Mobility Management: State of the States Report

Federal Transit Administration

September 2018

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About the National Center for Mobility Management (NCMM)

The National Center for Mobility Management is a national technical assistance center funded through a cooperative agreement with the Federal Transit Administration, and operated through a consortium of three national organizations—the American Public Transportation Association, the Community Transportation Association of America, and Easterseals Inc. The mission of the Center is to promote customer-centered mobility strategies that advance good health, economic vitality, self-sufficiency, and community.

About the Urban Transportation Center (UTC)

The Urban Transportation Center (UTC) is a research unit dedicated to innovative transportation research and education that provides technical assistance on urban transportation planning, policy, operations, finance and management. Part of the College of Urban Planning & Public Affairs at the University of Illinois at Chicago (UIC), the UTC is a nationally-recognized innovator in research, education and engagement that benefits transportation networks in cities and metropolitan areas across America.

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ACKNOWLEDGEMENTS

This research was completed through funding provided by the Federal Transit Administration (FTA) and the National Center for Mobility Management. The research team would like to thank transportation officials from statewide mobility management programs across the country for their participation in interviews with the research team. The views within this document are those of the authors alone.

EXECUTIVE SUMMARY

Mobility management is designed to respond to the individual needs of each rider, regardless of where they live or how they choose to get around. Mobility management networks are networks that are designed to improve the overall mobility for any given trip, regardless of the rider characteristics, mode, or geography. Mobility management thrives when there is a coordinated effort and combining of assets among private organizations and public agencies, all working together in pursuit of better service delivery at lower costs. This report terms it as mobility management networks. While these networks exist around the country, there is not a lot known about their role, their influence in providing mobility as a service (MaaS), or their ability in affecting mobility of individuals. It is the objective of this report to shed light on these mobility management networks at the state level with the help of an electronic survey of state mobility managers and affiliated stakeholders.

The survey was sent to 49 transportation professionals, each representing a different state. Thirty-five names on the list were provided by the National Center for Mobility Management, and 14 names were provided by the UIC research team; Participants were recruited via emails sent by P.S. Sriraj, with follow-up correspondence from Judy Shanley. All participants in this study were volunteers.

Out of 49 surveys sent, 28 were opened and 21 were completed. Two states responded directly to NCMM that their state did not have a statewide network; for the purposes of this research they are recorded as having received and completed the survey.
The results indicate that the statewide mobility management networks have a strong public transit component. Almost all those that responded, indicated that the networks in their respective states are either led by associations of public transit agencies, or are led by the public transit department within their state DOT.

Nine of the 14 responding statewide networks were established through governor's initiatives and executive orders or through state legislation. All of these states have or have had State

Coordinating Committees, five of which are currently active and four currently inactive. Eight of the 14 respondents name the state Department of Transportation as the lead or co-leading agency for their statewide mobility management network. Funding and affiliated networks for these agencies reflect the state DOT leadership. All of these agencies cite state DOT and/or Federal funds passed through the state DOT as their funding source. Five of the eight DOT-led network representatives identified funding through the Section 5310 Program. Additionally, one mentioned Section 5311 and another listed the Rural Transit Assistance Program as funding sources. A majority of the respondents indicated not having formal performance measurement systems for gauging their network's performance. As for the internal and external activities of the networks, the most common internal activity seems to be convening meetings, and other network-related communications. The most common external activity seems to be developing information packets for dissemination to other stakeholders.

The challenges facing these mobility management networks can be classified into the following types: coordination at various geographic levels; securing adequate funding and ensuring that funders perceive that their dollars are well spent; performance/outcome measurement of the impact of the network(s); and onboarding and training of mobility management professionals. It is in this context the comment from the network managers that they would like to learn from and share "success stories" of mobility networks to other states and agencies assumes significance. This report and derivatives of this report can be used to help mobility managers embark on continuous learning that benefits all which will potentially help them overcome some of the above-mentioned challenges.

INTRODUCTION

Mobility improvement is becoming the goal of many transportation systems and agencies as new technologies and new ways of traveling emerge and individual preferences to trips evolve. Mobility improvement often times is plagued by lack of continuity and communication between services and between stakeholders. As the discussion in the transportation sector moves from improving ridership for specific services, or reducing congestion and on to mobility management, the role of mobility management networks, which facilitate mobility management with the goal of providing Mobility as a Service (MaaS) becomes very intrinsic and central. While these networks seemingly have an important role to play, not much is known about their structure and functionality around the various states of the country.

These networks can provide a useful lens through which to view comprehensive transportation coordination efforts that emphasize the needs of disadvantaged riders, while simultaneously improving services for all riders. The goal of this phase of research is to collect and analyze the organizational structure, day-to-day operations, best practices, and challenges inherent to mobility management networks and the individuals who take part in them, either as leaders or participants. This information will shed light on several aspects of these networks including but not limited to their structure, and activities at the state level. The information is collected in two ways: (1) an electronic survey of network managers in each state; and (2) a scan of each state to compile information of the existing mobility mechanisms and services.

This report presents these findings in two ways: a narrative overview and state profiles that combine demographic information with survey findings. The report concludes with a set of recommendations for transportation professionals interested in improving existing or implementing new statewide mobility management networks as well as understanding barriers to the formation and sustainability of these networks at the state level.

LITERATURE REVIEW

The concept of mobility management embraces a wide scope of programs and services. For the purposes of this report, special attention is paid to research that addresses mobility management practices and programs designed to emphasize the coordination of transportation services for people with disabilities, seniors, and other transit-dependent populations. Mobility management is designed to respond to the individual needs of each rider, regardless of where they live or how they choose to get around (Burkhardt & McLary, n.d., pg. 1).

Mobility management networks are networks that are designed to improve overall mobility for any given trip, regardless of the rider characteristics, mode, or geography. From isolated rural areas with no public transportation options to large urban areas with complex, multi-modal networks, no area is too large or too small to benefit from increased coordination of transportation services, according to proponents and practitioners of mobility management (Burkhardt & McLary, n.d.; Majumdar, Sen, Highsmith, & Cherrington, 2013; Mattson et al., 2017). Mobility management also recognizes that riders often use multiple types of transportation throughout their travels (Ellis, 2009, pgs. 3, 5) and, accordingly, seeks to create a seamless, multi-modal experience for all riders, a trend in the overall transportation sector that is being fueled by the rise of Intelligent Transportation Systems (ITS) and Mobility as a Service (MaaS) applications (U.S. Dept. of Transportation, 2011, pgs. 3-4; Jittrapirom, Caiati, Feneri, Ebrahimigharehbaghi, Alonso-González, & Narayan, 2017, pg. 15).

Mobility management thrives when there is a coordinated effort and combining of assets among private organizations and public agencies, all working together in pursuit of better service delivery at lower costs (Mattson et al., 2017, 78; Majumdar, 2012, pg. 267). We call this a mobility management network. While end-users report improved transportation service delivery via mobility management (Mattson et al., 88), the complex nature of these networks complicates measuring performance in an agreed-upon, consistent manner. As a result, individual states use varying means to measure performance at the network level, including traditional (that is, those measurements already in use by public transit agencies), FTA-provided

criteria, regionally designed criteria, or a combination thereof (Majumdar et al., 2013, pgs. 288-289). To remedy this, Mattson et al. call for a "more robust evaluation framework" that is focused on strategic outcomes that grow out of an agreed-upon set of terminology and methods (2017, pgs. 79-80). At the end user level, measurement is somewhat more straightforward: surveys are one tool that is used consistently and effectively (Majumdar et al., 2012, pg. 267; Friedman & Rizzolo, 2016; Mattson et al., 2017, pg. 81). It is worth noting that any state-level assessment of mobility management must take into account the differences between urban and rural riders and networks (Majumdar et al., 2013, pgs. 292-294; KFH Group, Inc. 2018).

While aspects of mobility management have been informally implemented by the human service sector for decades, formal mobility management networks have been in existence in the US for just over a decade (Mattson, Miller, Goodwill, Sriraj, & Hough, 2017, pg. 78). Executive Order 13330 established the Coordinating Council on Access and Mobility (CCAM), a federal interagency charged with coordinating federal funding programs that focused on a "special population, which included the elderly, disadvantaged, and lower income individuals," in 2004 (Mujamdar, Sen, & Park, 2012, pg. 266). In 2005, Congress passed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which included mobility management as an eligible capital cost under the Enhanced Mobility of Seniors and Individuals with Disabilities (Section 5310), Job Access Reverse Commute (JARC), and New Freedom programs (Ellis, 2009, pgs. 2-3; "Mobility management," 2007).

In 2007, CCAM created the United We Ride initiative for the purpose of addressing the fragmented nature of transportation service delivery to clients served by human service organizations; however, the original intent of that initiative can be observed in mobility management programs at the state, regional, and local levels, as the profiles in this report demonstrate ("United We Ride," 2007). In 2013, the JARC and New Freedom programs were eliminated and folded into Section 5310 ("Job Access Reverse Commute / New Freedom / Section 5310," n.d.). At the federal level, FTA has brought many of the synergistic activities to

mobility management by recommending the development of statewide transportation coordination plans, as well as the identification of cost-sharing opportunities to leverage the 80 federally funded transportation programs to improve overall mobility. The 80 funding programs emanate from different federal departments including but not limited to Department of Health and Human Services, Department of Labor, Department of Energy, Department of Justice, etc. The varied and diverse nature of the constituencies that these federal departments strive to serve, means that the intersection of transportation and these other departmental/programmatic objectives does not happen symbiotically. It becomes essential for a dedicated entity to exploit the synergies to improve overall mobility for a region or a state. This could be served by mobility managers and mobility management networks.
For a mobility manager or a network to be successful, it is important to understand the landscape of the various stakeholder groups that are involved in improving mobility for specific constituent groups.

These stakeholders include the riders, and those public agencies and private entities that provide the transportation services. While mobility managers have been somewhat successful in identifying the needs of their target audience, the success has not necessarily translated across population groups and the silo-based approach to mobility management has been unable to overcome systemic deficiencies. It is in this context that mobility management networks have assumed significance.

Mobility management networks focus on improving the partnerships with and among service providers – usually in the form of human service or social service organizations (the terms are usually used interchangeably) and the presence of a dedicated mobility management coordinator. Unlike human service transportation coordinators, who are often constrained by geography and therefore limited in the service areas they can cover, mobility management coordinators can marshal the resources needed to partner across transportation agencies and geographic areas, providing a broader network of coverage for riders (Mattson et al., 2017, pg. 78). In addition, mobility management coordinators often play in shaping policy that affects

riders and members of the network (Mattson et al., 2017, pg. 78; Burkhardt & McLary, n.d., pg. 1.). These policy improvements do not operate in isolation; to the contrary, policies advocated by mobility management professionals can have a positive spillover effect to the broader ridership. As one example, Haveman, Tillmann, Stöppler, Kvas, & Monninger have developed a "social-ecological model of mobility and traffic participation" for individuals with intellectual disabilities (ID) that emphasizes that public transit riders with ID's social and physical environments can be greatly improved when supported by policies designed to improve mobility and accessibility for *all* riders (2013, pgs. 290-291).

Although all riders can stand to benefit from effective mobility management practices, it is those special populations of people with disabilities, the elderly, low-income individuals, transit-dependent, or otherwise disadvantaged riders who stand to gain the most. Riders with disabilities and aging riders, especially, face barriers to using public transportation, causing them to miss out on employment and community integration opportunities (Clarke, Ailshire, & Lantz, 2009, pg. 1675; (Sze & Christensen, 2017, pg 67; U.S. Dept. of Transportation, 2002). According to the 2002 National Transportation Availability and Use Survey, nearly 23% of riders with disabilities require specialized assistance or equipment to travel outside the home, while less than 1% of non-disabled riders do. (U.S. Dept. of Transportation, 2002). Riders with disabilities have difficulty getting the transportation they need at nearly four times the rate of non-disabled riders. (U.S. Dept. of Transportation, 2002). These barriers are even more pronounced in rural areas, where infrequent or unreliable paratransit services are the only form of transportation available (KFH Group, Inc., 2018, pg. 1; Sylvestre et al., 2007, pg. 27). Surveys of riders with disabilities consistently demonstrate that availability of accessible transportation options improves quality of life and decreases social isolation (Sze & Christensen, 2017, pg 67; Mattson et al., 2017; Sylvestre, Gaudry, & Christopher, 2007; Clarke, Ailshire, & Lantz, 2009; Jansuwan, Christensen, & Chen, 2013).

The Need

With the rapid advancements in technology in the delivery of public transportation services, why do we continue to need mobility management? Why go to the trouble to create coordinated networks when seemingly any type of transportation option can be made available easily with the advances in technology? Four reasons emerge from the literature: the still-significant barriers to the use of public transportation for disabled, elderly, and other disadvantaged riders; the limited public transit options for disadvantaged rural riders; the lack of integration among modes of transportation in urban areas, resulting in service gaps, despite the increased availability of new technologies such as MaaS; and the capacity of mobility management coordinators to shape policy that can increase the cost and efficiency of public transportation for all riders.

For disadvantaged riders, statewide networks or coordinating councils can build a network of collaborators that have the capacity to engage state-level leaders – legislators, the governor - around shared goals of equitable access to transportation, and by extension improved quality of life, for all riders (Farber & Reed, pg. 4; Bond, Brown, & Wood, 2017, pg. 711). At least one state, Wisconsin, has implemented a statewide mobility management program in large part to serve the needs of those riders covered under Section 5310 (Wisconsin Department of Transportation, Bureau of Transit, Local Roads, Railroads and Harbors, 2015). While statewide efforts such as this have been studied by academics and agencies alike, less is known about the experiences of the end users; this is a topic ripe for further research (Mattson et al., 2017, pg. 84).

Disadvantaged rural riders, particularly older adults, face additional mobility barriers in the form of larger distances between activity sites and fewer public transportation options as private automobile travel became the preferred mode of choice (Pucher & Renne, 2005, pg. 171; Kostyniuk, St. Louis, Zanier, Eby, & Molnar, 2012, pgs. 304; Majumdar et al., 2014, pg. 283). Additionally, many rural households are reliant on cars as their primary form of transportation. When older adults are no longer able to drive, or a household cannot afford to purchase a car, individuals are further disadvantaged (Pucher & Renne, 2005, pg. 168;

Kerschner, 2006 as cited in Wood, Brown, Bond, & Suguri, 2016, pg. 155). One survey of 40 agency administrators serving older adults living in rural and small communities found that local governments were slightly more likely than state governments to partner in the delivery of transportation services (20 versus 16), but the impact and outcomes of building local versus state partnerships was not explored (Wood et al., 2016, pg. 160). This suggests that while state-level partnerships are valuable in the delivery of rural mobility programs – they were the second most frequently cited among all types of partnerships – the specific advantages of state-level government partnerships requires further exploration.

Elimination of service gaps and increased integration among modes in public transportation, including paratransit, are cited in the literature as significant issues that affect disadvantaged riders (Myers & Ravensloot, 2016, pgs. 79-81; Bezyak, Sabella, & Gattis, 2017, pg. 53). Mobility management networks, however, have been shown to mitigate these challenges (Federal Transportation Administration, 2007; Wisconsin Department of Transportation, Bureau of Transit, Local Roads, Railroads and Harbors, 2015, pg. 4). Indeed, areas rural and urban alike still lack seamless integration among varying modes of transit, and these gaps can take a variety of forms, including geographic, time-of-day, and accessibility for those with physical or developmental disabilities, or who otherwise require additional assistance to navigate public transportation (Federal Transportation Administration, 2007; Bond et al., 2017, pg. 708; Friedman and Rizzolo, 2016, pgs. 169-170). Majumdar et al. suggest that a decrease in service gaps as measured by a decrease in the percentage of the population living in "unserved" areas is one outcome measure that could be incorporated into state-level mobility management performance measures (2014, pg. 296).

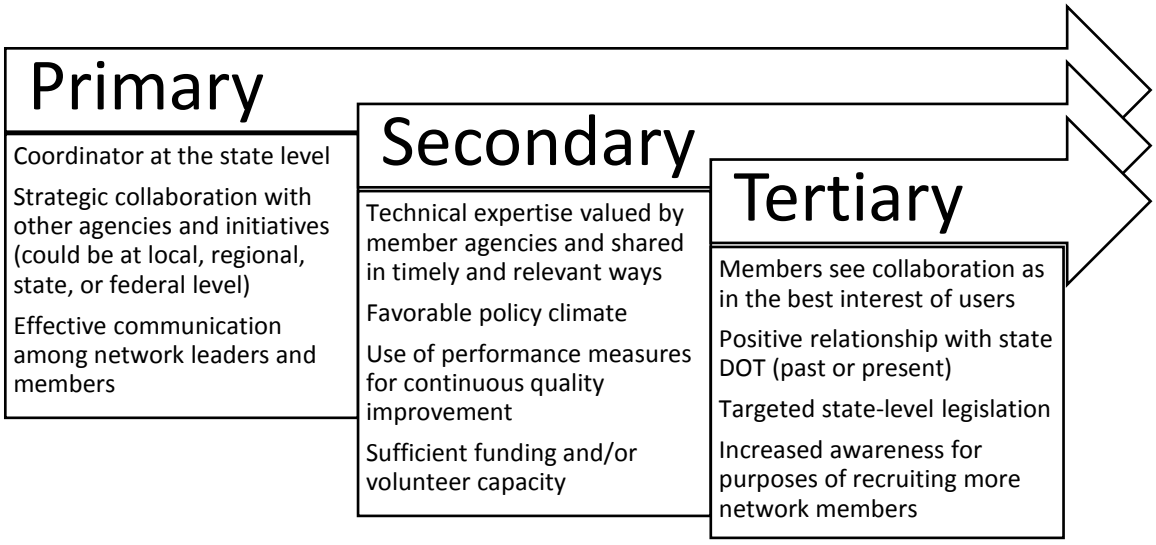
Although less prevalent in the literature, the role of mobility management coordinators in collaborating with state-level policymakers is an important emerging topic. Coordinators, for example, might serve as skilled intermediaries between human services providers and state legislators by translating local transit or land-use needs into meaningful statewide policies (Federal Transportation Administration, 2007). Because they are able to monitor mobility

management programs at various levels (community-wide, regional, etc.) statewide coordinators can also play a role in establishing partnerships and programs that transcend geographic boundaries (Mattson et al., 2017, pg., 78). These types of partnerships in turn can help bridge the urban/rural divide, as well as offer solutions for service delivery gaps.

The Ideal Network

Mobility management networks are often virtual networks. There may be no physical markers of their presence, and they are heavily dependent on the willingness of disparate actors and agencies to partner and collaborate for the greater good in both informal and formal ways, in the form of websites, publications, and rules of governance. They are complex entities that rely on varying and sometimes intermittent funding availability in order to carry out their function. Although mobility management programs and services vary widely in how they operate depending on geographic location, service area, and funding sources, there are certain aspects that are consistent across all mobility management networks that successfully fulfill their mission. Schlossberg, adapting concepts presented by Mattessich & Monsey's in their 1992 book *Collaboration: What Makes It Work*, argues for a three-tiered approach to transportation coordination for disadvantaged populations:

Figure 1. Factors That Facilitate Coordination in Mobility Management Networks



DEFINITIONS

Prior to the start of this research, the research team, with the support of Easterseals, an NCMM partner, agreed upon consistent definitions of the terminology used in data collection and reporting. The following section defines the terminology and describes the research approach used in this study. **Mobility management** is an approach to designing and delivering transportation services that starts and ends with the customer. It begins with a community vision in which the entire mobility network—public transit, private operators, cycling and walking, volunteer drivers, and others—works together with customers, planners, and stakeholders to deliver the mobility options that best meet the community's needs.

Mobility management:

- encourages innovation and flexibility to reach the "right fit" solution for customers
- plans for sustainability
- strives for easy information and referral to assist customers in learning about and using services
- continually incorporates customer feedback as services are evaluated and adjusted

A **Mobility Management Network** is comprised of the agencies, organizations, and/or participants who lead efforts to improve integration across mobility options; make public and private transit more attractive and easier to use, especially for people with disabilities; identify innovative solutions; as well as reduce and re-distribute travel demand to help unlock the capacity of transport systems.

Table 1. Definitions of Mobility Management

Definition	**Reference**
Mobility management focuses on meeting individual customer needs through a wide range of transportation options and service providers. It also focuses on coordinating these services and providers in order to achieve a more efficient service delivery.	United We Ride 2007a, as quoted in Mattson et al., 2017, pg. 78.

Mobility management uses a customer-driven, market-based approach to make public transportation services more effective for customers and cost-efficient for taxpayers (Edwards, 1980).	Edwards, 1980, as quoted in Majumdar et al., 2014, pg. 281.
Mobility management includes (1) all activities involved with identifying customer travel needs and coordinating a variety of service providers to address those needs — and doing so in a manner that is effective for the customer and efficient for the taxpayer. It also involves (2) efforts to improve the performance of public transportation in conjunction with the management of community-wide transportation resources, thus including traffic management strategies and the coordination of public transportation with infrastructure development and land use policies.	Burkhardt & McLary, n.d., pg. 1.
Mobility management is an innovative approach for managing and delivering coordinated transportation services to customers, including older adults, people with disabilities, and individuals with lower incomes. Changes in demographics, shifts in land use patterns, and the creation of new and different job markets require new approaches for providing transportation services, particularly for customers with special needs. Mobility management focuses on meeting individual customer needs through a wide range of transportation options and service providers. It also focuses on coordinating these services and providers in order to achieve a more efficient transportation service delivery system for public policy makers and taxpayers who underwrite the cost of service delivery.	Federal Transit Administration
Mobility Management seeks to create and coordinate a full range of well synchronized mobility services within a community—"a one-stop shop for mobility options," according to one public transit agency general manager. It begins with the development of partnerships among transportation providers in a particular region, expanding the range of viable choices. When implemented, mobility management moves public transit agencies toward a more collaborative role in the overall transportation picture.	American Public Transportation Association
Mobility management projects are short-range planning, training, and management activities for improving coordination among public transportation and other transportation service providers, including human service agencies and private providers. These projects build coordination among existing public transportation providers and other transportation service providers, and increase service options that would not otherwise be available for seniors and individuals with disabilities.	Oregon Department of Transportation

METHODOLOGY

Participants

Participants in this research included 49 transportation professionals, each representing a different state. Thirty-five names on the list were provided by the National Center for Mobility Management, and 14 names were provided by the UIC research team; no contact could be identified for the state of Wyoming. Participants were recruited via emails sent by P.S. Sriraj, with follow-up correspondence from Judy Shanley. All participants in this study were volunteers.

Materials

All participants signed an informed consent form, which contained information about the purpose of the study, who was conducting it, and how the data collected would be used. Additional materials included a web-based survey (see Appendix A) and the "Informed Consent" required by the Institutional Review Board (IRB) at UIC.

Design and Procedure

The research team identified the potential survey respondents through a combination of approaches: locating examples of mobility management networks via web searches and identification of participants by NCMM/Easterseals. Researchers maintained a spreadsheet of the subjects that associate the email addresses and phone numbers with the name of the agency. This data is not sensitive because many agencies post their contact information on publicly-accessible websites. The researchers will store this spreadsheet in a shared folder on the University-provided Box.com service. Box.com encrypts data in transit and in storage and the folder is shared only among the named researchers. This spreadsheet will be separated from survey responses and interview notes, although researchers with access to both sets of data will be able to associate data with the respondent's personal information. It is necessary to store these identifiers to facilitate phone interviews based on the survey responses. This list was also shared with the FTA for their feedback before the potential participants were contacted.

Researchers then contacted a staff member or leader of the government agency, service provider, or other organization that facilitates the mobility management network as a Network Leader via email. This email message informed subjects about the research being conducted and their rights to decline to participate. A link to the web-based survey was included in that email. The research in this report represents part one of a two-part data collection approach: (1) an online survey of every individual/agency identified above. It is anticipated that this online survey will then be followed by a (2) phone interview of a subset of the respondents to the online survey in the next phase of this project.

Because of the use of human subjects, this research was submitted to the Institutional Review Board (IRB) for "Exempt Review," defined as follows: "When it is determined that the involvement of human subjects is in one of the six exempt categories listed in the Regulations [45 CFR 46.101(b)], it is exempt. The exempt categories include certain educational practices and tests, innocuous surveys of adults, study of existing data, public service programs and food evaluations. Any research study involving human subjects thought to be exempt must be submitted to the OPRS for an exemption determination. Exemption review is performed by senior OPRS staff and designated IRB members." The research team submitted a Claim of Exemption and Research Protocol, as well as informed consent language, as part of the IRB application. The research team's request for an exempt review was granted by IRB. The specific exemption category under 45 CFR 46.101(b) is: 2.

The survey was designed such that the respondents would be presented an informed consent form/language (see Appendix B “Informed Consent for Web Survey”) at the outset, as required by the IRB. The intent was that the respondents who did not provide consent would exit the survey, while those who consented would proceed to respond to the questions in the survey; however, all respondents gave consent.

The online survey instrument is structured to include questions in the multiple-choice/short answer format. The data are coded and identified by the name of the agency and not by the

name of the individual responding to the survey. Respondents spent an average of seven minutes and 50 seconds completing the survey.

The online survey was conducted using the University-provided Qualtrics service. When the survey concluded, the data was exported and stored on the University-provided Box.com service, where the data is encrypted, and only the researchers had access to it. Survey data will be deleted from Qualtrics at the conclusion of this research.

RESPONSE RATE

Out of 49 surveys sent, 28 were opened and 21 were completed. Two states responded directly to NCMM that their state did not have a statewide network; for the purposes of this research they are recorded as having received and completed the survey. This information is summarized in Tables 2 and 3.

Table 2. Survey Response Rate

	Count	Percent
Surveys Sent	49	100%
Responses	30*	59%
Completed Surveys	21	43%
Incomplete	7	16%

**includes two responses sent via email to NCMM*

Table 3. Frequency of Statewide Networks

	Count	Percent
Has Statewide Network	14	67%
No Statewide Network	6	29%
I Don't Know	1	5%

The 14 respondents who answered "Yes" to Question 2 proceeded to answer the remaining questions. The states represented in this group of 14 are Arizona, Colorado, Connecticut, Iowa, Maine, Massachusetts, Michigan, Nebraska, Nevada, New Hampshire, North Carolina, Ohio, Rhode Island, and Wisconsin.

Statewide Mobility Management Networks by FTA Region

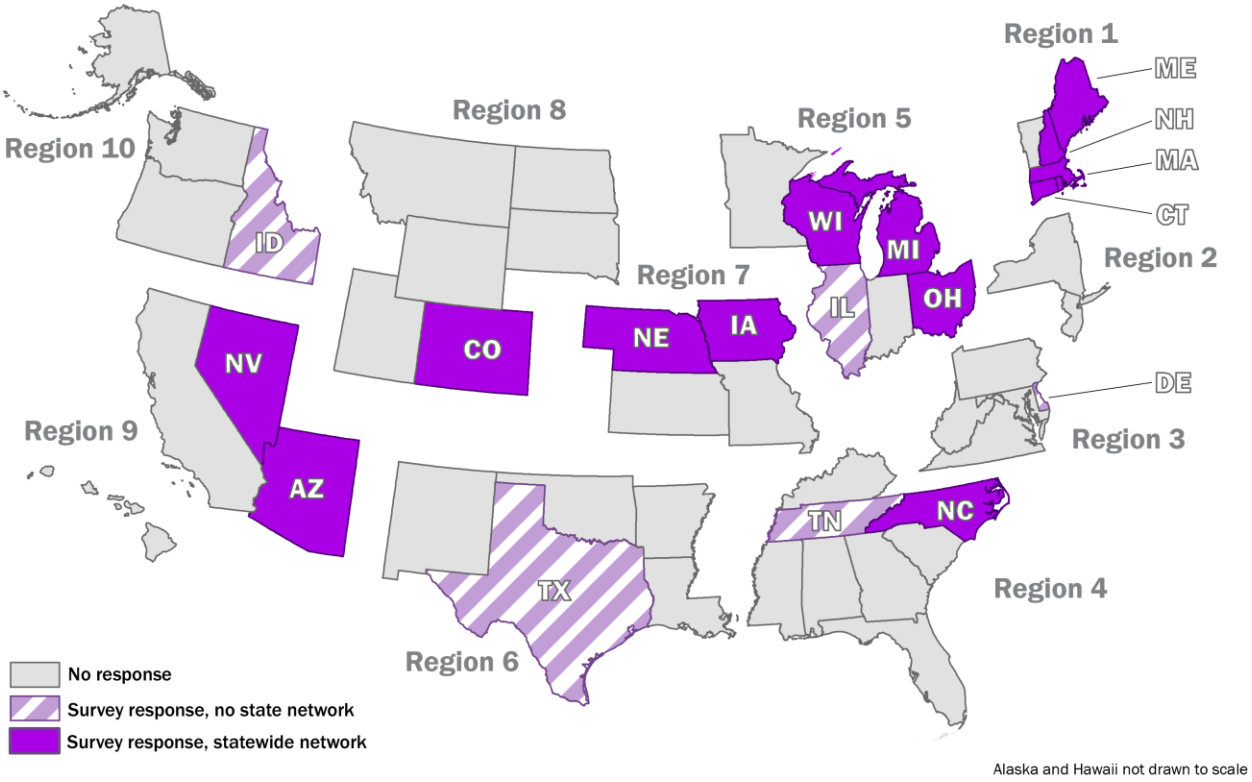


Figure 2. Map of networks by region

FINDINGS

Respondents were asked about their state's network, including geographic scale, the name of the network, which agency leads it, the legal or regulatory authority for establishing this network, and how the network is funded. This information is summarized in Table 4.

The statewide mobility management networks have a strong public transit component. Almost all those that responded, indicated that the networks in their respective states are either led by associations of public transit agencies, or are led by the public transit department within their state DOT. Two exceptions are the New Hampshire Mobility Management Network and the Wisconsin Association of Mobility Managers. The New Hampshire network consists of community transportation services provided by volunteer drivers and led by Easter Seals. This program functions within the State Coordinating Council for Community Transportation, which engages with public and human service transportation providers in their statewide coordination and mobility management efforts. The other exception, the Wisconsin Association of Mobility Managers emerged from an intensive training program begun by the Wisconsin Department of Transportation, and currently offers training and a certificate program, advocacy and seminars to promote professional development for mobility managers. Members include human service transportation providers, public transit providers, veteran organizations, senior service providers and independent living centers, among others.

Nine of the 14 responding statewide networks were established through governor's initiatives and executive orders or through state legislation. All of these states have or have had State Coordinating Committees, five of which are currently active and four currently inactive. The three of the five states without a legislative or governor's mandate are led and funded through their state Department of Transportation. Eight of the 14 respondents name the state Department of Transportation as the lead or co-leading agency for their statewide mobility management network. Funding and affiliated networks for these agencies reflect the state DOT leadership. All of these agencies cite state DOT and/or Federal funds passed through the state DOT as their funding source. Five of the eight DOT-led network representatives identified

funding through the Section 5310 Program. Additionally, one mentioned Section 5311 and another listed the Rural Transit Assistance Program as funding sources.

Of the six respondents not naming state DOT leaders, three are led by state transit associations, and a fourth is led by a state public transit authority. The four public transit networks all include self-funding by agencies, and one of these also receives Federal funds passed through the state DOT and RTAP funding. The two networks not led by the state DOT or by public transit associations are New Hampshire and Wisconsin, described above. Wisconsin also cites self-funding by agencies as the funding source for the network.

Table 4: States That Have a Statewide Network

State	Geographic Scale	Name of Network	Lead Agency	Establishing Authority	Funding Sources
Arizona	Other (The entire state)		Arizona Department of Transportation MPD Transit	Other (ADOT policy)	State Department of Transportation (DOT) funds; Federal funds through the State DOT (5310)
Colorado	Small Urban (50,000 to 200,000)		CASTA/ DRMAC	Other	Federal funds through the State DOT (RTAP) Network members and their organizations support themselves
Connecticut	large, small and rural	None	DOT, department of public transportation	49 U.S.C. 5310	Federal funds through the State DOT (5310)

Iowa	Other	Iowa Mobility Management Network (IMMN)	Iowa DOT Office of Public Transit	Other (grassroots effort)	Federal funds through the State DOT (JARC, New Freedom, 5310); Network members and their organizations support themselves
Maine	Mixture of rural and urban	State Coordinating Council for Community Transportation	MaineDOT is leading the charge	None	Other
Massachusetts	Other		MassMobility initiative (out of Health & Human Services), in partnership with state DOT	Other (informal - there was previously an executive order as well)	Other (Funding from health & human services plus federal 5310 funds through state DOT)
Michigan	Statewide	Michigan Mobility Managers	Michigan Transportation Connection	N/A	Network members and their organizations support themselves
Nebraska	It is a statewide project that includes all of the above	no name, 5310 funds five mobility managers	Nebraska Department of Transportation	No legal or regulatory authority	State Department of Transportation (DOT) funds; Federal funds through the State DOT
Nevada	Rural (< 50,000)		Nevada Department of Transportation	Other (Nevada DOT Transit Section)	Federal funds through the State DOT (5311)

New Hampshire	Statewide	State Coordinating Council for Community Transportation	Easter Seals, Special Transit Services	Legislation	Other
North Carolina	Other (Statewide, Rural and Urban)	NC MOVE	The North Carolina Public Transportation Association	Other	Network members and their organizations support themselves
Ohio	Rural (< 50,000)	Mobility Managers	The Ohio Department of Transportation	Legislation	State Department of Transportation (DOT) funds; Federal funds through the State DOT (5310)
Rhode Island	Large Urban (> 200,000)	RI Statewide Coordinating Council	RIPTA	Legislation	Network members and their organizations support themselves
Wisconsin	Combination of all (large, small, and rural)	Wisconsin Association of Mobility Management	Non-profit Association	Volunteer Non-profit	Network members and their organizations support themselves

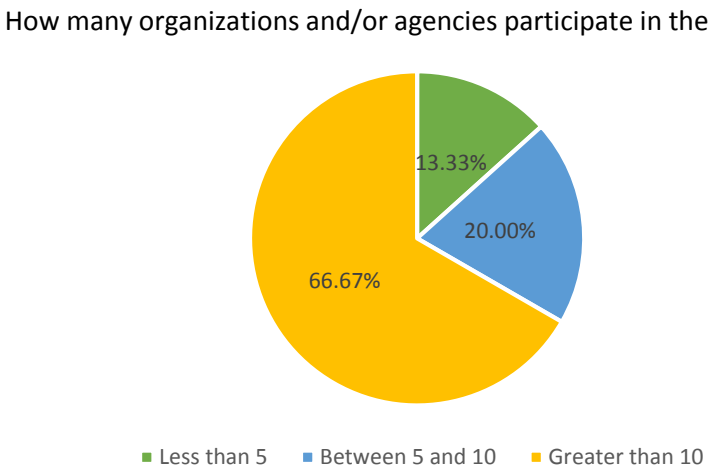
Source: Questions 5, 7-9, and 11, Mobility Management State of the States Survey

This raises the issue as to how the statewide networks manage their resources. For those formed by public transit associations with self-funding agencies, state-level activities may be funded by pooled resources and/or agencies may be funding their own agency-level mobility management strategies. Statewide networks led and funded by state DOTs may have an easier time financing broader mobility management strategies, but the question remains as to how

the individual needs of participants are met. These issues will be addressed in the planned phone interviews.

With regard to size, networks are composed of varying numbers of participants (see Figure 3).

Figure 3. Number of network participants



Source: Question 3, Mobility Management State of the States Survey

Nine of the 14 network respondents stated that their participants also are affiliated with Aging and Disability networks; eight of the 14 stated that they are affiliated with RTAP grantee networks, and eight are affiliated with Section 5310 Grantee networks. Two specifically cited Area Agency on Aging as affiliated networks. Of the six respondents not naming state DOT leadership, all cited affiliations with RTAP and Aging and Disability networks and five cited the Section 5310 Program Grantee network as an affiliated network. Wisconsin also cited Independent living centers, community action plans, interfaith associations and WETAP as affiliates.

The affiliated networks listed by respondents represent the primary interests of the participants. Participants are public transit providers and human service transportation providers, with a particular focus on rural transit, seniors and persons with disabilities. These are also the providers who have been most closely associated with coordination efforts. The

establishment of these programs and networks follows from the federal mandate for coordinated transportation and for state DOTs to implement coordinated Human Service Transportation Plans. A shift in focus on mobility management is a natural progression of focus from coordinated services to improving market access to services. The implementation of mobility management strategies in response to federal initiatives is reflected in the survey results. Eight of the 14 respondents affirmed that their networks were similarly aligned with the Coordinating Council on Access and Mobility.

Performance Management

Five of 14 respondents had documented methods for measuring individual performance of mobility management professionals within their network. Common measurements include monthly or quarterly reporting on the number of meetings and trainings held and/or attended, the number of individuals who participate in meetings and/or trainings, the number of referrals, and the number of individuals served. Some ways that marketing efforts are measured include website analytics and the number of collateral materials distributed. Persons with disabilities, older adults, and veterans are specific groups whose participation is tracked.

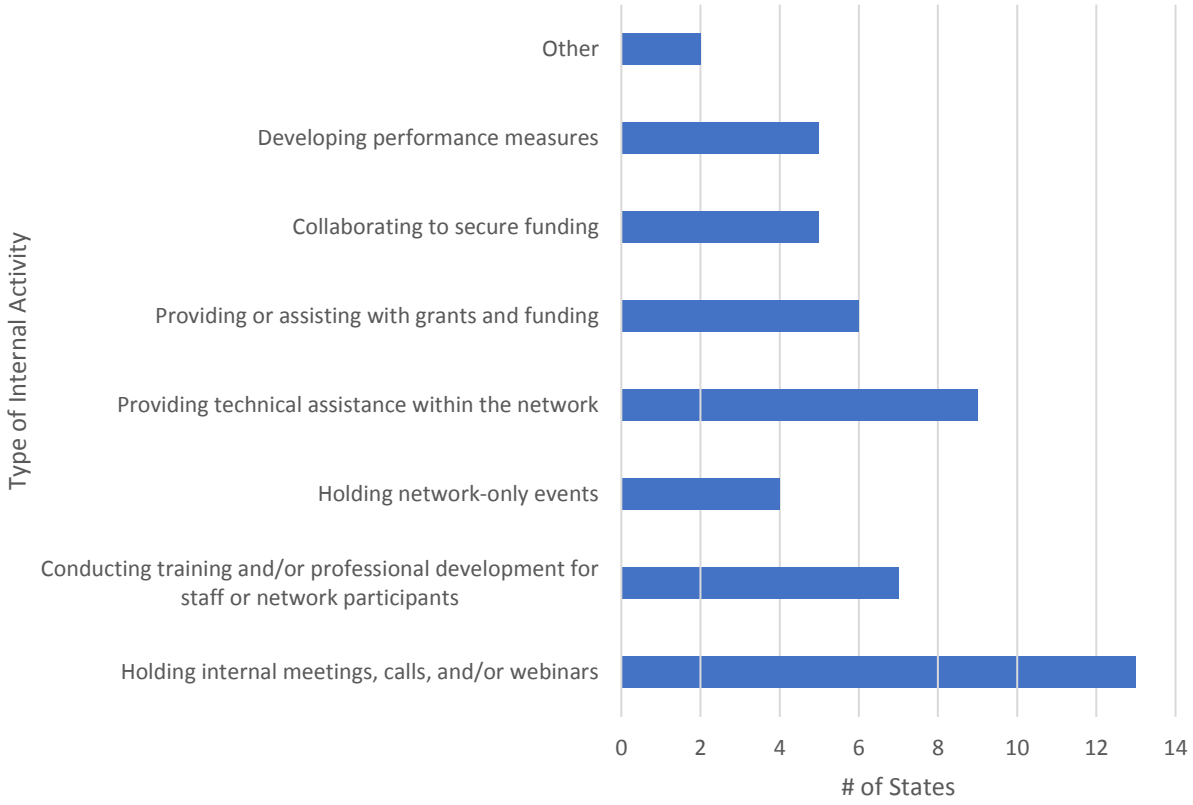
One respondent noted the opportunity to share "success stories" in the notes section of mobility managers' monthly reports, indicating a desire to share among the network and learn from those efforts that yield positive outcomes. In this instance, the statewide coordinator tracks each report against the network's six strategies and their accompanying goals, providing follow-up as necessary.

Only one network – Connecticut's – identified a means of measuring the performances of the network as a whole, via quarterly meetings among the five mobility managers on staff. While nine of the respondents were able to articulate the mission for their network (see State Profiles), only Connecticut indicated any strategic planning activity, with each of their five mobility managers developing their own missions and strategic plans. Two other networks indicated that they were in the process of articulating their missions.

Internal and External Activities

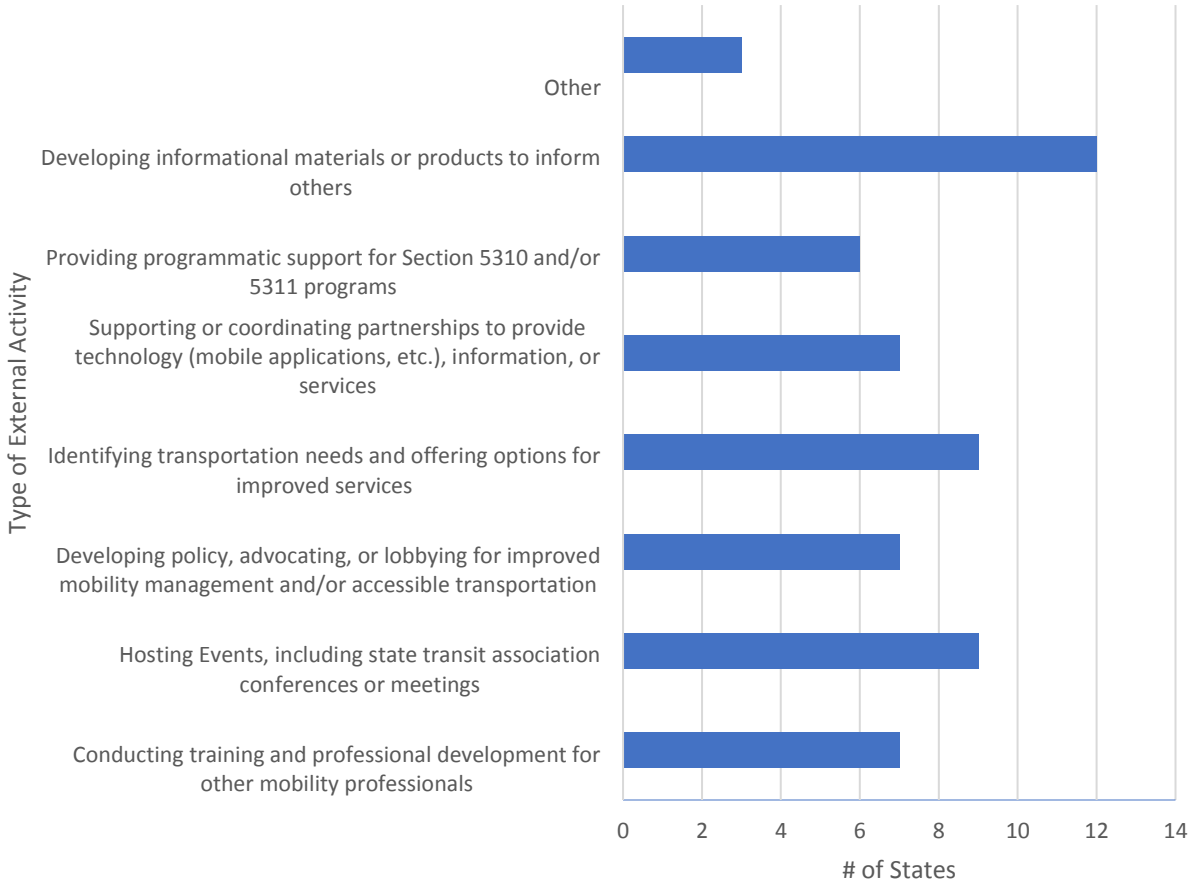
Communication is key to coordination, and the networks employ a variety of tools in pursuit of this goal. All of the statewide mobility management networks engage in a variety of internal and external activities that include hosting events, webinars, providing training, offering support for grant programs such as Section 5310, 5311, and RTAP, advocacy and lobbying, etc., at frequencies varying from once a week to once a year or greater. Two networks report using websites or online forums for communication purposes, and one network publishes a monthly newsletter. Rhode Island reported holding internal meetings, calls, and/or webinars as their only activity. See Figures 4 and 5 for additional detail on the types of activities across networks.

Figure 4: Does the Mobility Management network conduct any of the following internal activities in its ongoing work? (Select all that apply.)



Source: Question 12, Mobility Management State of the States Survey

Figure 5: Does the Mobility Management network conduct any of the following external activities in its ongoing work? (Select all that apply.)



Source: Question 18, Mobility Management State of the States Survey

In terms of other coordinating networks, 12 of the 14 networks indicated that they are aware of the Coordinating Council on Access and Mobility (CCAM). In terms of how their network's work aligns with CCAM or other state-level coordination work, four respondents said their work is "very similar," four said their work is "somewhat similar," one said their work is "not similar at all," and one indicated that they were "not sure."

With regards to direct support for riders, respondents indicated a limited amount of activity mainly concentrated on training (for travel, advocacy, or other purposes), creating opportunities for person-to-person exchange, and providing access to state programs. North Carolina and Rhode Island provide no direct support services to riders; Arizona and

Massachusetts are unsure if any riders receive direct services through the network. Only Ohio provided an estimate of number of riders served per month: 7,567.

> *"The network is working to improve transportation services available to community members by advocating to providers and local government, addressing gaps in service and planning for future goals."*

Challenges and Successes

The challenges facing these mobility management networks fall under four main areas: coordination at various geographic levels, taking into account the different needs of rural versus urban riders; securing adequate funding and ensuring that funders perceive that their dollars are well spent; conveying the value of the network by measuring outcomes; and onboarding and training of mobility management professionals. While respondents admitted that addressing these challenges was an ongoing effort, they did offer a few solutions to specific concerns.

In Iowa, the network has been operational for nearly a decade but has been tracking performance measures for only 18 months or so. They hope to be able to begin to analyze those measures in order to demonstrate the network's worth to the community. In Ohio, county-to-county travel has proved an impediment to coordinating at a regional level. As a result, the network has set a state-level goal of building regional "teams" of mobility managers to prioritize and address challenges as they occur. That network is also working to build a virtual catalog of high-quality training materials for new mobility managers and has instituted a mentor program that pairs up seasoned mobility managers with new ones. In North Carolina, the network was struggling to promote itself and recruit new members. As a solution to that challenge, NC MOVE joined the North Carolina Public Transportation Association (NCPTA) so that the network could operate as an NCPTA peer group while still accepting members not affiliated with NCPTA. As part of its membership benefits, NCPTA distributes information about NC MOVE to over 400 NCPTA members and provides limited financial support to the network.

"We are talking on a regular basis, sharing data, and looking for success stories elsewhere that we can leverage."

When asked how their network has achieved success, the most common response mentions some form of improving communication and collaboration among internal teams and with external partners. Growth in membership and increased visibility of the network are also cited as markers of success. Access to statewide resources is key: in Ohio, the network has established alliances with the Department of Developmental Disabilities and the Senior Corps' RSVP program, overseen by the Corporation for National and Community Service in order to advocate for those agencies' local efforts when possible. In Nevada, members of the network are collaborating in order to identify coverage gaps and determine how to fill them. Iowa has transformed a grassroots initiative into a mature network and credits the ongoing support of the state DOT for helping the network achieve success: "Of those communities being served by mobility managers, we can systematically prove that the community has a greater acceptance of public transit, and stronger knowledge of services available. As compared to transit systems [in Iowa] without mobility management, we are constantly out in the community and creating new services that the community *needs*."

CONCLUSIONS

Strong political backing is necessary as evidenced by the fact that most networks were brought into existence with legislative action, with the network being led by the respective state DOTs. The sustainability of the networks seems to be contingent on the availability of federal funds (5310 or other formula program funds) or some other dedicated source of funding. Where existing, the networks are of considerable size in terms of the number of participants with many respondents indicating that their networks consist of greater than 10 participants. Agencies such as Aging and Disability, RTAP, and other 5310 grantees were listed as being affiliates to the mobility management networks.

The network managers responded that they would like to share "success stories" of mobility networks to other states and agencies so that there is continuous learning that benefits all. With this in mind, the performance of the network participants are measured through frequent reporting, ridership tracking, and population groups catered to. Apart from these reporting and tracking mechanisms, the respondents also indicated that they offered frequent training and webinars, etc. These findings are indicative of the interest and desire on the part of the network managers to propagate information and learn from others. While the electronic survey has resulted in some interesting findings, it has also sparked the need to understand the network management in a much more in-depth manner. With this in mind, the research team is intending to conduct telephone interviews with the network managers to glean more understanding of the functioning of these mobility networks that can be used to share best practices with everyone.

NEXT STEPS

For phase two of this project, the research team will be conducting phone interviews with those states that have indicated the presence of a statewide mobility management program. One goal of these interviews is to further understand the issues and challenges facing the networks, and determine what resources coordinators need in order to continue to improve service delivery across their state networks.

Combined, the web surveys and phone interviews will help the research team generate materials that will help to improve guidance for those states without statewide networks that are looking to implement mobility management at that level. These states may already have local or regional mobility management programs in place, or they may be administering programs that serve specific populations (rural, veterans, etc.) but be looking to expand their coordination to encompass a broader ridership base. Regardless of the size or scope of the program, we believe that the research collected and analyzed via the survey and interviews will have broad applicability to the field of mobility management as a whole.

APPENDIX A

Web-based Survey

You were identified as a leader in Mobility Management (definition pop-up) in your state. Your responses to this survey will contribute to understanding the state of the practice, and will assist those interested in implementing mobility management.

1. Please select the state or territory you work in... (dropdown)
2. Does your state have a Mobility Management network? A Mobility Management Network is comprised of the agencies, organizations, and/or participants who lead efforts to improve integration across mobility options.
    a. Yes – Continue
    b. No – Link to NCMM to learn more
    c. I do not know; If so, Please forward the survey to whoever will be the appropriate individual to respond to this survey. Thanks.
3. What is the geographic scale of the network?
    a. Large Urban (> 200,000)
    b. Small Urban (50,000 to 200,000)
    c. Rural (< 50,000)
    d. Other: _____
4. What is the name of this network, if any?
5. Which agency leads the network?
6. What is the public website for this network, if any?
7. What is the legal or regulatory authority for establishing this network, if any?
    a. Executive Order
    b. Legislation
    c. Other: _____
8. Does your mobility management network have a mission and strategic plan? Please describe.
9. How is the network funded? Select all that apply.
    a. State Department of Transportation (DOT) funds
    b. Non-DOT state funds
    c. Federal funds through the State DOT; please identify the funding source:_____
    d. Network members and their organizations support themselves
    e. Other:_____
10. How many organizations and/or agencies participate in the network?
    a. Less than 5
    b. Between 5 and 10
    c. Greater than 10
11. Are your mobility management network members also part of other state networks such as:
    a. National Rural Transit Assistance Program
    b. 5310 grantee network
    c. Aging and Disability Resource Network

    d. AAA Network
    e. Other, please explain:_____
12. Do you measure the performance of individual Mobility Management professionals who participate in the network?
    a. Yes
    b. No
13. (If #12 Yes) Please describe the metrics and methods used to measure ***individual*** performance.
14. Do you measure the performance of the network as a whole?
    a. Yes
    b. No
15. (If #14 Yes) Please describe the metrics and methods used to measure ***network*** performance.
16. Does the Mobility Management network conduct any of the following **internal** activities in its ongoing work?
    a. Holding internal meetings, calls, and/or webinars
    b. Conducting training and/or professional development for staff or network participants
    c. Holding network-only events
    d. Providing technical assistance within the network
    e. Providing or assisting with grants and funding
    f. Collaborating to secure funding
    g. Developing performance measures
    h. Other: _____
17. How frequently do the **internal** activities happen?
    a. Once a week
    b. Once every two weeks
    c. Once a month
    d. Once a quarter
    e. Once a year or greater
18. Does the Mobility Management network conduct any of the following **external** activities in its ongoing work?
    a. Conducting training and professional development for other mobility professionals
    b. Hosting Events, including state transit association conferences or meetings
    c. Developing policy, advocating, or lobbying for improved mobility management and/or accessible transportation
    d. Identifying transportation needs and offering options for improved services
    e. Supporting or coordinating partnerships to provide technology (mobile applications, etc.), information, or services
    f. Providing programmatic support for Section 5310 and/or 5311 programs
    g. Developing informational materials or products to inform others
    h. Other: _____
19. How frequently do the **external** activities happen?

a. Once a week
b. Once every two weeks
c. Once a month
d. Once a quarter
e. Once a year or greater

20. Which of the following tools does the network use to communicate?
    a. Website/Online Forum
    b. Email group (Google Group, listserv)
    c. In-person meetings
    d. Conference Call
    e. Other: _____
21. Are you aware of the Coordinating Council on Access and Mobility? (a) Yes (b) No
22. (If #21 yes), how does your Mobility Management network goals align with the Coordinating Council on Access and Mobility (CCAM) efforts? Please explain.
    a. Not similar at all: _____
    b. Somewhat similar: _____
    c. Very similar: _____
    d. Not sure: _____
23. Does the Mobility Management network provide any of the following support services directly to riders?
    a. Training (Travel, Advocacy, or other)
    b. Funding
    c. Opportunities for person-to-person exchange
    d. Access to state programs
    e. Other: _____
    f. Not sure
24. How many riders per month are served by the network?
25. What challenges has the network faced? What were the solutions to these challenges?
26. How has the network achieved success?

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The National Center for Mobility Management (NCMM; www.nationalcenterformobilitymanagement.org) is a national technical assistance center created to facilitate communities in adopting mobility management strategies. The NCMM is funded through a cooperative agreement with the Federal Transit Administration, and is operated through a consortium of three national organizations – the American Public Transportation Association, the Community Transportation Association of America, and Easterseals. Content in this document is disseminated by NCMM in the interest of information exchange. Neither the NCMM nor the U.S. DOT, FTA assumes liability for its contents or use.