

**MOBILITY
& AGING**
IN RURAL AMERICA:
The Role for Innovation
An Introduction for Funders



a publication of
GIA Grantmakers In Aging



ABOUT THIS REPORT

This report is one of two publications offered in connection with the Beyond Here & There Rural Mobility Summit, co-hosted by Grantmakers In Aging (GIA) and CITRIS (The Center for Information Technology Research in the Interest of Society) and The Banatao Institute at the University of California at Berkeley, May 2-3, 2018. The event is generously supported by a grant from the May and Stanley Smith Charitable Trust.

A companion paper, *The Future of Rural Transportation and Mobility for Older Adults: Current Trends and Future Directions in Technology-enabled Solutions*, will also examine rural mobility, with a more focused look at technology across a longer timeframe.

Both papers are available for download [here](#) at bit.ly/RuralPubs.

An interactive table of contents for this paper is available [here](#).

Thanks to Our Sponsors

Support for this report was generously provided by the May and Stanley Smith Charitable Trust, Tivity Health, St. David's Foundation, and the Consumer Technology Association (CTA) Foundation.

Rural America is a collection of iconic landscapes, essential industries, and close-knit communities distributed across a land mass so vast it represents 97 percent of the United States. A century ago it was home to [half](#) the of all Americans; today, only about 15 percent.

As its population has gotten smaller, rural America has also become challenging to navigate. For millions of people in small towns and remote areas, whether their destination is the grocery store, the beauty parlor, the hospital, or the polls, the question, “How will I get there?” can be complicated.

Mobility—the power to move and travel as we wish—is a huge factor in our health and quality of life, particularly as we get older. Some advocates view it as a basic human right. Almost one quarter of all older Americans (about 10 million), call rural communities home. They share the nearly universal desire to age in place, but their ability to do so hinges on mobility. Without good mobility options, older people face elevated risks of social isolation, depression, gaps in medical care, and malnutrition.

Driving is a central fact of life in car-centric America, and nowhere more than rural America, where the population is older than average and the personal car (or truck) is the [vehicle of choice](#) for more than [90 percent of passenger trips](#). Unfortunately, life expectancy [exceeds](#) “driving expectancy” by about six years for women and ten years for men, creating an understandable incentive to keep driving as long as possible. Other options like public transit, ADA paratransit, taxis, or ride-hailing (such as Uber or Lyft) may be unaffordable, unmanageable for older people and people with disabilities, or simply nonexistent in some rural areas.

So what needs to happen when we have to give up the keys? What is available today and might be possible in ten years? How can ingenuity and technology lead us to new solutions?

First, this paper will outline challenges facing older people, people with disabilities, and, indeed, everyone in rural communities where mobility options are scarce. It will describe available options and showcase programs that are working.

Second, it will explore three major approaches for improvement:

- Present-day options to improve services, such as new partnerships with health care providers, expanded use of volunteers, software-empowered Mobility on Demand, and access-extending interventions such as telehealth.
- Short- and medium-term interventions to keep older people driving longer safely.
- Longer-term technology-driven possibilities, such as autonomous vehicles, drones, and supply chain innovations (sometimes dubbed “Amazonification”), with attention to the need for design and implementation that considers older people’s preferences and needs, adapts to rural topography, and addresses concerns about the pervasive issue of social isolation.

Finally, rural mobility represents the intersection of a public policy challenge and a tremendous human need: the classic conditions for philanthropic investment. This paper will offer grantmaking recommendations to help funders become engaged in rural mobility and suggest a dynamic research and policy agenda to empower older people in rural places to lead fuller lives.

TABLE OF CONTENTS



Executive Summary

Introduction: Rural America Misunderstood

Mobility Options Today

Public transit

Ride-hailing

Volunteer Drivers

A Volunteer/Paid Driver Hybrid Model: Meet ITN*Country*

Voices from Rural America: ATV's in Alaska

Funding

Government Funding for Transit

Technical Assistance is Key

Voices from Rural America: "Pride is a Barrier"

Mobility as a Social Determinant of Health

HealthTran: Partnering with Health Care Providers

Innovation and Ingenuity: What's Next?

Tech-Empowered Mobility Options

Sky's the Limit? A Job for a Drone

Software to Coordinate and Improve Services

Mobility on Demand

Feonix: Mobility Rising

Go! Vermont

Driving later in life

Telehealth and Access

Challenges for Tech on the Ground in Rural America

Voices from Rural America: "Move into Town"

"Amazonification" and Reducing Social Isolation

Self-Driving Cars

Via: An Autonomous Way Forward?

Broadband and Connectivity Issues

Future Shock: Resist, Adopt, Adapt?

Two Visions of Rural Mobility: AccessibleOlli and Toyota's e-Palette

A Role for Philanthropy

Grantmaking Recommendations

Agenda for the Future

Resources

Acknowledgements

This is an interactive Table of Contents. Click on any section to be taken there. Click any Pin Icon throughout to bring you back to this page.



INTRODUCTION

Rural America: Big, Beautiful, Misunderstood

Long distances, open space, and low population density: these represent many of the things that people value about rural America, and also define many of the mobility challenges they face there.

“Living remotely is for the hardy,” says Jennie Rowland, who is of Chippewa descent and lives in rural Nett Lake, Minnesota, where she runs Big Woods Transit with Bois Forte Tribal Government. “It’s a different way of living: more peaceful, not hectic. I suppose people are willing to tolerate more inconvenience because of other kinds of rewards.”



Rural travel distances are long and getting longer, as shopping, health, and community-based services move out of town. “I don’t think most people have a good understanding of what rural America is anymore,” says Scott Bogren of the [Community Transportation Association of America \(CTAA\)](#). “They have a bucolic image of a self-sustaining small town with a vibrant town square and that’s not always the case. The economies are more regional, less self-contained, and it requires more travel.” This affects everything, including entire regions’ prospects for economic development, workforce availability, health care, educational opportunities, and more.

Even the trip from home to a bus stop -- the process transit planners call “first-mile, last-mile” -- can be a journey in its own right. In some rural settings with little or no public transit, these can become “first 50 mile, last 50 mile issues,” says Rich Garrity, a transportation consultant at [RLS and Associates](#).

Finally, generalizations about rural needs and services tend to miss the mark. Just as all rural communities differ, so do their options, regulations, and opportunities. “If you’ve seen one rural community, you’ve seen one rural community,” says Alycia Bayne, principal research scientist at [NORC’s Walsh Center for Rural Analysis](#).

WHERE WE ARE TODAY

Rural Public Transit Options: What Is (or Isn't) Available?

The first line of defense for people who want to get around but can't drive is generally public transit. Options in rural America may look quite unfamiliar to anyone whose frame of reference is the 101 Freeway, the New York City transit system, or the Washington Metro. For example:

- **Availability:** While there are lots of small systems nationwide, public transit is not a given in rural communities. Only about 80 percent of rural counties have public transportation and service often does not reach all parts of the county, according to the [Rural Transit Fact Book](#). Public transit includes non-personal vehicle means of travel like fixed-route and flex-route buses, demand-response bus and van service, and vanpools.
- **Different service:** Unlike urban systems, which run regularly on fixed routes, rural transit tends to rely on demand-response service, meaning riders call ahead and ask to be picked up by bus or van from home, or sometimes from a spot on a fixed route.
- **Service may be infrequent.** For example, Southern Nevada Transit Coalition's [Silver Rider Transit](#), Nevada's largest rural transportation provider, runs a single bus once a week about 50 miles from the tiny town of Searchlight, Nevada (population 539), which has little retail and no medical facilities, to destinations like Wal Mart and Western Arizona Regional Medical Center in Bullhead, Arizona. "People make their appointments for when they can get the bus," says executive director Deb Dauenhauer. "We deliver the [Meals on Wheels](#) once a week now, too."
- **Boundary issues abound:** Because it receives local (as well as federal) funding, rural transit often has jurisdictional problems that prevent vehicles from crossing town, county, or state boundaries. Outside major cities, at least one quarter of the U.S. [lacks](#) public transportation services to get to a neighboring county or state. Passengers have to ride to the boundary, disembark, and try to connect with another service.
- **There is no app for that:** The fast-growing commercial transportation network companies (TNC), of which Uber and Lyft are the best known, are constantly expanding their footprint, but still not operational in all remote rural places, in part because long distances and sparse population tend to make profit margins unsustainable. Even where they exist, their ability to offer accessible vehicles is limited. A 2016 [survey](#) by the Pew Research Center found that only 3 percent of rural residents have used these services and more than half (54 percent) have never even heard of the ride-hailing apps, although this is [changing](#) quickly.
- **Taxi?:** Taxis are helpful extenders of service but may not exist in small and remote communities and can be too expensive for regular use, particularly over long distances. Many are also not accessible for people with disabilities.



National
RTAP

- **ADA Complementary Paratransit works differently:** This is accessible service for people with disabilities mandated by the Americans with Disabilities Act (ADA) in any community receiving federal transportation funding. ADA paratransit is provided on an on-demand basis in systems that have fixed-route bus service. (Fixed-route service is generally offered in urban and suburban communities. Most rural systems operate all their service on a demand-response system, not a fixed-route system.)

By law, ADA Complementary Paratransit service must accommodate people who live within three-quarters of a mile of a traditional bus stop but who cannot get to the bus stop or get on and off the bus on their own because of a physical or intellectual disability. ADA Complementary Paratransit is **offered** on an “origin to destination” basis. This often happens curb-to-curb, meaning the passenger must be able to get out of the house and to the vehicle on his or her own. Door-to-door services may be **available** under certain circumstances. Going beyond the doorway (i.e., inside the building) is not required by ADA complementary paratransit regulations.

Other accessible services, such as vans run by senior centers and other human service agencies, are important mobility options for older adults and are often perceived as paratransit but are limited and are not mandated by the ADA.

In most rural areas, bus or van service is offered on-demand (generally requiring a reservation made one to three days in advance), and most vehicles are accessible, so rural paratransit and regular service tend to be provided by the same vehicle. In fact, many rural transit systems got their start providing service to older and disabled passengers, then **expanded** later to serve everyone.

- **Transit use is generally low except for certain populations:** Transit use has been growing in rural places but is still generally much lower than in urban and suburban settings. There is one notable exception: rural ridership is considerably **higher** among older adults, the 2.9 million rural veterans, and people with disabilities, who take nearly 50 percent more trips than people without disabilities. This is significant because of the higher rate of disability in rural places: 17 percent in rural **compared** to 12 percent nationally, making good transit options even more important.

VOICES FROM RURAL AMERICA

“Half of Alaska lives in rural Alaska, many in small villages with no organized transportation systems. Many folks don’t have cars and get around on ATVs.”

-Key informant from Alaska, quoted in University of Minnesota Rural Health Research Center’s Policy Brief *Rural Transportation: Challenges and Opportunities*

National RTAP



BACK TO T.O.C.



TECHNICAL ASSISTANCE IS KEY

Three agencies chartered by the Federal Transit Administration (FTA) are devoted to supporting rural and tribal transit with technical assistance:

- The [National Aging and Disability Transportation Center \(NADTC\)](#)
- The [National Center for Mobility Management](#), and
- The [National Rural Transportation Assistance Program \(RTAP\)](#)

“We’re an interlocutor -- we help communities close the feedback loop with FTA,” explains Robin Phillips, executive director of National RTAP. Each state or territory also has its own RTAP manager.



Other popular options are RTAP’s peer-to-peer counseling and its Tribal Peer Assistance program. “Since I’m not here to reinvent the wheel, I got myself a mentor, Emma Featherman-Sam,” says Jennie Rowland, manager of Bois Forte Transit in Minnesota. “She runs Oglala Sioux Transit and has a Master’s degree from MIT. I asked her why she did it and she told me, ‘I didn’t want it to be this hard for anybody else.’ She’s been an excellent resource.”

Funding and Other Strategies that Keep Rural Transit Rolling

For those able to use it, rural public transit is often described as a lifeline but funding is always an issue. Less than 10 percent of federal spending for public transportation goes to rural communities, according to the Federal Highway Administration, and it is essential for systems to be efficient and creative to maximize what they can offer. [SEE BOX: Government Funding for Transit]

The federal government spends more than \$2 billion annually on specialized transportation, but state and local agencies must meet (and often exceed) federal match requirements, which range from 5 to 50 percent of total program costs, according to AARP. Rural transit operators need a firm grasp on how federal, state, and local funding streams and match requirements work – all of which vary state by state and can be complex. Federal grant paperwork can run to hundreds of pages, says Jennie Rowland, a tribal transit manager. “I sometimes feel like I’m trying to run a race and I’m waist-deep in Jell-o.”

Technical assistance is a must and the federal government acknowledges this, chartering and funding several agencies through the Federal Transit Administration (FTA) to provide it. [SEE BOX: Technical Assistance is Key]

BACK TO T.O.C. 

“You’ve got to be a player in the process and know who can help you,” says Virginia Dize, program director at National Association of Area Agencies on Aging (n4a) and co-director of the [National Aging and Disability Transportation Center \(NADTC\)](#). “For example, you have to engage the human services folks in the community, as well as any rural planning organizations, because getting that money into your local community requires being part of a coordinated public transit-human services transportation plan.”



Encouraging broader ridership also helps rural transit stay afloat, both economically and politically. “The best systems are ones that market themselves,” observes Scott Bogren of CTA, which offers [toolkits](#) and technical assistance that includes successful marketing approaches. “They are proud of what they’re doing and as a result, they tend to be the best supported.”

Other qualities of successful rural transit systems include good public communication and customer service, an entrepreneurial approach, diversified funding streams, and openness to new technology, [according](#) to the Transit Cooperative Research Program.

GOVERNMENT FUNDING FOR TRANSIT

The Federal Transit Administration provides funding to support rural transit and transportation services for persons with disabilities. These funds are only available to government entities and are awarded based on population size, land area, demographics, and/or competitive grant application.

- [Section 5310](#) – Transportation for Elderly Persons and Persons with Disabilities program provides funding to states for capital costs of providing services to elderly persons and persons with disabilities. 20 percent of these funds go to states for use in areas with populations under 50,000. Typically, vans or small buses are available to support nonprofit transportation providers. Learn more [here](#).
- [Section 5311](#) - Rural and Small Urban Areas Formula Program provides funding to maintain and improve public transportation systems in rural areas and small towns with populations less than 50,000.

A portion of these funds are dedicated to the [Tribal Transit Program \(TTP\)](#), which provides direct federal grants to Indian tribes to support public transportation on Indian reservations; another portion goes to programs in the Appalachian Region through the Appalachian Development Public Transportation Assistance Formula Program. Learn more [here](#).

[BACK TO T.O.C.](#)



Volunteers Fill the Gaps

Another significant source of mobility for older rural adults is volunteer drivers. The concept has deep roots in rural America, says Sarah Cheney, executive director of [Shepherd's Centers of America](#), a network of interfaith, community-based organizations designed by, with, and for older adults. "This is not a new idea; this is what they did back in the pioneer days. This is simply neighbor helping neighbor."

While most older adults are in good health, some simply need more help than any transit service can provide. Volunteer drivers can do more: they offer personal, customized assistance to meet the needs of people who can't drive or who may be frail or ill, going the extra metaphorical mile by entering older adults' homes, helping them get ready, navigate steps, get in and out of vehicles, carry packages, and even doing errands or going along on medical appointments. Many nonprofits, as well as organizations like the Village to Village Network, offer this kind of service.

A VOLUNTEER/PAID DRIVER HYBRID MODEL: MEET ITNCOUNTRY

[ITNAmerica](#) founder Katherine Freund struggled at first to find the right description for her new offering, [ITNCountry](#), until, "One day, it jumped out of my mouth - It's like a do-it-yourself, nonprofit Uber."

The original Independent Transportation Network (ITN) is a model for nonprofit senior transportation network in twelve states. [ITNAmerica](#) is the national organization that provides technical and other assistance and support.

Personal Transportation Accounts™ allow ITN members to pay for rides with cash or with credits they accrue by volunteering to drive others or by using the CarTrade program if they are ready to give up their keys. Credits cover their own rides (always in private cars, with volunteer or paid drivers) or can be donated to friends and family.

[ITNCountry](#), piloting in 2018, draws on the ITN model with certain differences. Features like CarTrade, Road Scholarships for low-income riders, Ride Services by third party payers, and Healthy Miles™ and Ride & Shop™ programs where health care providers and businesses subsidize rides will be included, but

the program is more flexible. Communities may run it exclusively with volunteers and decide whether to charge for rides.

New software, rebuilt on the Salesforce nonprofit platform, is cloud-based and accessible through smartphones. The price is also lower: "We want it to be so affordable that a rural community could pay for it with local fundraising, like car washes or bake sales."

Funders who have worked with [ITNAmerica](#) since its founding in 1995 include the Florence V. Burden Foundation, The Atlantic Philanthropies, the Federal Transit Administration, the Transportation Research Board's Transit IDEA program, AARP, National Highway Traffic Safety Administration, Jane's Trust, the Harry and Jeannette Weinberg Foundation, The Great Bay Foundation for Social Entrepreneurs, the Sam Cohen Foundation, MetroWest Health Foundation, Tufts Health Plan Foundation, and more recently, the Maine Community Foundation and Tennessee Community Foundation for [ITNCountry](#).

“The assistance that volunteer driver programs provide is what sets them apart from other-community based transportation services,” says Helen Kerschner, director of the [National Volunteer Transportation Center](#) and previously CEO of the Beverly Foundation, which focused on senior transportation until it closed in 2014. “Yes, they take older adults from here to there, but volunteer drivers are “not on the clock” and can spend the time it takes to provide high levels of assistance to older adult passengers. Also important is the socialization they provide. Perhaps the best definition of a volunteer driver program is that it provides supportive transportation at no cost or low cost to older adult passengers and does it with a vehicle and a smile.” [\[SEE BOX: A Volunteer/Paid Driver Hybrid Model: Meet ITNCountry\]](#)

When Allen Smart lived in Louisiana, people in rural areas had no taxi system or public transportation and relied on informal networks and volunteers. Now the director of the [Rural Philanthropic Analysis \(RPA\)](#) project, which is housed at Campbell University and funded by the Robert Wood Johnson Foundation, Smart recalls how churches devoted enormous energy to volunteer driving and taking food to people’s homes. In rural communities, he says, many people are more willing to receive help from a neighbor or church than from a more formal system. “You would hear, ‘we worked hard all our life and don’t take advantage of that kind of thing. We’re self-sufficient.’”

One program that did much to develop volunteer driving was the Robert Wood Johnson Foundation’s Faith in Action program, now known as the National Volunteer Caregiving Network. Launched in 1983 (and known then as the Interfaith Volunteer Caregivers Program), it originally funded 25 coalitions. Later it [broadened](#) its funding base for replication and scaling to approximately 1,700 programs. Major support came from the Public Welfare Foundation, The Atlantic Philanthropies, the Pew Charitable Trusts, the Commonwealth Foundation, and the Colorado Trust.

“It was not primarily a transportation program, but we were trying to provide what people needed and transportation was high on the list,” remembers Paul Jellinek of the consulting firm [Isaacs/Jellinek](#), who worked on the program while at RWJF. “Volunteers did shopping for people, friendly home visits, chores and repairs, as well as driving to the doctor, or the hairdresser – which, for a lot of folks, was more important than the doctor and certainly more fun.”

The agenda of volunteer driving is purely human service, and while some reimburse drivers for mileage, many volunteers will not accept. The National Volunteer Transportation Center has a database containing 706 volunteer driver programs, which provide almost five million one-way rides annually, valued at approximately \$1,400,000,000.

Foundations that have funded volunteer driver programs [include](#) The Harry and Jeanette Weinberg Foundation, the May and Stanley Smith Charitable Trust, the Helen Andrus Benedict Foundation, the Retirement Research Foundation, the Winter Park Health Foundation, Archstone Foundation, Rose Community Foundation, Colorado Health Foundation, and the [Mr.] Goodcents Foundation.

VOICES FROM RURAL AMERICA

“People do not like to ask for help; pride is a barrier.”

– Key informant from Michigan, quoted in [University of Minnesota Rural Health Research Center’s Policy Brief *Rural Transportation: Challenges and Opportunities*](#)

[BACK TO T.O.C.](#)



Mobility as a Critical Social Determinant of Health

Of the factors that support good health care for rural older people, mobility is one of the most powerful, making it a [social determinant of health](#).

The most extreme example is probably the chronic kidney disease patient who needs dialysis three times a week in a clinic that can be fifty or even 100 miles away. Surgery, wound care, chemotherapy and radiation, and care of chronic conditions like congestive heart failure may also require extensive and difficult travel. Missing those appointments can have serious consequences.

“Health care is obviously a critical need but if you can’t get to your appointment, it doesn’t matter how great the doctor or hospital is,” observes Carol Wright Kenderdine of the [National Aging and Disability Transportation Center \(NADTC\)](#).

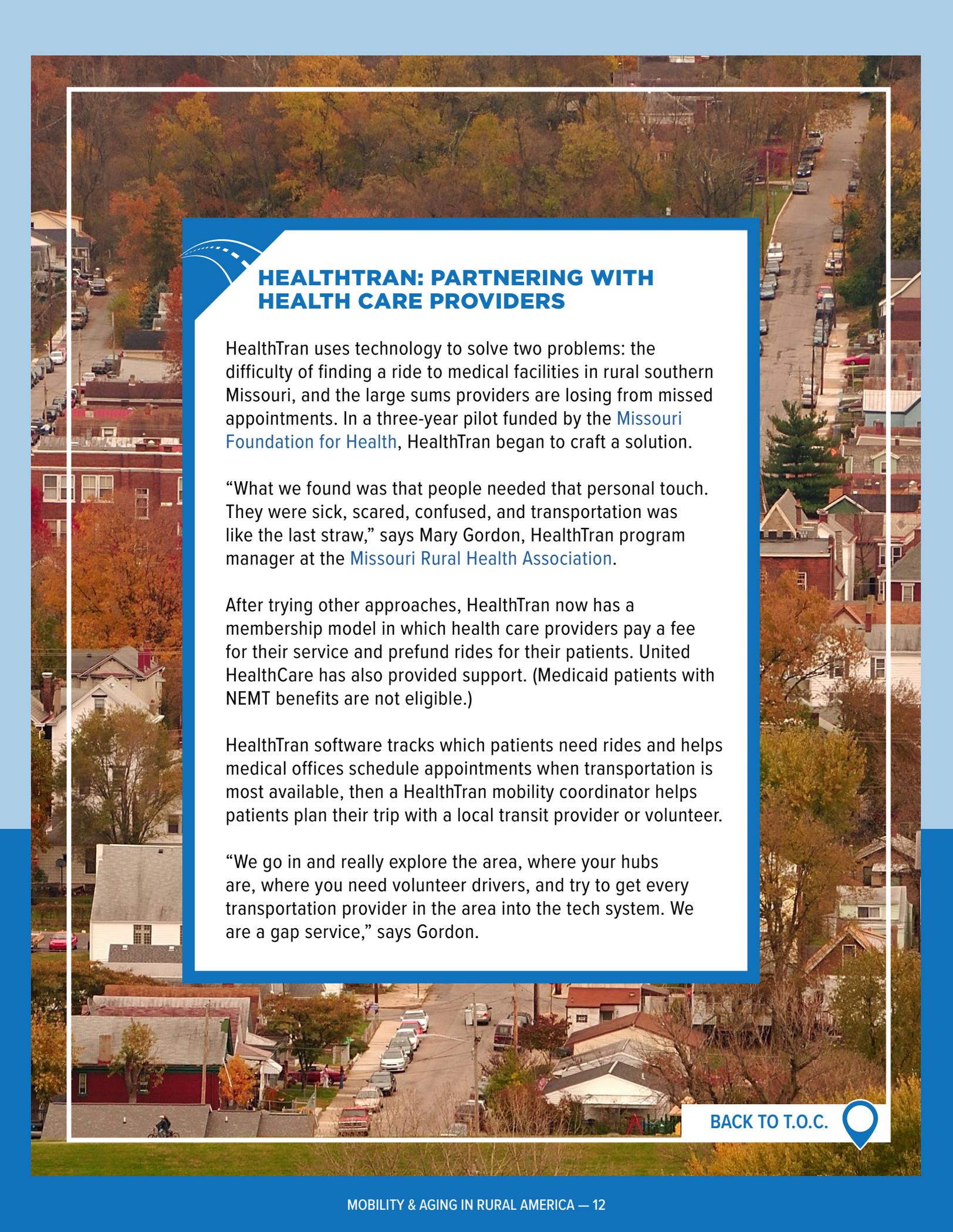
There is also a financial cost. Every year 3.6 million Americans miss at least one medical appointment, according to [research](#) conducted for the Federal Transit Administration’s Rides to Wellness program. These are estimates because of incomplete data collection, but the cost of missed appointments nationally may range from \$3 million for clinical care to \$564 million in the VA system.

Another [analysis](#), performed for the Ruderman Family Foundation, estimated that improved transportation to medical appointments for people with disabilities would save \$19 billion in healthcare spending annually.

Reducing those numbers is one goal of the Medicaid Non-Emergency Medical Transportation (NEMT) benefit. (Medicare has no such benefit.) For older adults, if they are eligible for both Medicare and Medicaid, NEMT can help with travel but it is complicated (since every state sets its own policies) and strictly limited to medical travel. Many states manage this benefit through a third-party public or private brokerage system. For an excellent review of this topic, please refer to this [issue brief](#) from the National Conference of State Legislatures.

Increasingly, advocates for older adults are urging health care providers to take a more active role in their patients’ transportation. [SEE BOX: [HealthTran: Partnering with Health Care Providers](#)] “Do not assume that an individual will be able to return for a follow-up visit. Ask the question, ‘How did you get here today?’” [urge](#) authors Helen Kerschner and Nina M. Silverstein in the *Journal of Gerontology & Geriatric Research*.

“One system alone cannot meet this need,” says Amy St. Peter, assistant director of the Maricopa Association of Governments. “The demand and scope extend beyond any one sector. This is why a collaborative approach is so critical.”



HEALTHTRAN: PARTNERING WITH HEALTH CARE PROVIDERS

HealthTran uses technology to solve two problems: the difficulty of finding a ride to medical facilities in rural southern Missouri, and the large sums providers are losing from missed appointments. In a three-year pilot funded by the [Missouri Foundation for Health](#), HealthTran began to craft a solution.

“What we found was that people needed that personal touch. They were sick, scared, confused, and transportation was like the last straw,” says Mary Gordon, HealthTran program manager at the [Missouri Rural Health Association](#).

After trying other approaches, HealthTran now has a membership model in which health care providers pay a fee for their service and prefund rides for their patients. United HealthCare has also provided support. (Medicaid patients with NEMT benefits are not eligible.)

HealthTran software tracks which patients need rides and helps medical offices schedule appointments when transportation is most available, then a HealthTran mobility coordinator helps patients plan their trip with a local transit provider or volunteer.

“We go in and really explore the area, where your hubs are, where you need volunteer drivers, and try to get every transportation provider in the area into the tech system. We are a gap service,” says Gordon.

[BACK TO T.O.C.](#)



INNOVATION AND INGENUITY: WHAT'S NEXT?

Tech, Please: Options in Technology-Powered Rural Mobility

While mobility challenges can seem daunting, there is an emerging movement among vehicle manufacturers, software engineers, transit planners, researchers, and policymakers to innovate our way out of them. With the headlines full of self-driving cars, drones, and other disruptive technologies, this is an important moment for rural mobility issues to find a home on this strategic agenda. [\[SEE BOX: The Sky's the Limit: A Job for a Drone?\]](#)

“There is the feeling that this giant problem has stymied any real movement forward, which is why I’m excited by interest from tech,” says Carrie Henning-Smith, deputy director of the University of Minnesota Rural Health Research Center and co-author of *Rural Transportation: Challenges and Opportunities*. “It’s not permanently stuck – it just needs a good push.”

Tech-enabled innovations may take many forms and are likely to unfold at different rates. Some key possibilities include:

- **In the present and near term:**
 - Software and online communications systems that help transit, volunteer driver, and other programs do more with existing assets, using mobility management techniques to improve service and meet each traveler’s needs more efficiently.
 - Telemedicine systems that reduce the need to travel for some forms of health care, particularly as broadband coverage expands and interfaces become more user-friendly.
 - Alternative ways of delivering goods and services that mitigate the need to travel.
- **In the medium term:**
 - Intelligent Transportation Systems (ITS) and enhanced auto safety features that may increase safety significantly enough to allow individuals to continue to drive longer.
- **In the medium and longer term:**
 - Partially and fully autonomous vehicles (AV) that cover long distances more easily, reduce costs, address fuel efficiency, and increase safety.
 - Innovative delivery options, including autonomous vehicles, drones, and other means, that support a more personalized supply chain for deliveries and services in people’s homes and neighborhoods.

This will only happen in rural places, however, if rural considerations are part of the design process, as U.S. Secretary of Transportation Elaine Chao [asserted](#) at the North American International Auto Show in January 2018. “We want to be inclusive ... and consider how this technology can benefit rural America. Automakers and tech companies are making great strides in delivering self-driving cars, but they are likely to be first available in ride-sharing fleets in urban environments. That’s great, but not everyone lives downtown.”

SKY'S THE LIMIT? A JOB FOR A DRONE

It only flew once. In 2015, the nonprofit [Health Wagon](#) received one-time FAA permission to deliver medical supplies from a regional airport by drone to pharmacists staffing a Remote Area Medical (RAM) clinic deep in the Appalachian mountains of Virginia. It was an experiment, but the need is real: snow is sometimes so heavy there that the National Guard has had to make emergency medication deliveries.

“We’re really the only provider in our immediate region and transportation is always a barrier,” says executive director Teresa Gardner Tyson, DNP, FNP-BC. “These people die without access to health care.”

Regular drone delivery is not legal today but Tyson continues to work with the manufacturer, Flirty, and a major medical distributor in the hope that it will be eventually. Meanwhile, the drone itself will be inducted into the Smithsonian Institution in late 2018.

The FAA is [exploring](#) expanding public-private partnerships, and companies like [Zipline](#), which has had success with medical drone deliveries in Africa, are hoping to join a pilot program to be announced soon.



Software to Coordinate and Improve Services

Waiting is one of the realities of using rural transit. Demand-response rides pick riders up at home but require a 60- to 90-minute window. The bus can arrive without warning and only waits three to five minutes before leaving again, with or without the passenger.

This could be improved by the adoption of software called Real-Time Technology, an add-on to dispatch and scheduling programs that many systems have already. Using a GPS-powered technology called Automatic Vehicle Locator (AVL) to track the progress of the bus or van, the software then texts or robocalls passengers to let them know when their ride is approaching.

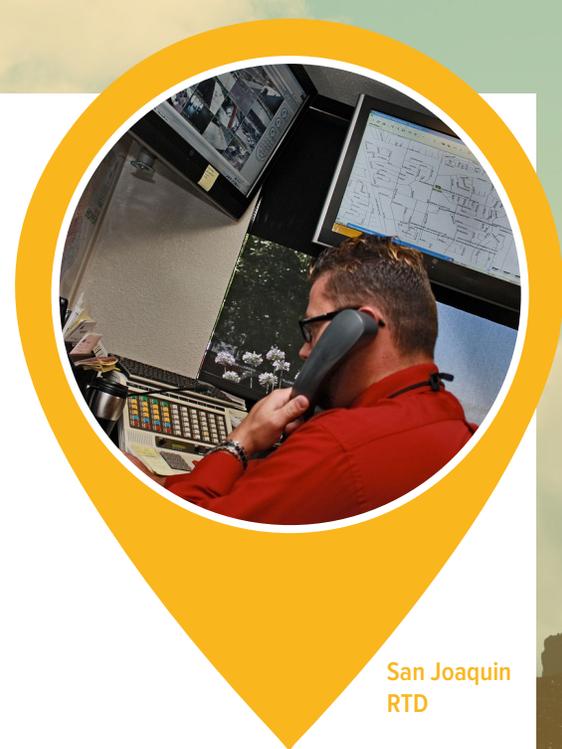
“This software exists but is not widely used now,” says Carol Wright Kenderdine, co-director of the NADTC and a former rural transit operator herself. “A lot of rural systems don’t know they could use this, and they haven’t been pushed, partly because software is not cheap. But this gives operators a chance to manage their systems better.” Vendors serving rural transit needs include [Synchromatics](#) (formerly Mobilitat) and [Ecolane](#).

Mobility on Demand

Another approach is using technology to provide better support to people who are trying to navigate without their own car. The [Mobility Management](#) approach re-orientes service toward the needs of the user. The idea is to help people find and use all options in a given place, encourage collaboration among many different providers, and help users achieve what is known as [Mobility on Demand](#).
[SEE BOX: [Go! Vermont](#)]

In fact, “the term ‘public transportation’ has a different meaning than it used to. We no longer think about traveling on individual modes – we think about the trip as a whole,” [observes](#) consultant Carol Schweiger in a valuable series on technology prepared for the National Aging and Disability Transportation Center.

This patchwork quilt of methods can include standard bus and van routes, volunteer driver options, car-shares, ride hailing (where available), and ADA Paratransit. Increasingly, where possible, Mobility on Demand tries to include innovative “microtransit” options to cover first-mile, last-mile trips from home to bus or train stops -- anything from a bike-share to a shuttle to a subsidized Uber or Lyft ride. The National Center for Mobility Management [offers](#) further examples of ferries, water taxis, and even dog sleds as options for mobility managers to consider in some rural communities in its excellent summary, [Mobility Management: Introduction, Implementation, Community Service and Seniors](#).



San Joaquin
RTD

FEONIX: MOBILITY RISING

Feonix: Mobility Rising is so new it doesn't even have a website but in rural transportation circles, it's a hot topic.

That's because founder Valerie Lefler previously ran Liberty Mobility, a tech start-up that looked like it might succeed in bringing a version of ride-hailing to rural America.

While the start-up ended operations in January 2018, Lefler is now leading a nonprofit with a new board and a new business plan, Feonix is rising.

“My mission in life is to help improve public health in rural communities – if I couldn't be a doctor, I can help get them to the doctor,” says Lefler.

The new service works with rural communities to provide mobility management of existing options – “a travel agency meets 211” – and offers support launching or enhancing local volunteer driver programs to build capacity and fill in the gaps. The key is improved coordination.

“When we create local groups of champions from all sectors of the social service framework, it never ceases to amaze me that there are always people who serve the same clients but have never been in the same room before.”

Lefler expects the new model to be operating in five states in the US, Canada, and the UK by the end of 2018. “It's going to be an interesting five years in the rural mobility space.”

Go! Vermont

Vermont is serious about mobility and its planners are always pushing the envelope. Case in point: the new [Go! Vermont mobility on demand program](#).

“Why can I have a Travelocity app on my desktop and find any flight in the world but I can’t figure out my surface transportation here in Vermont?” wondered Ross MacDonald, Public Transit Coordinator and Go! Vermont manager.

New software, vehicle tracking technology, and a lot of coordination now allow anyone in Vermont to find the bus, carpool, vanpool, carshare, bike, train, or ferry and all the connections needed to create a trip. Information on volunteer drivers, who enhance services for older people and people with disabilities, particularly in remote areas like Vermont’s Northeast Kingdom, is included as well.

Note: Rural topography makes this kind of information gathering difficult. For more detail on how Vermont is working with Google and the open source software community to gather and format data in rural environments, please see our companion paper, *The Future of Rural Transportation and Mobility for Older Adults: Current Trends and Future Directions in Technology-enabled Solutions*, available at bit.ly/RuralPubs.

The screenshot shows the Go! Vermont website interface. At the top, it identifies itself as the Vermont Official State Website and the Vermont Agency of Transportation. The main navigation menu includes links for Bus Information, Carpool, Vanpool, CarShare, Biking, Ferries, and Trains. The central content area features several key elements: the Go! Vermont logo, a 'NEW CITY-TO-CITY BUS SERVICE' banner, the Vermont Shires Connector logo with a map of Vermont, and a 'GO! VERMONT TRIP PLANNER' section. Below these are icons for 'ALL YOU NEED TO KNOW TO GO' which includes Bus Routes, Schedules, and Directions; Carpool Matching; Start or Join a Vanpool; and Cycling Options and Tips. There is also a 'CARPOOLING' section with a car icon and a 'Vanpool' section with a Rideshare logo. A 'Questions?' box provides contact information: 800-685-RIDE or email. The website also includes a search bar and a 'Contact Us' link in the footer.

Mobility Managers often work for transit agencies, but similar services can also be found at Area Agencies on Aging, non-transportation-centered agencies, and a new nonprofit, Feonix Mobility Rising. [See Box: [Feonix: Mobility Rising](#)]

Note: For a more detailed explanation of Mobility as a Service (MaaS), the technology behind it, and how it is being piloted in upstate New York, please see our companion paper, *The Future of Rural Transportation and Mobility for Older Adults: Current Trends and Future Directions in Technology-enabled Solutions*, available at bit.ly/RuralPubs.

[BACK TO T.O.C.](#)

Increasing “Driving Expectancy”

While multiple approaches are needed, some experts believe more attention should be paid to helping older people continue to drive safely longer. This must be balanced with safety considerations: Traffic accident rates are two and a half times **higher** on rural roads, and older people, while only slightly more likely to be in accidents, are considerably more **likely** to die in them.

Interventions can include continuing driver education, car sharing options, more age-friendly street signs and lighting, more comfortable and accessible vehicles, and tech-driven safety enhancements, **writes** Sandra Rosenbloom, a **professor** of transportation at the University of Texas School of Architecture and editor in chief of the Journal of the American Planning Association.

“Society faces a huge elderly mobility challenge that we must recognize and address now—because we’re silently condoning another scam against the elderly if we don’t. To do otherwise is to cheat our aging population and cheat ourselves of the important contributions older people make to our society through continued employment, grandparenting, volunteering, mentoring, and chauffeuring other older people.”

Many Driver Assist Technologies already **exist** in today’s cars (automated parking, back-over notification and prevention, blind spot detection) and most do not require a high degree of connectivity in the region to work.

More comprehensive features to support a human driver will be built into next-generation vehicles, **including**:

- Animal detection (and roadkill reduction) using sensors and infrared cameras.
- Better visibility at night and in bad weather (fog, snow, etc) through infrared headlights.
- Driver Override System, or smart braking, allowing the car to apply the brake if needed, even if a driver is accelerating.
- Dynamic Infrastructure Alerts: technology to connect with real-time infrastructure maps to monitor changing driving parameters and road conditions. Like Google Maps, with more real-time data.
- Active Health Monitoring, able to detect if someone is having a heart attack or symptoms of high blood pressure or electrolyte imbalances.
- Collision warning systems, auto-braking systems, lane-centering assistance, and parking automation.

Vehicle owners may not always know how to use these features or be aware that they are available in newer cars, so explanation, demonstrations, and coaching opportunities may be important as well.

VOICES FROM RURAL AMERICA

“On the homestead farms and ranches way out, their options are only friends and family. They don’t get deliveries or transit there. Often the conversation is a lifestyle change: Sell and move into town.”

– Key informant from Oregon, via the GIA Rural Listserv



Challenges on the Ground: Google Maps Meets Gravel Roads

In making plans, rural-specific challenges cannot be ignored, [writes](#) Steve Albert, director of the Western Transportation Institute at Montana State University, in a review for the [U.S. Department of Transportation’s](#) Intelligent Transportation Systems Joint Program Office. “Improving rural transportation is not as simple as transferring urban policies and solutions to a less populous environment. Rural areas have different technological infrastructure, fiscal resources, infrastructure usage, and travel patterns.”

Another potentially limiting factor is weather. In some places, only a four-wheel drive vehicle is practical. Dennis Dudley even recalls a time during his days running an Area Agency on Aging in the mountains of Shasta County, California when so much snow fell that the Meals on Wheels route had to be run by snowmobile.

Road conditions matter as well. Rural non-Interstate roads see higher rates of fatal accidents – more than twice as high, according to the transportation research group [TRIP](#). In 2015, 15 percent of the nation’s major rural roads were rated in poor condition and 21 percent in mediocre condition. Beyond a bumpy ride, this can also mean that lane markings, lighting, and signage—important to the [navigation](#) of autonomous vehicles—are unreliable as well.

Some innovators, such as [3M and its Connected Roads program](#), are using radar and lidar (Light Detection and Ranging sensors that [work](#) similarly to radar but using light waves to measure distances) as well as additional cameras and mapping technology to compensate.

Telehealth: Access as Social Justice

Travelling long rural distances to reach services may not always be possible, but it also may not be necessary or even desirable. The higher value, says the ACL’s Dennis Dudley, is equity of access. “This is more important than just transportation. If a service is important to the rest of the population, then rural people should have access to it as well. Access is justice.”

One innovation that is helping equalize services, particularly as many rural hospitals are struggling and closing, is telehealth. This has particular value in places that are so remote that distance is dictating how health care decisions get made, says Deanna Larson, [CEO of Avera eCARE](#), a telehealth provider headquartered in Sioux Falls, South Dakota.

“Sometimes people need to travel a hundred miles or more to get needed services. Unless we support their local primary care with telemedicine, giving them the ability to see specialists while still in their home clinic, they would end up driving for everything,” she says.

[BACK TO T.O.C.](#) 

Telehealth can provide valuable support for caregivers and expert consultations for physicians and long-term care providers in remote places. Ongoing challenges include limited opportunities for reimbursement, particularly in fee-for-service models (although this is [evolving](#) quickly), and limited broadband capacity in remote communities.

Connectivity Issues

The rural broadband issue remains very important. Thirty-nine percent of rural Americans [lack](#) high-speed broadband service (defined as 25 Mbps/3 Mbps) as do 41 percent of Americans living on Tribal lands and 98 percent of people in rural territorial areas. Compare that with only four percent of people living in urban areas.

The combination of factors is an unhealthy one, because many people who could benefit the most from telehealth are the same ones who don't have access to it. As *Next Avenue* has [reported](#), an FCC-backed project called [Connect2Health](#) created a [mapping tool](#) in 2017 in conjunction with the Robert Wood Johnson Foundation, comparing rates of chronic disease and broadband access.

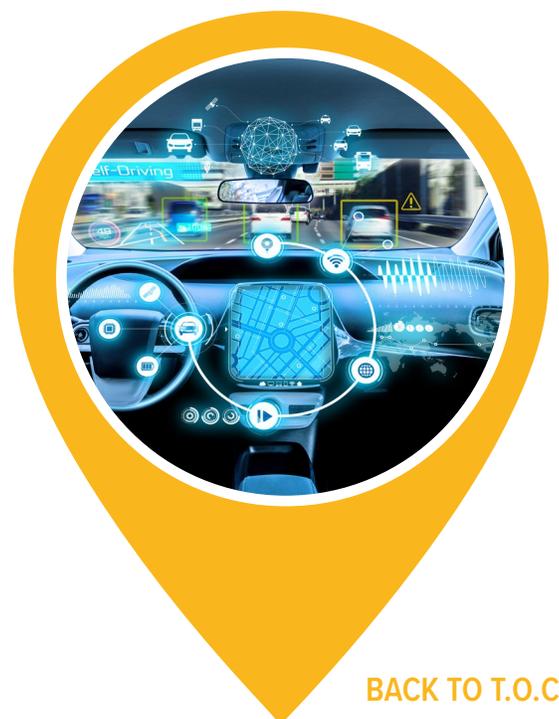
“One thing the maps show is that there are too many counties in this nation that we call double-burdened,” said FCC Commissioner Mignon Clyburn. “These are counties with the worst access to primary care physicians, and also the least connected when it comes to broadband.”

Future Shock: Resist, Adopt, Adapt?

Looking ahead, autonomous vehicles will soon offer even more features but may also raise questions, ranging from safety to how much they actually offer in the search for better mobility for older people in rural America.

Even some experts in transportation technology see the question differently. “It’s not simply autonomous vehicles,” says Carol Schweiger, president of [Schweiger Consulting LLC](#) and chair of the New England Intelligent Transportation Society. “That’s everybody’s solution – that in 10 years we’ll all be in autonomous vehicles, and I don’t happen to agree with that, because automated vehicles will not address all of our transportation challenges, particularly for elderly and disabled travelers.”

One barrier may be peace of mind. “I was talking about self-driving cars with my mother-in-law and she said she’d rather sit at home than go out in a self-driving car,” says Kristine Sande, associate director at the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences. “There’s definitely a role for education.”



[BACK TO T.O.C.](#)

Others feel that this concern is exaggerated, and that, by the time autonomous cars are readily available, older people will be more prepared to embrace them.

“The fact is that older adults do get technology and by the time the Baby Boom fully enters its 60s and 70s, it will be the most tech-savvy group of elders ever to have existed,” says Joseph F. Coughlin, founder and director of the [MIT AgeLab](#). “It is time to envision service and policy innovations to solve for the last 50 feet to make the autonomous car a real transportation option for an aging society.”

Other thought leaders and futurists believe that the rural setting may emerge as the ideal application for autonomous vehicle technology. “I’m pretty unexcited about autonomous vehicles in cities, which I think will lead to massive congestion, but I think in rural, the self-driving car piece starts to make a lot more sense,” explains Stephen Johnston, co-founder of [Aging 2.0](#).

Johnston goes further, framing the issue as less about how to provide transportation and more about how to solve challenges people face. “There’s a shift we need to see: what are the things that are relevant to you as an individual and what are the services that can deliver them?”

He envisions a future in which people will receive a personal budget to spend on their mobility and access based on their own preferences. “Sure, it’s good to have local transport systems but I would rather empower people in how they spend their money. They might want to get connected but do it using virtual reality or flying someone in to see them.”

Goals in Sight: Reducing Social Isolation

When designing tech-driven solutions, most leaders agree that it is essential to avoid unintended consequences, says Carrie Henning-Smith of the University of Minnesota Rural Health Research Center, who surveyed 113 key informants from all fifty states for [Rural Transportation: Challenges and Opportunities](#). One of the most damaging would be cutting people off from others.

“Almost universally, the respondents had two things to say: they saw technology helping people connect with resources they couldn’t otherwise reach, and they expressed concern that technology would be used to replace human contact and might actually exaggerate social isolation,” she reports.

Social isolation, which can be caused by a lack of mobility, has serious, well-documented emotional and health [consequences](#). But providing access to things other than medical care also has an important role to play in promoting good health, says Joseph Coughlin of the MIT AgeLab in his new book, [The Longevity Economy](#): “Life, liberty, and the pursuit of happiness are supposedly unalienable rights, but services for older people were only set up to support life.... [Yet] it is the spur-of-the-moment trip to get an ice cream cone that matters far more to our quality of life than the mandatory trek to have our blood pressure checked.”

One solution may be taking care that human needs are not forgotten when making policy. “Moving seniors to get medication that can be delivered is not the best use of resources. Using those rides to help seniors see friends and family is more important,” points out Robin Phillips at the National Rural Transit Assistance Program.

VIA: AN AUTONOMOUS WAY FORWARD?

A more tech-centered vision is taking hold among some service providers. Frank Bruno is the CEO of [Via Mobility Services](#) in Colorado – the state that [provides](#) the most rural transit trips in the nation. Via, which has received support from the Rose Community Foundation, operates on a social enterprise model, providing transportation for older adults and people with disabilities and subsidizing those services with contracts to serve the city of Boulder and surrounding mountain areas.

Bruno sees moving toward autonomous vehicles as “a natural evolution of what Via does.”

“Right now, we have 15- to 22-passenger vehicles for paratransit, Access-a-Ride and Call-n-Ride. That could easily be an autonomous pod vehicle. It would still have an assistant or a trip associate on board to assist with door-through-door services, and we would still need operators to run the technology, navigate, and track the vehicle. I believe our jobs will simply change from one format to another. But we’re never going to take humans out of the equation.”



Self-Driving Cars: The Future?

Another perceived barrier to older people using tech is the need for comfort and support when travelling. For those who are frail or sick or living with disabilities, “tech doesn’t replace the caregiver,” says Steve Ewell, executive director of the Consumer Technology Association (CTA) Foundation, which has facilitated focus group on uses of autonomous vehicles to support older adults. [\[SEE BOX: Two Visions of Future Mobility and Aging: AccessibleOlli and Toyota’s e-Palette\]](#)

Joe Coughlin agrees. “The driverless car will improve both safety and mobility, but as it is currently conceived, it may not serve everyone... For truly seamless and on-demand mobility for older adults, the autonomous car will perhaps have to be augmented by a human-based service: a professional rider companion,” he has [opined](#).

“Technology has led to rapid advances in transportation for older adults and persons with disabilities. What is even more exciting is the fact that technology innovation is allowing us to redefine the entire concept of mobility for older adults - we are now able to engage individuals where they live, bringing services to individuals in the most efficient way possible,” says David Lindeman, PhD, director of the Center for Technology and Aging at the University of California at Berkeley.

[BACK TO T.O.C.](#)





TWO VISIONS OF FUTURE MOBILITY AND AGING: ACCESSIBLEOLLI AND TOYOTA'S E-PALETTE

Many concept cars seem designed for James Bond. Here are two designs that speak to the rest of us, including those who would rather have the world come to them.

AccessibleOlli: a self-driving, cognitive shuttle from Local Motors, which worked with IBM and the [Consumer Technology Association \(CTA\) Foundation](#) and 16 other industry partners to design. The team crowdsourced the design by meeting with focus groups of older adults and people with disabilities.

All-electric, partially 3-D printed, and fully accessible, [AccessibleOlli](#) has a retractable wheelchair ramp, software that can process sign language, machine vision that can direct visually impaired passengers to open seats, and simplified information displays for people with cognitive disabilities.

The Toyota [e-Palette](#), a complementary and highly versatile vision of the future, was named Best of the Best at the 2018 CES by [Engadget](#), which wrote, “Toyota saw mobility and decided that in addition to getting people around, it’s important to transport their goods and their small business. The e-Palette... can be a taxi, food truck, flower mart, delivery truck, office or even a place to sleep. It’s a blank slate on wheels, and in this quickly changing world, that might be exactly what we need.”

These vehicles recognize that there will need to be different opportunities, different people, and different services, says CTA Foundation’s Steve Ewell. “I’m excited to see many more innovations of this kind rolling out across the industry.”

VISION AND INNOVATION: A ROLE FOR PHILANTHROPY

Only two percent of philanthropy in America is now focused on aging, and only seven percent goes to any aspect of rural need. It's time for that to change, says John Feather, PhD, CEO of [Grantmakers In Aging](#) (GIA), which is leading a [multi-year program](#) to highlight needs and funding opportunities in rural aging. "You can stand in almost any major city in America and be only one or two counties, or as little as one hour's drive, from a rural community, he says. "Rural issues are actually much closer than most of us tend to think."

While there are exceptions—notably, support for some local transit, volunteer-driver programs, and health-related pilots--transportation has not historically been a major focus for foundations.

The dominance of public funding and the complexity of the issue may be reasons, says Allen Smart of the Rural Philanthropic Analysis (RPA) Project. "To most funders, transportation seems overwhelming, too governmental, too capital intensive," he says. "If I were to create a listing of content areas that funders focus on, transportation is going to be in the bottom quartile, absolutely. There is no national association of transportation funders, for example."

This may be the moment for foundations to reconsider. With rural communities aging more quickly and economies dispersed across ever-larger regions, the need is great, but public investment is unlikely to keep pace.

At the same time, emerging technologies offer realistic options for improvement. Rural communities deserve to benefit from these innovations, but this will likely require strategic investment and advocacy. Here are some reflections from funders and practitioners about how philanthropy can help.

Funding Tips and Grantmaking Recommendations

GETTING STARTED FUNDING MOBILITY

- **Consider funding transportation even if it's not your main focus.** It's a great way to get traction on other issues, like health, social isolation, economic development, and aging in place.
- **It's OK to start small, "especially for a new idea,"** says Jean Freeman of the Missouri Foundation for Health, the original funder of HealthTran [[SEE BOX: HealthTran: Partnering with Health Care Providers](#)]. "Maybe just start in one or two counties instead of a very large area."
- **Fund needs- and asset-based assessments to make the most of what is already there.** "One of the first things we did was survey all the transportation options available in our catchment area. That mapping included local transit systems but also the senior centers and adult daycare buses, the ARC vans, and school buses," recalls Nancy Heaton, CEO of the [Foundation for Community Health](#) in Sharon, Connecticut.

REMEMBER THE IMPORTANCE OF BRINGING PEOPLE TOGETHER

- **Be a convener.** Bringing all parties together is a natural role for philanthropy. "I think every community is uniquely struggling with this and if there were an opportunity to come together, they would want to do that. But the opportunity is not always there," says Carrie Henning-Smith.

- **Encourage grantees to break through silos.** Human service providers like Area Agencies on Aging, local Meals on Wheels, or community health workers should try to coordinate their work with transportation providers whenever possible.
- **Think creatively about other possible funders.** Health care providers, shopping centers, pharmacies, restaurants, and community organizations may be open to sharing mobility costs.

CONSIDER OTHER WAYS TO SUPPORT MOBILITY

- **Write transportation planning into grant proposals for other programs.** “Senior exercise programs, art programs, and community theater are all great but the people running them also need to think about how participants are going to get there,” says Robin Phillips of the National Rural Transit Assistance Program (RTAP).
- **Consider co-locating services.** If rides are already available to a location like the senior center or medical center, perhaps your other grant-funded programs should take place there as well.
- **Don’t overlook faith-based and volunteer driver services, which can do things other services cannot.** “Volunteer drivers don’t just give rides – they also help people in and out of vehicles and provide the socialization older adults need,” says Helen Kerschner, director of the National Volunteer Transportation Center.
- **Offer prospective grantees advice on how to write a grant you could fund,** particularly small nonprofits that are wonderful at running volunteer programs but may not have a grantwriter.
- **Support hiring a Mobility Manager** for your region or a community-based organization.
- **Support education and technical assistance for transit and other mobility providers.** Scholarships to attend conferences and training offered by the Rural Transit Assistance Program or the [National Transit Institute](#) can help small systems update services. Technical assistance is also available through webinars, conference calls, peer counseling, and one-on-one consultation. [\[SEE BOX: Technical Assistance is Key\]](#)
- **Encourage transportation-providing grantees to diversify funding sources.** In Texas, transit providers are [experimenting](#) with delivering packages as well as people. In Minnesota, Big Woods Transit contracted with nearby Fortune Bay Resort Casino to provide an employee shuttle, three times a day, 365 days a year. After budget cuts, “that contract with the casino really saved the transit. The additional service miles help with our funding level through the Tribal Transit formula funding program,” says manager Jennie Rowland, whose system has also received support from Northland Foundation and the Otto Bremer Trust.



National RTAP

TIPS FOR FUNDING MOBILITY TECHNOLOGY

- **Ask grantees if they could benefit from a tech boost.** “In my experience, we [as grantees] have to bring it up,” says Sarah Cheney of Shepherd’s Centers of America.
- **Support small grantees and communities in research and purchasing decisions, especially in technology.** “Foundations could and should be a source of intellectual capital facilitation between local governments, local utilities, local health care systems, and local employers to do a deeper look at what the options are. Local communities are vulnerable to salespeople who may promise a lot. It can be hard to vet those choices,” says Allen Smart.
- **Fund outside expertise.** “Everything about transportation is difficult,” says Nancy Heaton of the Foundation for Community Health. “Once I felt there was a strong grassroots commitment on the part of the community, we hired a transportation consultant, Nelson/Nygaard, to tell us what our best options were. It was worth every penny.”
- **Avoid the common mistake of inadequately funding new technology.** “People typically don’t understand how complicated it is to deploy a full system, says Carol Schweiger of Schweiger Consulting. “The challenge, particularly in rural areas, is that a lot of agencies will never receive enough funding to do a full deployment of technology. They’ll receive part of it and deploy what they can afford rather than what they need, even if it isn’t the right thing.”
- **Invest in scaling systems that already work.** A cloud-based software system called RideScheduler allows volunteer driver programs to post all upcoming rides where drivers can see them and has saved staff time because they no longer use index cards or have to call multiple volunteers for each ride, says Sarah Cheney of Shepherd’s Centers of America. “Volunteers are driving more when they can self-schedule. Our dream is to get this database system to all of our affiliates.”
- **Technology can help grantees tell their story.** Systems that track ridership or count ride requests that have to be denied can allow your community to overcome “[data deficits](#)” and help with fundraising and sustainability. “That kind of data is huge if you’re going to tell your story, to a funder in particular,” says Nancy Heaton.

SUPPORT EFFORTS TO ADAPT TO NEW TECHNOLOGY

- **The public may need technical assistance, too.** Older people may never have ridden public transit or may not know how to use tech features in a personal vehicle. In [Centennial, Colorado](#), a grant from Bloomberg Philanthropies supported the Innovation Team, which partnered with the city’s Senior Commission on a [Mobility Ambassador Program](#). The program empowers older residents as trainers to help others understand how to use transit and find options besides driving. It has been so successful that they have been invited to present it to several other cities, says I-team data analyst Melanie Morgan.
- **Anticipate and address needs that new technology may exacerbate.** “Amazonification” is one example; ironically it may help with access to food and other goods but increase social isolation. “Having Amazon drop things at your door is amazing, but there are other needs as well, like human contact and getting out. We need both,” says Carol Wright Kenderdine.

- **Fund the high-touch side of high-tech.** Most experts agree that tech programs also need a human touch. Consider funding a complementary program, like the [Patient Navigator](#) program at Jewish Family Services MetroWest. “They bill it as more than transportation,” says Rebecca Gallo, program officer at [MetroWest Health Foundation](#). “Many of the volunteers are retired medical professionals who drive or ride with older people to doctor appointments, talk to them about their health goals, take notes, and empower them during the visits.”

Via Mobility Services



RESPECT LOCAL NEEDS AND REALITIES

- **Consider more support for administrative costs.** In small rural Area Agencies on Aging, for instance, “you might get support to try out a great idea, but even if it is successful, staffing and overhead limits can make it very hard to sustain,” says Dennis Dudley, Aging Services Program Specialist at the Administration for Community Living.
- **Recognize that rural grants may work differently.** Work may take longer to get started or require a different level of investment. “What may seem like a modest amount of money in an urban area is actually something that a rural area may struggle to spend in the same timeframe. Consider giving rural grantees more time,” adds Virginia Dize of NADTC.
- **Avoid misunderstanding by putting a rural face on new ideas.** “A common mistake is an urban agency coming in and trying to work in a rural area, forgetting that there is often a level of distrust of people you don’t know, who don’t look or sound like you,” says Allen Smart. “You can mitigate this by adding a familiar face to the project – perhaps a local pastor or mayor.”
- **Innovation is relative. Don’t assume it’s been done already.** “Some things that may be tried and true in an urban area may never have been tried in a rural area,” says Virginia Dize.

CREATING A DYNAMIC AGENDA FOR RURAL MOBILITY

Where do we go from here? How do we want to get there? While there is consensus that rural mobility is a challenge, there is a wide range of opinion about the best solutions.

Some observers see mobility as a right and a community builder that cannot be ignored, like Anthony Foxx, former U.S. Secretary of Transportation. “We as a nation cannot afford to have our rural communities disconnected, because the fiber of this country is knitted together by every single place. Every community matters. Transportation is something that we do together,” he told the [Daily Yonder](#) in 2015.

Many professionals in the field of aging regard mobility options as crucial for supporting the larger goal of aging in place.

Others take a more pragmatic view. The question of cost looms large, and some question whether the rural transportation model of today is sustainable. A [white paper](#) prepared for the U.S. Department of Agriculture by researchers at Texas A&M’s Transportation Institute explored the economics of rural transit, framing the question as a cost-benefit analysis: “By choosing to live in rural areas, people are making the choice to live with benefits such as open space and less congestion. These benefits, however, are realized with costs such as decreased transportation options. There may be a need for transportation services, but at what cost to society?”

Political will is another important factor. In the Texas A&M survey, less than 10 percent of respondents felt that transportation for older people was “a high political agenda item.” Paul Jellinek, who helped establish the Faith in Action program, agrees. “There are a lot of elderly people who can’t drive and they need transportation. Every congressman or congresswoman has them. The other thing they can’t do is get to the voting booth. If they could, this might be more of a priority.”

Economics, politics, and societal good hang in the balance in most policy decisions. In framing an agenda for progress and advocacy, perhaps the most important thing for funders to remember is that transportation is a means, not an end. “We dedicate ourselves to ‘the why,’” says Amy St. Peter of the Maricopa Association of Governments, “and that is making people’s lives better.”



BACK TO T.O.C.

RESOURCES AND CONTACTS

TECHNICAL ASSISTANCE ORGANIZATIONS

- Community Transportation Association of America
- National Rural Transit Assistance Program
- National Aging and Disability Transportation Center
- National Center for Mobility Management

TRANSIT AND MOBILITY

- Rural Transportation Toolkit from the NORC Walsh Center for Rural Health Analysis with the Rural Health Information Hub (RHI Hub)
- Rural Transportation: Challenges and Opportunities: A Policy Brief from the University of Minnesota Rural Health Research Center
- AARP: Weaving It Together: A Tapestry of Transportation Funding for Older Adults
- Rural Transit Fact Book 2017
- Urban Institute: Roadblocks Ahead for Seniors Who Don't Drive
- Public Transportation's Impact on Rural and Small Towns: A Vital Mobility Link: report from the American Public Transportation Association (APTA)
- Transportation for America: Aging in Place, Stuck Without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation
- Rural Connections: Challenges and Opportunities in America's Heartland: report by TRIP
- Transportation Services for People with Disabilities in Rural and Small Urban Communities: Summary Report from EasterSeals Project Action
- ITNAmerica's Rides in Sight Database

POLICY AND GOVERNMENT

- The Policy Book: AARP Public Policies 2017-18: Rural and Intercity Transportation
- Federal Highway Administration: What Is a Regional Transportation Planning Organization?
- National Rural Assembly: Principles for Sound Rural Transportation Policy
- Non-Emergency Medical Transportation: A Vital Lifeline for a Healthy Community: A Policy Brief from the National Conference of State Legislatures
- Beyond Traffic 2045: Final Report: from the US Department of Transportation

TECHNOLOGY

- "How Do I Get Started with Technology?" Blog series, National Aging and Disability Transportation Center
- Federal Transit Administration's Intelligent Transportation Systems for Transit
- 2015 OST-R Transportation Technology Scan: A Look Ahead: Report from the Volpe National Transportation Systems Center
- Autonomous Vehicle Implementation Predictions: Implications for Transport Planning: from the Victoria Transport Policy Institute

BACK TO T.O.C. 

ACKNOWLEDGEMENTS

Thanks to our Steering Committee for their energy, insight, and commitment:

- Candace Baldwin, Director of Strategy, Aging in Community, Capital Impact Partners
- Becky Hayes Boober, Vice President of Community Impact, Maine Community Foundation
- Dennis Dudley, Aging Services Program Specialist, Administration for Community Living
- Charlotte Haberaecker, President and CEO, Lutheran Services in America
- Sandy Markwood, CEO, National Association of Area Agencies on Aging (n4a)
- Aaron Merki, Program Officer, Older Adults, Harry and Jeanette Weinberg Foundation
- Ann Monroe, Board Chair, Grantmakers In Aging
- Linda Redford, Director, Central Plains Geriatric Education Center, Landon Center on Aging, University of Kansas Medical Center
- Amy St. Peter, Assistant Director, Maricopa Association of Governments
- Allen Smart, Director, Rural Philanthropic Analysis (RPA)
- Carol Wright Kenderdine, Assistant Vice President, Mobility & Transportation, Easterseals, Inc., and Co-Director, National Aging and Disability Transportation Center
- John Feather, CEO, Grantmakers In Aging
- Cindy Padilla, GIA Rural Aging Program Lead

Thanks also to our Rural Transportation subcommittee:

- Laura E. Mason, Program Officer, May and Stanley Smith Charitable Trust
- Steve Ewell, Executive Director, Consumer Technology Association (CTA) Foundation
- Andrew Levack, Senior Program Officer, St. David's Foundation
- David Lindeman, Director, CITRIS Health and the Center for Technology and Aging at the University of California at Berkeley

ABOUT THIS REPORT

This report is one of two publications offered in connection with the Beyond Here & There Rural Mobility Summit, co-hosted by Grantmakers In Aging (GIA) and CITRIS and The Banatao Institute. The event is generously supported by a grant from the May and Stanley Smith Charitable Trust. The companion paper, *The Future of Rural Transportation and Mobility for Older Adults: Current Trends and Future Directions in Technology-enabled Solutions*, will also examine rural mobility, with a more focused look at technology across a longer timeframe.

Both papers are available for download [here](#) or at bit.ly/RuralPubs.

An interactive table of contents for this paper is available [here](#).

OUR SPONSORS

Support for this report was generously provided by the May and Stanley Smith Charitable Trust, Tivity Health, St. David's Foundation, and the Consumer Technology Association (CTA) Foundation.

ABOUT THE MAY AND STANLEY SMITH CHARITABLE TRUST

Created in 1989, the Trust stewards the charitable intentions of May and Stanley Smith beyond their lifetimes. The Trust's 2014-2018 Strategic Plan aims to focus, deepen, and enhance our efforts to achieve significant, lasting, positive changes that promote well-being for individuals and communities. For the term of the Plan, the Trust has identified the following focus populations: Children & Youth: Foster Children and Youth, Elders: Adults

over age 60; Adults & Families: Military Veterans and their Families; People with Disabilities: Adults and Youth Transitioning to Adulthood living with Physical, Intellectual, or Developmental Disabilities. Learn more at www.adminitrustllc.com/may-and-stanley-smith-charitable-trust.

ABOUT TIVITY HEALTH

Tivity Health, Inc. is a leading provider of fitness and health improvement programs, with strong capabilities in developing and managing network solutions. Through its existing three networks, SilverSneakers® - the nation's leading fitness program for older adults, Prime® Fitness and WholeHealth Living™, Tivity Health is focused on targeted population health for those 50 and over. Learn more at www.tivityhealth.com.

ABOUT ST. DAVID'S FOUNDATION

St. David's Foundation invests in a healthy community through funding, hard work, and initiatives to better care for the underserved and uninsured. This year, St. David's Foundation plans to give more than \$75 million to the community through grants to numerous agencies, local safety net clinics, and the highly acclaimed St. David's Dental Program. Learn more at <https://stdavidsfoundation.org>.

ABOUT THE CONSUMER TECHNOLOGY ASSOCIATION FOUNDATION

The CTA Foundation, a public, national foundation affiliated with the Consumer Technology Association (CTA)™, was launched in 2012 with the mission to link seniors and people with disabilities with technologies to enhance their lives. The foundation strategically supports programs that affect these communities and facilitates dialog between industry, consumers, government, advocacy groups and other key stakeholders. Learn more at www.cta.tech/CTA-Foundation.

ABOUT GRANTMAKERS IN AGING

Grantmakers In Aging (GIA) is an inclusive and responsive membership organization comprised of all types of philanthropies with a common dedication to improving the experience of aging. GIA members have a shared recognition that a society that is better for older adults is better for people of all ages. Learn more at GIAging.org.

ABOUT CREATING A SUSTAINABLE NETWORK FOR THE RURAL AGING MOVEMENT

GIA's work on the rural mobility, including this report, is part of a three-year program to improve the experience of rural aging by connecting and supporting key players, sharing knowledge, and expanding the resources and services available to older adults in rural areas. Learn more at GIAging.org/rural-aging.

ABOUT CITRIS AND THE BANATAO INSTITUTE

CITRIS (the Center for Information Technology Research in the Interest of Society) and the Banatao Institute create information technology solutions for society's most pressing challenges. Established in 2001, CITRIS leverages the interdisciplinary research strengths of UC Berkeley, Davis, Merced and Santa Cruz to advance the University of California's mission and the innovative spirit of California. The institute was created to shorten the pipeline between world-class laboratory research and the development of impactful applications, platforms, companies, and even new industries. Learn more at <http://citrisc-uc.org>.

EDITORIAL AND DESIGN SERVICES

Written by Elliott Sparkman Walker and designed by Carly Warner of [SCP](#) (Strategic Communications & Planning.)

