

# 2021 Trends Report



Photo: ButterFLi, Los Angeles, California

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## The National Aging and Disability Transportation Center (NADTC)

NADTC is a national program funded by the Federal Transit Administration and administered by Easterseals Inc. and USAging, with guidance from the U.S. Department of Health and Human Services, Administration for Community Living.

### Our Mission:

To promote the availability and accessibility of transportation options that meet the needs of older adults, people with disabilities and caregivers.

The mission of NADTC is to:

- **Serve** professionals in the fields of transportation, aging, disability, human services and caregiving.
- **Provide** resources and training through an information and referral hotline, website, as well as both distance and online training.
- **Empower** communities across the country to implement or improve innovative transportation programs at the local level.
- **Support** older adults, people with disabilities of all ages, and their families to help them find the best mobility options in their communities to reach their destination of choice.

For more information about NADTC and the services we provide, please visit [www.nadtc.org/](http://www.nadtc.org/)

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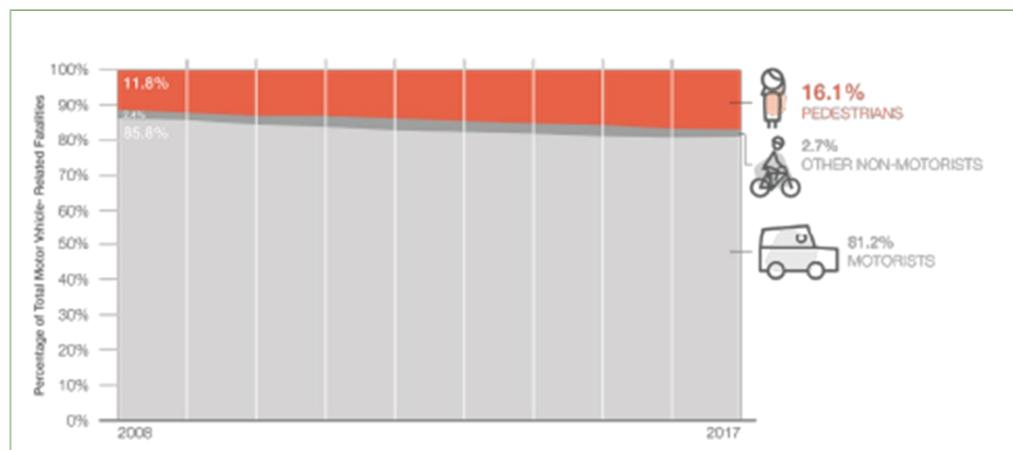
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# Overcoming Barriers to Walking or Rolling

## Introduction

Walking and rolling (for wheelchair or scooter users) allows people to move around their community to reach nearby stores, visit friends or family and enjoy time outside. Most importantly, walking is the easiest way to be active, and enables us to maintain a healthy lifestyle, reduce blood pressure and the risk of cardiovascular disease. Walking and rolling is safe for many of us, however, navigating a safe path of travel can be a struggle for many people. To improve pedestrian safety, we need to confront the risks of roadway use and pedestrian infrastructure.

According to the Smart Growth America, over 6,700 pedestrians were killed in the United States in 2020, happening while far fewer vehicles were on the road due to the pandemic. Between 2008 and 2017, 49,340 American pedestrians were killed on roadways, more than twice as likely to die than pedestrians in other industrialized countries. Pre-pandemic, the number of annual pedestrian deaths increased 53% since 2019. Older Americans are only 15% of the total population, yet, their risk is far higher. Smart Growth America's Pedestrian Danger Index (PDI) for Americans overall is 14.8, but rises to 20 for those fifty and older; 20.7 at age 65; and 27 for those 75 years and older. Pedestrian deaths have risen by 46% in ten years; however, more pedestrians are injured by cars than statistics show because no incident report had been filed. The DC (District of Columbia) Policy Center reports that three times as many pedestrians and bicyclists are injured in traffic than are counted, due to under-reporting.



Graph Source: DC Policy Center, "Percentage of Total Motor Vehicle Related Fatalities, 2006-2017"

## Pedestrian Infrastructure

Motorists generally use arterial and collector streets to navigate to destinations like retail stores, restaurants and healthcare, however, many states don't require continuous pedestrian pathways along major roads. If choosing to walk or roll on the shoulder, these could be paved but are often covered in grass or mud. Even where sidewalks do exist, the pavement may be broken with noticeable gaps or barriers. Curb cuts along street corners are meant for ease of accessibility by wheelchair users but could be missing or broken. Snowplows may bury curb cuts and bus stops with snow, causing an additional barrier to safe crossing or use. Additional barriers include utility poles intruding into the sidewalk path, intersections lacking marked crosswalks or pedestrian signals, or no pedestrian refuge island in the middle of a busy intersection. Each of these factors impose safety concerns and may force pedestrians to use the street for a lack of pedestrian infrastructure.

For non-drivers, a lack of inaccessible street crossings effectively divides the community, causing neighborhoods to isolate from stores and other destinations. Those who attempt to cross busy intersections by foot or wheelchair, have an inherently higher risk to their overall safety. While those who do not venture out, risk social isolation or loneliness, unless they have the means to pay for public transportation.



*Photo Credit, Urban Land Institute: Person crossing busy intersection on foot, not using crosswalk*

## Driving Environment

Both drivers and their vehicles have changed, with higher percentages of drivers today older (65+) and younger (18-24). Older drivers may struggle due to changes in their vision and reaction time, while younger drivers often lack experience and attuned judgement. All drivers may be distracted by cell phone use, driving under the influence of alcohol or other substances. Some drivers may also be accustomed to the lack of sidewalks or pedestrian pathways, and often struggle to see a pedestrian alongside a driveway or when making a right turn into or out of a parking lot.

Vehicles have changed too. The majority of personal vehicles sold before the pandemic (69%) were sport utility vehicles and light duty trucks and are now almost a third of personal vehicles on the road. SUVs and light duty trucks are heavier than sedans and have a higher front profile and center of gravity, so when an adult pedestrian is hit by an SUV or a truck the point of contact is to the body, rather than at the legs when hit by a lower profile sedan. 30% of pedestrians hit by SUVs or light duty trucks traveling under 40 mph are likely to be killed or

seriously injured, as opposed to 22% of those hit by sedans – this instance has increased 81% between 2009 and 2016.

Older pedestrians or individuals who move slower, have poorer balance and may be less aware of their surroundings are at higher risk of being hit by a vehicle. A study by the Health Survey of England found that the average walking speed for adults over age 65 is 2.6-3 feet per second, however, the Federal Highway Administrations' Manual for Uniform Traffic Control Devices suggests that pedestrians can walk 4 feet per second – one-third faster than older adults surveyed in the Health Study of England.

Older people are at higher risk of death or severe injury from crashes. Often attributed to slower movement, poor balance and less bone density or other medical conditions.

### We Can Reduce the Danger

The risk of SUVs is being mitigated, vehicle manufacturers have introduced newer models with lower profile front bumpers to avoid body impact, this change could be coming for light duty trucks as well. Main strategies to reduce the number of pedestrian injuries and deaths is clear:

1. Pedestrian Infrastructure and Education
  - a. Provide continuous pedestrian pathways and safe crosswalks along arterial and collector roads, and to be compliant with the Americans with Disabilities Act, a sidewalk has to be at least 3 foot wide.
  - b. Allow adequate time for pedestrian crossing, displaying the number of seconds available to cross the street. These times often assume a walking speed one-third higher than many older adults can achieve.
  - c. Provide flashing beacons activated by pedestrians entering crosswalks.
  - d. Older adults should be educated in defensive walking techniques, dressing in brightly visible clothing, and should be constantly aware of their surroundings and whereabouts of turning or backing vehicles.
  - e. Adapt Safe Routes to Schools techniques to the needs of older adults reaching destinations.
2. Slower Speeds
  - a. Reducing roadway speeds through design. Lanes on arterial and residential streets are often 12 foot wide and are required to accommodate interstate highway speeds, while a city bus only requires a 10.5-foot-wide lane. Narrowing lanes encourage slower driving and can accommodate more room for sidewalks and protected bike lanes along the corridor.
  - b. Traffic calming techniques, besides narrowing travel lanes include:
    - curb extensions, or bulb-outs, to reduce crossing distances.

- pedestrian refuge island, to reduce crossing distances on busy multi-lane intersections.
- planting street trees and installing benches, creating a welcoming affect rather than miles of pavement.
- installing marked and visible speed humps.
- establishing signed or marked crosswalks, including visible and audible indicators and a flashing beacon.
- installing traffic circles at intersections.

Communities can also consider implementing Complete Streets concepts. As defined by US DOT, Complete Streets are designed to enable safe use by people of all ages and abilities, including drivers, pedestrians, bicyclists, and public transportation users. Well-connected walking (and bicycling) trail networks are necessary for livable communities, providing mobility for people who are too young to drive, cannot drive, or choose not to drive.

Communities like St. Louis, Missouri have begun improvements to their pedestrian infrastructure, by reducing traffic lane widths and adding bicycle lanes along South Grand Avenue, for enhanced pedestrian safety, as depicted in the photo to the right.



## Summary

An increasing number of pedestrians have been killed and/or injured in traffic crashes over the past decade. The pandemic saw an increase in the rate of these crashes, despite a reduction in both traffic and vehicle

miles travelled. Older adults are particularly at risk due to slower walking and movement, sometimes reduced awareness of surroundings increasing the risk of being involved in an incident. Reduced bone density and pre-existing health conditions among older adults increase the rate of injury, but at the same time reduce their ability to survive traffic injuries.

An increasing number of communities, prompted by heightened awareness and advocacy, are responding by improved pedestrian infrastructure including enhanced pathways and crosswalks, as well as, slowing traffic with a variety of traffic calming techniques and Complete Streets policies.

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