

Social Determinants of Health: Urban Planning

Pathways to Senior Citizen's Longevity

In the 20th Century, life expectancy increased on average approximately thirty years. Additionally, the fertility rate decreased as life expectancy increased, thereby dramatically altering the population distribution. Demographic statistics indicate that 13% of the population is currently over the age of 65; By 2030, 20% of the population will be over 65; And over the next 50 years, there will be more persons over the age of 60 than under the age of 15.ⁱ At this time, four to six generations will coexist for the first time in human history.ⁱⁱ

Current social stigma regarding aging creates a common misconception that emphasizes the frailty and dependence of older persons and equates these components with a normal aging process. Conversely, research indicates that this trajectory of aging is currently a trend among elderly but is not necessarily inherent to the aging process itself. Rather, the most common diseases affecting the majority of the elderly population are largely contributable to lifestyle and other such behavioral factors.ⁱⁱⁱ Addressing these external factors throughout the life course could ultimately result in compression of morbidity. In other words, individuals would stay healthy for the majority of the increased lifespan we see today and when they do die, they will be more likely to die quickly, avoiding many of the costs associated with unsuccessful aging.^{iv} Society can facilitate the active living necessary for productive citizens and

continued autonomy required for successful aging by creating environments designed to promote the health and well being of the growing population of senior citizens.

Research results show that lack of control over one's daily activities elicits adverse effects on health outcomes. One such study conducted by John Rowe and Robert Kahn on *Human Aging: Usual and Successful*, lists negative effects "on emotional states, performance, subjective well-being, and on physiologic indicators."^v Older people commonly encounter reductions in autonomy and control for a variety of reasons – one such reason being that as individuals age, they are increasingly restricted to easily accessible environments that allow for smooth terrain and safe passage. The lack of such environments in all but the upper echelons of socioeconomic communities, translates to environment-spurred declines in loss of independence and control, and thus health.

Professor Laura Carstensen, founding director of the Stanford Center on Longevity and author of *A Long Bright Future: Happiness, Health, and Financial Security in an Age of Increased Longevity*, outlines the mismatch between this marked population shift in age cohorts and social construct, "culture hasn't had time to catch up to our increased lifespan...As it is, the built environments that surround us were designed with the young in mind. Outdoors,

we find steps without banisters and long stretches of urban sidewalks that have no place where one can stop and sit down, or that become icy in winter months...”ⁱⁱ For many cohorts, long stretches of urban sidewalks do not exist in the neighborhood of residence, let alone benches on which to sit. In other words, the current environment typical to urban design does little to facilitate active living, much less the safety and autonomy of senior citizens. The discord between the environment and the aging demographic necessitates the collaboration between health specialists and civil engineering, specifically utilizing urban planning to promote the independence and well being of senior citizens.

Urban Planning Defined

The urban planning movement evolved in response to sharp increases in population growth and rapidly expanding cities of nineteenth-century Europe that gave rise to poor quality housing and unsanitary living conditions. At this time in history, poor urban planning led to a number of ramifications on health, industry, and individual quality of life. Today, despite greater knowledge surrounding the determinants of health and the links between urban planning and health, communities continue to be built to secure short-term financial gain and to form an efficient city rather than for the health and quality of life of the inhabitants.^{vi} Healthy urban planning is necessary to place people at the centre of the urban planning agenda to best facilitate conversations around the implications for

health and well being with this work and later incorporation of health objectives central to the decision-making process. According to *Healthy Urban Planning: A WHO Guide to Planning for People*, “health is a core element of sustainable development, and healthy urban planning aims to improve both the quality of the built environment and the quality of life of individuals and communities in cities. [Urban planning] can help to create a healthy economy, a healthy environment and a healthy society.”^{vi}

Green Spaces and Increased Longevity

According to the results of one cohort study conducted in correspondence to health promotion, the probability of five year survival rates of senior citizens studied in accordance with the available space for taking a stroll near the residence, parks and tree-lined streets near the residence, and the individuals’ preference for continuing to live in his current residential environment, indicates that residential environment statistically influences senior citizens’ rates of longevity. In fact, “living in areas with walkable green spaces positively influenced the longevity of urban senior citizens independent of their age, sex, marital status, baseline functional status, and socioeconomic status.”^{vii} This statistical increase in longevity correlated with environment has applicable implications for the well being of individuals and thus for policy reform. As the study emphasizes, greenery gilled public areas that are nearby and easy to walk in should be further

emphasized in urban planning for the development and re-development of densely populated areas in order to promote the health of senior citizens.

Addressing Socioeconomic Disparities in Health via Urban Planning

To quote Nancy Adler and Katherine Newman in *Health Affairs*, “socioeconomic status underlies three major determinants of health: health-care, environmental exposure, and health behavior.”^{viii} Urban planning can be used to address two of these three determinants, thereby mitigating the adverse health effects of socioeconomic disparities with land-use methods.

With a carefully designed city plan, including neighborhoods within the city, measures can be taken to encourage positive environmental exposure. Steps can be taken to ensure that all houses need be built a certain distance away from freeways to cut down on residential air pollution and to promote outdoor interactions; streets can be designed to incorporate pedestrian crosswalks, bike lanes, and side walks leading throughout the neighborhood and to a nearby park to encourage active interaction with the neighborhood environment both physically and socially; speed bumps and stop signs can be incorporated to slow traffic...etc. Urban planning can be used to create positive environments for citizens.

The second major health determinant that urban planning can address is health behavior. By incorporating designs that

encourage safe outdoor interactions and thus physically and socially active participation in one’s residential neighborhood system, urban planning can too promote positive health behavior.

By addressing environmental exposure and health behavior, two main predictors of health, urban planning can work on a policy level to reduce the health disparities caused by socioeconomic differences between communities.

Policy Implications

“Longer, healthier lives are important to the economy.”ⁱⁱⁱ However, despite the large compilations of data professing the importance of healthy eating and exercise, most individuals do not meet the recommended guidelines for either case. The reason for this according to Professor Carstensen is because society is asking individuals to choose to behave one way while providing a world that encourages quite different behaviors and this *does not work*. We’ll need the additional components of science and technology to construct environments that encourage healthy lives.ⁱⁱⁱ Urban planning can correctly delegate land use to create the necessary context to match the already prevalent belief in the merits of healthy living. Context and belief are the two necessary ingredients for social change. History demonstrates that encouraging one without the other produces negligible results and is largely unrealistic. In sum, as context evolves so must our policies. As America’s population ages, we must adapt our built

environment to match the needs of the population.

Demographic researchers predict that without change, this population imbalance will have significant negative implications for social programs, in particular health care and social security. For example, social security will see a greater number of retirees in America than the number of young workers, resulting in a faster withdrawal of funds from public pension programs than the rate at which younger workers can contribute to the programs.ⁱ In order to address this mismatch, we should encourage the continued autonomy and well being of senior citizens so that they may contribute to society as productive members. In doing so, we can prevent compounded reliance on already financially strained social systems. To further explain, senior citizens in good

health are more likely to continue to make positive contributions to society and to avoid financially depleting health care bills for both the individual and social programs dedicated to the elderly, than is an elderly individual who has lost his health and ability for self-dependence.

The theory that connects the environment and health is apparent within ecosystems of all other living species and is thus intuitive, but policy implementation requires sound evidence on which to prepare planning and concrete policy changes. Therefore, further research is necessary to compile sufficient empirical data by which to spur more health-conscious urban planning for the well being of senior citizens, and ultimately all ages throughout the life course for a cohesive and productive society.

ⁱ Nybo, Stig. President of Pension Sales and Distribution-Transamerica Retirement Solutions. *Longevity, Guest Lecture*. 26 February. March 2014.

ⁱⁱ Carstensen, Laura L. *A Long Bright Future: Happiness, Health, and Financial Security in an Age of Increased Longevity*. New York: Broadway, 2011. Print.

ⁱⁱⁱ Carstensen, Laura L. *Longevity Lecture*. January-March 2014. March 2014.

^{iv} Greenleaf, Walter. *Longevity, Guest Lecture*. February 2014. March 2014.

^v Rowe, John and Kahn, Robert. *Human Aging: Usual and Successful*. World Population Aging. March 2014.

^{vi} Barton, Hugh. Tsourou, Catherine. *Healthy Urban Planning: A WHO Guide to Planning for People*. March 2014.

^{vii} Professor T Takano, Health Promotion/International Health, Division of Public Health, Graduate School of Tokyo Medical and Dental University, Yushima 1-5-45, Bunkyo-ku, Tokyo 113-8519, Japan. March 2014.

^{viii} Adler, Nancy E., and Katherine Newman. "Health Affairs." *Socioeconomic Disparities In Health: Pathways And Policies*. Stanford University Graduate School of Business, Mar. 2002. Web. 14 Mar. 2014.

Additional Resources

Hugh Barton & Catherine Tsourou. Healthy Urban Planning.

http://books.google.com/books?id=MaJRDbX_8-oC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Journal of Epidemiology & Community Health: Urban residential environments and senior citizens' longevity in megacity areas.

<http://jech.bmj.com/content/56/12/913.short>

Nancy E. Adler and Katherine Newman. Socioeconomic Disparities in Health.

<http://content.healthaffairs.org/content/21/2/60.full>

Susan L Handy & Marlon G Boarnet. American Journal of Preventive Medicine. How the built environment affects physical activity.

[http://dx.doi.org/10.1016/S0749-3797\(02\)00475-0](http://dx.doi.org/10.1016/S0749-3797(02)00475-0)

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