



MOVING AN AGE-FRIENDLY DC

Transportation for All Ages



Coalition for Smarter Growth
DC • MD • VA

The author and the Coalition for Smarter Growth are solely responsible for the content of this report. Our donors, including the foundations that provide general support for our work, were not involved in the drafting of the report and bear no responsibility for the content.

With this in mind, we wish to thank The Morris & Gwendolyn Cafritz Foundation, Prince Charitable Trusts, Naomi and Nehemiah Cohen Foundation, The Keith Campbell Foundation, and Share Fund.

Cover photo by TriMet on Flickr. All photos are by Flickr users and used under a Creative Commons license unless otherwise noted.

MOVING AN AGE-FRIENDLY DC

Transportation for All Ages

September 2014

PRINCIPAL AUTHOR

Erin McAuliff, with oversight by Cheryl Cort, and assistance by Stewart Schwartz and Alex Posorske,
Coalition for Smarter Growth

ACKNOWLEDGMENTS

The authors would like to thank the following individuals for contributing to the development of this report.

Candace Baldwin
Village to Village Network

Dara Baldwin
DC Office of Disability Rights

Marlene Berlin
DC Pedestrian Advisory Council

Elaine Binder
Montgomery County Senior Fellow (2012)

Christiaan Blake
WMATA

George Branyan
District Department of Transportation

Dr. Ralph Buehler
Virginia Tech University

Virginia Dize
National Association of Area Agencies on Aging (n4a)

Dan Emerine
DC Office of Planning

Stephanie Firestone
National Association of Area Agencies on Aging (n4a)

Elizabeth Fox
DC Senior Advisory Coalition

Tori Goldhammer
DC Falls Free Coalition

Marie Guillory
Capitol Hill Village

Dr. Rodney Harrell
AARP Public Policy Institute

Don Kahl
Equal Rights Center

Wendy Klancher
Metropolitan Washington Council of Governments

Gail Kohn
DC Age-Friendly Initiative

Dr. Jana Lynott
AARP Public Policy Institute

Julie Maggioncalda
Capitol Hill Village

Krys Ochia
WMATA

Daniel Sonenklar
Metropolitan Washington Council of Governments

Richard Weiner
Nelson\Nygaard Consulting Associates

Lynn Wenchell-Mendy
Metropolitan Washington Council of Governments

Judy Willett
Village to Village Network

Abigail Zenner

COALITION FOR SMARTER GROWTH

316 F Street NE | Suite 200 | Washington, DC 20002
(202) 675-0016 | smartergrowth.net



CONTENTS

Executive Summary	3
Introduction	7
Who What Where: Understanding the Needs of Older Adults in DC	11
The Pedestrian Environment	15
Best Practices for an Age-Friendly Pedestrian Environment	17
Findings on DC's Pedestrian Environment	21
Recommendations for DC's Pedestrian Environment	30
Public Transit	31
Best Practices for Age-Friendly Public Transit	33
Findings on DC's Public Transit	37
Recommendations for DC's Public Transit	42
Alternative Specialized Transportation	43
Best Practices for Alternative Specialized Transportation	45
Findings on DC's Alternative Specialized Transportation	53
Recommendations for DC's Alternative Specialized Transportation	60
Technology & Transportation	65
Conclusion	68
References & Bibliography	69

EXECUTIVE SUMMARY

THE DISTRICT'S POPULATION IS AGING.

In the next 25 years, the number of Americans aged 65 and over will double. By 2030, one of every five Americans, or about 72 million people, will be considered an older adult. The driving forces behind this reality are increased life spans and the aging of the baby boomer generation — those born between 1946 and 1964. Baby boomers in DC, who are an estimated 17 percent of the District of Columbia's population, represent a growing older cohort. Both their presence and well being are important to sustaining vibrant and inclusive neighborhoods. The potential contributions to our neighborhoods by older residents are undermined without forward-thinking planning to address the growing and unique needs of our oldest residents.

OLDER ADULTS WISH TO AGE IN THEIR OWN HOMES OR NEIGHBORHOODS, AND REQUIRE ADEQUATE TRANSPORTATION TO DO SO.

As DC residents age, many are likely to do so either in their home or their neighborhood, surrounded by familiar faces and places.

Residential options range from single-family homes to multifamily buildings that offer elevators and single-level living. Access to safe, efficient, and affordable transportation — to ensure older adults can get where they are going and that their friends and family can reach them too—is a crucial factor for older adults when deciding among available residential options.

AGE-FRIENDLY TRANSPORTATION IS AN OPPORTUNITY FOR RESIDENTS OF ALL AGES TO START AND KEEP HEALTHY TRANSPORTATION HABITS THAT INCREASE MOBILITY AND REDUCE ISOLATION.

Sensory and mobility loss commonly associated with aging can make it difficult for older adults to drive, but also make it harder to access and use transit. This report focuses on transportation policy and planning for the aging population in the District of Columbia. More specifically, it examines how to better target investments and coordinate services that will both benefit older adults, and make communities more pedestrian and transit-friendly for all residents. By addressing age-friendly transportation, our communities also acknowledge related public

health issues, strengthen the local economy, and promote universal design that is accommodating to all users, regardless of age and ability.

This report addresses age-friendly transportation by focusing on how to improve three key areas of transportation: the pedestrian environment; public transit; and coordinating paratransit, community transportation, and private transportation services.

CREATING PEDESTRIAN-FRIENDLY ENVIRONMENTS

Every trip starts and ends with a walk trip, made either on foot or aided by a mobility device. With that in mind, cities with complete streets policies that accommodate all pedestrians are the foundation of an age-friendly city. According to Kathy Sykes, Senior Advisor of the EPA's Aging Initiative, "Making sure that there is adequate time to cross intersections, good lighting for visibility and safety at night, and having connected sidewalks for those who use canes or wheelchairs are some of the key things that communities can provide." These best practices contribute to walkable, inclusive, and safer

neighborhoods. Together, these improve safety and move the city toward a vision of zero traffic fatalities.

DC Findings

The District of Columbia recognizes pedestrians as a policy priority and has made significant strides to improve pedestrian safety. Measures like streetscape enhancements, improving safety at crossings, using automatic enforcement to reduce collisions and decrease speeding, and increasing the number of bike lanes, have continued to improve the pedestrian environment for many. However, for DC to be truly age-friendly there is still work to be done to maintain sidewalks, fill sidewalk gaps, improve data collection and reporting, and provide appropriate public amenities.

Key Recommendations

- Dedicate adequate funding for sidewalk maintenance and repair in every fiscal year budget to ensure consistently safe streets and prevent further backlog in repairs.
- Collect and use data on collisions involving

pedestrians and bicyclists to identify high-risk intersections, and make quarterly updates available to the public.

- Create an interagency team with DDOT, the Office of Planning, Department of Public Works, Department of Parks and Recreation, and the National Park Service to work with the Office on Aging and the Age-Friendly DC Initiative on increasing the number of senior-friendly public amenities, including sidewalk seating, quality lighting, and public restrooms.

ENSURING ACCESSIBLE AND USABLE PUBLIC TRANSIT

For older adults who cannot drive (or choose not to), fixed-route public transit is a valuable daily service. Whether a trip to the doctor, the grocery store, or a friend's house; reliable, usable, and accessible transit helps older adults retain their independence.

To be considered accessible, fixed-route public transit, including transit stops and stations, should be close to the homes of older adults and the places they visit. The sidewalks and travelways seniors use to reach transit should be well-maintained and free of tripping hazards like tree roots or potholes. Usability of public transit is measured by factors like the accessibility of transit vehicles, how much trips cost, and the customer's confidence in being able to use the system. Ideally, the most accessible and usable fixed-route transit system would serve the widest range of riders, drawing customers who could otherwise opt to drive, as well as those who have previously relied on specialized transportation services in lieu of fixed-route transit.

DC Findings

Best practices for age-friendly fixed-route transit dictate that both the form and function of systems must be accessible and usable by older adults. To provide senior-friendly public transit that fits these criteria, DC must continue to focus on ensuring that seniors live within one quarter mile of transit, that the public agencies and services they use are also within one quarter mile of transit, that all transit vehicles are accessible, that routes to transit are safe and well-maintained, that service is frequent, and that while the system expands to provide increased coverage and better customer service, bus stops are retrofitted for accessibility and trips remain affordable.

Key Recommendations

- Encourage the development of affordable senior and age-friendly housing, as well as buildings housing senior services, in close proximity to transportation (within one quarter mile of public transit).
- Secure funding for Metro Momentum, a capital improvement plan that will increase transit coverage, accessibility, and affordability for older adults and riders with special needs.
- Make 100 percent of bus stops in the District accessible (an increase of 69 percent), starting with the 28 stops that WMATA has identified as priority stops based on feedback from MetroAccess customers. These stops are a high priority because of the potential they have to transition an eligible portion of MetroAccess customers to fixed route service.

COORDINATING PARATRANSIT, COMMUNITY TRANSPORTATION, AND PRIVATE TRANSPORTATION

Although a more accessible fixed-route transit system will bring down transportation costs for a broader population, some customers will still require specialized services. Many older adults who are frail require door-through-door assistance or escorted transportation service. For older adults and other transportation-disadvantaged people, the alternatives to traditional fixed-route transit are human services transportation, paratransit, and supplemental transportation programs.

These programs, which serve customers with physical or financial limitations, are important to ensure transportation equity. Establishing a mobility management program in conjunction with traditional transit (within a local government, or in some cases across jurisdictions) is an established best practice to provide more affordable and efficient service. Mobility management programs coordinate between existing fixed-route transit options, specialized transportation programs, and private transportation options like taxicabs to lower costs, reduce duplicated services, and arrange more efficient partnerships and programs.

DC Findings

In order to provide paratransit, community transportations programs, and private transportation services that are more innovative, coordinated, and efficient, the city must focus on establishing a mobility management system, encouraging private sector innovation and participation in specialized transportation, and improving the quality of existing services.



Photo credit: Luca Moglia

Key Recommendations

- Establish a mobility management staff position within an existing office in the District of Columbia.
- Complement a mobility management system with a one-call/one-click center to aid District residents in navigating options for transportation and mobility assistance.
- Incentivize the purchase and operation of accessible taxicabs in Washington DC. The goal should be increasing the accessible fleet share from less than 1 percent to over 5 percent, as has been achieved in San Francisco and Arlington.

INTRODUCTION

AGE-FRIENDLY COMMUNITIES

The best communities are not just great places to grow up, but also great places to grow old. For older adults to fully engage in their communities, the built environment must address their needs. That is why across the world, local governments are working to realize what are known as age-friendly cities. Using a framework created by the World Health Organization (WHO), cities are addressing societal and environmental factors that promote active aging: “optimizing opportunities for health, participation, and security in order to enhance quality of life as people age.”

Recently, the District has attracted and retained empty nesters and older adults who want to take advantage of the city’s amenities and walkability. The city must ensure its neighborhoods and infrastructure remain suitable for every generation. Accordingly, the District signed on to WHO’s Age-Friendly Initiative in 2013. Participating in this initiative via the newly established Age-Friendly DC program indicates the city administration’s commitment to prepare for a rapidly-aging population by 2017.

AGING IN PLACE

Aging in place is a term that reflects a growing desire of older adults who want to stay in their own home or neighborhood and maintain a high level of independence. While nursing homes and institutionalized care remain valid options for some families, an AARP survey found that nearly 90 percent of people older than 65 want to stay in their home for as long as possible, and 80 percent believe their current residence is where they will always live.¹ The benefits of living at home include lower costs for home-based care, sustained connections to friends and family, and a sense of independence and autonomy that keeps many older adults connected, stimulated, and engaged in daily life.² Other seniors might consider aging in community and transitioning to a condo or apartment in their neighborhood that offers single-level living or elevators, and a reduced maintenance burden. In fact, 85 percent of older adults agree that they would prefer remaining in their local community for as long as possible if they can no longer live in their home.³

In either case, the comforts of home offered by aging in place extend beyond the walls of

a private residence into community spaces such as local businesses, cultural and religious institutions, and the ways we get around town. Older adults seek physical and social environments that are accommodating to their daily needs, including access to stores, services, and transportation.



WHY AGE-FRIENDLY TRANSPORTATION?

Many adults in DC have been accustomed to using many modes of transport their entire lives—and wish to continue doing so as they age. But the sensory and mobility loss commonly associated with aging can make it difficult for older adults to drive or utilize alternative transit options. Age-friendly transportation that provides DC’s older population with accommodating mobility choices will allow seniors to continue living healthy, comfortable, and affordable lives. In addition, by addressing age-friendly transportation, our communities also acknowledge related public health issues, strengthen the local economy, and promote universal design that is accommodating to all users, regardless of age and ability.

Public Health

Adequate transit and alternative transportation provide the aging population with choices that encourage a healthy and happy lifestyle. Older adults’ unmet transportation needs are linked to reduced wellbeing.⁴ Adults who cannot easily travel experience less physical activity and social



AGING AT HOME VERSUS AGING IN COMMUNITY

While many older adults may choose to age at home, remaining in the same residence over time, some choose to age in community and move to a more suitable residence within the same neighborhood. Transitioning to a new home within the same neighborhood affords older adults the opportunity to remain close to familiar amenities, cultural establishments, friends, and loved ones while occupying a residence more accommodating to their needs; including amenities such as single-level living, maintenance services, and elevators.

The opportunity to transition to a more suitable residence within a familiar neighborhood is an option that should be afforded to every older adult to ensure their independence and good health. However, the limited availability of affordable housing stock in most areas and the costs of supportive housing preclude many but those with the most resources from doing so⁽ⁱ⁾. Through land use and transportation policies, the District can develop appropriate and affordable housing stock to accommodate residents' needs through all stages of life.

(i) Keith Wardrip, "Strategies to Meet the Housing Needs of Older Adults," AARP Public Policy Institute, Insight on the Issues, March 2010

interaction, which negatively impacts both physical and mental health. Older women—who generally outlive their male counterparts—are at especially high risk of the detrimental effects of immobility. Older women accustomed to driving will generally rely on alternative forms of transportation for 7-10 years after they stop driving.⁵ This sudden change needs not negatively impact the health of older adults — if they have been able to adopt active transportation habits such as walking and riding transit, which help them increase mobility and reduce isolation.

Local Economy

As John Robert Smith, co-chair of Transportation for America and the former mayor of Meridian, Mississippi said, "When seniors can't get out, the local economy suffers too."⁶ The entire community loses when older adults are discouraged from navigating the public sphere, because they are an integral part of the city fabric, providing valuable interactions with neighbors, additional eyes on the street, and economic support to local businesses. This is overwhelmingly true in the United States, where the 50+ population holds 80 percent of the country's net personal wealth and is the third largest economy in the world, right after the US and China.⁷

COMPLETE STREETS

Complete streets incorporate pedestrian-friendly elements that are safe and comfortable for all road users, regardless of age and ability. According to Barbara McCann, a pioneer of the complete streets movement, the goal is to ensure "safety, serving people whether they are driving, riding a bus, or using a bicycle or their feet. It clarifies that roads must be safe for a variety of people, including older adults, children on their way to school and people with disabilities." Universally accessible designs that benefit seniors are also likely to benefit other residents with unique needs for transportation, including children, pregnant women, people with disabilities, parents with strollers—even tourists with luggage. A complete streets approach accessible to ages 8- 80 creates a valuable built environment for the entire community, according to George Branyan, Pedestrian Coordinator for the District Department of Transportation.

WHO & WHERE ARE DC'S OLDER ADULTS?

HOW MANY OLDER ADULTS ARE THERE?

Older adults, who make up approximately 11.4 percent of the District's population, are an important but vulnerable group with unique needs for housing, income, and well being. After declining from 2000 to 2010, the older adult population grew by 4.5 percent (or 3080 people) between 2010 and 2012. Over the same time period, those aged 85 and over increased by 6.7 percent. As baby boomers age, the older adult population is expected to double.

While the number of adults 65 and over continues to grow, the District also attracts 1100 new residents every month, presenting an opportunity to develop a transportation network that both accommodates the needs of new residents and better serves established residents.

- In 2012 there were 71,889 older adults residing in the District.⁸
- While racial demographics in the District continue to change and the number of African-American families decreases, black families still account for over 60 percent of householders 50 and older.⁹
- Approximately 60 percent of adults aged 65 and over in the District are female.¹⁰
- Almost 13 percent of older adults live below the poverty line.¹¹
- There is an older adult with a disability in 31 percent of households aged 50 and over.¹²
- Approximately 15,000 adults aged 50 and older

identify as lesbian, gay, bisexual, or transgender in the Washington metropolitan region.

WHERE DO DC'S OLDER ADULTS LIVE?

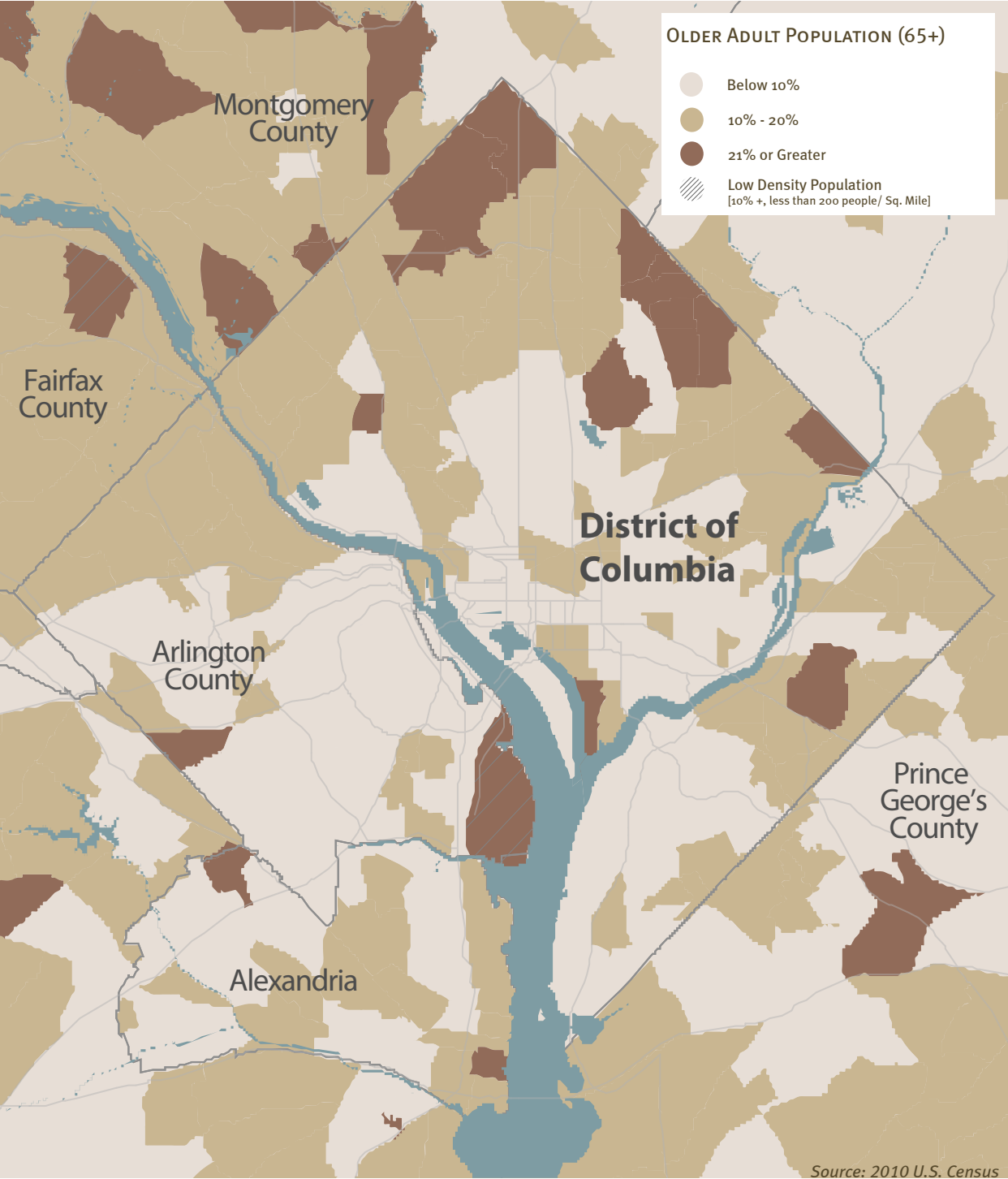
By the numbers

- Wards 2, 3, 4, 5, and 7 have highly-concentrated pockets of senior residents.
- Many older adults (aged 50 and over) live alone—30 percent of females (33,000 women) and 20 percent of males (23,000 men). This is higher than any state in the country.
- The majority of older adults (aged 50 and over) have lived in their homes for over 10 consecutive years (64 percent). Almost one quarter of older adults have lived in their home for over 30 years.
- Some households are multi-generational. Almost five percent of 50+ households have grandchildren in the house.
- DC has the highest number of older adults living in multi-family homes compared to any state in the US, with an even 50/50 split of older adults living in single- or multi-family housing.

Senior Villages

Increasingly, older adults want to age in place and live in their own homes as long as possible. But to maintain their independence, seniors often need assistance with daily errands like grocery shopping, getting to the doctor, and even home repairs. A community-based response to these needs has developed in the form of senior villages.

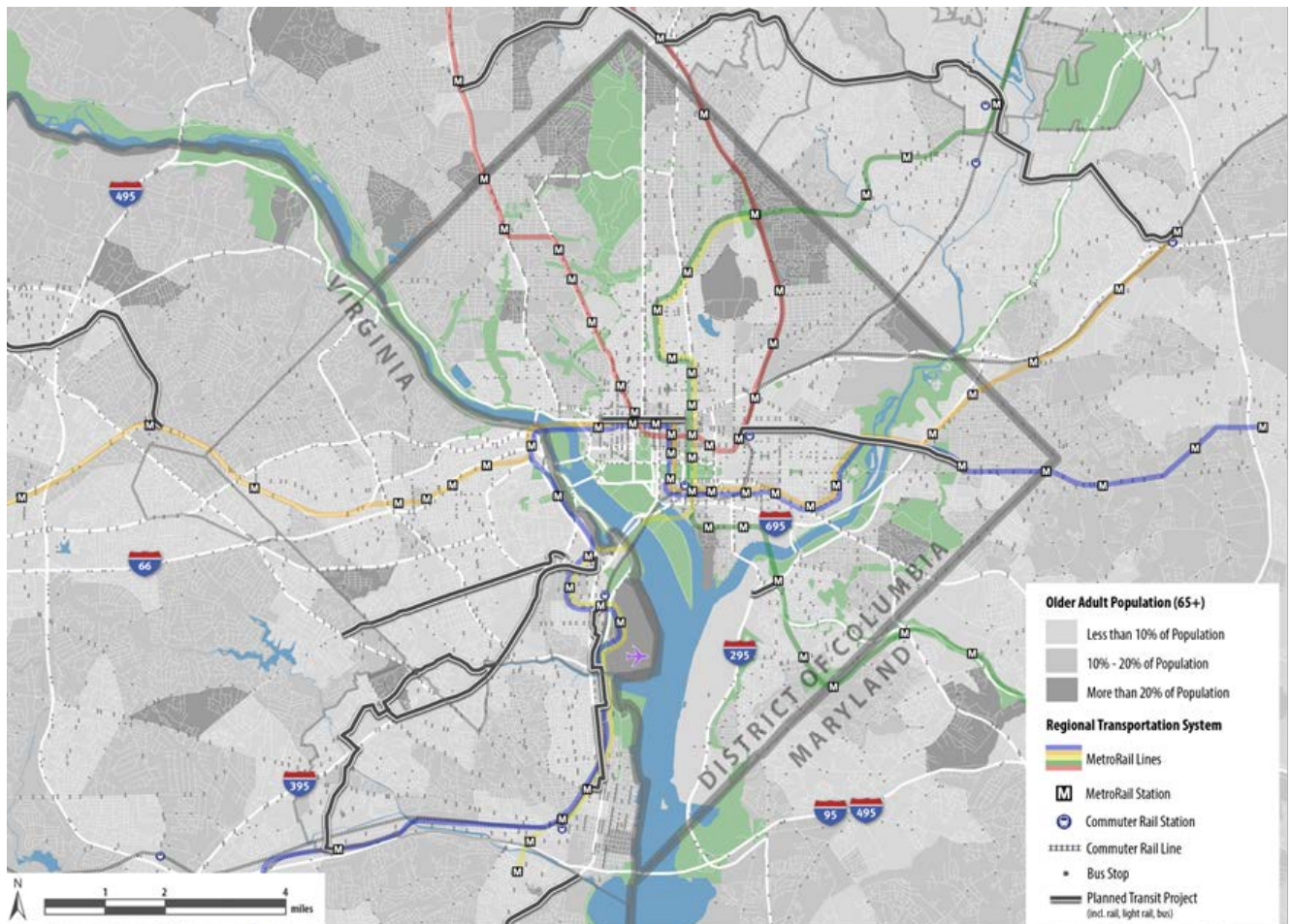
Density of the DC region's older adult population (65+)



Senior villages are a community-based model, similar to Naturally Occurring Retirement Communities (NORCs), that provide a coordinated and comprehensive approach for the wants and needs of adults ages 50 or 60 and older (depending on the village) who choose to remain in their own homes. While villages will often assist residents in retrofitting their existing homes to accommodate changing needs, they are also resources for older adults seeking to transition into and adjust to a more appropriate dwelling within the same neighborhood.

Senior Villages are typically run by a central coordinating entity, such as a non-profit or human services agency. These centers serve as a concierge service, connecting clients with information and resources, arranging services, and providing opportunities for activities and entertainment that promote a more well-rounded lifestyle. Consumer-based and consumer-driven, the needs and wants of the village members are the driving force behind village functions. Senior village clients pay a small yearly fee, depending on their marital status and income. Costs are kept low by relying on volunteers.

The DC region's older adult population (65+) with existing and planned transit



According to the Village to Village Network, a national peer-to-peer network that helps establish villages across the United States, the number one service that villages provide is transportation. Transportation services are mostly provided through volunteers, ride sharing, and discounted, vetted drivers from private companies. “This is no surprise,” said Judy Willett, Executive Director of the Village to Village Network. “If you can’t get to the grocery store or walk to see friends, you will be isolated and life goes downhill rapidly. Convenient and reliable transportation is needed to provide adequate housing.”

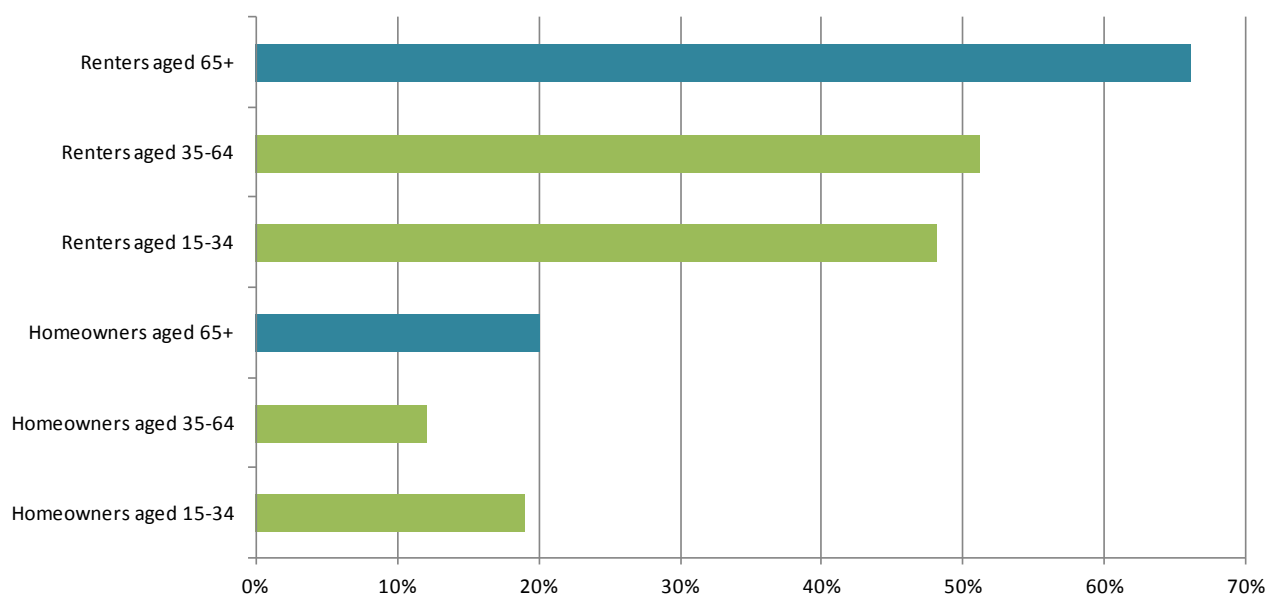
HOW DO THEY GET AROUND?

Seniors in the District of Columbia make most trips in a car. Yet, the number of trips seniors make in a car decreases rapidly after age 60, and seniors are the age group least likely to own a vehicle in the District of Columbia — in fact, a majority of older adult renters (66 percent) do not own vehicles.

As seniors age, their mobility and transportation needs change. After age 65, they tend to transition from drivers to passengers. After age 85, older adults decrease car travel by approximately 10 percent.¹³

Exacerbating the situation, aging adults commonly develop mobility-limiting disabilities. According to AARP, 31 percent of older adult households in the District have a resident with some kind of disability. In many cases, a disability will force older adults to stop driving and reduce their travel by other modes. As lifespans lengthen, many older adults, especially women, will live for another 10-15 years after they must stop driving, requiring alternate modes of transportation to meet their daily needs. Finally, many seniors residing in the District do not live near Metrorail lines or stations, making buses an important resource.

DC car-free households by age: Senior households least likely to own cars



Source: US Census Bureau 2011 American Community Survey

THE PEDESTRIAN ENVIRONMENT

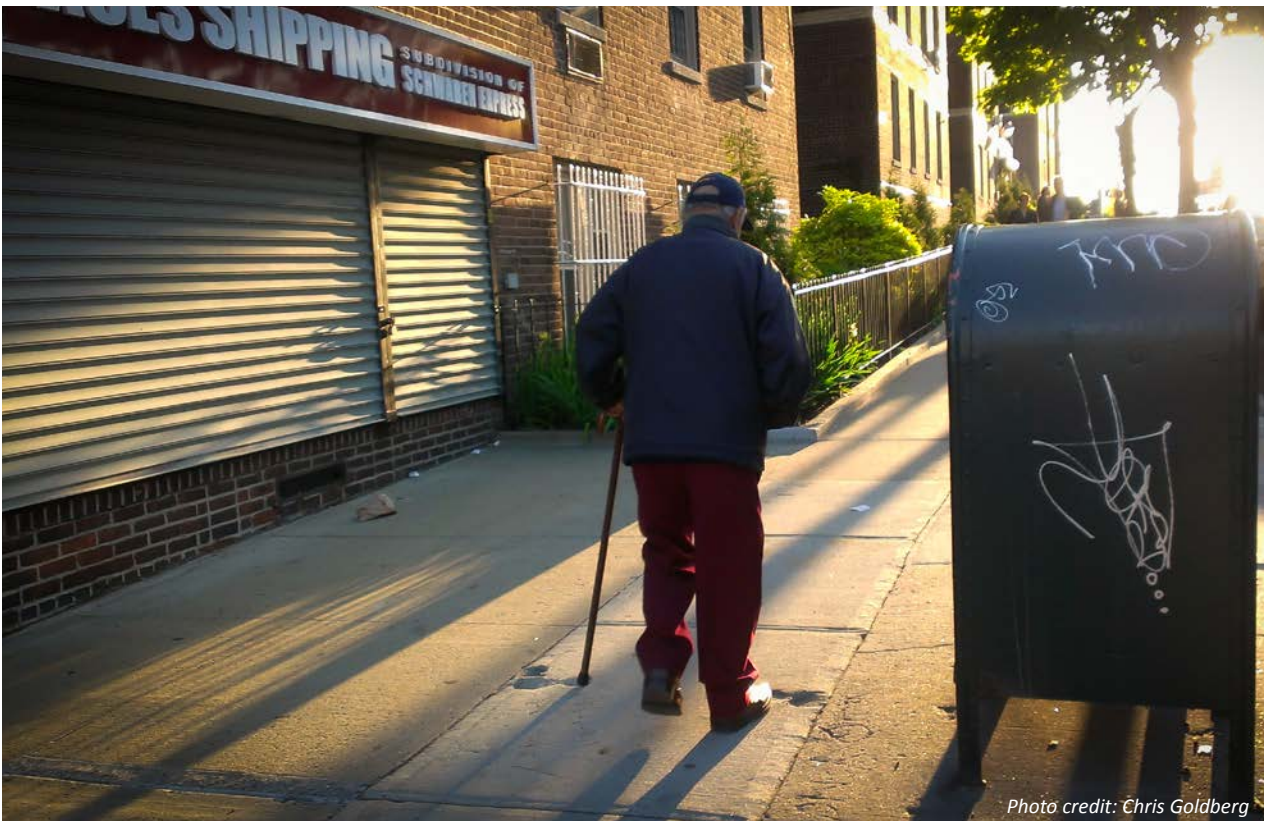
DC's residents are living longer and choosing to remain in the homes or apartments where they have lived for many years. Because they are also outliving their driving ability by 8 - 10 years,¹⁴ walking is the best means of transportation and exercise for our oldest residents. Unfortunately, senior pedestrian needs are not always being met, sometimes discouraging older adults from leaving their homes, accessing needed services, and participating in meaningful social interactions.

Providing more, safer pedestrian infrastructure is a key transportation goal of the SustainableDC plan. This goal seeks to increase walking and biking to 25 percent of all commuter trips by 2032. If this goal is achieved, the District would see a 9 percent increase in biking and walking to work over a 20 year span. While this benchmark is measured by commute trips (the data available through the yearly American Community Survey), it reflects a broader intention to provide transportation infrastructure that is accommodating and safe for all ages and trips.

Pedestrian-friendly neighborhoods are often measured by walkability. Walkability means the

pedestrian pathway provides access to every pedestrian including wheelchair users, and measures whether people can physically get from one place to the next regardless of how mobile they are. Walkable communities that embrace complete streets policies are an age-friendly solution to ensuring that seniors in DC have the opportunity to age comfortably, with dignity, and in good health. For residents with limited mobility or fixed incomes, it is especially important to be able to meet everyday needs via pedestrian access, both to ease their daily commute and lower costs.

Thoughtfully-designed and well-maintained street infrastructure provides residents of all ages with access to the services and amenities that make neighborhoods vibrant and residents healthier. Living within walking distance of grocery stores, pharmacies, public transit, and community spaces affords older adults the same independence they have experienced their whole lives, even as it becomes more difficult to travel longer distances. Good street infrastructure also presents an opportunity to promote and preserve the health of older adults. Physical activity is



essential to healthy aging, and by walking for 10 minute intervals throughout the week, seniors are able to attain the Center for Disease Control's recommended weekly 2 hours and 30 minutes of moderate aerobic activity.¹⁵

Because elderly pedestrians are vulnerable, promoting a safe and accommodating pedestrian environment is a key element of an age-friendly city. In the United States, men over age 85 and women between the ages of 75 and 84 suffer a disproportionate share of pedestrian deaths.¹⁶ In 2013, four of the 12 pedestrians killed in DC were over the age of 65. While older adults made up only about 11.4 percent of the total population in 2013, they accounted for over 33 percent of the city's pedestrian fatalities.¹⁷

Falling or tripping on poorly maintained sidewalks is a serious concern for the elderly, especially the frail, for whom one accident could be devastating. Falls are the leading cause of death from injuries for persons over the age of 65.¹⁸ A senior, no matter how cautious at home, will often find herself afraid of navigating the

outdoor public spaces in our communities. Tori Goldhammer, coordinator of the DC Falls Free Coalition (a group which focuses on the public health implications of fall-related injuries and deaths among seniors), notes that "Generally [seniors] have a good understanding of home safety techniques to reduce their risk of falls, but the largest complaint I hear from individuals and groups of older adults is how concerned they are about walking on their neighborhood sidewalks. Many report falls and most report decreased outdoor activity due to concern of tripping on the poorly maintained sidewalks."

Seniors should feel comfortable reaching community spaces independently and easily. Walkable neighborhoods that achieve these goals provide both convenient, close-by amenities and a safe path of travel. Age-friendly, walkable neighborhoods also recognize that the distances we consider manageable are relative to our age and ability—and that the geographic boundaries we use to define our immediate neighborhoods shrink as our physical and cognitive abilities diminish.

BEST PRACTICES FOR AN AGE-FRIENDLY PEDESTRIAN ENVIRONMENT

Guidelines for walkable, age-friendly cities are well established by the World Health Organization's Age-Friendly Cities program and the New York non-profit organization Transportation Alternatives' Safe Routes for Seniors initiative—a project that was subsequently adopted by the New York City Department of Transportation. Combined, they provide a series of best practices for pedestrian-oriented, age-friendly neighborhoods.

POLICY

- Pedestrians are a priority in policy and funding.
- Data collection on pedestrian and cyclist injuries and fatalities from traffic collisions is timely, accurate, and available to the public.
- Areas of particular danger to elderly pedestrians are identified and targeted for improvement.
- The performance of piloted safety improvements is tracked, measured and used to inform future projects.

CROSSWALKS AND INTERSECTIONS

- Pedestrian crossings are sufficient in number and safe for people with different levels and types of disability, with non-slip markings, visual and audio cues, and adequate crossing times.
- Crosswalk timings accommodate a walking speed of 2.5 feet/second.
- Countdown signals alert pedestrians to how much time is left to safely cross the street.
- Where street widths exceed 60 feet, install steel bollards on the double yellow line. Where street widths exceed 90 feet or there are at least three lanes of traffic, install raised medians and/or crossing islands.
- Crossing islands and medians should be at least six feet wide. Larger medians should contain amenities such as plantings and seating.
- Overhead roadway lighting at crosswalks and pedestrian walkways should enhance environments as well as increase comfort and safety for all users.

- Lighting levels are consistent and uniform
- Streetlights are placed along both sides of arterial streets
- Nighttime pedestrian crossing areas are supplemented with brighter or additional lighting
- Install curb extensions to reduce crossing distance and improve sightlines.
- Implement pedestrian signal enhancements at unsignalized crosswalks including:
 - HAWK signals
 - Rectangular Rapid Flashing Beacons
 - Automated pedestrian detection systems

SIDEWALKS, TRAVELWAYS & TRIPPING HAZARDS

- Sidewalks are well-maintained, offer clear throughway zones, and are prioritized for pedestrians.
- Sidewalks are non-slip, are wide enough for wheelchairs, and have curb ramps.
- Street trees are chosen from species whose roots will not lift or break the sidewalk.
- Bicycle paths are separate from pedestrian walkways.
- Bicycling infrastructure encourages use by more risk-averse riders and include:
 - Separated and protected bicycle lanes
 - Bike boxes at intersections where

CASE STUDY: CITYBENCH

New York City's CityBench program, administered by the NYC Department of Transportation, focuses on increasing the amount of public seating on New York City's streets. Through the program's website, residents can identify a specific area in need of street furniture and request the installation of a bench. Installation requests are highly prioritized if located near bus stops without shelters, on sidewalks near transit facilities, by senior centers, hospitals, and community health centers, in commercial zones and shopping districts, or by municipal facilities like public libraries.



Photo credit: Ed Yourdon

- cyclists can stop in front of cars
- Separate traffic lights for cyclists at intersections that allow them to get ahead of car traffic

TRAFFIC CALMING

- Speeds on residential streets are limited to 20 miles per hour. This can be achieved using traffic calming measures, including but not limited to:
 - Curb extensions or bus bulbs with bollards
 - Raised intersections or crosswalks
 - Bicycling lanes
 - Mini roundabouts
 - On-street parking
 - Speed tables or bumps
- Automated enforcement (speed and red light cameras) to slow speeds and reduce collisions.
- Road diets, which narrow the roadway or reduce lanes, lower vehicle speeds, and make it easier for pedestrians to cross.
- Pedestrian signal timing with shorter cycle lengths and longer walk intervals provide the best service to pedestrians. One type of signal timing is the Leading Pedestrian Interval, a traffic signalization strategy that gives pedestrians an additional 3-5 seconds to cross the street before cars receive a green light.
- Zero tolerance of illegal parking. This includes implementing daylighting, which restricts car parking in front of or within a certain number of feet from intersections, alleys, and

driveways, thus increasing the visibility of pedestrians.

- Drivers yield to pedestrians at intersections and pedestrian crossings, and should be required to stop 15 feet before a junction. This is supported by moving the stop bar back from the crosswalk and placing a tactile surface on the stop bar.
- Driver education includes the safe use of roads when in proximity to vulnerable road users, including pedestrians and cyclists.

AMENITIES AND PUBLIC INFORMATION

- Shade trees, green spaces, and outdoor seating are sufficient in number, well-maintained, and safe.
- Public spaces are attractive, well managed and maintained, and encourage a diversity of uses. Successful public spaces have the four following attributes: accessibility, activities, comfort, and sociability.¹⁹
- Outdoor safety fostered by good street lighting, police patrols and community education.
- Signage for wayfinding and information is easy to read, with appropriate contrast for persons with low vision.
- Services are situated together and are accessible.
- Public toilets are sufficient in number, clean, well-maintained, and accessible.

CASE STUDY: PROTECTED BICYCLE LANES

Protected bicycle lanes, designated “cycle tracks” by DDOT, are a best practice for age-friendly cities because they contribute to a multi-modal city with safe and reliable options for all users.

Increased safety and comfort for all road users

Protected bike lanes are physically separated from both car and pedestrian traffic, reducing conflict between modes. A 2011 study in Montreal found that rider injury rates were 28 percent lower when cyclists traveled in protected bike lanes compared with mixed traffic streets.

Attractive to vulnerable and risk-averse cyclists

Protected bike lanes encourage use by riders who would otherwise feel unsafe or less confident on the road, which attracts additional users to the system. In DC, a recent study found that bicycling tripled on 15th Street NW and Pennsylvania Avenue after the installation of protected bike lanes. Attracting additional users, especially those who are risk-averse, is important because it has a positive effect on overall cyclist behavior, as well as driver awareness and perception of cyclists. Protected bike lanes also reduce the likelihood that seniors will have to share the sidewalk with a cyclist, a situation which is uncomfortable for many older adults who startle easily, for whom balance is an issue, or are hearing or sight impaired.

Active aging

According to Dr. Ralph Buehler, a cycling expert at Virginia Tech University, protected bike lanes and other accommodating cycling infrastructure are important to ensure that cyclists can and will continue biking as they age. Denmark and the Netherlands built extensive infrastructure to support pedestrians and cyclists, and in these countries older adults continue biking throughout their lives. Cycling makes up 15 and 23 percent of all trips made by older adults in Denmark and the Netherlands, respectively, compared to only 0.5 percent in the United States.



Photo credit: BeyondDC

FINDINGS ON DC'S PEDESTRIAN ENVIRONMENT

POLICY FINDINGS

Pedestrians are a policy priority.

District government agencies have made pedestrians a priority in a number of documents in recent years, including the first ever Pedestrian Master Plan in 2009, the Priority Sidewalk Assurance Act of 2010, and in multiple DDOT livability studies, which focused on improving pedestrian and bicyclist access and safety. However, many of these plans and priorities have yet to be funded at adequate levels to meet all the needs of senior pedestrians.

Addressing a lack of funding for pedestrian improvements, a recent draft of the MoveDC Policy Guide released by DDOT in December 2013 recommends that the District incorporate pedestrian priority into transportation investments and policy decisions. Justifying the proposed expenditures, the report explicitly states, “Since every trip starts and ends as a walk trip, every traveler is a pedestrian at some point. Recognizing pedestrians as the highest priority effectively means that every traveler is the District’s highest priority at some point.”

The Metropolitan Washington Council of Governments’ Transportation Planning Board has also identified pedestrians as a regional priority, citing pedestrian and bicyclist safety as one of the region’s most significant challenges. Near Term Strategy 5 of the Regional Transportation Priorities Plan (approved in January 2014) aims to “Make walking a viable transportation choice for more people in more places by making it safer, easier, and more convenient.”

The District lacks timely and available data on traffic collisions involving pedestrians and cyclists.

Traffic crash reports (known as PD-10s) are first taken and compiled by the Metropolitan Police Department (MPD). The PD-10s are then downloaded through secure servers from MPD into a District Department of Transportation database, and processed with an Oracle-based application called Traffic Accident Reporting and Analysis System (TARAS). The TARAS data is then analyzed by Howard University for DDOT’s Traffic Safety and Standards Division, through a project funded by the Federal Highway Administration (FHWA) of the U.S. Department of Transportation and DDOT.

Howard University's Transportation Safety Data Center, led by Dr. Stephen Ahrin, then analyzes data from three consecutive years and compiles the results into a Traffic Safety Statistics Report. The latest report, released in January 2013, spans the years 2009-2011.

While the information in each Traffic Safety Statistics Report, together with similar three-year reports, facilitates the analysis of the long-

term impact of DDOT's highway safety programs and projects, it does not aid District residents in identifying areas in need of targeted improvement in a timely manner. New media efforts like the Twitter handle @struckdc and a Google map compiled by local news media blog DCist have emerged to address this issue, attempting to track every pedestrian and cyclist injury and fatality in the District in real time. While they lack consistent access to vital information (mainly following

FAR NORTHEAST LIVABILITY STUDY

DDOT's livability studies, which originated from a focus on traffic calming, focus on enhancements to road infrastructure that encourage walkability. The underlying goals of the livability program are to create safe passages for all street network users, especially vulnerable users (including seniors, children, and bicyclists), provide robust transportation choices, design streets that improve physical activity, and foster prosperous places that support retail and employment districts.

The studies began in three multi-neighborhood areas, including Far Northeast (Ward 7). Through the Far Northeast study, DDOT has either made or intends to complete the following improvements to the area:

Completed

- Full signal and crosswalks installed by the Dorothy I. Height/Benning Neighborhood Library
- Bicycle facilities installed along Sheriff Road
- Full signals installed at Minnesota Avenue and Blaine Street

In design

- Traffic calming and streetscape enhancements on the 49th St. NE corridor
- Traffic calming and streetscape enhancements on Sheriff Road

Under review

- Streetcar extension on Benning Road
- Intersection improvements at Eastern Avenue and Minnesota Avenue; Eastern Avenue/Sheriff Road/Division Avenue; and Eastern Avenue/61st Street/Eads Street
- Additional mid- and long-term neighborhood traffic calming and intersection improvements

Source: DDOT, Far NE Livability Study http://ddot.dc.gov/sites/default/files/dc/sites/ddot/publication/attachments/far_northeast_livability_study_2011_a.pdf



Photo credit: Drew Houvener

reports made by DC Fire and Emergency Medical Services and incidents submitted by readers and followers), these efforts raise public awareness of collisions involving pedestrians and highlight the shortcomings of official data that is only available every few years.

The Age-Friendly DC initiative is collecting important data from community walking audits.

Gail Kohn, Coordinator for DC's Age Friendly Initiative, believes walkable cities are age-friendly communities. To assess community walkability for seniors, the Age-Friendly Initiative organized ward-by-ward walking audits in March 2014 in conjunction with AARP's DC State Office. The audits measure walkability to many different degrees, using criteria such as distance to a supermarket, park, or health care clinic; condition of the streetscape, and access to public transit. Each audit team is required to have a member aged 60 or over, as a priority of this effort is to involve older adults in the process of improving their built environment. Senior villages, some of which have conducted walking audits in the past, are expected to be a great resource for this effort.

CROSSWALKS & INTERSECTIONS

Improved signal timing, including Leading Pedestrian Intervals, improves crossing safety for pedestrians all over the District.

In 2010, DDOT's Action Agenda sought to reduce traffic fatalities by 10 percent every year and "work toward zero fatalities."²⁰ As part of this policy direction, the Agenda called for implementing leading pedestrian intervals at 100 high-volume pedestrian intersections in the District. Since 2010, DDOT has implemented LPIs at 118 intersections, and expects to complete a citywide signal optimization initiative by the end of 2016. The optimization initiative seeks to make the District's traffic signals safer and friendlier for pedestrians, improve bus running times and overall traffic flow, and reduce vehicular traffic emissions.

The District Department of Transportation is targeting unsignalized crosswalks to further improve crossing safety for pedestrians.

In 2011, the largest share of crashes in the District (47 percent) occurred at locations where there is

no traffic control. Many of these incidents were mid-block crashes at unsignalized crosswalks—crossings where seniors are disproportionately struck compared to other pedestrians.²¹

Unsignalized crosswalks with multiple lanes of traffic pose difficult situations for pedestrians, especially for older pedestrians with limited vision, mobility or with hearing impairments. In these locations many drivers fail to yield, either because pedestrians are obstructed from view by multiple lanes of traffic and parked cars, or simply because of driving culture.

The District of Columbia has sought to address this issue by testing technologies that support pedestrian safety, including HAWK Signals, Rectangular Rapid Flashing Beacons for crossings that do not warrant a full traffic signal. DDOT is also considering moving bus stops away from unsignalized crosswalks, to place them by signalized intersections.

SIDEWALKS, TRAVELWAYS & TRIPPING HAZARDS

Continued sidewalk maintenance is hindered by a lack of clear regulations and irregular funding.

The city's sidewalk infrastructure, covering 1320 miles, is a vital component of how DC's residents, workers, and visitors navigate the city. Yet in 2011, we maintained them at only 10 percent of the funding that roads received for repairs and improvements.²² According to Sam Zimbabwe, DDOT's Associate Director of Policy and Planning, the agency receives around 3000 sidewalk repair requests every year, but is only able to address about half of them. DDOT estimated that it would need \$28 million to fix the backlog of requests. The budget for fiscal year 2015 proposes to triple the

funding over the next three years to provide the \$28 million needed to clear the repair backlog, a major improvement. According to Councilmember Mary Cheh's Committee on Transportation and the Environment, the Mayor's proposed budget "triples funding for curbs and sidewalks over the next three years...and will improve pedestrian safety, make it easier for children to walk to school, and make it safer for seniors to walk around their neighborhoods."²³ However, future ongoing funding is not guaranteed to prevent future backlogs.

DC's intention to provide sidewalks on both sides of the street has been complicated by DDOT's delayed adoption of the Priority Sidewalk Assurance Act of 2010.

The Priority Sidewalk Assurance Act of 2010 requires the installation of sidewalks on at least one side of the street in priority areas, to ensure a safe and accessible environment for pedestrians and persons with disabilities. It also sets minimum design standards and qualifications, and provides guidelines for exempted areas. However, according to Marlene Berlin, Chair of DC's Pedestrian Advisory Council, the Act has faced obstacles to implementation within DDOT. Berlin believes the main obstacles are a lack of clarity on what areas should be prioritized for improvement (e.g. disagreement over what constitutes a "priority area" or a "safety hazard") and internal, outdated DDOT policy that conflicts with the legislation's requirements. According to an agency employee, DDOT intends to put in place a new contract to fill sidewalk gaps some time in 2014. In the meantime, the agency is working on setting up internal structures to facilitate that work.

The District's response to snow events is not sufficient to provide safe routes for seniors.

Every trip begins and ends with walking. To safely access public transit, sidewalks and walkways must be clear of snow and ice. When there is a significant delay or lack of enforcement for snow removal on public sidewalks, it becomes a public hazard to all pedestrians, especially older adults. Following snowstorms, the District makes it a priority to first clear snow from roads. The removal of snow from pedestrian walkways is the responsibility of private property owners, and in the case of bridges or municipally-owned land, the responsibility of the Department of Public Works (DPW). Private property owners are seldom fined for negligence to remove snow, and DPW does not prioritize snow removal from sidewalks in a manner timely enough to ensure the safety of all pedestrians. Failure to address the appropriate and timely removal of snow from pedestrian walkways can lead to deadly consequences. In February of 2014, a 61 year-old man was struck and killed by a truck on the Sousa Bridge. The man could not walk along the sidewalk because it was full of snow plowed off the street.

The District is subject to a number of unique factors that complicate efforts to educate drivers about vulnerable road users, including pedestrians and cyclists.

Driver education on how to share the road with pedestrians and cyclists is limited and complicated by a number of factors. First, many drivers in the District are from Maryland and Virginia. The two states and the District each have a separate set of laws governing the use of motor vehicles, which can be confusing for a driver who may pass through all three in a single day. Second,

My hope is that the city will initiate a sidewalk maintenance program that will eliminate this barrier to community participation for older adults.

Tori Goldhammer

*Coordinator of the DC Falls Free Coalition
and an occupational therapist*

the District Department of Motor Vehicles does not conduct driver education courses. Third, the number of residents that are originally licensed by the DMV is very small, and licensed drivers from outside jurisdictions are allowed to convert their out-of-state licenses after residing in the District for more than 30 days. (Once a driver is over the age of 70, he or she must renew his license in person at a DMV service center, have a physician complete the certification on the license application, and pass an eye test.) Fourth, motor vehicle enforcement is expected by police officers responsible for policing an entire neighborhood, who are often first-responders for more pressing events. Consequently, vehicular safety is not prioritized by overburdened police officers.

The Washington Area Bicyclist Association (WABA) currently approaches safe driving around pedestrians and cyclists through public service announcements on trailers, a DDOT-funded program called the DC Bike Ambassadors program, and the Neighborhood Pace Car Program. Through the DC Bike Ambassadors program, volunteers do public outreach informing drivers how to share the road with cyclists, especially when new or unfamiliar infrastructure has been installed. For example, Ambassadors flyered cars along L Street NW to disseminate information on how

to safely navigate a new mixing zone. Through the Neighborhood Pace Car Program, WABA employees teach DC public school students about the importance of driving the speed limit and watching out for vulnerable road users. The program also incentivizes the students' families to drive safely through a school-wide competition that collects signed driver safety promises.

DC is catching up with the public demand for better bicycling facilities, but lacks focus on implementing additional protected bike lanes which serve the most risk-averse riders.

In recent years, the District of Columbia has improved bicycle facilities and dedicated resources to ensure that cycling can be a legitimate travel

choice for commuting, exercise, and daily activities for people of all ages. New lanes have been added, DC bicycling rates have soared in the last decade (bike commuting, which is a good proxy for all trips made in the District, has more than doubled to 3.5 percent of the mode share),²⁴ and the Capital Bikeshare program is widely popular (another likely factor of why bike commuting has increased).

When the M Street cycle track (between 14th and 28th Streets NW) is completed, there will be 65 miles of bike lanes in the District, 3.5 miles of which will be protected, or roughly five percent of all bike lanes. While the draft moveDC document, the District's long-range transportation plan, proposed an ambitious goal of 70 additional miles of bike lanes, all of which would be protected, the



Photo credit: Premshree Pillai



District has a poor reputation of compromising safety in the interest of parking. For example, the safety of the M Street cycle track, which was intended to be a semi-protected bike lane along the entire street was compromised when DDOT changed the lane between 15th and 16th Streets NW to a common painted bike lane. In an attempt to resolve a church's concerns about losing parking during a single day of the week, DDOT made a compromise that endangers riders and potentially discourages use by vulnerable or risk-averse users.

If the bike infrastructure envisioned in the moveDC plan is realized, the number of protected bike lanes in the city will increase to 35 percent of the network, excluding trails. This is a significant increase, which would give riders who desire safe transportation options the appropriate infrastructure to get around. Further tradeoffs for parking that compromise the safety of pedestrians and cyclists should be reconsidered.

TRAFFIC CALMING

Traffic cameras in DC have reduced the number of collisions and decreased speeding.

In 2001, almost 60 percent of traffic fatalities in DC— twice the national average — were related

to vehicles driving at excess speed.²⁵ Automated enforcement in the District is credited with decreasing average driving speeds and reducing the number of collisions. The installation of cameras led to a 16.8 percent drop in collisions from the number reported in the previous three years, and a nearly 20 percent drop in the number of collisions causing injury.²⁶

The reversal of traffic calming measures on Wisconsin Avenue in Glover Park provides lessons for future implementation.

In January 2013, the District Department of Transportation placed a painted median and turning lane on Wisconsin Avenue NW in the Glover Park neighborhood. Wisconsin Avenue is a major north-south artery that runs through a number of neighborhoods in DC's NW quadrant. These include the directly-impacted Glover Park (in Ward 3) and the adjacent neighborhoods of Cathedral Heights (to the north, also in Ward 3) and Georgetown (to the south in Ward 2).

The median and turning lane, which replaced two lanes of traffic on Wisconsin Avenue, were intended to slow traffic, draw attention to the avenue's commercial strip, and provide safer crossings between 35th and Garfield Streets NW. Originally intended as hardscape medians, the

local Advisory Neighborhood Commission (ANC) 3B requested to alternatively implement painted medians for an initial one-year study, following concern from residents about the possibility of increased neighborhood cut-through traffic from cars trying to avoid the arterial. Before the end of the study year, complaints from drivers in Ward 2 and pressure from Ward 3 Councilmember Mary Cheh and Ward 2 Councilmember Jack Evans caused DDOT to remove the painted medians.

This reversal provides three important lessons for implementing potentially life-saving traffic calming measures in the future.

1. *Be clear on the purpose of calming measures from the beginning.*

Residents who complained about the medians and turning lane were upset that the measures increased the time they spent in a car on Wisconsin Avenue. A study released by DDOT estimated the average change in travel times to increase by about two minutes, which might have been an acceptable trade-off for public safety if residents were aware of the intended purpose. On the other hand, residents are universally happy that the sidewalks are now wider. In the future, public agencies like DDOT should provide clear before and after scenarios for residents who will be impacted.

2. *Conduct outreach to the widest audience possible.*

While the traffic calming measures were implemented in one ANC district, Wisconsin Avenue borders and bisects a number of neighborhoods in Glover Park, Georgetown, Massachusetts Heights, and Cathedral Heights. The ANCs outside of the original study area felt uninformed from the beginning and were only

able to voice their concerns about perceived impacts on traffic after implementation. These concerns might not have emerged as strong objections if the plan had fuller community education throughout the process.

3. *Make appropriate compromises.*

When DDOT removed the painted medians on Wisconsin Avenue, it cited drivers who ignored the medians and drove over them as a key concern. This issue could have been avoided if DDOT had installed flexible medians as a compromise between a painted or a hardscape median. Additionally, neighborhood residents feel that cooperation from law enforcement to warn or ticket irresponsible drivers would have gone a long way in ensuring the successful implementation of traffic calming measures for safety.

AMENITIES AND PUBLIC INFORMATION

DC lacks sufficient public amenities for older pedestrians, including exercise facilities, well-maintained and programmed public parks, and wayfinding signage.

In community consultations conducted by the Age-Friendly DC Initiative, respondents reported numerous concerns about outdoor spaces and buildings, including signs that were hard to read or outdated; poor lighting on sidewalks, alleys, and in parks; and a lack of senior-friendly recreational facilities. For example, a meeting attendee in Ward 7 noted that seniors seeking an exercise track in the area are not allowed on the local high school track at H.D. Woodson High School and feel that the next closest option, which is Kenilworth Park, is “isolated and feels dangerous.”²⁷



RECOMMENDATIONS FOR DC'S PEDESTRIAN ENVIRONMENT

The District recognizes pedestrians as a policy priority and has made significant strides to improve safety. Measures, such as streetscape enhancements, improving safety at crossings, using automatic enforcement to reduce collisions and decrease speeding, and increasing the number of bike lanes, have continued to improve the pedestrian environment for many. However, for DC to be truly age-friendly, there is still work to be done to maintain sidewalks and fill sidewalk gaps, improve data collection and reporting, and provide appropriate public amenities.

- 1.1. Dedicate adequate funding for sidewalk maintenance and repair in every fiscal year budget to ensure consistently safe streets and the prevention of any further backlog.
- 1.2. DDOT should provide the full list of sidewalk repairs requested, a scoring system that prioritizes repairs based on need, and a tracking system to make progress available to the public.
- 1.3. Identify high-risk intersections and vulnerable users with data collected on collisions involving pedestrians and bicyclists, and make quarterly updates available to the public.
- 1.4. Evaluate performance of safety interventions at specific locations, such as road diets or pedestrian signal enhancements, and make available to the public on a regular basis.
- 1.5. Provide protected bike lanes as a larger share of all bicycle lanes, as they better address the needs of vulnerable and risk-averse riders.
- 1.6. Create an inter-agency team with DDOT, the Office of Planning, the Department of Public Works, the Department of Parks and Recreation, and the National Park Service, to work with the Office on Aging and the Age-Friendly DC Initiative on increasing the number of senior-friendly public amenities, including sidewalk seating, quality lighting, and public restrooms.

PUBLIC TRANSIT

The coverage and availability of fixed route public transit service in DC is arguably an important reason why almost 40 percent of households in the city do not own a car, and a similar portion of residents commute to work by public transit. (Goals in the Sustainable DC plan increase use of public transit to 50 percent of all commuter trips by 2032.) An impressive network of Metrorail, Metrobus, the Circulator, and soon the DC Streetcar, gets many residents where they need to go every day.

Public transit is an important resource for older adults, especially those who cannot or choose not to drive. Safe, accessible, and affordable transit lets seniors complete daily errands and reach needed amenities and services so that they

can continue to live independently for as long as possible.

How can this system — which provides access, mobility and opportunity to so many — continue to serve riders as they age? Recent research has identified the most common trait among current transit commuters in the Washington Metropolitan Area as proximity to transit.²⁸ If older adults are expected to age in place, then they can also be expected to maintain the same proximity to transit throughout their life. Therefore, the way to make sure transit continues to serve aging adults is two-fold: ensure transit remains relatively proximate for older adults with unique needs, and make sure it is also usable.

The 5 “A”s of Senior-Friendly Transit

Availability	Transit exists and is available when needed.
Accessibility	Transit can be reached and used (buses have low-floor boarding, bus seats are high enough, bus stop is readable, van comes to the door).
Acceptability	Standards relate to conditions such as cleanliness (bus is not dirty), safety (bus stops are located in safe areas), and user-friendliness (transit operators are courteous and helpful).
Affordability	Fees are affordable, comparable to, or less than driving a car, and vouchers or coupons help defray out-of-pocket expenses.
Adaptability	Transit service can be modified or adjusted to meet special needs (wheelchair can be accommodated, trip chaining is possible).

Adapted from Beverly Foundation’s Giving Up The Keys Fact Sheet, 2008.



BEST PRACTICES FOR AGE-FRIENDLY PUBLIC TRANSIT

The following best practices and recommendations are the cornerstone of ensuring DC's older residents have the opportunity to maintain healthy travel habits through every stage of their lives.

ACCESSIBILITY OF FIXED-ROUTE SERVICE

To guarantee accessibility of fixed route service, stations and stops should be within walking distance of the residential areas where seniors live, and the routes seniors must travel to access transit should be well-maintained to prevent tripping, collisions, or any other hazards. Land use policies should encourage senior housing, amenities, and agencies serving seniors be located within one quarter mile of public transit. This is especially true for multi-family housing, as half of DC's older adult population lives in a multi-unit building. In addition, transit agencies should encourage and attract senior customers through appropriate advertising, marketing, and outreach.

Best Practices Checklist: Accessibility

- All neighborhoods and services are accessible by public transport, with good pedestrian connections and well-marked routes and vehicles.
- Surrounding land uses offer pedestrians safety, security, wayfinding, protection from the elements, and amenities.
- Pedestrian routes to transit are safe for seniors, and implement best practices from the previous chapter on walkability. These interventions include:
 - Roadside: adequate walkway width, street furniture, planting/tree strip
 - Travelway: narrowed lanes (10-11')
 - Protected bicycle lanes
 - On-street parking
 - Reduced crossing distances
 - Leading Pedestrian Intervals
 - Tight corner turning radii
 - Short blocks (200-600')
- Priority parking and drop-off spots for people with special needs are available and respected.



Photo credit: Eric Fredericks

- Services are well advertised and marketed to the senior population. Older adults are aware of existing services and options.

USABILITY OF FIXED-ROUTE SERVICE

Usability is a combined function of the built environment and customer service. For transit stops and stations to physically be considered usable by older adults, they should comply with ADA accessibility guidelines. Vehicles must be accommodating to customers with special needs, like those who use wheelchairs or walkers. A customer service approach to making public transit usable ensures that transportation options are affordable; that information about routes, schedules, and payment is provided in easy-to-read and understand formats; and that services to help those with limited knowledge or new needs are available to people who need to learn or re-learn how to use the system. Finally, service should be frequent and reliable throughout the day. Older adults are more likely to travel at midday and on weekends, and many are

not capable of withstanding long wait times.²⁹ Therefore, increased service during off-peak times might help to enhance senior comfort and increase ridership levels.

Best Practices Checklist: Usability

- Each transit stop and station is designed so that it:
 - Signals the presence of transit service
 - Provides information about the transit service that is provided
 - Provides information about the surrounding destinations
 - Provides a place for passengers to wait comfortably and securely
 - May provide a place to park a bicycle
 - Provides a place for the transit vehicle to pause
 - Provides a surface for passengers to board the vehicle
- Bus stops should be ADA accessible, including:
 - An unobstructed landing area that



- is at least 5 x 8' with a level surface (preferably concrete)
 - Bus stop boarding and alighting areas connected to streets, sidewalks, or pedestrian paths by an accessible route
 - Accessible curb ramps where the adjacent sidewalks connect with the closest alleys or roadways; and
 - If it has a shelter, it should have an ADA accessible wheelchair bay.
- Rail stations should be ADA accessible, including:
 - Rail platforms that do not exceed a slope of 1:48 in all directions
 - Detectable warnings along the full length of the public use area of the platform for boarding edges not protected by platform screens or guards
 - The height and position of a platform must be coordinated with the floor of the vehicles it serves to minimize the vertical and horizontal gaps. The preferred alignment is a high platform, level with the vehicle floor.
- Public transportation fares are consistent, clearly displayed, and affordable.
- Deeper discounts than legally required are available to seniors and persons with disabilities.
- Travel training is provided to seniors and persons with disabilities. Training is an important tool for introducing new riders to the fixed-route system, and also an important means of reintegrating riders with recent disabilities or new needs.
- Free travel escorts are provided to customers who need assistance navigating the system.
- Complete and accessible information is provided to users about routes, schedules and special needs facilities. All information is easy to access from home or at a station.
- Every stop and station should have an electronic information system with:
 - Real-time audio and visual digital displays with large fonts
 - Real-time arrival and departure information available on-line or through a smartphone app
 - Audible announcements that inform customers about upcoming stops and prepare them to disembark.
- All transit vehicles are 100 percent accessible, with low-floor boarding and wheelchair accessibility.
- Public transportation is reliable and frequent, including at off-peak times, at night and on weekends and holidays.
- Vehicles are clean, well-maintained, not overcrowded and have priority seating that is respected.
- Bus stops should ideally have the following amenities:
 - Street lighting
 - Trash receptacles
 - Map display cases
 - Bike racks
 - Shade.

FINDINGS ON DC'S PUBLIC TRANSIT

ACCESSIBILITY FINDINGS

Many seniors in DC live in areas without access to quality public transit.

According to a report by the AARP Public Policy Institute, “units for older adults are sited poorly in the [DC] region, with many of them on the outskirts away from compact walkable centers and good-quality transit. Most of these units are to the north and west of downtown.”

In an attempt to provide appropriate spacing for bus stops, WMATA seeks to have five bus stops per mile. As policy, WMATA retains stops in front of community centers, churches, or activity centers that attract many people, especially transit-dependent persons including seniors or people with disabilities.

Recently, WMATA evaluated the placement of bus stops. The goal was to begin eliminating unnecessary or underutilized stops, while guaranteeing five stops per mile to improve service. Criteria for retaining stops included proximity to community centers, churches, and activity centers, and whether customers would benefit from moving to a nearby bus stop with

better facilities (including shelters, accessible landing pads, and seating). According to Krys Ochia in WMATA's Bus Planning and Customer Facilities branch, these criteria are meant to ensure that seniors and people with disabilities, especially those who are transit-dependent, have access to neighborhood goods, services, and social spaces.

USABILITY FINDINGS

Only 31 percent of Metrobus stops in Washington DC are fully accessible according to ADA standards.

Metrobus has 3247 stops in the District of Columbia. According to WMATA assessments, while 31 percent are accessible, there are approximately 2241 stops that do not meet ADA accessibility criteria.

WMATA has identified 28 priority bus stops in DC that, if made accessible, will have a significant impact on MetroAccess customers who are currently unable to access fixed route services.

Bus stop accessibility is a high priority because increased accessibility of fixed route transit reduces the need for MetroAccess, WMATA's

METRO MOMENTUM

Metro Momentum is the strategic plan to provide the capacity the Metro system needs to handle population and job growth through 2025 and 2040. It's made up of two parts, Metro 2025 and Metro 2040.

Metro 2025 includes a series of seven major capacity improvements that we need to begin now:

1. **8 car-trains:** Metro will run all 8-car trains during rush hour, making room for 35,00 more riders per hour through the system's core.
2. **Station improvements:** Metro will build pedestrian walkways between Gallery Place and Metro Center, and between Farragut North and Farragut West to ease transfers and reduce platform crowding. Metro will also integrate new station entrances and changes to elevators and escalators in high-ridership stations.
3. **Metrobus Priority Corridor Network:** Metro will improve bus service, travel speeds, and reliability on 24 regional bus corridors—which serve half of Metrobus riders.
4. **New Blue Line Connections:** Metro will work to unclog the bottleneck at Rosslyn station to restore Blue Line service to pre-Rush Plus levels.
5. **Rider Communications:** Metro will install a new public announcement system, better real-time information for riders, and more.
6. **More Buses:** Metro will expand its bus fleet, putting 400 more buses on the streets.
7. **Pocket Tracks:** More crossover and pocket tracks throughout the system will make it easier to turn trains around, making more flexible service possible.

Metro 2040 includes bigger changes, like new Potomac River crossings, new lines in the system's core, and expanding the system's reach.

ADA paratransit program. According to WMATA, "There are more than 31,000 individuals certified to use MetroAccess service, and approximately 55 percent (approximately 17,000) of those are certified as conditionally eligible, meaning that their disability(ies) does not prevent them from

using accessible fixed-route services for at least some of their public transportation trips." In an effort to alleviate the need for costly MetroAccess services, WMATA developed a comprehensive plan to identify specific inaccessible bus stops, which if they were improved would greatly

reduce MetroAccess demand for customers who live or travel near those stops. Within the District of Columbia, WMATA has identified 28 bus stops for priority repair.³⁰ While WMATA operates Metrobus, all Metrobus stops in the District are owned and maintained by DDOT. Therefore, the District is responsible for addressing WMATA's recommendations and working with city contractors to make changes.

86 percent of the Metrobus fleet is currently low-floor. The rest of the fleet is expected to be replaced by 2016.

WMATA has a fleet of 1301 low-floor buses out of a total fleet size of 1512 buses. According to WMATA bus planners, the remaining 211 high floor buses should be replaced by 2016. Douglas Stallworth, Senior Transportation Planner at WMATA, explained low-floor boarding buses are a significant improvement over those with stairs and lifts for riders with disabilities or seniors because the low-floor ramps eliminate the need to climb stairs and reduce boarding time, malfunction less frequently, and can be operated manually when needed. In addition, the low-floor buses, which rely on the universal design principle of being accessible by every person and ability, are easier to board, saving older adults and people with disabilities from any embarrassment associated with delays and malfunctions associated with the high-floor lifts, and making their experience more comfortable.

All Metrorail stations are accessible to people with disabilities and special needs. However, customers frequently complain about the reliability of the system's elevators and escalators.

Constructed beginning in December 1969, Metrorail's operating system includes 588

escalators and 281 elevators in stations and parking facilities. An increased focus on improving reliability of these escalators and elevators has led to considerable improvement in recent years, especially due to funding provided by Metro Forward, a five billion dollar capital improvement program to improve safety and reliability. Escalator availability reached a five-year high in September 2013, with a 93.8 percent availability rate. Elevator ability missed its target goal by only one percent in the last quarter, achieving availability 96.7 percent of the time. As modernization and standardization programs move forward, availability is expected to continue improving. However, scheduled escalator maintenance accounted for 36.5 percent of out-of-service hours in the third quarter of 2013. These constant repairs, including regularly scheduled weekend work are stressful to customers, especially transit dependent riders.

DC's newer transit services all provide low-floor or level boarding.

The entire fleet of DC Circulator buses has low-floor boarding and the new DC Streetcars will have entirely level boarding.

WMATA offers a free travel training program to seniors and people with disabilities.

WMATA's travel training program offers the opportunity to learn about all aspects of riding public transit, from how to locate Metrobus stops and Metrorail stations to purchasing a farecard and navigating the system.

WMATA offers discounted fare cards for people over 65 and people with disabilities.

Riders 65 or older who have a Metro Disability ID card (obtained through applying for Metro's

Reduced Fare Program) or a Medicare card and photo ID, may ride at all times for half the peak fare on Metrorail, and for 90¢ cash or 80¢ paying with SmarTrip card on regular Metrobus routes, as well as most local transit buses.

Momentum is a long-term capital improvement program that will improve transit service, expand coverage, and increase bus accessibility for seniors and people with disabilities.

Momentum is WMATA's capital improvement program, which will improve fixed-route public

transit that will directly benefit seniors and people with disabilities. Planned initiatives that would make a positive impact on service for older adults include reduced crowding, eased navigation in Metrorail stations, expanded and more reliable bus service, increased accessible bus stops, new bus shelters, and a new communication infrastructure with electronic information systems to provide audio and visual announcements.



Photo credit: Flickr user ctankcycles



RECOMMENDATIONS FOR DC'S PUBLIC TRANSIT

Best practices for age-friendly fixed-route transit dictate that systems must be accessible and usable by older adults in both form and function. To provide senior-friendly public transit that fits these criteria, DC must continue to focus on ensuring seniors live within and are served by agencies in close proximity to transit, that all transit vehicles are accessible, that routes to transit are safe and well-maintained, and that while the system expands to provide increased coverage and better customer service, bus stops are retrofitted for accessibility and trips remain affordable.

- 2.1. Encourage the development of affordable senior and age-friendly housing, as well as buildings housing senior services, in close proximity to transportation (within one quarter mile of public transit).
- 2.2. Secure funding for Metro Momentum, a capital improvement plan that is capable of increasing transit coverage, accessibility, and affordability for older adults and riders with special needs.

- 2.3. Make 100 percent of bus stops in the District accessible (an increase of 69 percent), beginning with the 28 stops that WMATA has identified as high priority for transitioning an eligible portion of MetroAccess customers to fixed route service.
- 2.4. Guarantee 100 percent low-floor and level boarding for all transit vehicles by 2016.
- 2.5. Ensure full accounting of needs of seniors and persons with disabilities when eliminating bus stops while working to attain the five per mile standard.

ALTERNATIVE SPECIALIZED TRANSPORTATION

“Alternative transportation” for older adults includes paratransit, human services transportation, and supplemental transportation programs (STPs). In addition, private commercial transportation services are taking on a new role, as technology evolves to make these services more flexible and accessible. Through the variety of these services, seniors and people with disabilities are able to make trips to work, school, medical appointments, shopping, and recreational activities.

PARATRANSIT

Under the Americans with Disabilities Act, fixed-route transit systems must provide transportation for people with disabilities within a service area of 0.75 miles from the agency’s fixed routes. Paratransit programs offer origin-to-destination trips in accessible vehicles that accommodate the customer’s needs.

In the DC region, MetroAccess is WMATA’s shared ride door-to-door service for people who are unable to access fixed-route service due to disability. The program, which began operating in 1994, now operates on a budget of approximately \$113 million to transport over two million customers every year.³¹

HUMAN SERVICES TRANSPORTATION

Human services transportation programs focus on transportation-disadvantaged populations,

including older adults, people with disabilities, and individuals who cannot afford a car to get to and from work. These services are operated at the state or local level.

SUPPLEMENTAL TRANSPORTATION PROGRAMS

Supplemental Transportation Programs (STPs) offer non-traditional transportation services for older adults in need of assistance. Typically, STPs are not affiliated with a governmental program or agency, and are instead organized by local grassroots or regional entities (most commonly small community groups or nonprofit organizations such as churches and interfaith organizations), staffed by volunteers, and funded through grants and donations.³² Supplemental Transportation Services are known for being more flexible than traditional specialized transportation services, and might operate either for free, on a sliding scale, or a set fee.

PRIVATE TRANSPORTATION

Private transportation options, including taxi and limousine service, carsharing, and grocery delivery help to provide additional alternatives for older adults who need to make short-distance trips within the city or complete daily errands. Coupled with emerging technologies such as smartphone apps, these private transportation services have played an important role in providing services to older adults at speeds faster than traditional options.



Looking for innovative and affordable ways to take advantage of this phenomenon, senior villages in the Metropolitan Washington area — which report that transportation services make up 80 to 90 percent of the requests they receive from clients — have developed innovative arrangements and unexpected benefits between seniors and private transportation providers.

MOBILITY MANAGEMENT

Relationships like those that senior villages have developed can be formed and applied on a much wider scale in the city by applying the model of a mobility management system. Mobility management systems streamline the use of public transit and supplementary human service transportation programs by coordinating existing programs. Mobility management programs are also able to identify and apply for new sources of funding. These efforts lower costs, reduce duplicated services, and arrange more efficient partnerships and programs. Ideally, the results are better customer service, increased reliability, and lower costs to both the funding agencies and the customer.

Improving community transportation options in coordination with public transit is a critical component of providing better mobility to older adults, since the demand for public transportation services, ADA paratransit and taxi subsidies, and community transit services by older adults will only increase. According to the American Public Transportation Association, demand for these services by older adults will grow between 30 and 50 percent in the next 20 years, depending on the service.

Specialized transportation is not only important to seniors, but especially to those with low incomes and limited resources. While the programs can be expensive to operate,³³ federal, state, and local entities, as well as transit riders, heavily subsidize these programs in order to make sure public transportation remains equitable and accessible for people with a range of needs. That these services function as efficiently as possible is essential to ensuring that our most vulnerable older residents can remain in their homes or neighborhoods while feeling connected to their communities.

BEST PRACTICES FOR ALTERNATIVE SPECIALIZED TRANSPORTATION

The following best practices and recommendations seek to encourage better coordination, innovation, and improved quality of the critical services provided by subsidized human service and private transportation.

THE WIDEST RANGE OF SPECIALIZED TRANSPORTATION IS AVAILABLE FOR SENIORS AND PEOPLE WITH DISABILITIES.

In addition to legally required ADA paratransit services, specialized transit options that provide access to a variety of destinations, such as the libraries, grocery stores, and senior centers should also exist.

SPECIALIZED TRANSPORTATION OPTIONS INCLUDE DOOR-THROUGH-DOOR SERVICE.

Door-through-door service is an escorted service provided by personal care attendants who travel with eligible individuals. This service should be made available to individuals whose mobility constraints prevent them from traveling independently, and for whom ADA paratransit origin and destination is insufficient.

SAME-DAY SERVICE IS AVAILABLE FOR PARATRANSIT USERS.

Same-day service is an ideal program model for users who want or need flexibility for their travel plans. Transportation services sometimes have difficulty guaranteeing same-day rides. A taxi voucher program where drivers have an incentive to take the voucher trips addresses this issue.

A VOLUNTARY TRANSPORTATION SERVICE IS AVAILABLE WHERE PUBLIC TRANSPORTATION IS TOO LIMITED.

Voluntary transportation services include volunteer driver programs, which often operate using reservations, on a sliding scale fee, and give priority for medical trips. It is important to consider the liability issues related to volunteer drivers. Ride Connection in Portland, Oregon resolved concerns about volunteer liability by developing a rigorous risk management program. The Ride Connection's Operations Manual requires that drivers undergo criminal background checks, drug testing, and extensive training both before and during their tenure as a driver. Volunteer drivers are also





Photo credit: Flickr user escalepade

enrolled in a DMV flagging program that notifies Ride Connections whenever a driver has been involved in a collision or a moving violation. These measures ensure the safety of riders and shields Ride Connection from legal actions involving negligent hiring practices.³⁴

TAXIS ARE ACCESSIBLE AND AFFORDABLE, AND DRIVERS ARE COURTEOUS AND HELPFUL. JURISDICTIONS WITHOUT A SUFFICIENT NUMBER OF ACCESSIBLE TAXICABS PROVIDE INCENTIVES TO COMPANIES AND DRIVERS TO PURCHASE AND OPERATE ACCESSIBLE VEHICLES.

The Human Service Coordination Plan for the National Capital Transportation Planning Board recommends that programs to increase taxicab accessibility should provide incentives to companies to offset the cost of vehicle purchase, maintenance, and insurance, financial incentives to drivers (such as stipends to attend sensitivity training), and training grants for transportation programs.

San Francisco and Arlington have set a precedent for wheelchair accessible cabs to comprise at least five percent of their fleets. In San Francisco, 100 of the city's 1885 cabs are wheelchair accessible (approximately 5.3 percent)³⁵ and closer to home, in Arlington, 40 of the 800 taxicabs licensed to operate in the county are accessible (closer to 5 percent of the fleet).³⁶ Virginia's Red Top Cab company, which purchases accessible cabs

and leases them to drivers at a rate lower than standard cabs, has helped to make this possible in Arlington.

DRIVERS AND OPERATORS ARE PROVIDED WITH SENSITIVITY AND CUSTOMER SERVICE TRAINING.

Sensitivity and customer service training should be provided to any front-line employees who interact with customers and are not already required to receive training on ADA law. Training should include guidelines for serving and interacting with customers who are older, may have disabilities, and are from various socioeconomic backgrounds.

ONE-CALL/ONE-CLICK PROGRAMS ARE AN EXAMPLE OF DEDICATED CUSTOMER-FOCUSED SERVICES THAT REDUCE CONFUSION AND HELP TO ALLEVIATE ANXIETIES OF RIDERS.

Through a dedicated phone line and/or website, one-call/one-click programs assist customers in assessing their transportation needs and matching them with the appropriate services. This counseling is essential for riders who have difficulty navigating a complex web of services and varying eligibility requirements, as counselors not only match riders with transportation services, they also help riders prepare and complete necessary eligibility and registration paperwork, and connect them with resources that can help plan and prepare for the trip. This assistance can be essential for overcoming first-mile/last-

mile challenges, where riders need help bridging between one transportation service and another.

A MOBILITY MANAGEMENT SYSTEM EXISTS TO MANAGE AND DELIVER COORDINATED TRANSPORTATION SERVICES TO CUSTOMERS.

Mobility management systems are programs that maintain a comprehensive inventory of all transportation services for older adults and people with disabilities in a jurisdiction, and help to coordinate and refine them. A mobility management system addresses individual needs by providing a wide range of service options and trip counseling (and might include a one-call, one-click service), while also focusing on coordinating all of the services to achieve more efficient delivery of services at a better cost to taxpayers. For example, a report on aging in place in Portland

MOBILITY MANAGEMENT AS A BEST PRACTICE: HOW IT ASSISTS BOTH RIDERS AND COMMUNITIES

- Helps people make informed choices about transportation
- Supports self-direction and personal responsibility
- Facilitates connections to friends, family and community services
- Identifies gaps in transportation options
- Supports the use of transit (travel training)
- Fosters creative solutions to transportation challenges

Source: National Center on Senior Transportation (2013), Older Adults and Mobility Management Poster Presentation presented by Lynn Winchell-Mendy

suggested improving paratransit services through coordination by developing “a one-call/one-click and one-card transportation system that links public and private providers to consumers.” The intended outcome is for users to have simple access to an efficient service that helps them choose the lowest cost option.³⁷

United We Ride is an initiative of the federal government’s Coordinating Council on Access and Mobility to improve transportation services to people with disabilities, older adults and people with low incomes. According to the United We Ride initiative, mobility managers serve as policy coordinators, operations service brokers, and customer travel navigators:

“As policy coordinators, mobility managers help communities develop coordination plans, programs, and policies, and build local partnerships. They also work to promote land-use policies that favor transit-oriented development, public transportation, and pedestrian access. As brokers, they coordinate transportation services among all customer groups, service providers, and funding agencies. And, as travel navigators, they work with human service agencies and/or workforce centers that coordinate the travel and trip planning needs of individuals who receive human service program assistance.”

Mobility management programs are an emerging best practice, rapidly being adapted by jurisdictions seeking to provide a comprehensive set of services to vulnerable residents at the most efficient cost. A promising new program in Montgomery County, Maryland, and Dallas County’s established My Ride program provide valuable case studies for how these services are established and how they are successfully operated.

CASE STUDY: ESTABLISHING A MOBILITY MANAGEMENT SYSTEM IN MONTGOMERY COUNTY

Until recently, Montgomery County's sophisticated transportation options were numerous but only informally connected. From fixed-route public transit to well-established supplemental transportation programs offered by agencies like the Jewish Council on Aging; seniors, low-income individuals, and people with disabilities had many options. However, there had not been an effort to coordinate these services in a way that was useful for individual riders or efficient for the system as a whole.

Recognizing the need to improve service provision for transportation disadvantaged populations, the Montgomery County Council hired Elaine Binder as a Senior Fellow to study the topic and develop a mobility management proposal. The concept Binder presented was based on best practices from the National Association of Area Agencies on Aging's (n4a) Senior Transportation Center and informed by collaborative councils, populated by a diverse range of County residents and experts.

Binder recommends every local government should take the following steps to prepare for and plan the most effective mobility management system:

1. *Conduct a survey and overview of public transportation.*

Determine whether the fixed-route transportation system is coordinated, whether it is drawing the appropriate customers, and if it is capable of meeting the needs of transportation-disadvantaged populations.

2. *Form collaborative councils.*

Collaborative councils consist of people from all areas and have diverse interests. These groups will work together to discuss and resolve issues as they come up and form recommendations

for the mobility management system's strategic plan. Topics covered might include taxicab accessibility, public safety, and the training of public transit drivers.

3. *Conduct focus groups and administer public surveys to older adults.*

Community outreach should assess what services older adults know about, how often they utilize them, and what they are willing to pay for them.

4. *Create one centralized call center.*

A call center receives requests for assistance from potential riders and provides options counseling based on the customer's needs.

5. *Create a strategic plan that details how the mobility management system will operate, its purpose, and its goals.*

Montgomery County's mobility management strategic plan outlined goals and strategies for the eventual mobility management coordinator, including: Extend to the entire county; Establish an advisory council; Continue to conduct focus groups using established model; and bring together public and private transportation providers.

6. *Hire a mobility management coordinator within an office or agency of the local government. The coordinator does not need to have specific transportation planning knowledge, but must be familiar with the local landscape.*

Montgomery County hired a mobility management coordinator that has experience working with local non-profits and agencies that provide human service transportation and supplementary transportation programs.

CASE STUDY: SUCCESSFULLY OPERATING A MOBILITY MANAGEMENT SYSTEM: DALLAS COUNTY'S *MY RIDE*

The Dallas MyRide program is intended to improve transportation options and promote independence for older adults and people with disabilities in Dallas County, TX. On an individual level, the My Ride program provides one-on-one or group education and counseling on transportation options and alternatives to driving. On a systems level, My Ride partners with other service providers and organizations to ensure the availability of a range of transportation options and modes to support older adult mobility.

In 2013, My Ride and its partners:

- Connected 418 individuals to transportation options (the objective is to eventually provide transportation options counseling for 1000 individuals per year)
- Trained 121 volunteer navigators through a training program called Mobility 101
- Distributed 7500 Get a Ride Guides (a marketing tool that informs older adults and people with disabilities about their transportation options);
- Strengthened transportation information and referrals provided by 2-1-1—Texas' human services resource number
- Formed two new partnerships to leverage funding to provide more rides for more people:
 - STAR Transit Demand-response shuttle
 - Senior Adult Services: Volunteer driver program and wheelchair accessible shuttle
- Became involved in state and regional planning efforts
- Used My Ride data to shape planning, advocacy, and program development.³⁸

PARKING MANAGEMENT INCREASES AVAILABILITY FOR THOSE WHO NEED IT.

Parking for private vehicles is a key concern for drivers or caregivers who drive. While large amounts of off-street parking tend to be available in new construction, car owners living in older buildings often rely on on-street parking to store their vehicles. Many cities have programs to reserve on-street parking for the people with physical disabilities in front of their homes. These reserved spaces help individuals with disabilities or their family member or caregiver have close access to parking despite not having an off-street parking space.

In addition to accommodating residents with physical disabilities with reserved on-street parking, better management of street parking is a best practice for ensuring availability, helping those who need to park find parking more easily. Managing existing parking supply more effectively so that users who need it can find it is an important

part of creating a successful city. Motorists are not interested in the overall supply of parking, they are interested in how easy it is to find an empty space when they need one. To meet this demand, parking supply should be managed to achieve an 80- 90 percent occupancy rate – which allows for one or two spaces of any block to be vacant for a motorist who needs to park. If the occupancy rate exceeds 90 percent, this triggers an increase in price, reduced time limit, or another action to increase availability.³⁹

To accommodate visitors including home health aides or maintenance workers, several cities have allowed non-residents to buy limited parking permits in residential parking zones. One of the best examples is the Borough of Westminster in London UK, where visitors to the residential parking permit zone may pay by mobile phone for parking or purchase books of parking cards from local libraries. In Pasadena, California, pay stations for purchasing visitor parking permits are located at each neighborhood fire station. Visitor permits

may also be purchased online and printed out to post in-vehicle.⁴⁰

CARSHARING PROVIDES ALTERNATIVE MEANS OF TRANSPORTATION FOR OLDER ADULTS WHO ARE STILL ABLE TO DRIVE BUT NO LONGER WISH TO OWN A CAR, OR WISH TO SHED A SECOND CAR.

For older adults who are able to drive but do so less often, carsharing is an opportunity to shed the responsibility and costs of owning their own car, or even a second car. According to Dr. Susan Shaheen, Co-Director of the Transportation Sustainability Research Center at UC Berkeley, integrating ridesharing with carsharing may attract additional older adults to the service, as it is the second most common form of transportation after driving for adults over 65.⁴¹

GROCERY DELIVERY SERVICES ARE AVAILABLE TO OLDER ADULTS WHO WOULD BENEFIT FROM FOOD SHOPPING ASSISTANCE.

Store-to-door grocery delivery services that allow customers to place orders via a website or on the telephone are valuable to elderly residents who cannot or choose not to drive to the grocery store or do not wish to carry heavy shopping bags. Services may range from for-profit service companies, which charge delivery fees and fuel surcharges, to non-profit services such as Oregon's Store to Door program, which utilizes volunteers and provides low-cost, personalized grocery shopping and prescription delivery to seniors and people with disabilities. Developers have begun to recognize the value of this amenity for age-friendly buildings by providing dedicated grocery receiving areas.



Photo credit: Flickr user mtaphotos

FINDINGS ON DC'S ALTERNATIVE SPECIALIZED TRANSPORTATION

A wide variety of specialized transportation options are available to seniors and people with disabilities in Washington, DC, most of which operate independently from one another.

Over 15 paratransit, human service transportation, and supplemental transportation programs exist in the District of Columbia to serve older adults and people with disabilities. While the functions of these specialized services often overlap, their funding, as well as the entities responsible for operating the programs, are diverse and independent from one another. The appendix of this report includes a chart cataloging the services, the populations they serve, the steps customers must take to reserve or make their trip, the cost to the customer, and, when available, the operating cost of the service per trip.

Access to information about available services in the District of Columbia is often difficult to find and scattered across sources.

Each specialized service in the District has its own point of contact, including separate websites and phone numbers, that all provide varying levels of information. The most comprehensive listing of

specialized services available to District residents is accessible through Reach A Ride, a gateway furnished by the Metropolitan Washington Council Of Governments (COG) at reacharide.org. While the website functions as a useful resource, the search functions and provider details require updating. The website allows users to search for available services using their home address but it is not possible to search by need. In addition, the listing for each provider is supposed to include provider details, such as provider contact information, eligibility requirements, and program fees, but the fields are not complete in every listing. This information will most likely be updated when COG releases an update to the Coordinated Human Services Transportation Plan sometime in 2014.

The District of Columbia currently does not have a one-call/one click center or a coordinated mobility management system.

As highlighted in this section's first finding, a variety of specialized transit options are available to residents in the District of Columbia. At this time, however, there is no central agency or office



Photo credit: Matthew Peoples

that an older adult or person with a disability can contact to best understand and choose an appropriate transportation service.

The National Capital Region Transportation Planning Board at COG plays a key role in encouraging and funding the coordination of specialized transportation.

Under SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act), the Transportation Planning Board is required to develop a human service transportation coordinated plan. The coordinated plan includes competitive selection criteria and priority projects for the US DOT Federal Transit Agency funding programs. During a Human Service Transportation Coordination Task Force meeting in March 2014, TPB staff presented draft priority projects for the update to the coordinated plan. Among those priority projects were funding mobility management at the local government level and providing challenge grants for coordinated planning efforts.

Service providers in Washington, DC cite liability as reason to limit the provision of door through door service.

According to Seabury Resources for Aging representatives (responsible for operating the Washington Elderly Handicapped Transportation Service), door-through-door escorted service is difficult to operate because of limited insurance to cover an escort's liability for a customer's wellbeing. In discussion at a meeting of the Senior Advisory Coalition, an advocacy coalition with participants from over 35 organizations, a Seabury representative announced that the company would no longer provide door-through-door service because of the logistical and financial strain on the program.⁴² Instead, the program offers curbside pick-up and drop-off. It is the responsibility of the customer to either find an escort, or to be independently capable of reaching the curb and vehicle.

Accessible cabs in DC make up less than 1 percent of the entire fleet for a total of 20 vehicles.

Of the approximately 7000 cabs registered to operate in DC, only 20 are wheelchair accessible. The accessible vehicles are modified minivans with a ramp in the back and operated through the companies Yellow Cab and Royal Cab, which are only two of approximately 150 taxicab companies operating in the District. The existing accessible vehicles were made possible by rollDC, a pilot funding program through the Metropolitan Washington Council of Governments to increase the number of accessible cabs in the city.

Aside from the limited number of wheelchair-accessible taxicabs, customers have also reported difficulties due to the lack of reciprocity between cab companies in DC and surrounding counties in Maryland and Virginia. Taxis are allowed to take customers from their jurisdiction to a destination outside, but cannot pick up another customer while they are in the outside jurisdiction. This is a particular problem for people who use wheelchairs because they cannot re-hail the same accessible cab they took to their destination.

WMATA has identified ways to lower demand for MetroAccess Service that would potentially increase the number of accessible cabs in the District.

WMATA is working with the District of Columbia to implement a program wherein paratransit eligible customers traveling to or from dialysis facilities would have the option to take a taxicab ride instead. According to Christiaan Blake, the Director of ADA Policy and Planning for WMATA, successful implementation of this program will improve the travel experience of the customers, help the District realize savings through lower demand for MetroAccess service by District residents, and potentially increase the number of wheelchair accessible vehicles in the District's taxicab fleet.

On June 11, 2014, the District of Columbia Taxicab Commission voted on a package of regulations to implement the "Coordinated Alternative to Paratransit Services-DC" (CAPS-DC) Pilot Program between the DC Government and WMATA. CAPS-

DC would provide patients with rides to and from WMATA-identified dialysis centers, using vehicles associated with taxicab companies that have been approved to participate. Eligible companies (those with a central dispatching operation) could receive grants of \$4800 to purchase those accessible vans. Further, under the proposed rules, every time each taxicab company completes 3000 CAPS-DC trips, the company would purchase a new compressed natural gas-powered wheelchair accessible vehicle. Pending a final agreement between Metro and the District, the new program could start as early as October 1, 2014.^{43, 44}

Sensitivity training is provided through Metro and the DC Office of Human Rights.

WMATA provides ADA sensitivity and safety training to all front-line employees. The DC Office of Human Rights provides training for taxicab drivers in the District.

Innovative grassroots transportation solutions have emerged from senior villages in the District.

The Capitol Hill Village, a Senior Village in DC, routinely provides transportation for its members. Some of these trips are requested with very little notice, or even on a same-day basis, precluding the reservation of a service like MetroAccess, the Seabury Connector, and others. As a solution, the Village has used Uber, Taxi Magic and other car services that are available more immediately and can be reserved by text message, online, and smartphone apps.

At Capitol Hill Village, Julie Maggioncalda, Director of Volunteer and Social Services, will receive a transportation request from a Village member. She then makes a reservation on the website or mobile app for the car service and uses the feature which allows the customer to contact the driver beforehand. "I can call the driver and alert him that the rider he/she is picking up is elderly, that they need help with their bags, and maybe even getting in and out of the car." Payment is made using a Capitol Hill Village credit card, and the Village client, depending on their membership benefits, is billed at a later date.



This arrangement has been mutually beneficial for both the Village and the car service companies. These companies have accessed a new market, typically unfamiliar with the technology used to request their cars, and the Village has introduced the idea of connecting these companies with the 15 other villages in the Washington region. This has prompted discussions about offering same-day ride services at a discounted rate to all members of the Washington Area Villages Exchange, a non-profit member organization of regional villages. Online car services are a promising new transportation service, but more regulation or increased accountability is needed to ensure safety for users and the public.

While online car services like Uber offer great potential, the upstart services are virtually unregulated. Concerns about the lack of regulation of Uber and similar services have been raised regarding liability insurance and criminal background checks for non-professional drivers (specifically the UberX service). As this and similar car services expand and adapt to the market, the question about appropriate regulation, and safety standards will need to be resolved.⁴⁵ A promising bill introduced by Councilmembers Mary Cheh and David Grosso would place fewer limits on drivers for companies like Uber, Lyft, and Sidecar, but toughen training, insurance, and driver screening requirements. The Transportation Network Services Innovation Act of 2014 was introduced on April 4 and was under committee review when this report was published.

The District offers reserved on-street parking, permits, placards and tags for accessible parking spaces, and ADA accessible parking meters for residents with disabilities.

The District offers a number of helpful parking programs for older adults with disabilities using a motor vehicle. Residents who live in a single family dwelling and meet certain other requirements can apply to have an on street parking space reserved for them through the District Department of Transportation. The District also provides permits and placards for both District residents and non-District residents, and tags (only to residents), that when hung from the rearview mirror of the car in which the person with a disability is driving or riding, allow parking in designated accessible spaces throughout the city. Tags, permits, and placards from other jurisdictions are all recognized in DC and allow drivers with disabilities to park in any designated accessible parking space. Likewise, all valid placards or tags (no matter where issued) grant holders the right to park for twice the posted length of time in spaces with red-topped meters (after paying the posted meter rate) or time-restricted parking spaces.

The District Department of Transportation is also currently designating two ADA accessible parking meters on every blockface with parking meter equipment. The meters have a blue dome.

DC has experimented with street parking management in both commercial and residential zones but lacks a comprehensive and coherent approach.

DC has designated performance parking zones around several business districts but never followed through on managing on-street parking



Photo credit: Flickr user Mr.TinDC

for availability by adjusting meter prices. Similarly, the city has experimented with a variety of changes in residential parking regulations, including designating parking on one side of the street for residents only, and in some cases extending the hours of enforcement to later into the evening. Changes to the Residential Parking Permit (RPP) Program have lacked clear goals and have had limited success.

Grocery delivery services can provide convenience for some but not all.

Delivery services operating within the District include Peapod, Instacart, Urban Grocery Delivery, Relay Foods, and Safeway. These services can provide greater convenience and choice for

older adults who do not drive or who do not live in a building with grocery shuttle service. However, it is important to note that these private businesses have not historically served everyone, both because of the associated fees and costs, as well as discriminatory delivery boundaries. Fresh Direct, a company that operates in the New York City and Philadelphia metropolitan areas, was heavily criticized in 2012 for not delivering to most of New York City's poorest borough, the Bronx, even after moving its hub there that year in exchange for tax subsidies from the city. Facing pressure, the company extended service to all areas of the borough with plans to accept food stamps.



Photo credit: Flickr user keithPR

RECOMMENDATIONS FOR DC'S ALTERNATIVE SPECIALIZED TRANSPORTATION

In order to provide more innovative, coordinated, and efficient alternative transportation options to older adults in the District of Columbia, the city should focus on establishing a mobility management system, encouraging private sector innovation and participation to provide improved specialized transportation, and improving the quality of existing services. Specifically:

- 3.1. Establish a mobility management position within an existing office in the District of Columbia government.
- 3.2. Fund and staff a one-call/one-click center that aids District residents in navigating transportation and mobility assistance options.
- 3.3. Incentivize the purchase and operation of accessible taxicabs in Washington, DC with the goal of increasing the accessible fleet share from less than 1 percent to over 5 percent, as has been achieved in San Francisco and Arlington.
- 3.4. Taxicabs, especially accessible cabs, from DC and surrounding jurisdictions in Maryland and Virginia should have reciprocity to pick up passengers in neighboring jurisdictions.
- 3.5. Assess barriers to door-through-door service, especially liability issues, and establish an action plan for providing increased services to customers unable to travel independently.
- 3.6. Expand the taxi voucher program to provide more cost-effective transportation services for persons who can travel independently or provide their own escort.
- 3.7. Implement performance-based parking in designated business districts to ensure

availability of on-street parking so that those who need parking close to their destination can find it.

- 3.8. Pilot a residential on-street parking management program to ensure availability for resident permit holders, more flexibly meet demand for residents' visitors (i.e. with daily visitor parking passes), and allow other visitors to have some access to on-street parking. This requires a comprehensive approach that matches parking supply and demand from different users.
- 3.9. Adapt DC's extensive use of pay by phone to better accommodate visitor parking and overall availability in RPP zones in high-demand areas.
- 3.10. Develop better marketing tools about carsharing to reach senior residents who would like to continue driving without owning a personal vehicle.
- 3.11. Assess curbside loading needs to make grocery delivery a better service for older adults.
- 3.12. Determine whether home delivery range limitations by grocery delivery services are potentially discriminatory and ensure that delivery companies accept SNAP benefits.e the development of affordable senior and age-friendly housing, as well as buildings housing senior services, in close proximity to transportation (within one quarter mile of public transit).
- 3.13. Secure funding for Metro Momentum, a capital improvement plan that is capable of increasing transit coverage, accessibility, and affordability for older adults and riders with special needs.
- 3.14. Make 100 percent of bus stops in the District accessible (an increase of 69 percent), beginning with the 28 stops that WMATA has identified as high priority for transitioning an eligible portion of MetroAccess customers to fixed route service.
- 3.15. Guarantee 100 percent low-floor and level boarding for all transit vehicles by 2016.
- 3.16. Ensure full accounting of needs of seniors and persons with disabilities when eliminating bus stops while working to attain the five per mile standard.



SPECIALIZED TRANSPORTATION SERVICES FOR SENIORS AND PEOPLE WITH DISABILITIES

Service	Purpose/Eligibility
MetroAccess	Shared ride, door-to-door paratransit service for people who cannot use public transportation for to a disability. Available throughout the WMATA service area within ¾ mile from fixed route service days, hours, and locations as fixed-route transit.
Washington Elderly Handicapped Transportation Service (WEHTS)	Operated by Seabury Resources for Aging and through Lead Agencies in each ward. Provides free Washington residents 60 and over, who cannot access traditional transportation systems. Transportation for essential medical appointments, dialysis sessions, group shopping trips, and appointments with professionals concerning income benefits and housing.
rollDC	COG-funded pilot project that equips DC taxicabs with wheelchair accessibility, and allows wheelchair users who cannot use traditional taxi sedans to reserve accessible cabs.
Medicaid transportation (Medical Transportation Management)	Operated by MTM. Provides transportation to your medical appointment if you live within the District, are in long-term care facility or nursing home, receive Medicaid, and have no other way of getting there. MTM provides non-emergency medical transportation within the Washington, DC metropolitan area.
Transportation for the Elderly & Persons with Disabilities Program (5310 program)	A federally funded program administered by the DC Office on Aging. Provides financial assistance to organizations in DC to purchase vehicles that provide transportation services to elderly persons with disabilities.
Taxi Call 'N' Ride Program	Provides booklets of taxicab coupons at a reduced rate to District residents aged 60 and older. The value of a book of \$40.00 in taxicab coupons ranges from \$12.00 to \$37.00, depending on the client's income. Program is administered by the DC Office on Aging and administered by Seabury Resources for Aging (WEHTS).
DC Office on Aging Senior Transportation	Group and scheduled trips to DC senior center facilities and events.
Amyotrophic Lateral Sclerosis Association DC/MD/VA Chapter	Transportation for residents of service areas of DC, MD, or VA with Amyotrophic Lateral Sclerosis (ALS) and registered with the Chapter.
Rock Creek Foundation	Transportation assistance for adults 21+ being served by Rock Creek Foundation.
Transport-U	Provides transportation services to medical appointments (dialysis centers, hospitals, same day surgery appointments), social and cultural events, shopping/errands, airport service, holiday service.
Barney Neighborhood House	Provides transportation for eligible seniors (age 60+) in Wards 1 and 4 to and from the nutrition site and to participate in the agency's recreational and socializational activities and events. Lead agency for coordination of transportation services.
East River Family Strengthening Collaborative Project KEEN (Lead Agency for Ward 7)	
Easter Seals Regional Headquarters	Provides transportation for eligible clients in parts of DC to and from the Adult Day Center.
Emmaus (Lead agency in Ward 2)	Provides transportation to Emmaus recreational and socializational activities and events for eligible seniors.
First Baptist Church Senior Center	Provides transportation to and from the center to residents of DC age 60+, with low-income, and with preference given to Ward 4 residents
Hattie Holmes Senior Wellness Center	Provides transportation to and from the Hattie Holmes Senior Wellness Center to eligible DC residents in Ward 4.
Iona Senior Center (Lead agency Ward 3 and parts of 2 and 4)	Provides a regularly scheduled round-trip complimentary shuttle to the grocery store for older adults living in apartments in Northwest DC.
Life Skills Center	Provides transportation to support agency clients with pre-vocational training and other agency activities.
Model Cities Senior Wellness Center	Provides transportation to and from Senior Wellness Centers in DC to DC residents age 60 and up.
Seabury Ward 5 Aging Services (Lead Agency for Ward 5)	Provides transportation to and from Seabury's recreation and socialization activities and events to residents of Ward 5.
SOME Dwelling Place	Provides transportation to eligible SOME Dwelling Place members to and from the Dwelling Place activities.
South Washington West of River Family Strengthening Collaborative (Lead Agency for Ward 6)	Provides transportation to and from recreation and socialization activities and events to older adults.
St. John's Community Services	Provides waiver transportation services for agency individuals served (adults with disabilities).
VIDA Senior Center	Two VIDA drivers make daily trips to participants' (60+) homes to bring them to and from the center and to neighborhoods around VIDA Center in NW DC.

Sources: Data from the 2012 Reach-A-Ride database (www.reacharide.org) and the Regional Coordination of Specialized Transportation Study (June 2013)

	Reservation procedure	Cost per trip	Fee paid by client	Trips per year
some or all trips due e. Offered for the same	Book by telephone or online. Customers may schedule a trip between one and seven days in advance of travel date. No same-day service.	\$50.04	Twice the fastest fixed-route equivalent fare, no more than \$7 per one-way trip	2012: 529,147
transportation for rtation is arranged for ublic benefits agencies	Clients apply through their lead agencies three days ahead.	\$16.22	Free	2010: 67,000
chairs or scooter users	It is recommended to reserve a trip an hour to two hours in advance. Reservations available up to one week in advance.		Regular cab fare	
strict or reside in a long- M is responsible for all	Riders must call three business days before the appointment.	\$ 20.00	Free to Medicaid eligible recipients	2012: 1,200,000
to nonprofit nd persons with	Dependent on the nonprofit's mission and contracted service.			
e cost to the client for me. Funded by the DC	To enroll in the program, client must call the Lead Agency in the Ward in which s/he resides.	\$ 6.59	Regular cab fare after discount	2010: 4,400
		\$ 20.28	Free	2010: 5,144
ALS) or Primary lateral			Free	
			Public transit cost, MetroAccess or fixed route	
rgery centers, physician			Evercare Insurance	
tes so that they can ordinating WEHTS			None; donations accepted	
			Transport cost included with other fees	
le Ward 2 residents.			None, donations accepted	
disadvantaged;				
ents, predominantly in			None, donations accepted	
ults residing at certain			None, donations accepted	
services.			None	
			None, donations accepted	
eligible older adults in			None, donations accepted	
Senior Center.				
ts in Ward 6.			None, donations accepted	
			Waivers	
er. Service area extends			None, donations accepted	

TECHNOLOGY & TRANSPORTATION

"It's not just demographics that are changing. We are riding the convergence of shifts in demographics, technology, economics, and social attitudes."

*-James Corless, Director,
Transportation for America⁴⁶*

EVOLVING TECHNOLOGIES

As technology has advanced, so has our ability to navigate the city in ways that are more efficient and affordable. Personal technology is providing users with applications to streamline almost any trip and smartphones play an especially large role in this evolving trend. 56 percent of all American adults are now smartphone users. Among adults surveyed by Pew Charitable Trusts, Black non-Hispanic adults were the most common smartphone adopters, with 64 percent reporting that they owned a smartphone. Hispanic adults followed close behind, reporting that 60 percent of the surveyed population owned a smartphone.

White adults trailed behind with only 53 percent reporting that they own a smartphone.

Among all adults surveyed by Pew, 74 percent reported that they use their phone to get directions or other information based on their current location.⁴⁷ Using their location, they are accessing real time arrival information for public transit; reserving a shared car with the swipe of a finger, finding open bikeshare docks, and even hailing a taxi by sending a text message. Not to mention, payment for most of these services has been streamlined through digital user accounts, eliminating the need to carry and exchange cash.

TECHNOLOGY USE BY OLDER ADULTS

Millennials and Generation X are not the only adult populations taking advantage. According to the Pew Charitable Trusts, "In early 2012, for the first time ever, more than 50 percent of older Americans are internet users, and an even

higher share have mobile phones.” Smartphone usage and evolving technologies will continue to have dramatic implications, as baby boomers catch up to their millennial counterparts, using smartphones and adapting to social media, with one-third of internet users aged 65 or older currently using a social network like Facebook and Twitter.⁴⁸

Technology is becoming easier for older adults to use and navigate. In recognition of seniors as a growing customer base, tech companies and innovators have begun to focus on improvements in user design and experience especially for older populations.

Frog Design, a global product strategy and design firm, performed research and concept design on products that will help older adults to feel comfortable and in control while remaining independent in their homes. Applications are also being developed for a targeted audience of older adults—an app developed by researchers at the University of Toronto and the Toronto Rehabilitation Institute allows older adults to rate how “age-friendly” their surroundings are by grading elements such as lighting, seating, and noise levels. The app then uses metrics from the World Health Organization’s age-friendly guidelines to produce an overall rating for specific

locations.⁴⁹

TECHNOLOGY EDUCATION FOR SENIORS

The future senior population will be much more prepared to take advantage of digital tools to help them age in place. In a report on attracting seniors to public transportation, the Federal Transit Administration recognized that seniors will be increasingly familiar with the Internet and that with the help of family and friends, “a larger pool of individuals may be knowledgeable about transportation services and be comfortable suggesting public transit to an aging loved one.”⁵⁰

In addition to introduction to technology through friends and family, programs that focus on technology training and trouble-shooting will play a large role in the continued adoption of smartphone and tablet technology for older adults. In the Washington metropolitan region, senior villages are filling this role. The Silver Spring Village in Maryland teaches about smartphone use in advertised workshops open to the community, and the Dupont Village offers a program every weekend where high school students provide technical assistance to village seniors.



CONCLUSION

The District of Columbia is home to many great livable communities where residents can both grow up and grow old. Recognizing a growing population and shifting demographics, we need to do more to ensure that all neighborhoods and commercial districts are accessible for residents at every stage of their lives.

At this time, the District Department of Transportation is finalizing a new long-range multi-modal transportation plan (moveDC), and agencies citywide have been tasked with sustainability goals to ensure a vibrant, inclusive city. These efforts offer an important opportunity to better consider our aging residents. A heightened focus on older adults and their needs helps ensure that our policies and actions serve and protect the most vulnerable, while creating thriving neighborhoods for all.

The best policies and projects focus on improving the pedestrian environment, making

public transit more accessible and usable, and encouraging innovative, coordinated and efficient specialized transportation services. Specific improvements that should be vigorously pursued include the funding and maintenance of safe sidewalks, crossings, and public amenities; securing funding for critical capital improvements to the region's public transportation system; and establishing a mobility management system that aids older residents in navigating their transportation options.

Finally, new and evolving technologies will continue to play a larger and more important role in transportation than ever before. Innovations in user interface, the growing availability of open data, and an increasingly tech-literate population portend a change in how a majority of the population will access transportation services in the future.

REFERENCES

- ¹ Nicholas Farber et al., “Aging in Place: A State Survey of Livability Policies and Practices (In Brief 190)”, AARP, December 2011, <http://www.aarp.org/content/dam/aarp/livable-communities/learn/research/aging-in-place-a-state-survey-of-livability-policies-and-practices-aarp.pdf>
- ² The Met Life Mature Market Institute and Stanford Center on Longevity, “Livable Community Indicators for Sustainable Aging in Place”, Studies. MetLife, March 2013, <https://www.metlife.com/assets/cao/mmi/publications/studies/2013/mmi-livable-communities-study.pdf>.
- ³ AARP Public Policy Institute. “State of 50+ America: 2006”, Washington, DC: AARP, 2006.
- ⁴ Yuri Cvitkovich and Andrew Wister, “The Importance of Transportation and Prioritization of Environmental Needs to Sustain Well Being Among Older Adults.” *Environment and Behavior* 33, 6 (2001): 809–829.
- ⁵ Daniel J. Foley et al, “Driving Life Expectancy of Persons Aged 70 Years and Older in the United States”, *American Journal of Public Health* 92, 8. (2002)
- ⁶ Tanya Snyder, “How Seniors Get Stuck at Home with No Transit Options”, *Streetsblog USA*, June 14, 2011, <http://usa.streetsblog.org/2011/06/14/how-seniors-get-stuck-at-home-with-no-transit-options/>
- ⁷ John Burgess, ““You Are the New Economic Dynamo,” *AARP Bulletin*, Nov. 2013, 36.
- ⁸ Joy Philips and Caryn S. Thomas, “2012 Population Estimates Briefing Report”, District of Columbia State Data Center, <http://planning.dc.gov/DC/Planning/Planning%20Publication%20Files/OP/State%20Data%20Center/2012%20Population%20Estimates/2012%20DC%20Population%20Estimates%20Fact%20Sheet.pdf>
- ⁹ Rodney Harrell and Ari Houser, “State Housing Profiles 2011”, AARP Public Policy Institute, 2011, http://assets.aarp.org/rgcenter/ppi/liv-com/AARP_Housing2011_Full.pdf
- ¹⁰ U.S. Census Bureau, Population Division, 2012
- ¹¹ Administration on Aging, Administration for Community Living, US Department of Health and Human Services, *A Profile of Older Americans: 2012*, 2012, Washington, DC, http://www.aoa.gov/Aging_Statistics/Profile/2012/docs/2012profile.pdf
- ¹² Harrell and Houser, *State Housing Profiles 2011*
- ¹³ Susan A Shaheen, “Carsharing for Older Populations”, (presentation, Transportation Research Board 90th Annual Meeting, Washington, DC, January 23-27, 2011).
- ¹⁴ Foley et al., “Driving Life Expectancy of Persons Aged 70 Years and Older in the United States”
- ¹⁵ Division of Nutrition, Physical Activity and Obesity, National Center for Chronic Disease Prevention and Health Promotion, “How much physical activity do older adults need?”, *Physical Activity*, Centers for Disease Control, March 27, 2014, <http://www.cdc.gov/physicalactivity/everyone/guidelines/olderadults.html>
- ¹⁶ Rebecca B. Naumann and Laurie F. Beck, “Motor Vehicle Traffic-Related Pedestrian Deaths — United States, 2001–2010”, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, April 19, 2013,

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6215a1.htm>

¹⁷ George Branyan, email message to author, March 18, 2014.

¹⁸ Kochera 2002 as cited in Planning Complete Streets (AARP)

¹⁹ Project for Public Spaces, “Eleven Principles for Turning Public Spaces into Civic Places”, <http://www.pps.org/reference/11principles/>

²⁰ District of Columbia, District Department of Transportation, Action Agenda, 2010, (p 8), http://ddot.dc.gov/sites/default/files/dc/sites/ddot/publication/attachments/ddot_action_agenda_2010.pdf

²¹ James Cheeks et al, “Speed Limit and Safety Nexus Studies for Automated Enforcement Locations in the District of Columbia”, January 15, 2014, http://ddot.dc.gov/sites/default/files/dc/sites/ddot/publication/attachments/Safety_Nexus_Executive_Summary.pdf

²² Committee on the Environment, Transportation and Public Works Budget Hearing on the Department of Transportation, Testimony of Marlene Berlin on behalf of the D.C. Senior Advisory Coalition, April 25, 2011, District of Columbia.

²³ Councilmember Mary M. Cheh, Report and Recommendations of the Committee on Transportation and the Environment on the Fiscal Year 2015 Budget for Agencies under its Purview, Fiscal Year 2015 Committee Budget Report, May 15, 2014

²⁴ Robert E. Griffiths, “Changes in Regional Commuter Patterns 2000-2011”, Metropolitan Washington Council of Governments, May 15, 2013, <http://www.mwcog.org/uploads/committee-documents/bF1bWF5b20130515091235.pdf>

²⁵ District Department of Transportation Traffic Safety Report Statistics (2002-2004) as cited in Health Resources in Action, Washington DC: Automated Speed Enforcement. A Community Speed Reduction Case Study, December 2013, http://hria.org/uploads/catalogerfiles/2013-speed-reduction-resources/DCCaseStudy_120313.pdf

²⁶ Cheeks et al, “Speed Limit and Safety Nexus Studies”

²⁷ Age-Friendly DC, “Community Consultations Summary”, November 7, 2013, Washington, DC.

²⁸ David Versel, Trends and Outlook for Transit Commuting in the Washington Metropolitan Area, Working Paper 2013-11, http://cra.gmu.edu/pdfs/CRA2013-11_DVersel.pdf

²⁹ Michael D. Peck, “Barriers to Using Fixed Route Public Transit for Older Adults.” Mineta Transportation Institute, June 2010, http://transweb.sjsu.edu/MTIportal/research/publications/documents/2402_09-16.pdf

³⁰ WMATA Customer Service and Operations Committee, “Improving Accessibility of Regional Bus Stops and Pathways”(presentation, WMATA Board Meeting, Washington, DC, March 13, 2014), http://www.wmata.com/about_metro/board_of_directors/board_docs/031314_3ABusStopAccessibility20140313.pdf http://www.wmata.com/about_metro/board_of_directors/board_docs/031314_3ABusStopAccessibility20140313.pdf

³¹ Washington Metropolitan Area Transit Authority, Gaining Momentum: FY 2015 Proposed Budget, December 5, 2013, http://wmata.com/about_metro/docs/Proposed%20Fiscal%20Year%202015%20Annual%20Budget.pdf

³² The Beverly Foundation, Supplemental Transportation for Seniors, June 2001, <https://www.aaafoundation.org/sites/default/files/stp.pdf>

³³ WMATA Proposed FY14 Budget, accessible at: http://www.wmata.com/about_metro/docs/FY2014%20Proposed%20Annual%20Budget%20Updated%20011113.pdf

³⁴ Beverly Foundation, Supplemental Transportation Programs for Seniors

³⁵ Said, Carolyn, “As Uber, Lyft, Sidecar grow, so do concerns of disabled,” SFGate, February 25, 2014, <http://www.sfgate.com/news/article/As-Uber-Lyft-Sidecar-grow-so-do-concerns-of-5240889.php>

³⁶ Henrehan, John, “Arlington cab drivers park, march for a better deal,” Fox 5, September 10, 2013, <http://www.myfoxdc.com/story/23397121/arlington-cab-drivers-park-march-for-a-better-deal#axzz2zr5vDWwc>

- ³⁷ Orca Planning, *Toward an Age Friendly Portland*, 2013, <https://www.portlandoregon.gov/bps/article/425455>
- ³⁸ Millie DeAnda and Mary Grinsfelder, “Building Livable Communities One Ride at a Time”, Dallas MyRide, (presentation, National Association of Area Agencies on Aging, July 30, 2013), <http://www.n4a.org/files/programs/ncst/dallas-aaa.pdf>
- ³⁹ Jeffery Tumlin, *Sustainable Transportation Planning*, (New York: Wiley, 2012).
- ⁴⁰ Tumlin, *Sustainable Transportation Planning*
- ⁴¹ Susan Shaheen, *Carsharing for Older Populations*
- ⁴² Meeting of the DC Senior Advisory Coalition on November 21, 2013 at Home Care Partners, Washington, DC
- ⁴³ Mike Debonis, “MetroAccess riders could start taking D.C. taxis under new proposal”, *The Washington Post*. June 11, 2014, www.washingtonpost.com/blogs/mike-debonis/wp/2014/06/11/metroaccess-riders-could-start-taking-d-c-taxis-under-new-proposal/
- ⁴⁴ District of Columbia Taxicab Commission, Notice of Proposed Rulemaking, June 11, 2014, http://dctaxi.dc.gov/sites/default/files/dc/sites/dc%20taxi/event_content/attachments/Chapter%2018%20-%20Wheelchair%20Accessible%20Paratransit%20Taxicab%20Service%20%286-9-14%29.pdf
- ⁴⁵ Ride Service May Pose Risk to Passengers, By Tammy Leitner and Lisa Capitanini, NBC5, April 25, 2014, <http://www.nbcchicago.com/investigations/Ride-Service-May-Pose-Risk-to-Passengers-256639641.html#ixzz32TcesJbl>
- ⁴⁶ James Corless, “The Road Not Yet Traveled: Why Millennials and Older Adults Are Reshaping U.S. Transportation Demand and How We Need to Prepare for It”, *Out of Many, One: Uniting the Changing Faces of America*, 2013, pp 42-49
- ⁴⁷ Pew Research Center, “Mobile Technology Fact Sheet”, Pew Charitable Trusts, 2014, <http://pewinternet.org/Commentary/2012/February/Pew-Internet-Mobile.aspx>
- ⁴⁸ Kathryn Zickuhr and Mary Madden, “Older Adults and Internet Use”, Pew Charitable Trusts, June 6, 2012, http://www.pewinternet.org/files/old-media/Files/Reports/2012/PIP_Older_adults_and_internet_use.pdf
- ⁴⁹ Margaret Polanyi, Margaret., “App Lets Seniors Rate ‘Age-Friendly’ Places”, *Futurity*. December 14, 2012, <http://www.futurity.org/app-lets-seniors-rate-%E2%80%98age-friendly%E2%80%99-places/>. (accessed April 16, 2014).
- ⁵⁰ U.S. Department of Transportation, Federal Transit Administration, *Attracting Senior Drivers to Public Transportation: Issues and Concerns*, January 2010, http://www.fta.dot.gov/documents/TRANSPO_Attracting_Seniors_Public_Transportation_Final_Report.pdf

BIBLIOGRAPHY

American Public Transportation Association, “Design of On-street Transit Stops and Access from Surrounding Areas”, March 2012, <http://www.apta.com/resources/hottopics/sustainability/Documents/APTA%20SUDS-RP-UD-005-12%20On%20Street%20Transit%20Stops.pdf>

DDOT, moveDC Draft Policy Guide, December 2013. http://www.wemovedc.org/resources/moveDC_DRAFT-Policy-Guide_2013-12-04.pdf

Mueller, Davita, ADA Bus Stop Accessibility Study Report, City of Tucson, Department of Transportation, Transit Services Division, October 2009.

Office of Planning (OP) and the District Department of the Environment (DDOE), Sustainable DC Plan 2012, http://sustainable.dc.gov/sites/default/files/dc/sites/sustainable/page_content/attachments/DCS-008%20Report%20508.3j.pdf

US Department of Transportation, Federal Highway Administration, PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System, September 2004, Washington, DC.

Transportation Alternatives, Walk the Walk: Connecting Senior Pedestrian Safety to Seniors in New York City, 2009, New York, NY.

US Department of Transportation, Federal Highway Administration, How to Develop a Pedestrian Safety Action Plan, February 2006, Washington, DC.



Coalition for Smarter Growth
DC • MD • VA