
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.

References

- AdvantAge Initiative. (2004). *Indicator Chartbook National Survey of Adults Aged 65 and Older*, from <http://www.vnsny.org/advantage/resources.html#report>
- Baker, D. W., Wolf, M. S., Feinglass, J., Thompson, J. A., Gazmararian, J. A., & Huang, J. (2007). Health literacy and mortality among elderly persons. *Archives of Internal Medicine*, *167*(14), 1503-1509.
- Centers for Disease Control and Protection. (2007). *Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2006* (No. DHHS Publication No. (PHS) 2008-1563). Hyattsville, MD: U.S. Department of Health and Human Services.
- Connell, C. M., & Crawford, C. O. (1988). How People Obtain Their Health Information - a Survey in 2 Pennsylvania Counties. *Public Health Reports*, *103*(2), 189-195.
- Council of Senior Centers & Services of NYC. (2006). *Growing old in New York City: The age revolution*. Retrieved September, 2008, from http://cscs-ny.org/files/GrowingOld_FEB2006.pdf
- D'Wynter, L. C. (2006). Keeping the conversation going - Information and strategies for reducing the impact of sensory, motor, and cognitive changes that affect the quality of communication in elderly patients in long-term care. *Topics in Geriatric Rehabilitation*, *22*(3), 256-267.
- Erber, N. P., & Scherer, S. C. (1999). Sensory loss and communication difficulties in the elderly. *Australasian Journal on Ageing*, *18*(1), 4-9.
- Fox, S. (2004). *Older Americans and the Internet*. Retrieved September, 2008, from http://www.pewinternet.org/pdfs/PIP_Seniors_Online_2004.pdf
- Gazmararian, J. A., Williams, M. V., Peel, J., & Baker, D. W. (2003). Health literacy and knowledge of chronic disease. *Patient Education and Counseling*, *51*(3), 267-275.
- Gusmano, M., Rodwin, V., & Schwartz, H. (2008). *Vulnerable older people in Chinatown: Report on a neighborhood*. New York, NY: Unpublished Report from Authors.
- Haddon, L. (2000). Social Exclusion and Information and Communication Technologies: Lessons from Studies of Single Parents and the Young Elderly. *New Media & Society*, *2*(4), 387.
- Hummert, M., & Nussbaum, J. (2001). *Aging, communication, and health: Linking research and practice for successful aging*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Kemper, S. (1994). Elderspeak: Speech accommodations to older adults. *Aging, Neuropsychology, and Cognition*, *1*(1), 17-28.
- Kirkim, G., Serbetcioglu, B., Odabasi, O., & Mutlu, B. (2007). Hearing loss and communication difficulty in the elderly. *Mediterranean Journal of Otology*, *3*(3), 126-132.
- Kreuter, M. W., & McClure, S. M. (2004). The role of culture in health communication. *Annual Review of Public Health*, *25*, 439-455.
- Lenhart, A., Horrigan, J., Rainie, L., Allen, K., Boyce, A., Madden, M., et al. (2003). *The Ever-Shifting Internet Population: A New Look at Internet Access and the Digital Divide*. Retrieved September, 2008, from http://www.pewinternet.org/pdfs/PIP_Shifting_Net_Pop_Report.pdf
- Melenhorst, A., Rogers, W., & Caylor, E. (2001). The use of communication technologies by older adults: exploring the benefits from the users' perspective. *Proceedings of the Human Factors and Ergonomics Society*, 221-225.
- Ngo-Metzger, Q., Massagli, M., Clarridge, B., Manocchia, M., Davis, R., Iezzoni, L., et al. (2003). Linguistic and Cultural Barriers to Care. *Journal of General Internal Medicine*, *18*(1), 44-52.
- Nussbaum, J. F., & Baringer, D. K. (2000). Message production across the life span: Communication and aging. *Communication Theory*, *10*(2), 200-209.
- Passchier-Vermeer, W., & Passchier, W. (2000). Noise Exposure and Public Health. *Environmental Health Perspectives Supplements*, *108*(1), 123-132.
- Robinson, J., Skill, T., & Turner, J. (2004). Media usage patterns and portrayals of seniors. In J. Nussbaum & J. Coupland (Eds.), *Handbook of communication and aging research* (2nd ed., pp. 423-446). Mahway, New Jersey: Lawrence Erlbaum Associates.
- Rogers, W., Mayhorn, C., & Fisk, A. (2004). Technology in everyday life for older adults. In D. Burdick & S. Kwon (Eds.), *Gerotechnology: Research and practice in technology and aging* (pp. 3-17): Springer Publishing Company.

- Rogers, W. A., Meyer, B., Walker, N., & Fisk, A. D. (1998). Functional limitations to daily living tasks in the aged: A focus group analysis. *Human Factors, 40*(1), 111-125.
- Schonknecht, P., Pantel, J., Kruse, A., & Schroder, J. (2005). Prevalence and Natural Course of Aging-Associated Cognitive Decline in a Population-Based Sample of Young-Old Subjects. *American Journal of Psychiatry, 162*(11), 2071.
- Selwyn, N., Gorard, S., Furlong, J., & Madden, L. (2003). Older adults' use of information and communications technology in everyday life. *Ageing and Society, 23*, 561-582.
- Simmons Market Research Bureau. (1997). *The 1996 study of media and markets*. New York: Simmons Market Research Bureau.
- U.S. Department of Commerce. (2002). *A nation online: How Americans are expanding their use of the Internet*. Washington, DC: U.S. Government Printing Office.
- Walker, J., & Herbitter, C. (2005). *Aging in the shadows: Social isolation among seniors in New York City*. New York: United Neighborhood Houses of New York.
- Williamson, K. (1995). *Older Adults: Information, Communication and Telecommunications*. Unpublished Doctoral Dissertation, Royal Melbourne Institute of Technology, Monash, Australia.
- Wolf, M. S., Gazmararian, J. A., & Baker, D. W. (2005). Health literacy and functional health status among older adults. *Archives of Internal Medicine, 165*(17), 1946-1952.