

RUNNING HEAD; Walkable Communities: Landscape And Demographics

Walkable Communities: Are Baby Boomers Changing the Landscape  
and the Demographics of our Communities?

Donna Kman

Professor Cynthia Stevens

DePaul University

### Abstract

The aim of this paper was to provide awareness of the incentives of walkable communities for the baby boomer population in the United States. In this study it was determined that for any community or neighborhood to be walkable first, it needs to be safe for walking. Second, it needs to have no more than a three-mile radius or fifteen-minute walking distance to certain amenities such as stores, restaurants, theater, pharmacies, or public transportation. The positive benefits of walkability were most evident in the mental and physical health of baby boomers.

The structure and function of today's communities promote auto mobility and alienation to our senior population. This paper attempted to bring awareness to the future of care for the seniors in this country. Who and how seniors are going to be cared for as the baby boomer population escalates. This study sought to provide an understanding whether walkable communities are attainable in this country for this generation of baby boomers, or will it take the next generation to embrace walkability in our neighborhoods.

## Introduction

Simple daily independent activities such as going to the grocery store, banking functions, driving to a doctor's office for medical appointments, or basic social activities like meeting with friends or going to church are taken for granted. They are taken for granted until it becomes difficult to get to these places without the help of someone else. In this postmodern age, these people can remain independent by using the internet to take care of some of their needs.

However, not everyone can be computer savvy and sometimes it is necessary to leave your home to take care of things. Most people do not want to become prisoners in their own home anyway. Is walkable community the answer? Researchers, Kelly, Tight, Hodgson and Page (2011) found that the most important attributes to consider any neighborhood to be walkable like "pavement cleanliness, safe crossing places, good connectivity and sense of security" (p.1500). Others are stating that walkable neighborhoods are those where you can walk anywhere within 10-15 minutes' walking distance from your home (Van Dyck, Carron, Deforche, & Bourdeaudhuij, 2011).

Walkability can be measured by using the Walk Score. It is in range from 0-100. The closer to the 100 mark the better the walkability. This score already being used by Realtors in their Multiple Listing Service (MLS) and can be found on Google search also (see Appendix C). Individuals looking for walkable communities can refer to the Walk Score on this site. Each community has been rated and the score is assigned. For example, for the city of New York, NY the Walk Score is 87.6, for Chicago, IL 74.8 and Houston, TX 44.2.

The people referred to in this research study are those retired individuals who for the most part are healthy however; as they grow older their driving abilities may not be as skilled as

they once were. Eyesight while still fine during the day become troublesome at night. They are those who still get their daily dose of exercise, but their legs cannot sustain a five mile round trip walk to purchase laundry detergent. The concentration in this research paper is on the baby boomer population or anyone that was borne between 1946 and 1964.

### Problem Statement

According to a 2004 U.S. Census Bureau study, by the year 2030, 72 million people, or one in every 5 Americans will be 65 or older. Are we ready to accommodate their needs? The present policies give us few options. Either they provide senior transit services or they house older adults in senior care facilities where the basic care is given. According to Dumbaugh (2008), this well-intentioned practice would further segregate the older adults from the larger communities. The environment design in most of the communities in the United States favors auto mobility. As we age our visual acuity, coordination and flexibility reduces our ability to operate motor vehicles. In consequence, many otherwise capable adults would find themselves unable to accomplish even basic tasks.

Research shows that if we do not start to change the structure and the function of our communities today, as the senior population grows, we will have a great number of people that will not be able to take care of themselves tomorrow. The first multitude of Baby boomers just retired in 2011 and many more would follow. Would they be able to sustain their quality of lifestyle that they are use to? Would they be able to remain in their homes? Is a life in a walkable community the answer?

### The Purpose Statement

The purpose of this qualitative study is to explore how walkable communities can influence changes in the lives of seniors. In Europe, walkable communities are noticeably visible and are very successful in sustaining better lifestyle for both the young and the old. According to researchers, these types of communities have positive effect on the environment and society as well. In this research I would like to find out if there is a future for walkable communities in the US. However, the exploration of what impact can walkable communities have on the baby boomer population and its structure and function's is my main concern and the purpose of this study.

### Research Question

What impact can walkable communities have on the senior population?

### Literature Review

The present structure of our communities and the over whelming reliability in auto transport is the main cause for many elderly adults diminishing independent lifestyle and isolation. The safety challenges for the elderly, their needs, and preferences need to be taken in consideration equally. The elderly are facing mobility barriers, like congested highways and driving at night. At this time, there is no good solution to this problem. Basic transportation services for seniors helps only partially. The solution presented here is the creation of secondary through-routes, connecting the local streets, and eliminating strip developments. In the community design, the objectives of one group should not come at the expense of others (Dumbaugh, 2008).

### Automobiles are the Center of Life in American Suburban Growth

Suburban growth all started in the late 1940s at the end of World War II with the help of The Federal Housing Administration (FHA) and Veterans Administration (VA). After the war, their loan programs provided millions of mortgages for less money per month than rental payments. They also favored the new homes, in the suburbs, versus the old homes, with their need for renovation, in the city. In addition, the federal government put major emphasis and money on the construction of new highway systems. At that time, gas was cheap, and personal income was on the rise. Things are different now. The energy prices are rising, incomes are falling, and home buying credit is no longer there. We have no other options but to reshape our communities and to make them more functional for the future, according to Nelson (2012):

The triple storm is brewing that will give the country an opportunity to reshape its recent growth pattern from one of ever sprawling suburban developments to more compact, mixed-use, walkable neighborhoods. One storm is dramatically changing demographics; another is increasing energy prices, especially gasoline; and third is the increasing market preference for walking, biking, and accessible transit. ... Quelling this storm will require reshaping our suburban communities. (p. 811)

Nelson believes that the current economic situation is much different now and the change to make communities more functional is necessary.

### The Factors that Influence Walking and Physical Activity Include Pedestrian-Oriented Infrastructure and Designs

According to Kelly, Tight, Hodgson and Page (2011) as we walk the experience and interaction with local environment is totally different than when using motor transport. The appropriate design would improve and increase the quality and quantity of walking. They conducted a research in the city of Leeds, England. The main goal of this study was to find out

how the pedestrian environment can be improved and which aspects are sub-standards. In their findings they concluded that traffic volume, clean pavements, connectivity and safety were the main issues (p.1507). In another similar study done in the USA by Cao, Handy and Mokhtarian (2006) explored the roles that build environment play on residential self-selection and pedestrian behavior. They concluded that “policies should then encourage more pedestrian-oriented development in order to satisfy the demand for walking-oriented development and provide sufficient opportunities for walking” (p.17). The sedentary behavior of many Americans sets some limitations on their desire for walking and any physical activities. Researchers report’s findings how street patterns, pedestrian-oriented infrastructure and amenities, design and destinations, affect walking and total physical activity (Forsyth, Hearst, Oakes, & Schmitz, 2008).

### The Benefits of Walkable Communities

First of all, the walkability of the communities and individual health of the citizens are greatly related. In his research Van Dyck et al. (2011) talks about the relation of walkability and physical activity, “Many studies worldwide found that the adults living in neighborhoods with high residential density, well-connected streets and mixed land use were more physically active compared with the adults living in low walkable neighborhoods” (p.971). The logic presented by the Active Community Environments model demonstrates that walkable and safe neighborhood promotes greater physical activity, which is leading to lower obesity and then to fewer weigh related chronic conditions and better overall health (Doyle, Kelly-Schwarz, Schlosberg, & Stockard, 2006).

Napier, Brown, Warner and Gallimore (2011) conducted a research in Daybreak, Utah regarding increase rate of child inactivity, obesity and other health problems in relation to walking to school. The walkability rate of the environment plays a key role. They concluded, “walkable community designs may play a valuable role in fostering walking habits, as well as create the benefits of reducing automobile dependents and enhancing independent mobility of children” (p.50).

### What is Walkability and how is it Measured?

The Bikeability and Walkability Evaluation Table (BiWET) was developed in 2007 at the University of Graz, Austria. The BiWET is a reliable and efficient tool that measures the environmental characteristics of neighborhood or existing route in relation to physical activity behavior. In their study the researchers took in consideration categories like traffic safety, attractiveness of the surroundings, land use and the walking and cycling infrastructure (Hoedl, Titze, & Oja, 2010). “Growing research suggests that physical activity may be influenced by the built (e.g., access to amenities, residential density, land-use diversity, street connectivity, access to public transit) and social (e.g., safety) environment” (Carr, Dunsiger & Marcus, 2010, p. 460).

According to Carr et al. (2010) researchers needed a reliable tool that would measure the impact of the environment on physical activities and concluded in their study that Walk Score is valid and reliable in estimating access to nearby walkable amenities. Walk Score is publicly available on a website ([www. Walkscore.com](http://www.walkscore.com)) and it uses data provided by Google.

Walk Score uses data provided by Google AJAX Search application program interface(API) along with a geography-based algorithm to identify nearby areas and calculate a score of “walkability.” The Walk Score algorithm calculates a score of walkability based on distance to 13 categories of amenities (e.g., grocery stores, coffee shops, restaurants, bars, movie theaters, schools, parks, libraries, bookstores, fitness



centers, drugstores, hardware stores, clothing/music stores). Each category is weighted equally and points are summed and normalized to yield a score of 0-100. (2010, p.460)

### The Travel Patterns of Older Americans

The 2001 National Household Travel Survey (NHTS) sponsored by the Bureau of Transportation Statistics and the Federal Highway Administration looked at the travel patterns of older Americans to better understand their transportation needs. They concluded that although older Americans travel extensively, they are not as mobile as younger adults. Older adults take fewer trips at shorter distances and travel time. Most of the time existing medical conditions limit their ability of travel. The need for alternative means of transportation is necessary. At the present time, the use of alternative transportation is low (Collia, Sharp & Giesbrecht, 2003).

### The Future of Walkable Communities in the US

The main goal for the project The Walkable Neighborhoods for Seniors (WN4S) conducted by the Sacramento County Department of Health Services and WALK Sacramento, a nonprofit organization dedicated to promote walkable neighborhoods was to explore the potential to facilitate changes in policies and physical environment that would support walking by older adults. They developed an action plan first with the purpose to increase public awareness and the benefits of walking. Next, they conducted walkability audits in selecting neighborhoods with large population of older adults. Finally, they advocate for environmental and policy changes (Hooker, Cirill & Geraghty, 2009).

Characterized by a sense of entitlement to a suburban, car-centric lifestyle, and by a failure to plan for lives that are likely to be thirty years longer than they been in any generation, aging baby boomers could become stranded in their homes, expecting services to come to them. ... Staying in one's own home as long as

possible or aging in place is their preference of most baby boomers. (Kennedy, 2010, p.70)

We need a change and we needed do it now. Would we have all the resources needed to help them stay in their homes? Can the next generation be able to care for us as we age?

### Conclusion

Yes, there is a future for walkable communities in the US; however, the country is at the crossroads of how to get there. Can the US learn from Europe? Or, are we fundamentally different culture? Our historic past with respect to the walkable lifestyle is in need of change. Baby boomers who insisted on living outside the urban environment found themselves totally dependent on the automobile. The concern then is, as this generation lives longer their own environment will leave them dependent on the outside world coming to them (Kennedy, 2010).

Walkable communities may positively increase the overall quality of life. Individuals are transformed into groups who interact without regard of social status, and most important age. Walkable communities provide self-sufficient neighborhoods that are psychologically stimulating. Ignoring this current social dilemma today will exponentially hinder our health in the future (Barton, Grant, Mitcham & Tsourou, 2009).

However, urban planners in planning for future high-walkable neighborhoods need to take in consideration neighborhood satisfactions and their relation to walkability. “If adults do not like living in a high walkable environment, initiatives to increase neighborhood walkability might not be effective in affecting the overall population health, even though physical activity levels increase. ....neighborhood satisfaction might play a key role in deciding whether or not to live in a particular environment” (Van Dyck et al., 2011, p.971).

### Research Methods

In my research, I used inductive qualitative methods to explore the possibilities for future walkable communities and life changes for baby boomers living in the US. According to Leedy and Ormrod (2013) the qualitative research focuses on the phenomena that occurs in natural settings and is involved in capturing and studying the complexity of these phenomena. The researcher's role is to objectively explain and interpret their findings (p.139).

I have interviewed eight people, which is very small sample of the population. Using quantitative methods would not provide enough information to come to a viable conclusion. However, by doing the qualitative method it helped me to find out the feelings, experiences, perception on topic of my research. In my interviews, I asked open-ended questions to seek the views and opinions of others. I used one question that was yes/no question. This question helped me to move on to the next question in regards to their understanding the topic correctly. I was able to uncover and understand the thoughts and opinions and that gave me the basis for the findings in my research.

### Data Analysis

The following is my interpretation of demographic surveys and interview transcripts. Table 1 represents my demographic data. Prior to the interview, all participants were asked to complete a survey and sign a disclaimer (see Appendix B). All eight of my participants are from the baby boomer population, ages range from 50 to 64. I interviewed three males and four females with education levels from high school to Master Degree college level.

In my questions (see Appendix A), I wanted to find out if there is a difference between male/female way of thinking and understanding the walkability and if the level of education

play any role. My other curiosity was to find out, if there is any connection in understanding the importance of walkability to their roots and European ancestry. Moreover, my final interest was on the length of residency in present location and the possibility of retirement there. Overall, I am on the quest to find out if walkable communities have a future in this country and if baby boomers understand the importance of living in neighborhoods that would help them to stay in their homes for a very long time and live a full life without any major assistance from others.

Table 1

<b>Participants</b>	<b>Age</b>	<b>Gender</b>	<b>Education Level</b>	<b>Ancestry</b>	<b>Work Type</b>	<b>How long in present Community?</b>	<b>Planning to retire in your Community?</b>
Participant 1	55	Male	High school	Polish	Business owner	25	NO
Participant 2	57	Male	College/BA	Polish-American	Management/ Marketing	33	NO
Participant 3	61	Female	College/AA	Irish-American	Marketing/Sales	20	YES
Participant 4	55	Female	College/AB	Polish	Appraisal	16	YES
Participant 5	53	Female	College/BA	Irish-American	Real Estate Broker	27	NO
Participant 6	50	Female	High school	Italian-Polish- American	Administrative	2	NO
Participant 7	62	Male	College/AB	American	Real Estate Broker/Owner	17	YES
Participant 8	64	Female	College/MA	Polish	Retired	15	YES

### Understanding the Concepts of Walkability/Walk Score

According to the majority of the participants, a walkable community is the concept of a place that has certain amenities within no more than 3 mile radius or 15 minutes walk. Amenities would include places like stores, restaurants, theater, pharmacies, or public transport. Only one participant did not understand the meaning of walkability.

### Safety Factors/Walking Conditions

It should be noted that only one participant felt her community was walkable. Most of the participants agreed that lack of walkability in their communities is an issue when asked to identify the problems of walking conditions in their community. The safety of the neighborhood is the main concern for all participants. Specifically there are major pedestrian safety concerns, as it relates to lack of sidewalks, cross walks, and lighting. Crime prevention and police visibility must also be managed properly in order to create a safe walkable environment. There should be traffic lights with sound in order to assist seniors when crossing the street.

### Infrastructure/Build Environment in Communities

The cleanliness of the area with plenty of green spaces and low traffic are very desirable in any walkable neighborhood. Natural visual effects can be achieved by creating beautification committees formed by citizens from each neighborhood and have them give their input with needed improvements. Beautification should also include the lack of cars and traffic congestion in the mainstream areas of the community. Lack of auto congestion would also have a positive effect on the air quality. The appropriate design for each neighborhood would cause to increase the quality and quantity of walking for all citizens and would encourage individuals to utilize and enjoy the amenities of the community.

### Walkability and the Senior Population

If all amenities are not within walking distance, services should be provided. Those services would be transportation to and from health care facilities. Each town should have a list of seniors services offered. A volunteer senior task group can develop this. In this respect the seniors not only know what other seniors may need, but will also feel useful and needed.

### Conclusion

The lack of walkability in our communities is evident. We do need to make a major change in our habits for walkability to work well. Is the structure and function of our communities changing the way we live or is this generation changing that? The answer to this question is evident. Communities designed around walkability will have a positive effect and create a healthy lifestyle (Slater, Nicholson, Chriqui, Barker, Chaloupka, & Johnston, 2013). Future community planners should encourage residents to keep its senior population within the community in order to keep the community healthy. This planning would include essential services needed to retain its walkability status (Myers & SungHo, 2008).

The topic on walkability is just the tip of the iceberg, as we are just getting started. There are many new possibilities for new research. We could conduct research in helping to create the ideal highly-walkable neighborhood and use this as a template for any future developments. In any future studies the community involvement of the leaders for each town is very important. We already know that the neighborhoods we live in need to be desirable for its residents. We need to establish the most important aspects for walkability first. Focus groups could be formed including people from different age groups and different backgrounds to experience walkability at different locations.

### Ideas for Future Research

We can also research the sandwich generation, adult kids taking care of parents while raising their own families and working full time is a relevant topic and very appropriate. In our future studies, we could also compare the walkability in Europe vs. USA and draw any conclusions and ideas based on those studies. There are many possibilities and these are only few options for the future.

Finally, I have determined that there are limitations to my research study. Most of my participants live in the same general area of the Midwest. Gender was not a factor regarding answer outcome. They also are all of European ancestry. Due to the small number interviewed, 50% of the participants who stated their community is not walkable will remain in the same community in their retirement years. The walk score is now a very important factor to today's home buyers' yet only three participants knew what a walk score is.

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## Appendix

1. Appendix A - List of questions
2. Appendix B – Demographic Survey/Disclaimer
3. Appendix C - Sample Walk Score from website
4. Annotated Bibliography

Appendix A

**Interview Questions for Capstone Project**

1. Describe in your view, what is walkable community?
2. Do you know anything about the Walk Score?
3. Do you think your community is walkable?
4. In what way do you think a community is considering walkable?
5. Why do you think walkable communities are important to senior population?
6. Do you think the infrastructure of this community supports the walkability?
7. How would you improve the walkability in this town?
8. What do you like about your town that makes it walkable?
9. Do you identify any problems with walking conditions in your community?
10. What safety factors are needed in walkable community?
11. Are you planning to retire in your community?

## Appendix B

Demographic	Participant
Age	
Gender	
Education Level	
Ancestry	
Type of Work	
How long lived in present community	
Are you planning to retire in your present community	

Disclaimer: I understand the following demographic interview information will be used in a research paper for my capstone project at DePaul University. Your name will not be included in this paper and will remain private. The research paper is considered an unpublished paper strictly used to complete a Bachelor's Degree in Leadership studies.

Signature:

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## Appendix C

<http://www.walkscore.com/cities-and-neighborhoods>

City	State	Walk Score	Transit Score	Bike Score	Population
<u><a href="#">New York</a></u>	NY	87.6	81.2	62.3	8,175,133
<u><a href="#">Sydney</a></u>	AU-NSW	62.6	--	--	3,908,642
<u><a href="#">Los Angeles</a></u>	CA	63.9	49.9	54.0	3,792,621
<u><a href="#">Melbourne</a></u>	AU-VIC	57.0	--	--	3,707,530
<u><a href="#">Chicago</a></u>	IL	74.8	65.3	61.5	2,695,598
<u><a href="#">Toronto</a></u>	CA-ON	71.4	78.1	--	2,615,060
<u><a href="#">Houston</a></u>	TX	44.2	34.6	48.8	2,099,451
<u><a href="#">Brisbane</a></u>	AU-QLD	51.2	--	--	1,874,427
<u><a href="#">Montréal</a></u>	CA-QC	70.4	77.4	--	1,649,519
<u><a href="#">Perth</a></u>	AU-WA	50.2	--	--	1,627,576

## Annotated Bibliography

Cao, X., Handy, S. L., and Mokhtarian, P. L. (2006). The influences of the built environment and residential self-selection on pedestrian behavior: Evidence from Austin, TX. *Transportation*, 33(1), 1-20.

This article highlights the multiple and varied benefits of walking. Walking is good for the individual and for the society. City planners and public health officials are implementing policies that will improve the quality of walkable neighborhoods. In this study, the researchers are looking for evidence of whether such policies would be effective. They are conducting a survey of six neighborhoods in Austin, TX and are considering two main issues. First, the impact of the built environment and pedestrian behavior with regards to the purpose of the trip. Second, whether the connection between the built environment and pedestrian behavior is a matter of location choice or the travel choice. In their findings, they prove that future policies for city planning and development should be more pedestrian oriented to satisfy this growing demand and seek to provide greater opportunities for walking.

Carr, L.J., Dunsiger, S. I., Marcus, B. H., (2010). Walk Score as a global estimate of Neighborhood walkability. *American Journal of Preventive Medicine*, 39,(5) 460-563.

Just recently, Walk Score was introduced as a tool to determine the walkability of the neighborhoods. Walk Score determines the access to nearby facilities. However, other studies need to be done to determine if other components for walkability like street connectivity, access to public transit, residential density, and crime can be also considered. After many years of research in this study, it was determined, that the Walk Score is a free, easy-to-use, tool to

determine neighborhood density and access to nearby amenities. However, there are some limitations as to regarding estimating the crime rates.

Collia, D. V., Sharp, J., and Giesbrecht, L. (2003). The 2001 national household travel survey: A look into the travel patterns of older Americans. *Journal of Safety Research*, 34, 461-470.

The main purpose for the study was to highlight travel patterns of older adults in comparison to younger adults aged 19 to 64 years old at the national level. The main source used in this study was The National Household Travel Survey, which was sponsored by the Bureau of Labor Statistics and the Federal Highway Administration in the Department of Transportation. The data was collected through telephone interviews and included information pertaining to: number of drivers and types of vehicles, age, gender, income, travel time, purpose of trip etc. It was observed that personal vehicles were the dominant mode of transportation across all ages. However, older women represented the lowest percentage of drivers. For older adults, their daily trips were mainly in mid-day with the purpose of going shopping, running errands, going on medical visits, and using the car for recreational use. Compared to younger adults, older Americans are less mobile. They take fewer trips, with shorter distances and travel times.

Doyle, S., Kelly-Schwartz, A., Schlossberg, M., and Stockard, J., (2007). Active community environments and health: The relationship of walkable and safe communities to individual health. *Journal of the American Planning Association*, 72 (1), 19-31.

What are the Active Community Environments? They are the places where people of all ages can actively participate in physical activities. In this study, the social scientist demonstrates that walkable and safe communities promote healthy lifestyle and improve overall health. The walkable environment consists of shorter city blocks, greater connectivity, and more



intersections. This study is very important and the city planners need to take this very seriously. The researchers documented that the walkability and safety of the neighborhoods, physical activities, and overall health of an individual are all directly related. Subjects with higher income and higher education walked much more and had better health ratings. Older people and women are less likely than younger people to walk a minimum of one mile a day. The main finding of the study is that people would be healthier if they live in walkable communities, which are safe.

Dumbaugh, E. (2008). Designing communities to enhance the safety and mobility of older adults: A universal approach. *Journal of Planning Literature*, 23, 17-36.

According to a 2004 U.S. Census Bureau study, by the year 2030, 72 million people, or one in every five Americans will be sixty-five or older. The safety and mobility of older adults are the main concerns of this study. According to the authors, our environment is designed mainly for auto mobility. This results in many elderly who live diminished independent lifestyles with increasing isolation. This article also examines how the travel of older adults is different from that of younger adults. It also considers the safety challenges for the elderly, their needs, and preferences and gives solutions to the problem. "Vehicle miles traveled" (VMT) declines as people age. The patterns of driving also change. Elderly are facing mobility barriers, like congested highways and driving at night. At this time, there is no good solution to this problem. Basic transportation services for seniors help only partially. Further, these transportation services isolate them from the community. The solution presented here is the creation of secondary through-routes, connecting the local streets, and eliminating strip developments. In the community design, the objectives of one group should not come at the expense of others.

Forsyth, A., Hearst, M., Oaks, M. J., and Schmitz, K.H., (2008). Design and destinations: Factors influencing walking and total physical activity. *Urban Studies*, 45 (9), 1973-1996.

This report shows how travel and leisure, walking, and physical activities are affected by factors like street patterns, pedestrian amenities, design, destination, and density. The study was conducted in Twin Cities, Minnesota with 715 participants located in 36 neighborhoods. It concluded that it is possible to design environments that would encourage walking. However, in the US, sedentary behavior is common and both the built and social environment supports this. Altering this behavior is beyond what urban planners and health promoters have the ability to do.

Frey, W.H., (2010). Baby boomers and the new demographics of America's seniors. *Journal of the American Society on Aging*, 34 (3), 28-37.

In this article, researchers are looking for a possible “migration trends” associated with baby boomers as they start to retire. This would not be easy because baby boomers according to the article seem to have broken the mold in terms of their aspirations, accomplishments, and lifestyle. The author assumes that this generation would stay put in places where they live. The main question is how this would affect our cities, suburbs, and ethnic divisions. In their findings, they project the fastest growth in senior population over the period 2010 to 2030 will happen in Sunbelt regions of the country in the states like Arizona, Texas, Georgia and Florida. They also are predicting a huge growth in the suburbs, especially in the metropolitan areas for cities like New York, Philadelphia, Chicago, and Los Angeles. The author also makes a very interesting point: “Future generational competition may arise with claims over public resources (funding for schools versus elder services).”

Hoedl, S., Titze, S., and Oja, P., (2010). The bikeability and walkability evaluation table.

*American Journal of Preventive Medicine*, 39 (5), 457-459.

In 2007 at the University of Graz, Austria, researchers developed the Bikeability and Walkability Evaluation Table (BiWET). The purpose of this table was its ability to get a quick and fast assessment of the neighborhoods and its characteristics. In their research, they took into consideration the following categories: traffic safety, the attractiveness of the space, land use, bike lanes, and walking sidewalks. In their study, the observer cycled down the street and recorded the existence or value for each of the categories. They concluded that the BiWET table is a reliable and efficient tool that can be used when determining physical characteristics of an area and its relation to the built environment and physical activities.

Hooker, S. P., Cirill, L.A., Geraghty, A., (2009). Evaluation of the walkable neighborhoods for seniors project in Sacramento county. *Health Promotion Practice*, 10 (3), 402-410.

This article describes a case study put forth by the Sacramento County. The case study itself focused on the efforts of a local government task force to facilitate “safe and accessible” walking routes for seniors. The study highlights the successes and challenges found within Sacramento County, and serves as a model for other neighborhoods and counties.

Kennedy, C. (2010). The city of 2050 - An age-friendly, vibrant, intergenerational community.

*Generations*, 34,(3), 70-75.

With baby boomers, retrieving in a large numbers in next decades there is a new challenge. The prediction is that this generation would prefer to staying in own home as long as possible or “age in place.” Author talks about new concept of City for All Ages, which is vibrant for the young adults and accommodating enough for older people. Few examples of innovative housing

options are given. 1) Human Investment Project (HIP) Housing: Matching Service for Home Sharing. 2) Senior Housing Solutions (SHS): Low-Cost Suburban Rentals. 3) Burbank Senior artist Colony: Affinity-Style Living. 4) Senior Co-Housing: Custom-Designed Niche Communities. 5) Green House Homes: Assisted Living Redefined. There are some barriers and challenges to these innovations. New zoning codes and founding policies need to be implemented.

Myers, D., SungHo, R., (2008). Aging baby boomers and the generational housing bubble:

Foresight and mitigation of an epic transition. *Journal of American Planning Association*, 74(1), 17-33.

Baby boom generation borne between 1946 and 1964 has been a force in the economy of this country and since the seventy's. The first wave of baby boomers just turns 65 in 2011. The last of this generation would reach 65 in 2029. The authors ask what will happen when they start to sell their overpriced homes to younger Americans, which are not as well off and have smaller families. In their study, they concluded that the ratio of seniors to working-age residents would increase by 67% over the next two decades. According to the researchers, the retirement of the baby boomers could signal the end to the suburbia and low-density housing. Communities are facing historical tipping point. To prevent the generational housing bubble the city planners and developers need to be engage in shaping the new future. The new prediction for future growth is toward the centers of metropolitan areas. Urban designers should foster social integration for the elderly to remain in their communities by providing special services to make their lives more manageable.

Napier, M.A., Brown, B., Werner, C, M., and Gallimore, J., (2011). Walking to school:

Community design and child and parent barriers. *Journal of Environmental Psychology*, 31, 45-51.

Over the years, the percentage of children walking to school has declined. In 1969, 40.7% of children walked or bike to school compare to only 12.9% in 2001. Overall level of physical activity declined and the obesity rate has tripled. In their study, researchers compare parent-child perceptions of barriers to walking to school across different communities. They also tested the hypothesis that walkable community design, proximity to school, fewer barriers, and lower child BMI relate to walking to school. Their data shows that 88% of walkable community students walked to school compared to 18% of less walkable community students. It proves that having walkable community design is associated with above average rates of walking.

Nelson, A. (2012). The mass market for suburban low-density development is over. *Urban Lawyer*, 44(4), 811-826.

According to the author, we are approaching a triple storm that would cause to reshape the current patterns of the future urban and suburban landscape. The first storm is the dramatically changing demographics, the second are approaching energy crises, and the third is the increase in the preference for walking, biking, smaller lots, and rental demands. In this article author briefly describes the rise of the suburban living from the 1940s' unit 2011. He predicts the future trends going forward to 2030 and beyond. He also shows that demand for future low-density developments is over and gives recommendations how to reshape the America's neighborhoods.

Sandt, L., Schneider, R., Nabors, D., Thomas, L., Mitchell, C., and Eldridge, R.J., (2008).

*A resident's guide for creating safe and walkable communities.* Washington

DC: Federal Highway Administration, Office of Safety.

This guide is intended to assist residents, parents, community association members and others who would want to make the communities safer for pedestrians. This guide includes facts, ideas, and resources to help residents learn about traffic problems and promote pedestrian safety. The problems are identified; actions and solutions to correct the problem are suggested. The checklist of activities is provided to guide active participants in efforts to improve pedestrian safety in their communities.

Slater, S.J, Nicholson, L., Chriqui, J., Barker, D.C, Chaloupka, F.J., and Johnston L.D., (2013).

Walkable communities and adolescent weight. *American Journal of Preventive Medicine*, 44(2), 164-168.

Neighborhood design features have been associated with health outcomes, including the prevalence of obesity. This study examined the association between walkability and adolescent weight in a national sample of public secondary school students and the communities in which they live. Data were collected through student surveys and community observations between February and August 2010, and analyses were conducted in spring 2012. The sample size was 154 communities and 11,041 students. A community walkability index and measures of the prevalence of adolescent overweight and obesity were constructed. The researchers run multivariable analyses from a cross-sectional survey of a nationally representative sample of 8th-, 10th- and 12th-grade public school students in the U.S. The odds of students being overweight (AOR 0.98, 95% CI=0.95, 0.99) or obese (AOR=0.97, 95% CI=0.95, 0.99) decreased if they

lived in communities with higher walkability index scores. Results suggest that living in more-walkable communities is associated with reduced prevalence of adolescent overweight and obesity.

Van Dyck, D., Cardon, G., Deforche, B., De Bourdeaudhuij, I., (2011). Do adults like living in high-walkable neighborhoods? Associations of walkability parameters with neighborhood satisfaction and possible mediators. *Health & Place* 17, 971-977.

The objectives of their studies were to find coming ground between walkability characteristics and neighborhood satisfaction in adults. Total 1391 adults were used in this research. They concluded that walkability and density reflecting negatively neighborhood satisfaction however, the land use has no affect at all. They concluded that urban planners should not be discouraged in building walkable neighborhoods. There are well-known health benefits in high-walkable environments that increase the physical activities and improve health of their population.