Background — Problem: The American population is rapidly aging due to the demographic shift of Baby Boomers, people born in the post-WWII era between 1946 and 1964. Combined with increased life spans, as retired and elderly adults, Baby Boomers will soon make up a large proportion of the dependent population. Demographic estimates suggest that by 2030 older adults will make up twenty percent of the United States population. One of the concerns of a growing elderly community is how communities will adjust to the burden of dependent adults.

Literature Review: The World Health Organization (WHO) identifies eight domains of an age-friendly community: outdoor space and buildings, housing, transportation, social participation, respect and social inclusion, civic participation and employment, communication and information, and community and health services. Age-friendly cities address these domains, which not only ensure a healthy aging cohort, but also positively impact the rest of the community. The WHO’s recommendations of an age-friendly community is intended to guide cities across the globe as many nations increasingly must address the combined burden of aging and long-lived population. The Centers for Disease Control (CDC) released the State of Aging in America 2013 that identifies fifteen health status indicators for older adults, which include health status, health behavior, preventative care and screening, and injuries. Though place-based analysis of these indicators is primarily limited to state level report cards, it appears reasonable to hypothesize that community assets and access to services impacts some older adults’ ability to age in place and meet the goals for being aging on an individual level. Similarly, communities with assets and access to services, communities that meet the WHO’s age-friendly domains, would be best poised to support aging in place and have a healthier population of aging adults that meet the CDC’s healthy aging benchmarks. Like the CDC, AARP, the leading older adult advocacy organization in the United States identifies healthy aging as being an important challenge for the Baby Boomer generation, which is expected to have different needs and concerns than previous cohorts. The Massachusetts Healthy Aging Collaborative has focused on applying the public health indicators to municipalities in Massachusetts to address demographics and map access to health care, chronic disease, hunger, population distribution across the Commonwealth. Massachusetts municipalities, including Boston, are also applying the principles of healthy aging and age-friendly communities to their own contexts.

Gaps: Despite the emphasis on healthy aging communities by the WHO, CDC, AARP, Massachusetts Healthy Aging Collaborative, and other organizations, it was difficult to find examples of GIS used in analysis of community assets that foster healthy aging and aging in place, the principle that older adults should be able to live in their homes and communities as long as possible, thus maintaining health and quality of life. The next step in addressing the age-friendliness of communities is geographic and spatial analysis of built environment and community assets that support healthy aging.

Proposal: The goal of this project is to identify Massachusetts communities poised to support “aging in place” and that have the characteristics of age-friendly communities and identify potential gaps in community readiness. Which Massachusetts communities are best equipped (infrastructure and built environment) to support elderly adults aging in place with regard to the WHO domains?

Methods: Population and census tract data were obtained from Census.gov (American Community Survey, 2014 5-year Estimate; TIGER/Line 2010 Census Tracts) and Massachusetts data were obtained from MassGIS (Fire Stations, 2015; Police Stations, 2015; Libraries, 2005; Department of Conservation and Recreation (DCR) Pools, 2015; Community Health Centers, 2007; Acute Care Hospitals, 2009; MBTA Bus Routes and Stops, 2014; Farmers Markets, 2015; Long Term Care Residences, 2007). Selection by attribute was used to isolate data points applicable to age-friendly indicators: accessible pools with lifeguards, public libraries, and Farmers’ Markets that accept SNAP/EBT and Senior Coupons. Point density and graduated colors were used to analyze the distribution of the total population and population by age. Buffers of one Euclidian mile from public libraries to accessible pools with lifeguards, public libraries, and Farmers’ Markets that accept SNAP/EBT and Senior Coupons. Point density and graduated colors were used to analyze the distribution of the total population and population by age. Buffers of one Euclidian mile from public libraries to

References:


