

Creating Age Friendly Streets

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April 22, 2019

Housekeeping

⇒ **Problems with audio?**

Dial into the phone line instead of using “mic & speakers”

⇒ **Webinar issues?**

Re-Load the webpage and log back into the webinar. Or send note of an issue through the Question box.

⇒ **Questions?**

Submit your questions at any time in the Questions box.

Archive and Certificates

Archive posted at www.pedbikeinfo.org/webinars

- ⇒ Copy of presentations
- ⇒ Recording (within 1-2 days)
- ⇒ Links to resources

Follow-up email will include...

- ⇒ Link to certificate of attendance
- ⇒ Information about webinar archive

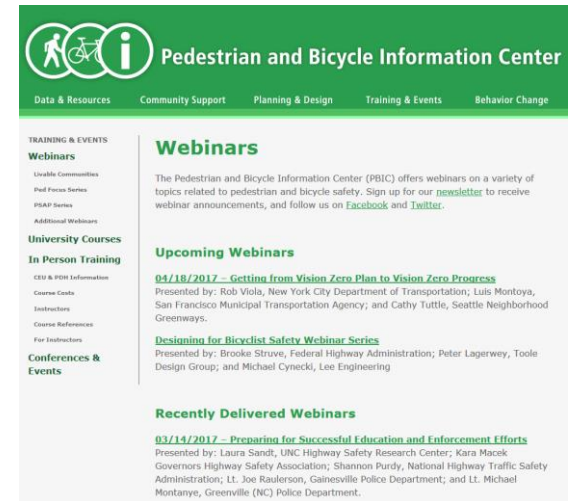
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The screenshot shows the PBIC website's 'Webinars' page. The header includes the PBIC logo and navigation links: Data & Resources, Community Support, Planning & Design, Training & Events, and Behavior Change. The main content area is titled 'Webinars' and includes a brief description of the center's offerings, a list of 'Upcoming Webinars' (e.g., '04/18/2017 - Getting from Vision Zero Plan to Vision Zero Progress'), and a list of 'Recently Delivered Webinars' (e.g., '03/14/2017 - Preparing for Successful Education and Enforcement Efforts').



The screenshot shows the PBIC Facebook page. The header features the PBIC logo and the text 'Pedestrian and Bicycle Information Center' with the website URL 'www.pedbikeinfo.org'. The page includes a 'Home' tab, a 'Photos' section with a post titled 'VISION ZERO STRATEGIES SERIES', and a 'Government Organization' section with a mission statement and contact information.

Upcoming Webinars

Creating Age-Friendly Streets (Part II)

Jana Lynott
AARP
**James
Shahamiri**
San Francisco
Municipal
Transportation
Agency



4/29, 2:00 – 3:30 PM Eastern

Creating Active Routes to Everyday Destinations

**Ken Rose
and Chris
Kotchtitzky**
Centers for
Disease
Control and
Prevention
TJ McCourt
City of Raleigh



5/2, 1:00 – 2:30 PM Eastern

Visit www.pedbikeinfo.org to learn more and register



Transportation

Transportation is the vital link that connects older adults to social activity, economic opportunity, and community services that support their independence.

Challenge: Pedestrian Safety

America's roads ... bore casualties around the clock: A death every 15 minutes. A trip to the emergency room every 12.6 seconds. An injury serious enough for a medical consult every 7.3 seconds. And there was a crash of some kind, somewhere—involving death, injury, or property damage, or a mix of all three—every 2.8 seconds. It's happening right now: in the time it takes to read this sentence, two more car crashes occurred on America's roads and streets



AARP
Real Possibilities

Source: Edward Hume, "Door to Door: The Magnificent, Maddening, Mysterious World of Transportation"

Pedestrian Deaths

Our cities are dangerous



Source: Smart Growth America

Pedestrian Deaths

Our cities are dangerous

13

people struck and killed by a car
while walking every day



AARP[®]
Real Possibilities

Source: Smart Growth America

Pedestrian Deaths

Our cities are dangerous

+50%

individuals 65 years or older are
50 percent more likely than
younger individuals to be struck
and killed by a car while walking

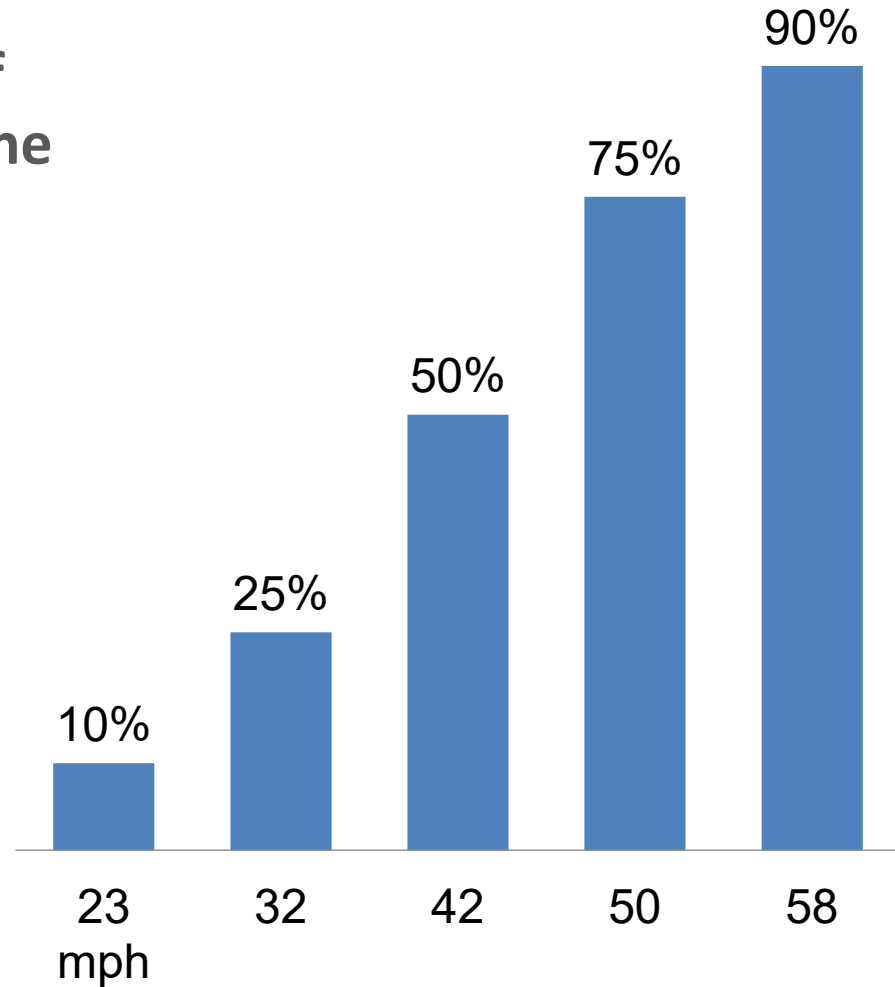


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Real Possibilities

Source: Smart Growth America

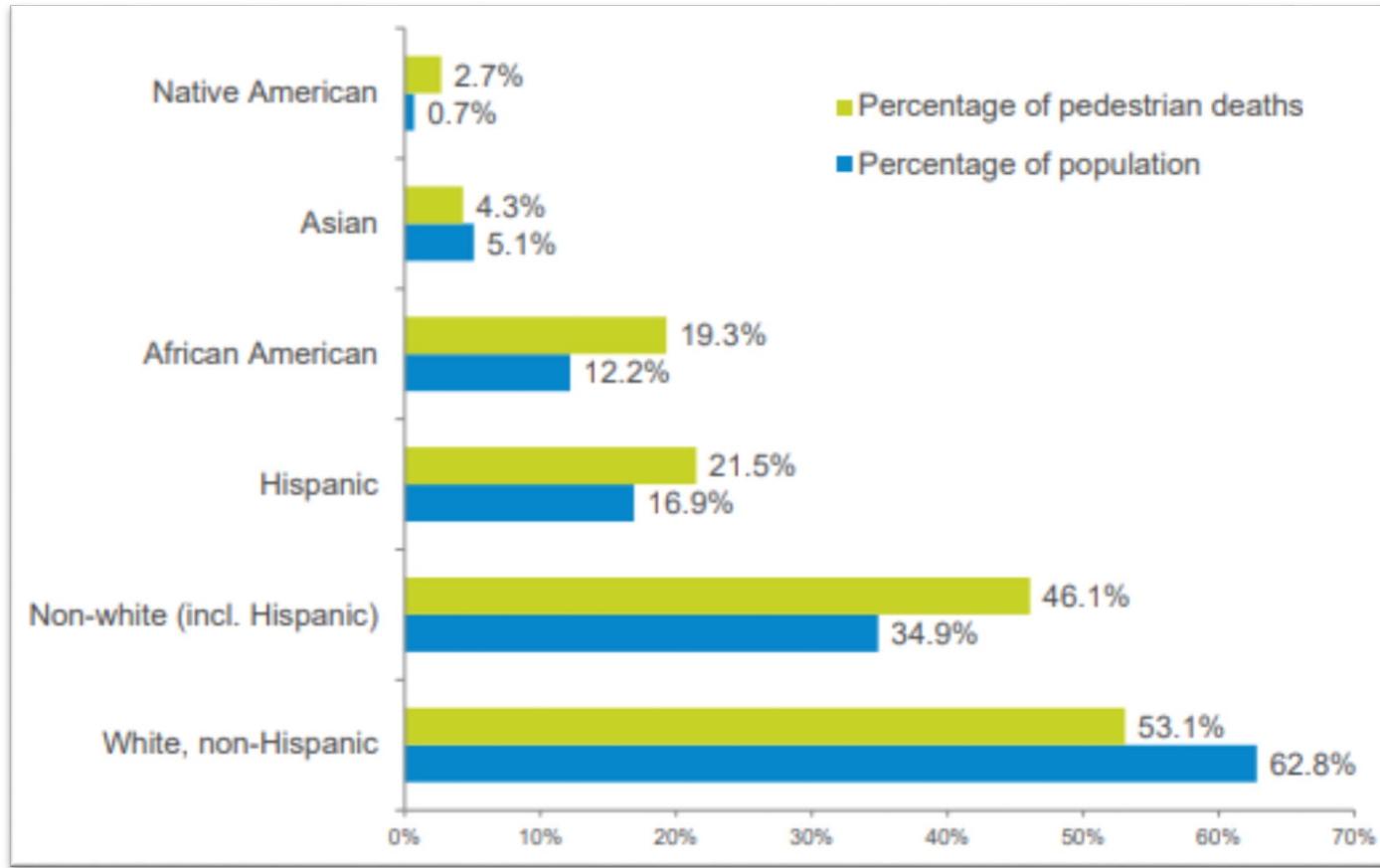
Challenge: Pedestrian Safety

Pedestrians' average risk of death by vehicle speed in the United States



Pedestrian Deaths

Pedestrian deaths by race/ethnicity relative to U.S. population, 2005-2014



Pedestrian Deaths

This is happening at a time when the country's top health experts are encouraging Americans to walk more.



Most adults drive to get around in their community

Q

How do you usually get around your community for things like shopping, visiting the doctor, running errands, or other things?

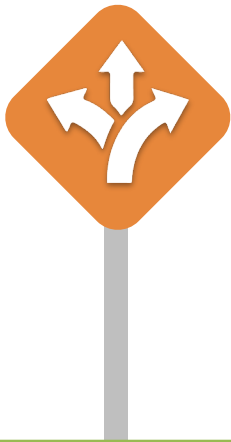
	All	Age 18-49	Age 50+	Age 65+
Drive	84%	79%	90%	88%
Walk	38%	43%	32%	28%
Have others drive them	27%	30%	24%	28%
Public transportation	15%	19%	10%	7%
Bike	13%	16%	10%	6%
Ride share service	10%	15%	3%	2%
Taxi	5%	7%	4%	3%
Special transportation	3%	2%	4%	4%
Other	3%	4%	2%	2%



Streets and Sideways

8 of 10
ADULTS

say well-maintained, safe and accessible streets, and easy to read traffic signs are extremely or very important community features.



Source: 2018 AARP Home and Community Preferences Survey: A National Survey of Adults Age 18+

CHART DETAILS



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Transportation Planning

The stakes are high

Effective transportation systems allow us to live our lives

More than 35,000 vehicle-related fatalities in 2015

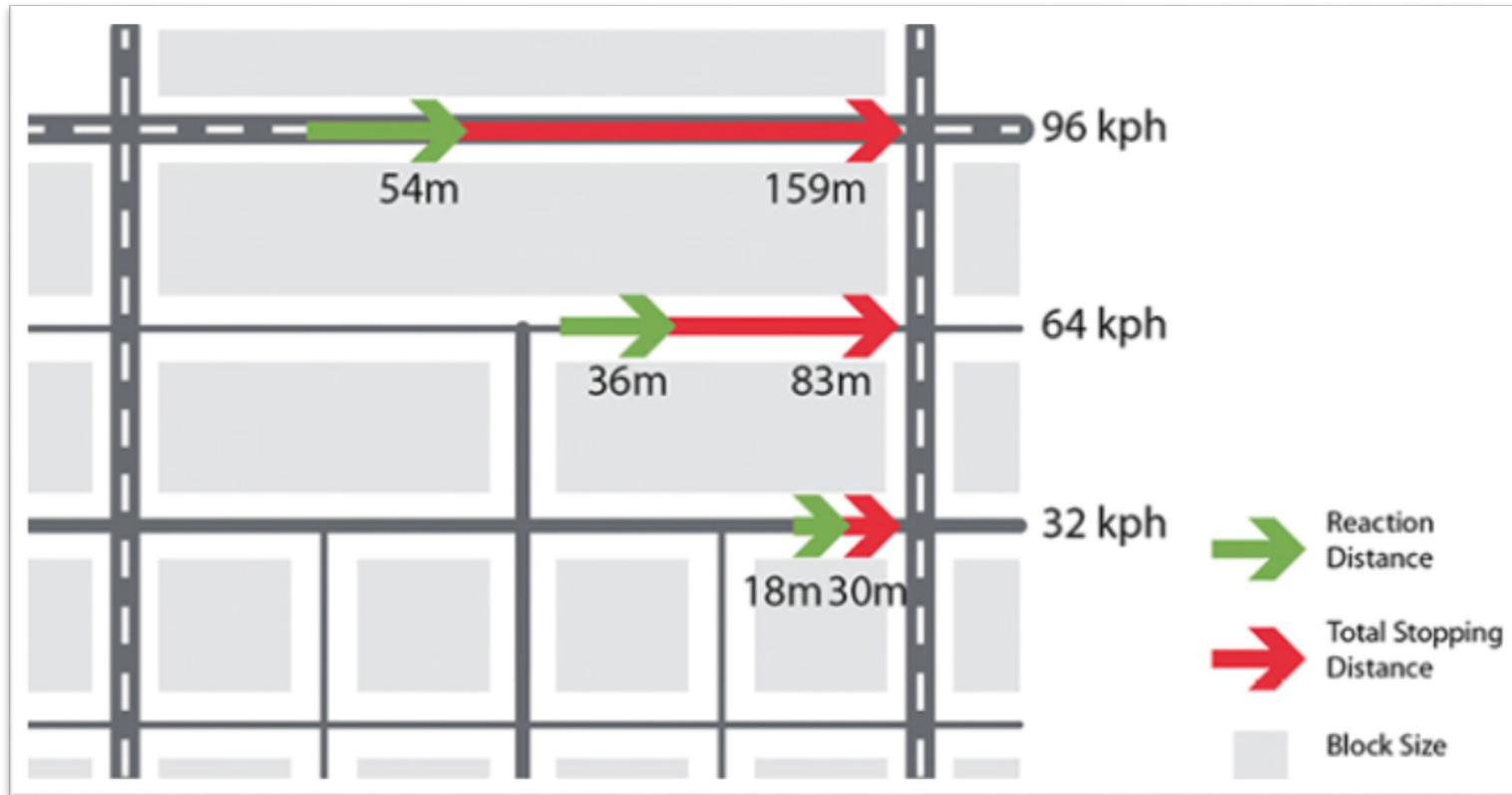


Challenge: street design



What makes a street dangerous?

Speed limit.



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Graphic: World Resources Institute

What makes a street dangerous?

Wide lanes on wide streets.



New York City, New York



AARP
Real Possibilities

Graphic: New York City Department of Transportation

What makes a street dangerous?

Width of individual lanes.

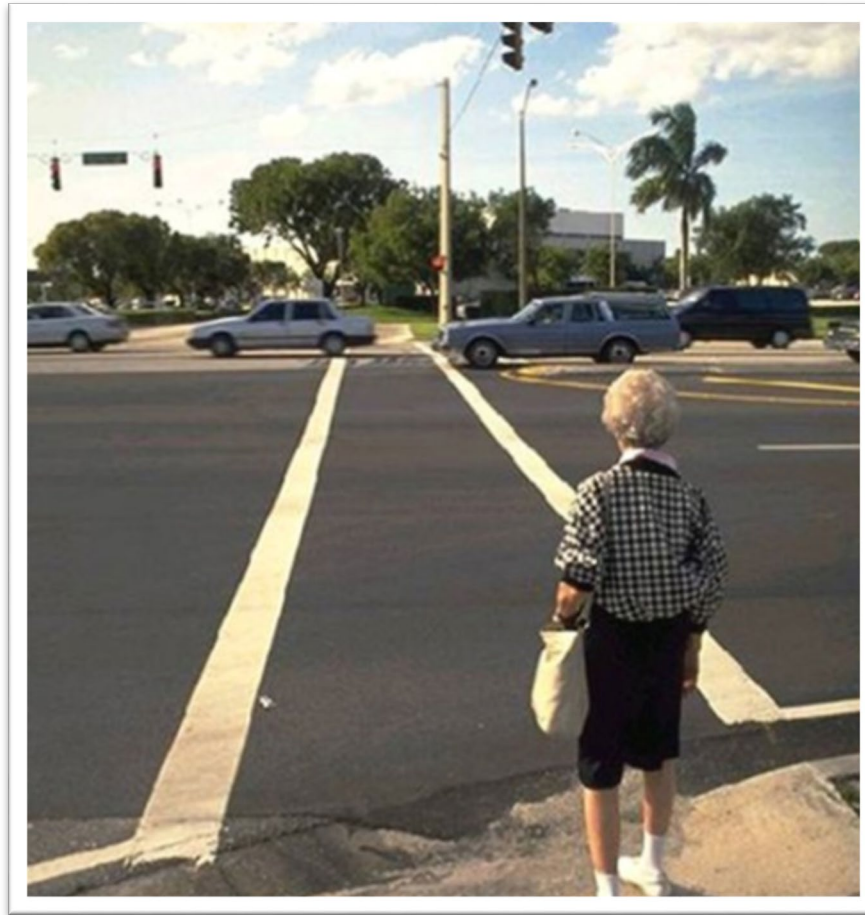


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Photos: AARP via Getty Images

What makes a street dangerous?

Long crosswalks.



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Photo: National Complete Streets Coalition

What makes a street dangerous?

Crosswalk visibility.



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Real Possibilities

Photo: National Complete Streets Coalition

Why are our streets so dangerous?

Turn on red.

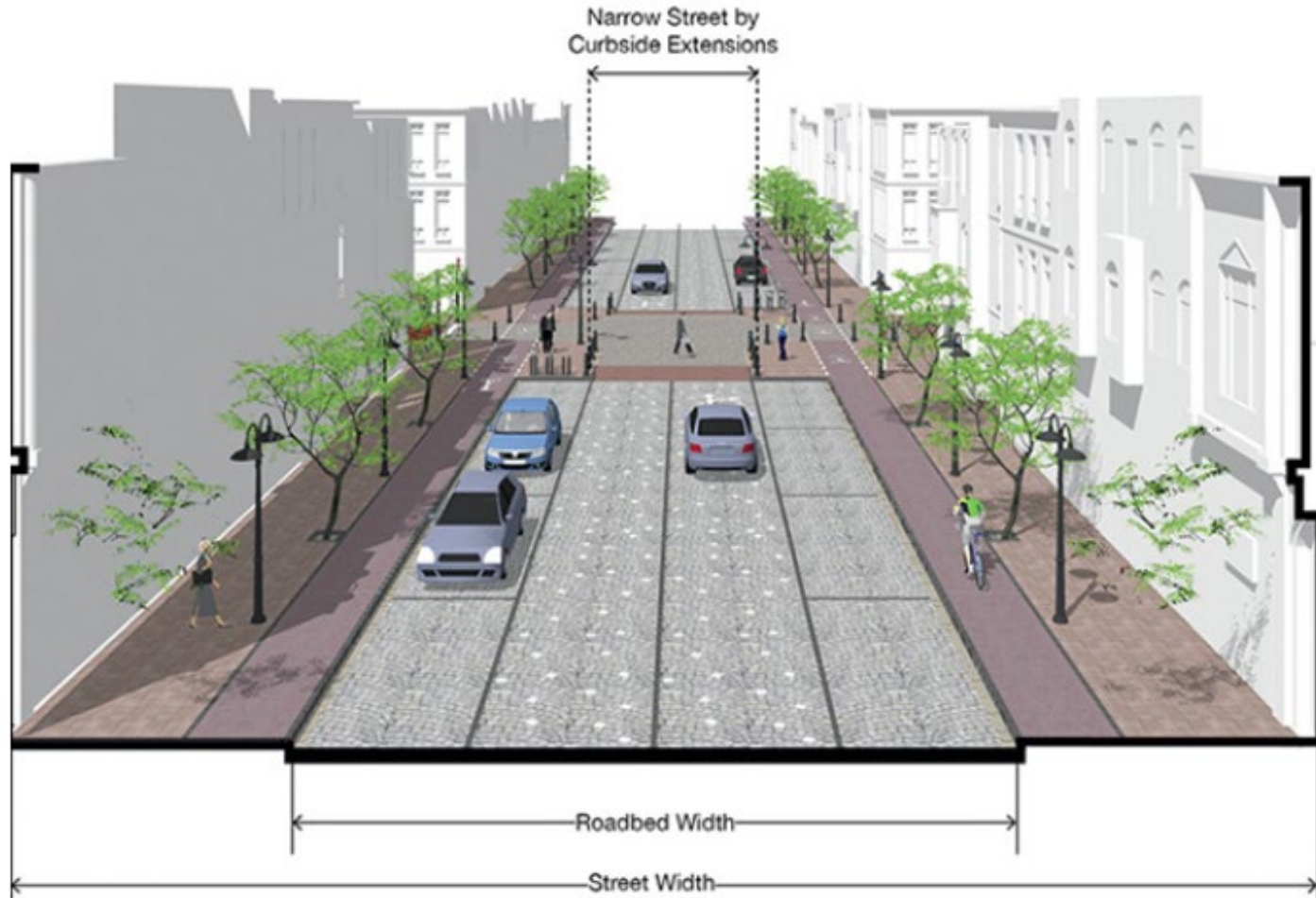


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Photo: Melissa Stanton, AARP Livable Communities

Opportunity: smaller lanes

Reduce street and lane size



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Real Possibilities

Graphic: World Resources Institute

Opportunity: Curb Extensions

Extend sidewalk to improve pedestrian visibility.

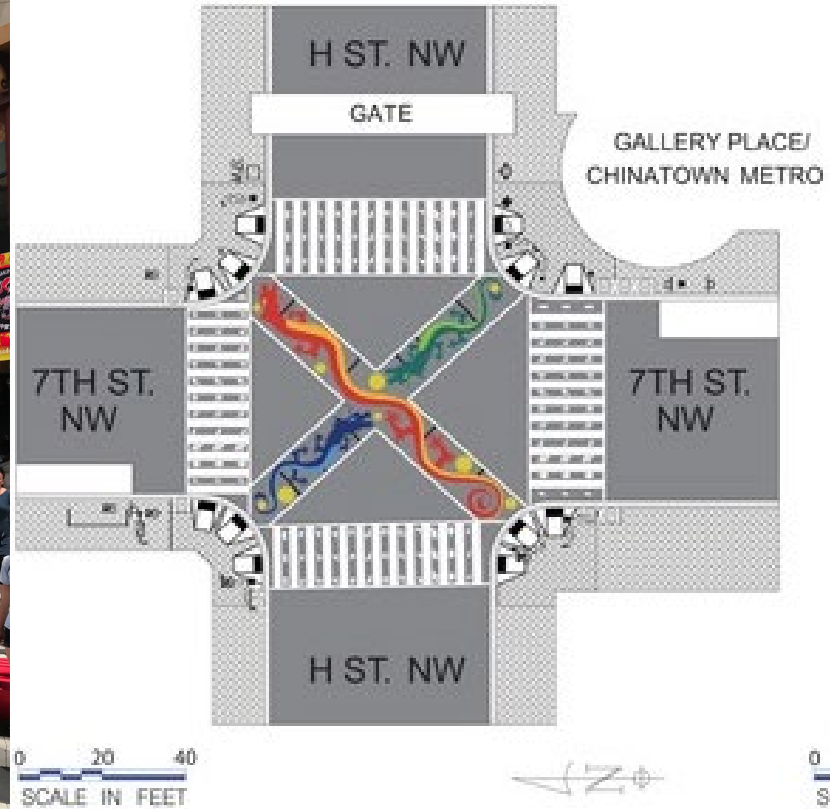


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Graphic: World Resources Institute

Opportunity: All-pedestrian crossing

Pedestrians walk in any direction.



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Photo: Left, Geoff Alexander, AARP Livable Communities.
Right, Greater Greater Washington

Opportunity: Staggered Timing of Traffic Lights



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Photo: Geoff Alexander, AARP Livable Communities

Opportunity: Raised Intersections

Raised crossings are elevations of the road that slow cars as pedestrians cross.



Opportunity: Traffic Circles

Cars must slow down to avoid hitting island.



Opportunity: Lighter, Cheaper, Faster



In a matter of hours, this intersection in Fort Worth, Texas, became considerably safer.



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Photo: AARP Livable Communities

Opportunity: complete streets



Injuries are prevented when cars, cyclists and walkers do not compete for space.



AARP
Real Possibilities

Source:

Opportunity: complete streets



Injuries are prevented when cars, cyclists and walkers do not compete for space.



Opportunity: Road Diets



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Real Possibilities

Source: Jeff Speck

Video: [Road Diets](#)

Opportunity: Designing a Safer Street



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Source: Vox

Transit-Oriented Development



**Transit-Oriented Housing
Helps Older Adults Live
Independent Lives**



AARP
Real Possibilities

Source: Jana Lynott, AARP Public Policy Institute

Transit-Oriented Development

TOD Individual Benefits

Enhanced transportation and housing choice



Greater connectivity to local and regional destinations, including neighborhood services, healthcare & jobs



Improved health from more active lifestyles



TOD Community Benefits



Local economic development



Higher transit ridership



Less traffic congestion and cleaner air



Many have heard of ride-share companies but few are frequent users.

93% Have heard of rideshare companies

43% Have used a rideshare service



55%

of non-riders are not likely to use rideshare in the next year



RIDERS

5% use weekly
19% use monthly
34% a few times a year
41% not regular users

68% personal use

6% for business

26% for both

70%

Very satisfied with their experience

Source: 2018 AARP Home and Community Preferences Survey: A National Survey of Adults Age 18+

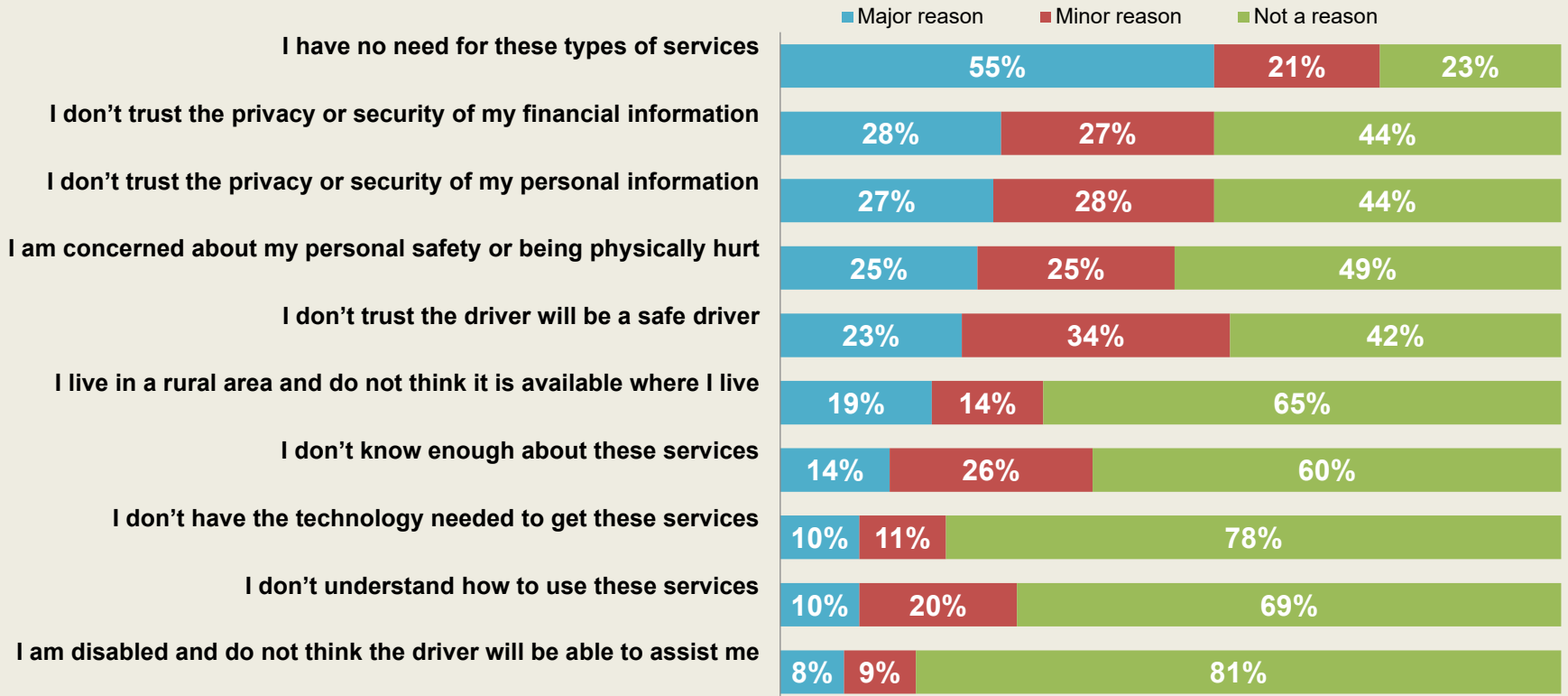


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A lack of need and concerns about privacy and safety are the top reasons for not using a ride-share.

Q

Following is a list of reasons why some people might NOT use ride-share services such as Uber or Lyft. For you personally, choose whether each reason is a major reason, a minor reason, or not a reason?



Source: 2018 AARP Home and Community Preferences Survey: A National Survey of Adults Age 18+



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Challenge: Demand-Response Transportation & Disability Compliance

Uber, Lyft and other ride-hailing apps are 'useless' for disabled riders, NYC advocates say

By Fredrick Kunkle
May 26 at 7:45 AM ET



A New York City advocacy group's report says Uber, Lyft and other ride-hailing services lack enough vehicles that are equipped to handle wheelchairs and scooters for disabled riders. (Gene J. Puskar/AP)

Chicago Tribune

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Uber app now allows wheelchair users to summon rides



A disability rights nonprofit has sued Uber, claiming the ride-hailing service discriminates against New York City riders with disabilities by not providing enough access to vehicles that can accommodate wheelchairs. (Eric Rishem / AP)



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Source: Washington Post, Chicago Tribune

New Technologies



Electric Bikes

Electric Scooters



AARP
Real Possibilities

Source: NBC

Highly Automated Vehicles

"While blind people get around by using mass transit and other things, we don't have the flexibility the autonomous vehicles will present."

-John G. Paré Jr., National Federation of the Blind

Transportation

Driverless cars promise far greater mobility for the elderly and people with disabilities



Steve Mahan, who is legally blind, was the first non-Google employee to ride alone in the company's gum-drop-shaped autonomous car. The ride was in October 2015 in Austin. Advocates for the elderly and people with disabilities say the technology could give them unprecedented freedom. (Waymo)

By Ashley Halsey III

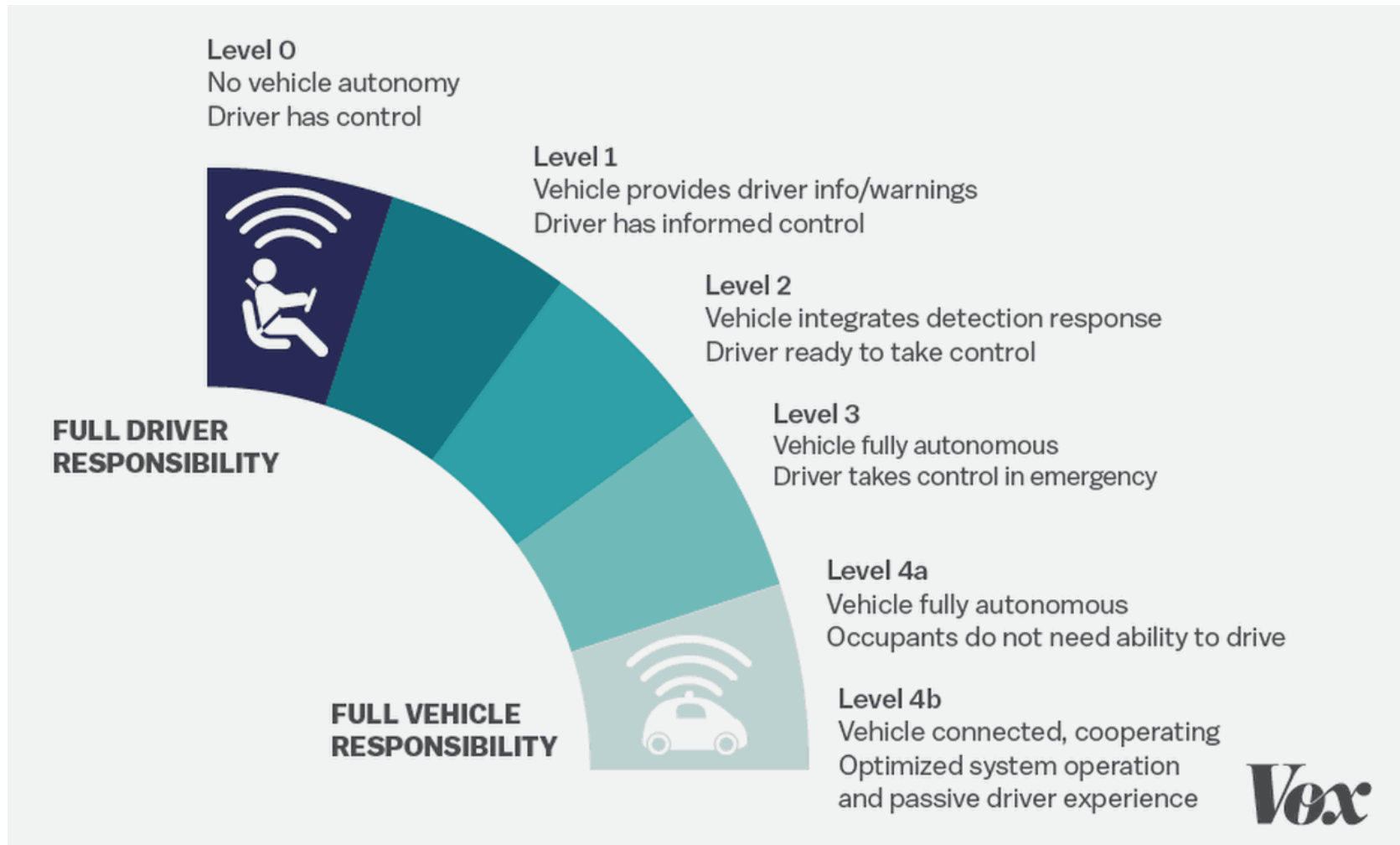
November 23, 2017 at 4:18 PM ET



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Real Possibilities

Source: *Washington Post*

Highly Automated Vehicles



Highly Automated Vehicles

Organization	Year	Type of Organization	Automation Level
Ford Motor Company	2021	Vehicle Manufacturer	Level 4
Uber	2021	Transportation Network Company	Unspecified
Volvo	2021	Vehicle Manufacturer	Level 4
General Motors	2020	Vehicle Manufacturer	Unspecified
Tesla	2018	Vehicle Manufacturer	Level 3 or 4
Google	2020	Technology Company	Level 4
Victoria Transport Institute	2020-2030	Research Organization	Unspecified
National Association of City Transportation Officials	2020	Association	Level 4
IHS Markit	2020	Market Research Company	Level 4 and 5
ABI Research	2021	Market Research Company	Level 4 and 5
Juniper Research	2025	Market Research Company	Unspecified



Highly Automated Vehicles

The question you want to ask:

“When will self-driving cars take over?”

Answer: wrong question.

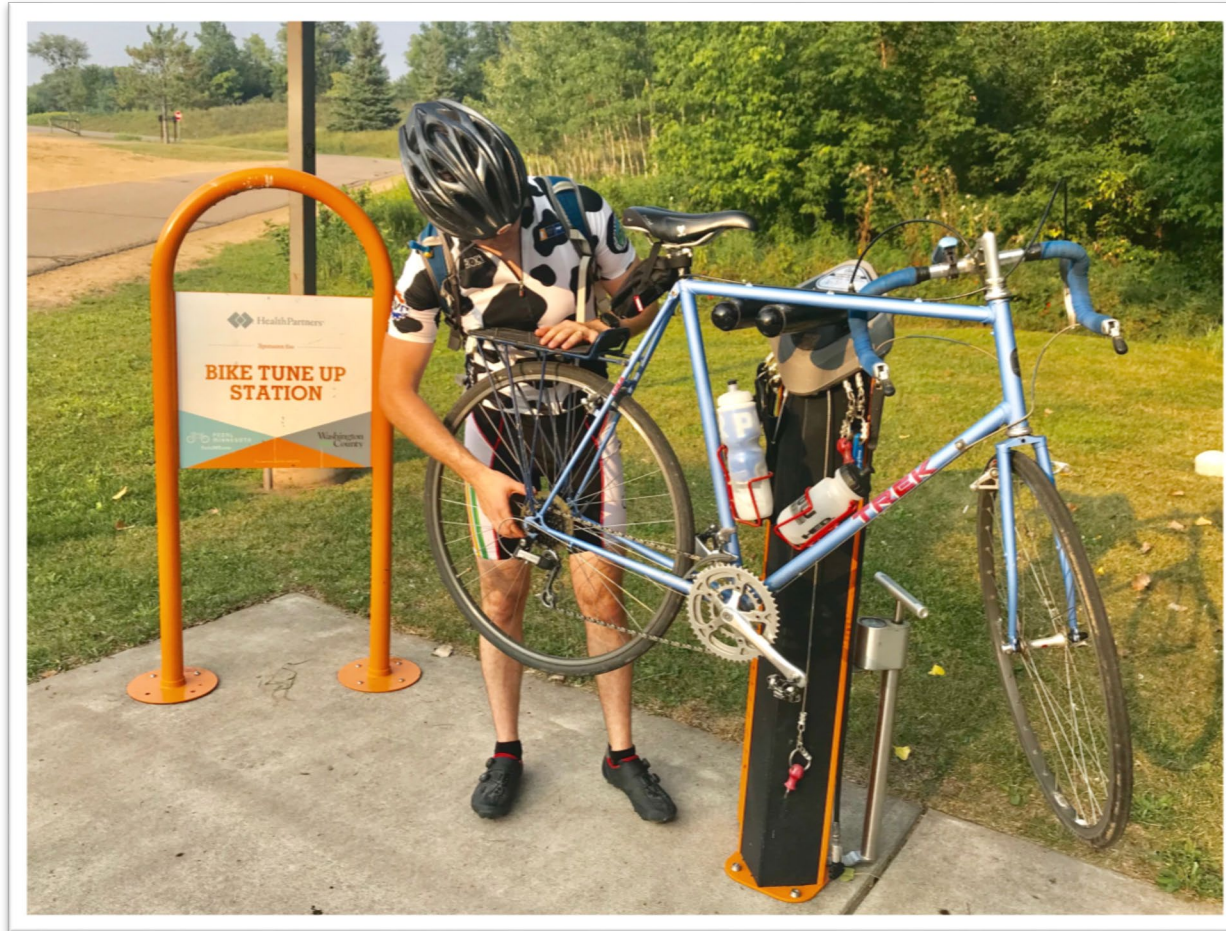
How can technology support our vision for the future?



Source:

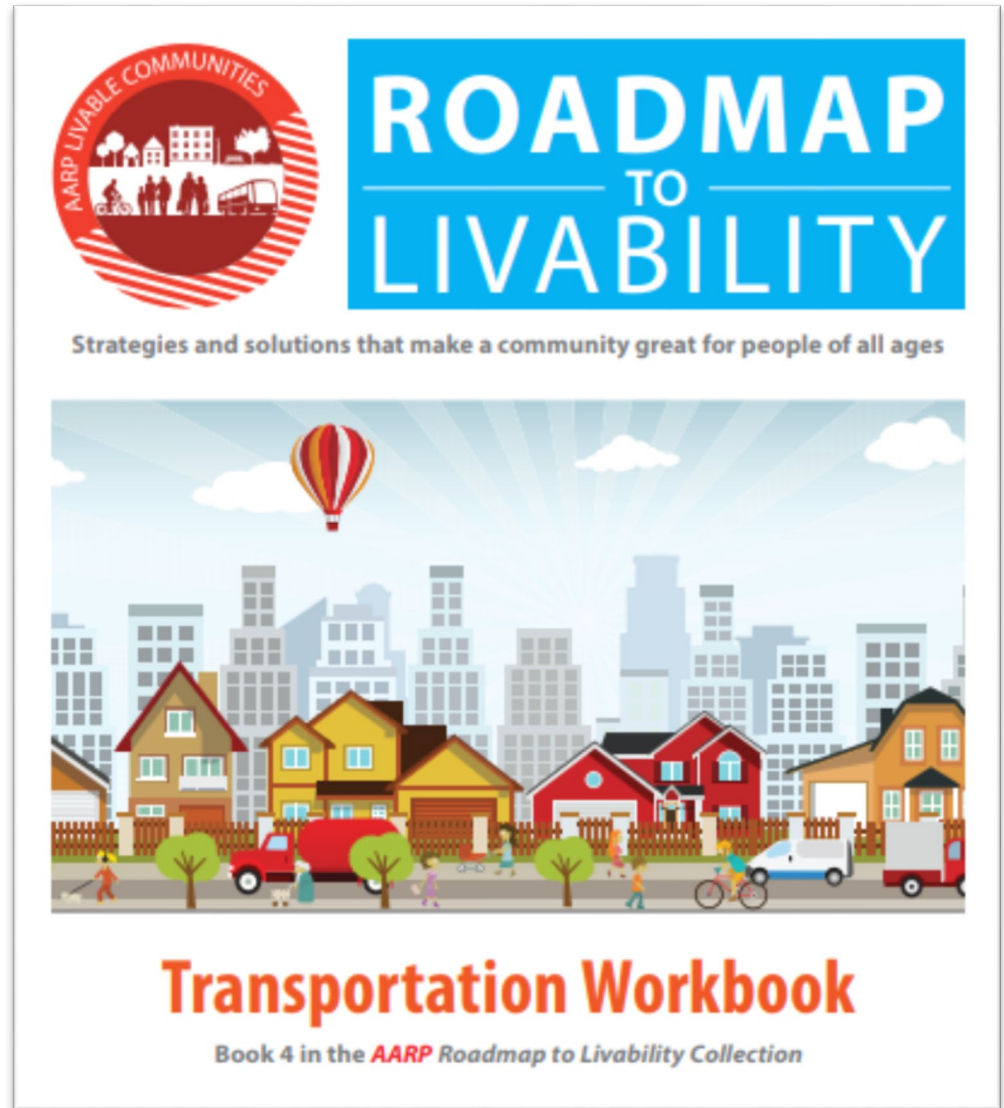
Bike Infrastructure

Bike Tune Up Station



Where do I start?

Every community is different and each has its own goals for transportation. This AARP workbook can be used to guide a wide array of efforts to improve your transportation system.



Roadmap to Livability: Transportation Workbook

- Assess strengths
- Identify partners
- Create an action strategy
- Implement metrics

STEP 2

➤ Invite Stakeholders

A successful livable communities initiative is based on broad collaboration. A crucial step in developing an initiative is to find, inspire and equip a diverse group of stakeholders to become engaged.

Begin by creating a list of people, groups or organizations that might be interested in or concerned with the outcome of the work. The team probably won't recruit someone in each sector. Use this as a guide to think about how to broaden the base of community support.

Use the *Circles of Involvement Exercise* described on pages 16 and 17 in Book 1, the *Roadmap to Livability*, to brainstorm about people who can be involved in the work.

For ideas about national partners and resources, see Appendix 1.

Worksheet: Make a List

Beneficiaries (Who benefits from the work? Who's the customer? On whose behalf is the work being done?)

2

Volunteer Sector (Examples: faith community, nonprofits, fraternal organizations)

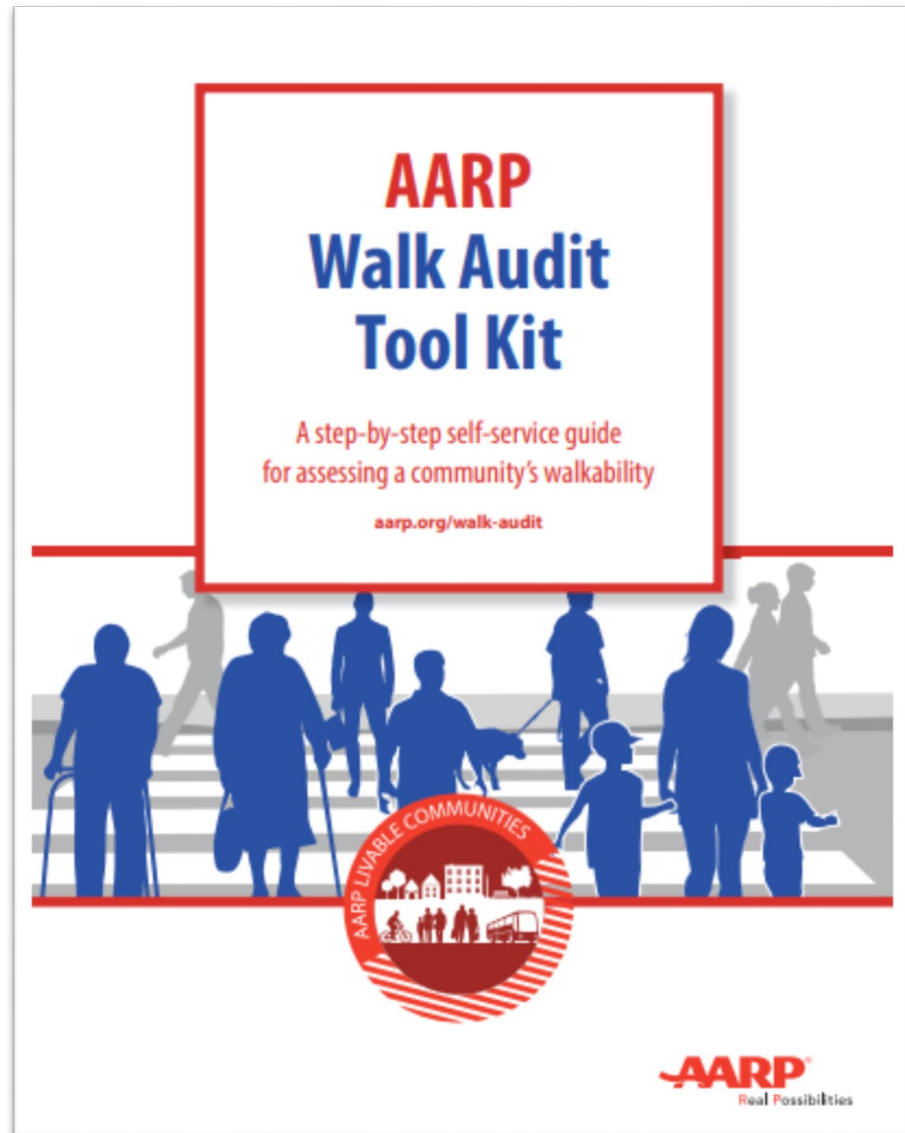
Public Sector (Examples: local or regional government, education, public figures)



AARP Walk Audit Tool Kit

Why complete a walk audit?

- Create a pedestrian-friendly environment
- Boost social interactions amongst neighbors
- Reduce traffic congestion and pollution



Graphic: AARP Livable Communities



A step-by-step process: Example 1

Assignment #3AARP Walk Audit Tool Kit

▶ DRIVER BEHAVIOR

Complete one sheet for the entire walkable area on your walk audit map.

Day and Date of week: _____

Time observations began: _____ AM | PM Time observations ended: _____ AM | PM

DIRECTIONS: Place a ✓ next to any items that are a problem for pedestrians and note:

- What might be especially problematic for a child, older adult or person with disabilities?
- What is the exact location(s) of each problem? Record a landmark or side of street (North, South, East or West) on the line to the right of each item you check.

PROBLEMS FOR PEDESTRIANS	LOCATION
<input type="checkbox"/> Drivers do not stop at stop signs	_____
<input type="checkbox"/> Drivers do not obey traffic signals	_____
<input type="checkbox"/> Drivers appear to be speeding	_____
<input type="checkbox"/> Drivers don't yield to pedestrians, especially at right turns	_____
<input type="checkbox"/> Drivers do not stop behind the crosswalk	_____
<input type="checkbox"/> Drivers don't look when leaving or backing out of driveways	_____
<input type="checkbox"/> Drivers make unexpected turns/maneuvers	_____
<input type="checkbox"/> Other issues and observations: _____	_____
_____	_____



A step-by-step process: Example 2

Assignment #6 AARP Walk Audit Tool Kit

▶ RATINGS and OBSERVATIONS

Now it's time to tally your scores from each observation section.

DIRECTIONS: Place a ✓ next to each rating from the previous sections.
If you observed more than one location, record the average of your observations.

STEP	RATING			
Crossing Streets and Intersections	___ Excellent	___ Good	___ Fair	___ Poor
Sidewalks	___ Excellent	___ Good	___ Fair	___ Poor
Driver Behavior	___ Excellent	___ Good	___ Fair	___ Poor
Safety	___ Excellent	___ Good	___ Fair	___ Poor
Comfort and Appeal	___ Excellent	___ Good	___ Fair	___ Poor
<hr/>				
TOTALS: ___ Excellent ___ Good ___ Fair ___ Poor				

Your overall rating will be more than just your check mark total. Think about your observations as a whole. Were some areas much better or worse than others? For example, the sidewalks might be good for walking, but intersections might be poor for crossing the street. This might justify reducing the overall rating of your walk audit area. With this in mind:

Overall rating of the entire walk audit area: ___ Excellent ___ Good ___ Fair ___ Poor

Additional comments about what works well and what needs improvement:



AARP Website



Join

Renew

Help

Member Benefits



Rewards for Good

Register | Login



Transportation

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Reconnecting Small Town America by Bus

New federal transit rules spur investment



Expanding Specialized Transportation

New opportunities under the Affordable Care Act



Planning Complete Streets for an Aging America



Communities Are Embracing Development Near Transit



Looking for more information?

Graphic: AARP Public Policy Institute

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National Center for Injury Prevention and Control



Older Adults – Falls and Motor Vehicle Crashes Involving Pedestrians

Laurie Beck, MPH

Epidemiologist

National Center for Injury Prevention and Control

Centers for Disease Control and Prevention

Pedestrian & Bicycle Information Center Webinar

April 22, 2019

Overview

- Define mobility
- Review falls risks for older adults
- Review motor vehicle crash risks for older adult pedestrians
- Discuss CDC products related to older adult mobility
 - STEADI (falls)
 - MyMobility Plan (transportation and falls)



Mobility

- Mobility is being able to safely and reliably go
 - Where you want to go
 - When you want to go
 - How you want to get there
- Mobility-related injuries are the leading cause of injury and injury death for older adults (65+ years)
 - Falls
 - Motor vehicle crashes



Mobility and Aging

- Our mobility might decrease as we age due to:
 - Physical changes
 - Increased chronic conditions
 - Increased medicine use or changes in the way the body metabolizes medicines

- Decreased mobility can result in:
 - Declining health
 - Social isolation



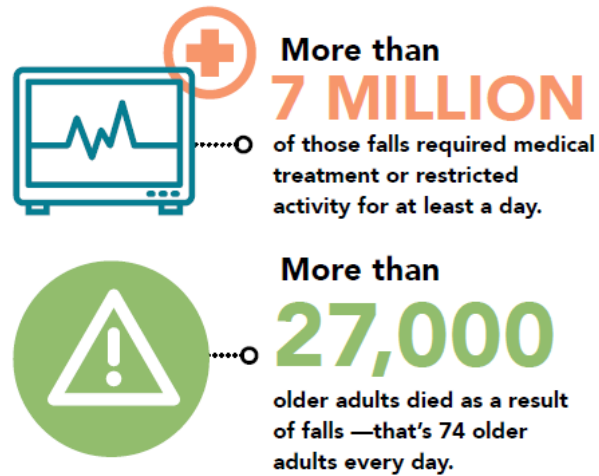
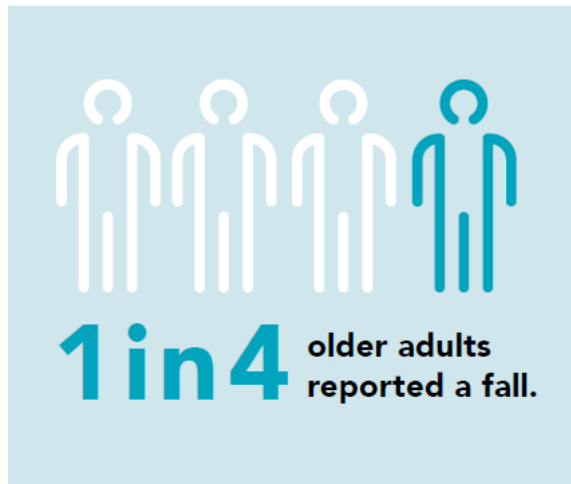
Older Adult Falls

Falls Are Common

The Concern:

Every second an older American falls. These falls threaten the health and independence of older adults and result in high medical costs across the U.S. healthcare system.

IN 2014:

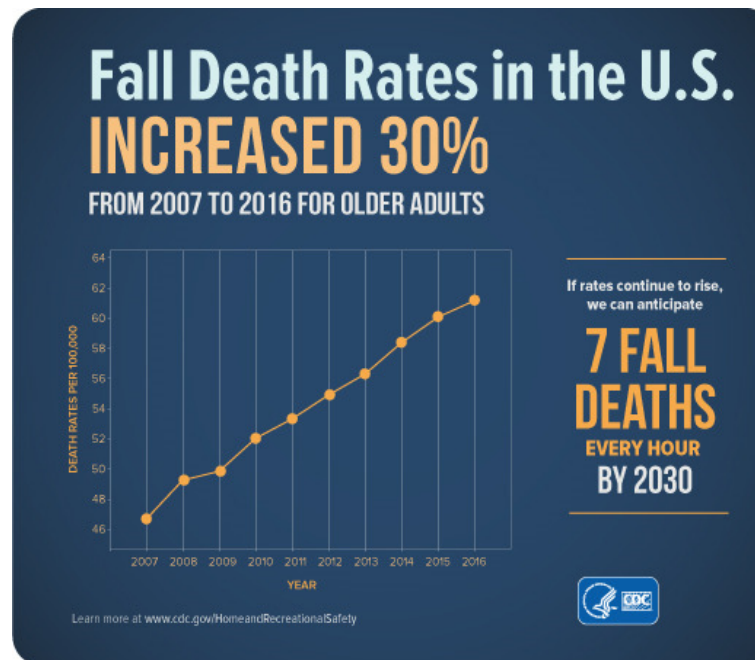


Source: Bergen G, et al. MMWR 2016.



Increases in Older Adult Fall Fatalities From 2007-2016

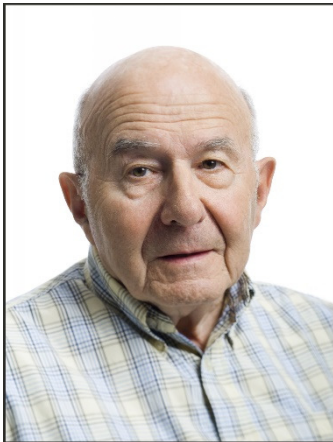
- Death rate
 - 2007: 47.0/100,000 population
 - 2016: 61.6/100,000 population
- 3.0% increase/year



Source: Burns E, Kakara R. MMWR 2018.

Older Adults & Fear of Falling

- Fear of falling associated with:
 - Reduced “life space”
 - Declining physical and mental performance
 - **Increased risk of falling**



Life-space model = measure of an individual's mobility patterns, ranging from:

- Bedroom
- Other rooms in home
- Outside the home
- Neighborhood
- Town
- Out of town

Source: Peel C, et al. Physical Therapy 2005.

Sources: Auais M, et al. Age and Ageing 2017.
Scheffer AC, et al. Age and Ageing 2008.
Vellas BJ, et al. Age and Ageing 1997.

Modifiable Risk Factors for Older Adult Falls

Falls are common and deadly but are preventable.

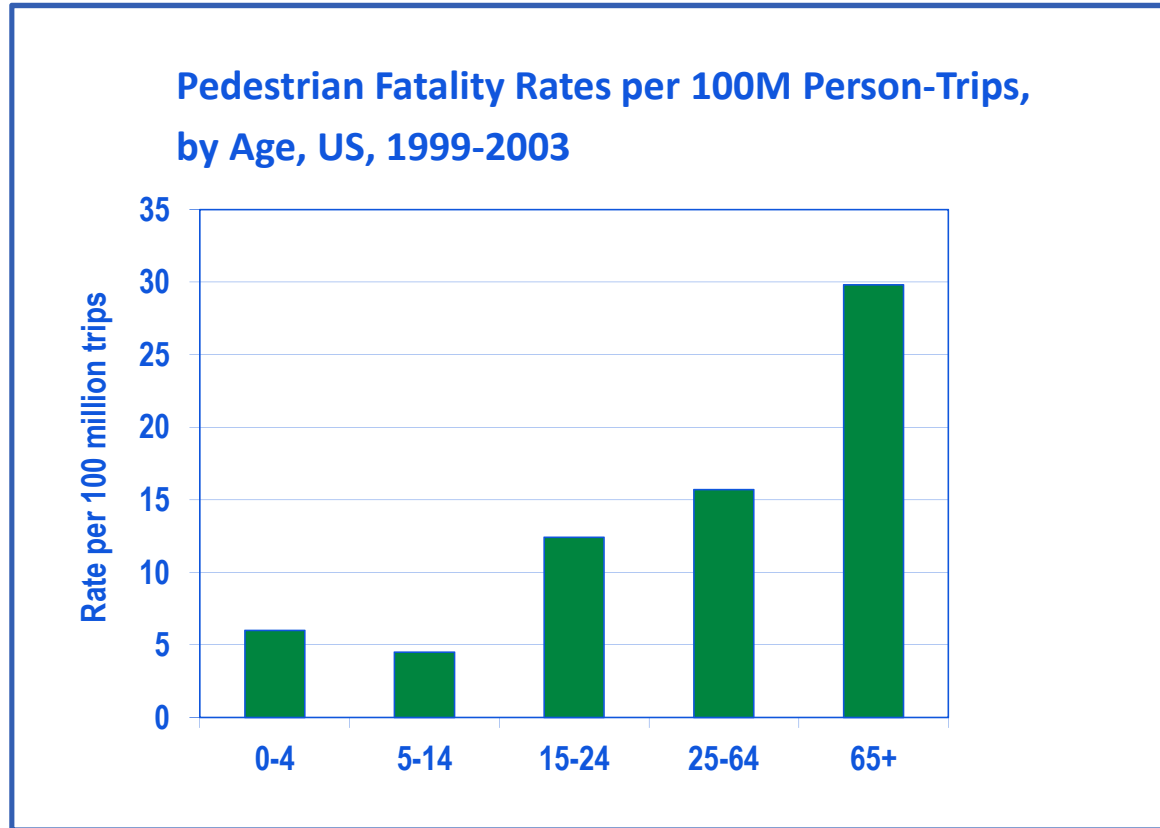
CDC's STEADI initiative encourages clinical falls prevention to address modifiable fall risk factors during routine medical visits.

- **Poor gait, strength & balance observed**
 - Physical therapy
 - Evidence-based exercise or fall prevention program
- **Medication(s) likely to increase fall risk**
 - Medication management by clinician or pharmacist
- **Home hazards likely**
 - Occupational therapy to evaluate home safety
- **Visual impairment observed**
 - Ophthalmologist/optometrist
- **Orthostatic hypotension observed**
 - Stop, switch, or reduce the dose of medications that increase fall risk
 - Hydration
 - Exercises (e.g., foot pumps)
 - Compression stockings
- **Feet/footwear issues identified**
 - Podiatrist
- **Vitamin D deficiency observed or likely**
 - Daily vitamin D supplement



Older Adult Pedestrians

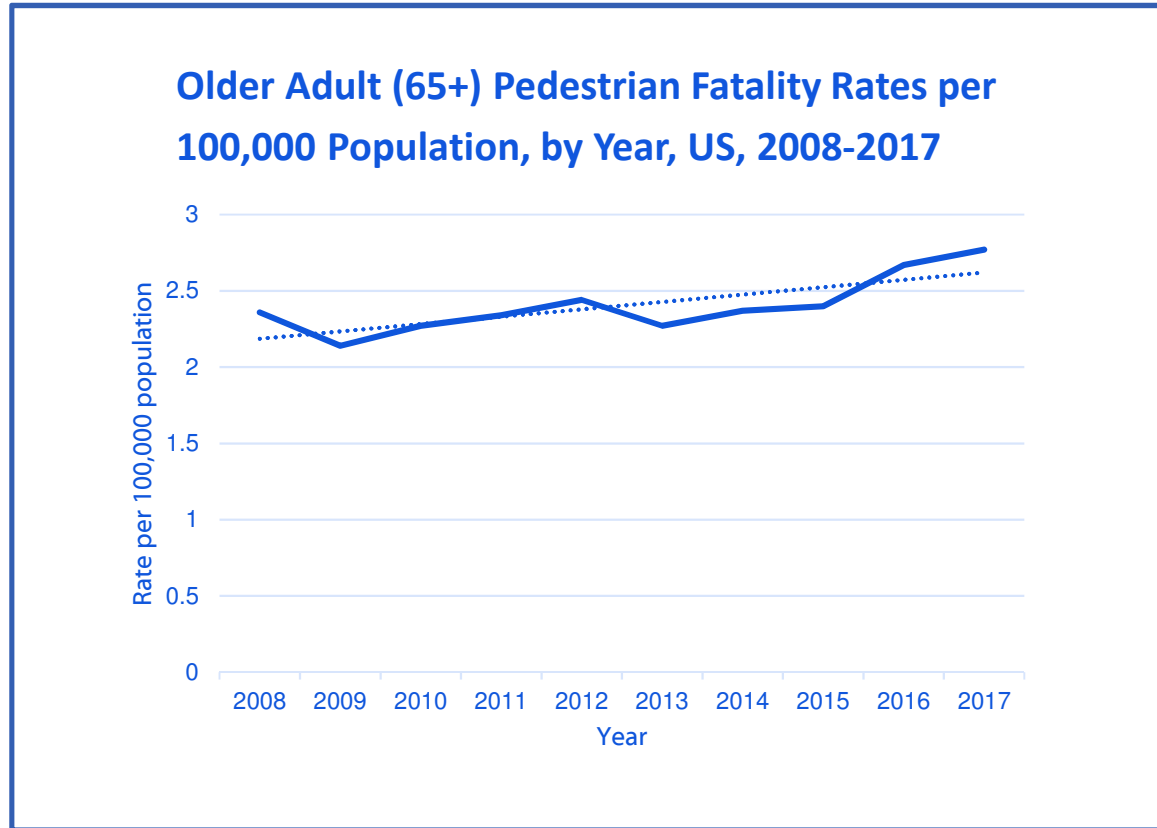
Older Adult Pedestrians: The Concern



Source: Beck LF, et al. Am J Epidemiol 2007.



Older Adult Pedestrian Fatalities Are Increasing



WISQARS™

Produced By: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System



Risk Factors for Pedestrians

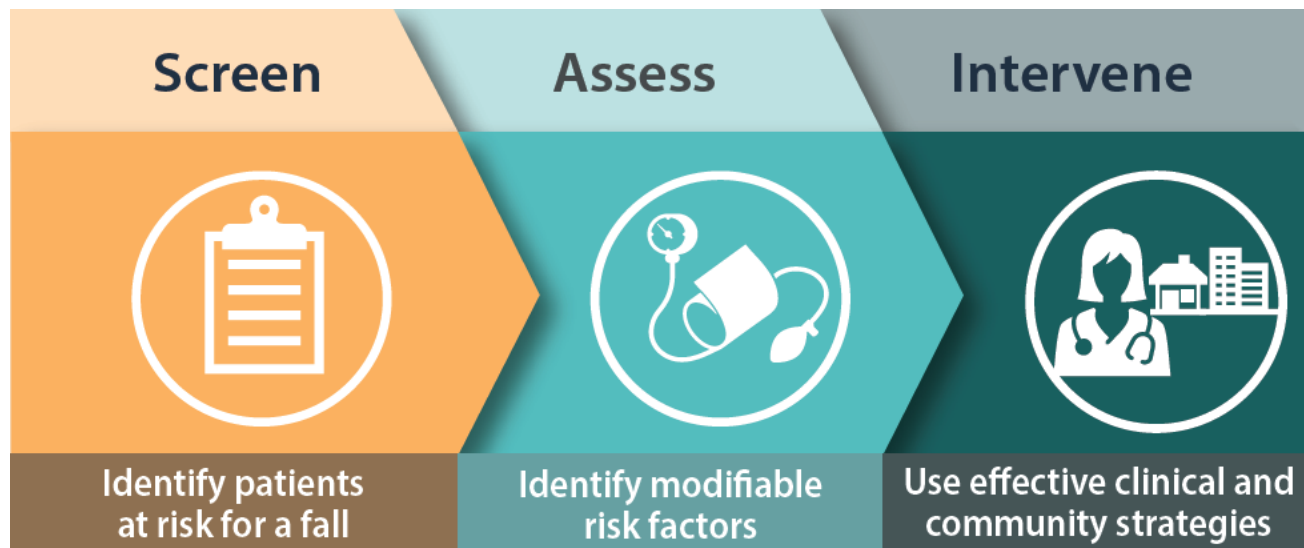


- Risk factors among older adult pedestrians include:
 - Older age (those 75+ have higher death rates than those 65–74 years)
 - Slower walking speeds
 - Physical frailty or higher prevalence of chronic disease or disability (contributes to higher case-fatality rates)
- Risk factors among pedestrians of all ages include race/ethnicity status:
 - Blacks, Hispanics, Asians/Pacific Islanders, or American Indians/Alaska Natives have higher death rates than Whites
- **Implications:**
 - **Needs of older adult pedestrians can be considered in designing interventions (e.g., pedestrian crossing signals that allow sufficient time for older adults to cross)**

Sources: Naumann RB, Beck LF. MMWR 2013.
National Highway Traffic Safety Administration. 2008.
Avineri E, et al. Accid Anal Prev 2012.

CDC Tools Related to Older Adult Mobility

STEADI Initiative



www.cdc.gov

STEADI | Stopping Elderly
Accidents, Deaths & Injuries

Find out more about STEADI resources at <https://www.cdc.gov/steady/>



MyMobility Plan

- 4-page tool
- Positive, healthy aging perspective
- Targeted toward adults (aged 60+ years) who haven't thought about or planned for future mobility changes
- Three areas for mobility planning
 - MySelf – health and fitness tips
 - MyHome – reduce falls risk at home
 - MyNeighborhood – how to stay mobile in your community



1 in 4 adults now 65 will live to 90+

MyMobility Plan

What can you do to stay independent?

Many people make financial plans for retirement, but not everyone plans for other changes that may come with age. This includes changes in your mobility—your ability to get around.

It's not easy to talk about, but as we get older, physical changes can make it harder to get around and do things we want or need to do—like driving, shopping, or doing household chores.

There may be a time when you still need to get around, but can no longer drive.

You might not have mobility problems now, but you could in the future. You may even know others who already do—perhaps a parent, relative, friend, or neighbor. While it may not be possible to prevent all of these changes, there are actions you and your loved ones can take today, and as you age, to help keep you safe and independent tomorrow.

MySelf A plan to stay independent	MyHome A plan to stay safe at home	MyNeighborhood A plan to stay mobile in my community
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 Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

**Make a plan today.
Stay independent tomorrow.**

Download tool and additional resources at
www.cdc.gov/motorvehiclesafety/older_adult_drivers/mymobility

References

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- Vellas BJ, et al. Fear of falling and restriction of mobility in elderly fallers. *Age and Ageing* 1997;26:189–193.



Thank you

Contact:

Laurie Beck, LDF8@cdc.gov

Mobility – the ability to get where you want to go, when you want to get there.



Create your own MyMobility Plan.

www.cdc.gov

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



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Safety and Mobility for Older Adults

Injury Outcomes





Crash Risk

A photograph of a modern pedestrian bridge over a canal. The bridge is made of dark metal with a complex truss structure. Two people are walking on the bridge: a woman in a white sleeveless top and blue shorts, and another person in a colorful shirt and a large hat. Below the bridge, a paved path runs alongside a canal. A group of people, mostly in white clothing, are walking along the path. The background shows lush greenery and a clear sky.

Mobility and Health



Economic Factors

Discussion

⇒ Send us your questions



⇒ Follow up with us:

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