Framework to Develop a Continuum of Mobility Services

Federal Transit Administration

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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.

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Introduction

Mobility management professionals may be able to offer insight and suggestions to transportation planners and designers regarding system enhancements. We recognize that mobility managers don't make these kinds of decisions by themselves – it's typically a systems approach. By definition, a mobility management network includes a range of transportation services and providers to create a system where individuals have mobility options. With this definition in mind, this brief has three purposes. First, the content can help mobility management professionals identify potential transportation services that can be included in a continuum of mobility services, to ensure that people with disabilities, older adults, and those with low income have opportunity created by safe, reliable, and accessible transportation options. Second, this brief can help mobility management professionals identify funding sources, using a mix of public and private revenue, to support the advancement of mobility systems. Finally, a continuum of mobility services requires continuous evaluation to ensure that the needs of riders are addressed. Only through a persistent focus on the return on investment and the assessment of mobility inputs can transportation administrators, planners, and funders truly recognize the value of such investments.

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.

The framework or steps highlighted in this brief are intended to complement the many other tools and technical assistance materials developed by the National Center for Mobility Management (NCMM). Information briefs such as the Mobility Management: State of the States Report are valuable to understanding what a mobility management network can look like and identifying the key attributes and components of state networks. These same principles can be replicated at regional and local levels. Similarly, NCMM's various online, self-paced training content is critical for mobility management professionals to start or advance continuums of transportation services at varying levels.

Mobility management professionals can influence, educate, and excite planners and agencies to consider new or changed service. In a recent report by the Transportation Research Board (*The Role of Transit, Shared Modes, and Public Policy in the New Mobility Landscape)*, the study committee shared its thinking about the potential of mobility management to serve as a catalyst for innovation. Mobility managers could play a role in furthering the new mobility landscape, which makes even more important a resource which suggests a framework for implementing new mobility services.

In looking toward the future and in response to its Statement of Task, the committee views mobility management as a promising framework within which to consider "the role transit agencies and other entities could play in managing and otherwise furthering the new mobility landscape" as required by the committee's Statement of Task https://www.nap.edu/download/26053.

There is not only one-way to extend a continuum of transportation service in a community. The steps below can be customized to align with the unique characteristics of the setting and are intended to be flexible and dynamic. Peer-to-peer information sharing and learning is an important way to confirm practice, and NCMM's Mobility Management Connections (MMC) learning community offers mobility management professionals a

free forum to advance strategies related to building a continuum of transportation service.

Implementation Framework

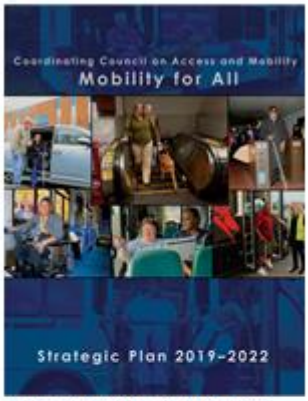
- ☐ **Engage partners and stakeholders.** As mobility management professionals build networks, it is important to have the perspectives and voices of many, including people with lived experience. In human service sectors, to access social services, the field often describes, "there is no wrong door" – meaning individuals who need services can access these services through multiple ways and a variety of forums. This same attribute can apply to partner and stakeholder engagement. There is no wrong partner or stakeholder. The trick is to make participation compelling for this broad range of participants. How?

  > In social policy, lived experience is increasingly used to 'frame user involvement in service improvement'.[6] It is a mechanism for participatory democracy, giving marginalized groups genuine opportunities to contribute to policy making through the expertise of their lived experience.

  - Use language that resonates with varying professional disciplines and industries who you are trying to attract. Don't scare participants away by using "transportationese". Colleagues representing health or human service industries and using acronyms like FTA, HST, VMT, MaaS, etc. will not feel welcomed if they have no idea what is being said.
  - Do your homework by collecting examples of how these same partners have contributed to other mobility management networks in other places. NCMM can help provide these cases through individual technical assistance available from regional liaisons, or through the examples provided throughout our website.
  - Base engagement on needs or gaps. For instance, if you have conducted a regional planning process, and determined that there are gaps in service in a particular geographic area of your community, ensure that colleagues representing these areas are contributing to your network. Similarly, if gaps exist to transport individuals to specific sectors, such as to work, to school, to health care, etc., ensure that industry representatives from these sectors are part of your network and encourage them to share information about transportation needs.

- ☐ **Compile return on investment (ROI) data to support the engagement of new providers.** Time is a valuable commodity and as you advance the continuum of transportation service you want to ensure partners, regardless of whether they are contributing intellectual capital or actual transportation service, feel like "they are getting something out of the partnership". Outcomes of being part of transportation service continuums can include:
  - Publicity for an organization or provider.
  - Identification of new or varied customers for a service.
  - New or varied revenue streams.
  - Opportunities to learn new things or be privy to community innovations.
  - Improved transportation access to targeted populations that results in health improvement, employment outcomes, or financial stability, etc.

- ☐ **Find funding to support the new or changed service.** Traditional funding that may come from the US Department of Transportation, Federal Transit Administration (FTA) may not be enough to implement the solutions that address the needs of riders. Mobility management professionals are often in the position of being creative and resourceful when identifying viable and sustainable funding sources. Fortunately, national policy initiatives, such as the Coordinating Council on Access and Mobility (CCAM), have created heightened regard for the support of transportation service across Federal sectors. For instance,
    - The importance of transportation to access health care, can make it compelling for the US Department of Health and Human Services (HHS) and their state counterparts to invest in transportation.
    - The significance of transportation on individuals securing meaningful and inclusive employment can prompt interest by the US Department of Labor and state affiliates to consider investments in transportation.
    - A focus on public and Indian housing can strengthen the interest of housing professionals to build relationships with transportation planners and providers to facilitate access to community services by residents of public housing units.



The CCAM strategic plan, approved in October 2019, aims to improve access to jobs, health care, education, and community services through better access to transportation and coordinating 130 government-wide programs.

A key for mobility management professionals is to create a compelling need for these diverse funding sources to invest in transportation. A case needs to be made that the populations served by these diverse agencies will benefit from the transportation investment. These opportunities for funding come through a variety of ways such as direct funding for capital including vehicles, voucher programs to participants and riders, or using funds from across Federal agencies, called braiding funds. The CCAM tools developed by the FTA are useful in identifying Federal programs that can support transportation, and obtain guidelines about the Federal braiding provisions allowable by FTA and other Federal agencies.

Funding can also come from non-Federal resources such as private businesses, foundations, or philanthropies. In one mid-western state, a family-owned business in the northern part of the state provided an agency the funds to purchase vehicles to support community members to access jobs. In some national philanthropic efforts, foundations will fund community programs that focus on building community well-being and economic prosperity. Transportation, as a social determinant of health (SDOH), certainly can lead to this economic and community well-being. Mobility management professionals need to help funders "see the connections" – relying on the ROI as the impetus for the investment.

- ☐ **Assess the viability of mobility innovation and service partners.** What we always think of transportation service has drastically changed over the years. Among the influencers of this innovation are advances in technology, service integration, service efficiency, and public and private partnerships. This change has created exciting, and sometimes daunting opportunities for transit systems to continue to build accessible continuums of transportation service. Systems no longer include just buses, taxis, or

trains. Rather, we see innovations such as microtransit services, shared mobility services (such as Uber and Lyft), and micromobility services (such as scooters and bike programs). Further, traditional paratransit service delivery has changed, with systems administrators thinking about how to provide high quality service in more efficient ways.

In a 2021 Transit Cooperative Research Program Report (TCRP-H-56), researchers examined the circumstances and conditions that agencies used in bus redesign efforts. The report offered cases of transportation agencies that used a variety of innovative delivery options to complement or amend existing services. The Appendix in this brief is a synopsis of trends in new mobility that the report described and are used by transit systems to build or change their existing delivery system. However, decisions about new or changed service cannot be made without consideration of important factors. Mobility management professionals can use the following features or factors to assess the viability of the service.

- **Accessibility.** Both in arranging for the service – and on the vehicle. How do riders arrange for service? Is technology required? Does a rider need an electronic payment system? Are the vehicles that are part of the service accessible including wheelchair lifts, and signage for riders with different sensory needs, etc.
- **Voice of diverse rider groups**. It is important to have the voice of riders at the table to inform the process. Does the provider have opportunities for rider input, as the service is being planned, and then once it is implemented? Do these perspectives include riders with disabilities, those representing low socioeconomic communities, and individuals who are culturally and linguistically diverse?
- **Clearly define the purpose and scope of the service.** Coming to consensus about the purpose and scope of the new service provider is critical. A meeting of the minds across mobility management professionals, planners, administrators, boards, and whomever else is a decision-maker in service paradigms must occur. The scope of service for new partners can include:
    - Provide first-mile – last mile solutions.
    - Fill transit gaps for geographic areas where fixed route service is not available, especially in low density rural areas.
    - Offer transportation service in ways that might be more economical to the transit agency.
    - Target particular rider groups such as people with disabilities to offer ADA service.
- **Service contracts and memorandums of understanding (MOUs).** Are there consistent and accessible ways for people with disabilities and older adults to provide input regarding the service? Is there reference to the accommodation or service needs of individuals with disabilities or older adults explicit in the agreement? Are the responsibilities of the contractor or vendor clearly specified and what measures for accountability are in place if the provider is not meeting these contractual requirements?
- **Reliability**. What is their history in getting people where they need to go? Get examples and references from communities that look like yours. Especially in rural versus urban areas – do they have experience in providing services in the geographically or demographically similar areas as yours?

- **Vehicle safety and maintenance**. How are vehicles maintained? Is there any inspection requirement for vehicles?
- **Driver training**. How does the provider offer professional development to operators related to diversity (cultural and linguistic – disability – working with older adults)?
- **Cost**. Will the expenses be fixed or variable? Who pays - is this a shared expense between the medical provider, rider, or NEMT?
- **Service times and scope of service.** How much flexibility will there be in service delivery? Is delivery consistent with the needs of riders and their travel patterns?
- **Equity issues related to Title VI.** If appropriate, does the service comply with Federal requirements?
- **Processes for customer feedback.** Does the provider use data – if so how? Will they share these data with you? What are the methods by which the provider collects data?
- **Evaluation** – Performance monitoring – What internal controls does the provider have to correct issues and problems? What recourse does the rider have regarding input into service?

☐ **Continuous Assessment.** Mobility management professionals should always assess processes for improvement. Needs change, services change, environmental conditions change, and all may warrant changes in the type of services and the providers of services in a community. Methods for continuously assessing community needs is critical – and human service transportation coordination plans, updated every seven or eight years may not be frequent enough. Mobility managers should create opportunities for community dialogue through formal and informal ways. Consider, facilitating and conducting meetings, sponsoring Webinars, and creating informational events that appeal to diverse audiences using various ways to engage community members who may have different information and learning styles. Continue to collect data about the cost/benefit (return on investment) and outcomes to measure the efficacy and quality of service designs.

To reiterate, this framework is only one tool available to mobility management professionals as they participate in processes related to advancing continuums of transportation service. NCMM is fortunate to be part of a larger network of technical assistance centers funded by the US Department of Transportation, Federal Transit Administration. Many of our peers, through their technical assistance activities, can support mobility management professionals to make informed decisions about the services that comprise their transportation systems. Readers are encouraged to review websites and tools developed by our colleague centers to identify complementary supports to advance transportation service.

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Resources

The following FTA-funded national technical assistance centers can provide free support and resources to help improve mobility options for individuals and communities.

- ☐ **National Rural Transit Assistance Program (RTAP).** https://www.nationalrtap.org/ call for resources and info: 1-888-589-6821 or email: info@nationalrtap.org. This center supports the Grants for Rural Areas Program.
- ☐ **National Center for Mobility Management (NCMM).** https://nationalcenterformobilitymanagement.org/ phone: 1-866-846-6400 email: info@nc4mm.org. This center supports mobility management, which means helping communities and individuals create and manage their mobility options NCMM supports grantees, mobility managers, and partners in promoting customer-centered mobility strategies that advance good health, economic vitality, self-sufficiency, and community.
- ☐ **National Aging and Disability Transportation Center (NADTC).** https://www.nadtc.org/ phone: 1-866-983-3222 email: contact@nadtc.org. This center supports the Grants for Enhanced Mobility for Seniors and Individuals with Disabilities Program.
- ☐ **National Center for Applied Transit Technology (N-CATT**). https://n-catt.org/. The mission of this center is to translate emerging transportation technologies for states and localities across the United States. Contact us: https://n-catt.aura-software.com/contact/.
- ☐ **Shared Use Mobility Center (SUMC).** https://sharedusemobilitycenter.org/. The Shared-Use Mobility Center is a public-interest organization dedicated to achieving equitable, affordable, and environmentally sound mobility across the US through the efficient sharing of transportation assets. By connecting the public and private sectors, piloting programs, conducting new research, and providing policy and technical expertise to cities and regions, SUMC seeks to extend the benefits of shared mobility for all. Contact us: info@sharedusemobilitycenter.org.

Appendix

This information was taken from TCRP Report H-56, *Redesigning transit Networks for the new mobility future: Resource and toolkits*. Retrieved 02.20.201 from http://onlinepubs.trb.org/onlinepubs/tcrp/docs/TCRP_H56_Final_Report.pdf

Trends in New Mobility

While public transit ridership has been declining in recent years across the country and bus ridership now at its lowest point since 1973 (Watkins, et al. 2020), many newer forms of shared mobility experienced rapid growth in the 2010s.

• **Carsharing.** The carsharing industry has seen a number of entrants and exits over the past two decades, as well as a variety of models (e.g., round-trip, point-to-point, peer-to-peer). In 2018, there were 21 active carsharing operators in the United States, with over 1.4 million members and over 15,000 shared vehicles. Of these 21 operators, 13 are for-profit businesses that together account for nearly 100 percent of all carsharing program members and vehicles. While the number of carsharing program members increased by 345 percent between 2009 and 2018, in recent years the rate of growth in carsharing memberships has slowed; between 2014 and 2018 the number of carsharing program members grew by 8 percent (Shaheen and Cohen 2020).

• **Micromobility.** Micromobility options have evolved particularly rapidly over the past decade. In 2010, the first modern, station-based bikeshare programs (Capital Bikeshare in the Washington, D.C. area and Nice Ride in Minneapolis, MN) launched (Arlington County, VA 2012) and a total of 321,000 bikeshare trips were completed. In 2018, over 36.5 million trips were taken on station-based bikeshare systems across 30 U.S. cities. Today's bikeshare options include both station-based bikeshare systems and dockless bikeshare systems; many systems have introduced electric bicycles (e-bikes) or have fleets that are comprised entirely of e-bikes. At the end of 2018 there were over 85,000 e-scooters deployed in around 100 U.S. cities (National Association of City Transportation Officials 2019).

• **Microtransit.** Interest in microtransit among transit agencies grew substantially in the 2010s as the technology to enable on-demand scheduling and routing became available to transit providers. More recently, a number of new microtransit technology providers and turnkey operators have emerged and are currently working with transit agencies. Desire for operational efficiency, equity, and accessibility have thus far motivated transit agencies to offer microtransit service. Over time, changing customer expectations and technology have also given transit agencies reason to consider microtransit service; as customers become accustomed to private service offerings, there is a sense that the transit agencies need to evolve their offerings to meet new expectations (Volinski 2019). Survey respondents queried as part of Microtransit: Evolving Approaches to Providing General Public Demand-Response Transit treated demand response transit (DRT) as just one aspect of a transit agency's overall service offering, as DRT open to the general public complements the existing transit network. This sentiment is evidenced by service models that connect with the existing transit network (Volinski 2019).

• **Ridesharing, or carpooling and vanpooling**, is not a new form of shared mobility, but technology enabled ridesharing is a key component of the new mobility landscape in many of the nation's major metropolitan areas. In 2008, the first privately-run, general public, real-time, smartphone-enabled ridematching system was launched. In the 2010s various private firms entered and exited the real-time ridematching marketplace (Shared Use Mobility Center 2020). Vanpooling, shared rides taking place in a van, may be operated transit agencies, owner-operators, leased from private providers, or by individual employers or transportation management associations (Shaheen and Chan 2012). Between 2009 and 2018 the number of vanpool trips reported to the National Transit Database (NTD) CRP Project TCRP H-56 19 increased by 36 percent to 34 million trips (Federal Transit Administration Office of Budget and Policy 2019).

• **Shuttles.** While comprehensive data on the availability and use of shuttles is unavailable, large operators of these services have contracts with employers, business parks, and others to deliver thousands of rides across the United States (Feigon and Murphy 2018). Certain regions of the country, notably San Francisco and Seattle, see shuttles as a large and key part of their transit networks.

• **Transportation Network Companies (TNCs).** Since the inception of TNCs in 2010, the use of these services has grown dramatically across the world. By 2018, the two largest ridehailing companies had completed more than 11 billion trips worldwide. In the United States, an estimated nearly four billion TNC or taxi trips were taken in 2018, vs. approximately 1.5 billion ride hail or taxi trips were taken in 2012 (Union of Concerned Scientists 2020). As the prevalence of ridehailing has grown, transit agencies have undertaken various types of partnerships with TNCs. A survey conducted as part of TCRP J-11 Task 26: Partnerships between Transit Agencies and Transportation Network Companies (TNCs) revealed that transit agencies' top goals for TNC partnerships were "to provide first-mile/lastmile connections" (75 percent), "demonstrate innovation" (69 percent), and "improve customer experience" (61 percent). When asked about the target customers of the TNC partnership the two most common responses were to serve "people with disabilities" (57 percent) and "people in areas difficult to cover by fixed route services" (51 percent) (Curtis, et al. 2019).

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