4). Considered an amalgam of social, cultural, historic, political, economic and physical features, places make up the meaningful context of human life (Cutchin, 2005). From this perspective, 'place' is conceptualized not as a simple, static container or backdrop to life but instead as a kind of process in which "social relations and identity are constructed" (Duncan, 2000, p.582). Research from various disciplines including geography, health promotion, anthropology and gerontology, illustrate that place is important to both health (status and behavior) and aging (processes and experiences) (Moon, 1995).

Public space has been linked to health in various ways in the literature and research suggests participation in these spaces can promote the mental as well as physical health of older adults (Jacobs et al., 2008; Takano, Nakamura, & Watanabe, 2002). A review of the literature reveals three ways in which the public space-health relationship operates: a) public spaces that are natural environments or have natural elements can promote well-being among users, b) individual levels of physical activity are increased through participation in public spaces and, c) opportunities for social engagement are enhanced in these environments (Sugiyama & Thompson, 2007b; Sugiyama, Thompson, & Alves, 2009).

<u>The healing qualities of the natural environment</u>

There are two key areas of literature that promote and explore the notion that certain places maintain health-benefiting qualities – the 'therapeutic landscape' and the 'restorative environment' literatures. Therapeutic landscape was introduced by Gesler (1992) to describe places with established reputations for healing such as Epidaurus, Greece (Gesler, 1993) and Bath, England (Gesler, 1998). The concept was later expanded by Williams (1999) to include places that promoted and maintained health. The study of restorative environments is a subfield of environmental psychology concerned with the recuperative qualities of different environments, and in particular how they affect mental health including attention fatigue and stress (Hartig, 2003). One of the key findings of both bodies of knowledge is that engaging in nature, or at least elements of the natural world, can enhance health.

Nature as 'healer' is an idea with historical as well as cultural credibility; the healing powers associated with the natural environment are well-documented in many societies (Gesler & Kearns, 2002, p.121). Research exploring the health-benefits of natural environments including gardens (Milligan, 2004), parks (Palka, 1999), and rural countryside (Conradson, 2005) and findings demonstrate these places can provide respite and facilitate relaxation and spiritual restoration. Empirical research illustrates visiting natural environments including forests, parks,

and green spaces can alleviate stress, restore energy, and enhance mood (Kaplan, 2001; Korpela & Ylen, 2007; van den Berg, Hartig, & Staats, 2007). For example, researchers examining individual-physiological response to natural environments report engaging with nature (walking in the woods), can cause a rapid decline in diastolic blood pressure (i.e. reduced stress) (Hartig, Evans. 2003); this was also true, although not to the same extent, among participants who viewed nature (sat in a room with tree views). In other work it has been suggested that passing through a natural setting when moving from one place to another may provide a respite that, although brief, nonetheless interrupts a process of "resource depletion" (van den Berg et al., 2007, p.88).

Examinations of the relationship between the natural landscape and health has extended to urban areas where findings reveal health benefits associated with urban parks, community gardens, green spaces and tree-lined streets. In work with older adults specifically, the availability and access of green space has been linked to positive health outcomes:

- Findings from a study of impoverished older adults living in inadequate housing in barren inner-city neighbourhoods report: exposure to green common spaces (places with grass and trees) was associated with well-being, and in particular promoted social interaction among study participants (Kweon, Sullivan, & Wiley, 1998).
- Recent epidemiological research indicates neighborhood green space is associated with positive health outcomes including self-reported health status (de Vries, 2003) and longevity. Conducting a cohort study in Japan (Takano et al., 2002), researchers found living in areas with walkable public green spaces increased the longevity of urban senior citizens independent of their age, sex, marital status, baseline functional status, and socioeconomic status (Takano et al., 2002, p.913).
- Kweon, Sullivan and Wiley (1998) interviewed 91 inner city older adults (between the ages of 64 and 91) in Chicago to examine the effects of natural environments on older adults well being. Findings suggest spending time in common spaces, and in particular common spaces with more trees and grass, is associated with higher levels of social integration among elderly study participants.
- Researchers in England explored the extent to which communal gardening activity may be beneficial to the health and mental well-being of older people (Milligan, Gatrell, & Bingley, 2004). Findings from the intervention study illustrate communal gardening contributes to the social inclusion of older people, benefited their physical health, and also enhanced their lives at a deeper, emotional and experiential level.

<u>Public spaces and physical activity for older adults</u>

Engaging in public spaces requires movement (most often walking) and it is well-documented that a physically active lifestyle (that includes walking) is a key contributor to healthy aging (Rowe & Kahn, 1998); (Fisher & Li, 2004; Rowe & Kahn, 1998; Simonsick et al., 2005; Weuve et al., 2004; Wong et al., 2003). Access to public spaces such as parks and streets has been linked to improved individual health [e.g. cardiovascular disease (Diez Roux, 2003); depression (Berke et al., 2007; Evans, 2003)] and functional ability. One of the established pathways to improved health outcomes is the positive relationship between engagement in public places and increased level of physical activity (in particular walking). Studies exploring the ways in which public places promote activity shift the level of analysis from individual to environmental

characteristics (e.g., green spaces and neighborhoods) highlighting was has been referred to as the 'walkability' of places (Frank, Andresen, & Schmid, 2004; Institute of Medicine and Transportation Research Board, 2005).

Studies illustrate activity levels for urban elderly are influenced by both the design and the availability of public spaces. Findings from research with urban elderly highlight the availability of local shopping areas, pedestrian infrastructure and the attractiveness of neighborhoods (gardens and interesting things to look) as key elements associated with increased levels of activity (Y. L. Michael, M. K. Green, & S. A. Farquhar, 2006). Research has found the opposite is also true, i.e., that poorer-quality neighborhood environments are associated with increased risk of loss of physical function in older adults (which researchers associate with lower levels of physical activity) (Balfour & Kaplan, 2002). The link between physical activity levels and public recreation places in elderly has been reported elsewhere: in a survey study of 449 randomly selected older adults researchers found one of the strongest environmental factors associated with improved levels of physical activity was "local opportunities to walk", and in particular access to a park, recreation center, track, golf course, or tennis court (Booth, Owen, Bauman, Clavisi, & Leslie, 2000).

Social interaction and public spaces

Participation in public spaces often means engaging (either directly or indirectly) with others. Although there has been some research to identify the potential for negative experiences during social interactions (Rook, 1984, 2003), most people seek out others and feel their lives are improved as a result. Indeed, as William Whyte (1980), an urban sociologist with over 40 years experience observing people in public spaces writes, "What attracts people most, it would appear, is other people".

Social interaction (described earlier in this document and understood to be beneficial to the health of older adults) is a common experience in public spaces where the intention is to provide communal places that are for the enjoyment and benefit of all citizens. In the literature, the social experiences found in public places are described as significant predictors to overall well-being: Based on twelve months of field work (observations, in-depth interviews) examining peoples everyday relationships with everyday public spaces (shopping streets, parks and markets), Cattell et al., (2008) writes:

> The beneficial properties of public spaces are not reducible to natural or aesthetic criteria. Social interaction in public spaces can provide relief from daily routines, sustenance for people sense of community, opportunities for sustaining bonding ties or making bridge, and can influence tolerance and raise people's spirits (p. 544).

Engaging in public spaces is understood as important and health-benefiting for most people regardless of age however may be particularly important for older adults many of whom live alone, are no longer employed, and may have less opportunity than their younger counterparts to engage socially with others (Gardner, forthcoming). For example, Scopellite and Giuliani's (2004) research on restorative environments across the lifespan reports that sociality may play a particularly important role in shaping the restorative experiences of elderly people (p.434). Cheang's (2002) research with a group of older adults who meet regularly at a fast food restaurant suggests their scheduled informal social gatherings provide play, structure, meaning and promotes their overall mental well-being. Conradson's (2005) study of elderly residents

attending a respite care centre in rural England illustrate the benefits of attending are improved (for some individuals) when opportunities for meeting new people and social interaction are provided.

To summarize, public places are an important 'place of aging'. Research illustrates going out, moving beyond the (private) home and into public spaces, is an important health promoting activity for older adults (Peace, Holland, & Kellaher, 2005, p.200). Interestingly, this may be true regardless of where people go or what they do in these public environments. For instance, in a recent study researchers demonstrated that simply going out of the house on a daily basis (regardless of what you do) predicts long term functional and health benefits among ambulatory older adults (Jacobs et al., 2008). In a longitudinal study (n=605) of independent ambulatory community dwelling older adults (aged 70-77), Jacobs reports leaving the house daily, and independently, predicts preservation of function, urinary continence and good self-rated health (p.268).

Key Factor: Access

Although research on the specific ways in which older adults engage with public places (including where, when and how) is limited, there has been some work to suggest older adults in particular seek out public places, and some of their preferred public places are retail shops and services, restaurants and cafés, cultural establishments as well as city-center public spaces such as parks and squares (Y. L. Michael et al., 2006; Valdemarsson, Jernryd, & Iwarsson, 2005). Summarizing the literature in this area highlights access – both physical and social – as one of the most salient factors predicting the relationship between public spaces and health for older adults.

Physical Access

For older adults, many of whom experience some mobility limitations, physical accessibility is a significant factor in the opportunities as well as the patterns of use, of public spaces. The physical (e.g., inclement weather, hilly topography) environment as well as city and regional planning and design (e.g, pedestrian pathways, seating, and public transit systems) play a role in the degree to which functional ability is a barrier to engaging in public spaces.

In a review of the literature, Turel and colleagues (2007) identify several common challenges to accessing public spaces for older adults: distance between destinations, difficulty in walking, poor sidewalks, lack of places to rest, and fear of crime (p.2036). Barriers to access such as these means that proximal spaces (those within walking distance to home), become increasingly significant public places for older people. Research has shown 60-70% of people using a park live within 800m of it (Stoneham, 1996), and local or neighborhood parks are likely to be the most frequent used among elderly residents (Turel et al., 2007, p.2036). Researchers (Turel, p. 2037) evaluating older adults interactions with public open spaces outline several important design criteria: Ramps, stairs, pavements, level crossings, under and over pass, orientation board, and treed streets. When asked "what are the most frequent problems you meet in public open spaces, the most common answers among elderly participants are: pavement and streets (21%), pollution (21%), safety (18%), poor maintenance (10%), and traffic (8%).

In a study investigating preferences and frequencies to public facilities (Valdemarsson et al., 2005), several key problem areas associated with public environments were identified by elderly participants: surface materials, curb cuts, lack of seating, traffic and lack of crossings, obstacles in pedestrian areas, lighting, and, in terms of access to shops and public buildings, the steps at entrances, heavy doors and narrow entrances were identified (p.22). Researchers found more problems were perceived along walking routes in the public outdoor environment than in the public facilities per se (p. 15). Indeed, those exploring the pathway from impairment to disability conclude: "If street quality could be improved, even somewhat, for those adults at greatest risk for disability in outdoor mobility, the disablement process could be slowed or even reversed" (Clarke, Ailshire, Bader, Morenoff, & House, 2008, p.506). Falling, as well as the fear of falling, due to improperly designed or maintained sidewalks and other pedestrian pathways has also been identified as a barrier to public spaces for older adults. In a participatory action study (Gallagher & Scott, 1997), researchers compiled data over a nine month period on the location and nature of pedestrian slips, trips, falls and potential hazards; of the 533 people who reported a slip, trip or fall, the average age=65 years; 75% said they suffered an injury and 55% required medical attention. The most frequently reported fall locations were sidewalks and crosswalks.

There has been some work, particularly in schools of architecture, engineering and urban planning, to develop design principles and practices that reduce barriers for older people and others with disabilities. Predicated on the notion that Western cities are characterized by a "design apartheid" where the form and design of buildings and open spaces are inscribed by the values of an able-bodied society, models of "emanicipatory architecture" (such as universal design and transgenerational design) approach space as socio-physical thus requiring both social as well as physical "barrier free" design (Imrie, 1998).

Social Access:

Access to public spaces can be restricted through social barriers (e.g., ageism and ableism). From this perspective although a space may be physically accessible, given its meanings it may be *experienced* by certain people or groups as oppressive or inaccessible – a place described by Glenn Smith (1999) as "a disabling space of values" (p.63).

Peter Freund (2001) writes about social barriers in urban environments in his work on the 'disabling city'. Spaces, according to Freund, are disabling when activity sites (work places, homes, shops, public spaces and transport sites) are separated from each other by barriers or distance (requiring a great deal of mobility)" (p. 696). He argues that space in society is not neutral, but rather political in the priority it gives, for example some transport modalities (cars), and in the way it 'handicaps' others (walking). Similarly, the work of geographer Glenda Laws (1995a; Laws, 1997; Laws & Radford, 1998) challenges us to reflect on the idea that as we age, our place in society changes, both materially and metaphysically. Using the concept of 'spatiality', she argues that the material spaces and places in which we live, work, and engage in leisure activities are age-graded and, in turn, age is associated with particular places and spaces. This "age-segregation" is integral to the process of identity formation by both older individuals and other social groups who perceive elderly people in particular ways. Law's argues that age segregation is produced by limitations on accessibility, mobility (both metaphorical and physical) and motility (an individuals' body potential to move) (Laws, 1997, p.93)

A lack of clean, accessible and safe toilets has been identified as both a physical barrier as well as socially discriminatory practice. According to the World Toilet Organization's work on social

equity and inclusion, older adults, care givers of young children, disabled people, and people with chronic health problems need easy access to suitably equipped public toilet facilities. A lack of accessible and good public toilets affects not only affects the quality of cities and the opportunities available to certain groups of people, it also reduces the dignity and quality of people's lives.

Access to the outdoor environment plays an important role in the health and well-being of older people (Kellaher, Peace, & Holland, 2004). Improper design separates older adults from social life, narrowing their life circles (Turel, p.2044).

Public Spaces from a NYC perspective

According to the Project for Public Spaces (a New York City organization with over 30 years experience in designing, evaluating and promoting public places), "New York is a great city for two important reasons – its wealth of public destinations and the energy of its citizens". According to the Project for Public Spaces, if city government and the private sector build on these assets, New York's neighborhoods and districts will continue to flourish.

New York maintains some of the most recognized and established public spaces in the world including Central Park, Times Square, the Metropolitan Museum of Art and Fifth Avenue (shopping). Often thought of as the ultimate urban environment, New York City is actually the greenest city in the country. Over 25% of the city is parkland, managed by the New York City Department of Parks and Recreation (Parks) (Design Trust for Public Space website http://www.designtrust.org/projects/project_08parks21c.html

According to the NYC Department of Parks and Recreation, New York City has more than 1,700 parks, playgrounds, and recreation facilities across the five boroughs. Parks properties range from swimming pools to wetlands and from woodlands to skating rinks (nycgovparks.org/sub_faqs/faq.html). It can be argued that outdoor public places such as parks play a significant role in the quality of life and well-being of New Yorkers, many of whom live in small apartments with no yards or outdoor space (REF).

Access issues and barrier free design principles are important in New York City as an estimated 2,537,000 people in New York have a disability (14.6% of the population age 5 and over). The proportion of older adults with a disability is much higher; based on data from the 2005 American community survey 42.8% of New Yorkers over the age of 65 have a disability. (American Community Survey, 2005). (http://pascenter.org/state_based_stats/state_statistics_2005.php?state=newyork&project=.

Pedestrian safety in New York's busy urban environment has been identified as a key concern and represents a significant barrier to public spaces. A recent New York study conducted by Transportation Alternatives (2004), report seniors are in dangerous situation as they cross certain busy intersections in the city. Examining six intersections in four neighborhoods researchers found the average walking speeds of elderly residents were a full foot slower per second (3 ft/sec) than the guidelines used by the city for traffic signals (4 ft/sec). Study recommendations include modifying signal timing around senior centers and installing pedestrian refuges or medians with benches on wide streets (greater than 70 feet).

Objective for Action: To design the built environment in such a way that it can be comfortably used by the widest range of bodies possible and public spaces in particular must be safe, aesthetic, comfortable and usable by all citizens regardless of age or ability.

"Older people are at risk of becoming excluded from important domains of society if they are not able to participate in the public arenas" (Lilja and Borell as quoted by Valdemarsson, 2005). An outdoor environment, which makes going outdoors easy and enjoyable, is conducive to a more active lifestyle and better quality of life (Sugiyama & Thompson, 2007a).

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