Developing an On-Demand Paratransit Program

Abstract

It's frequently understood that barriers to transportation are associated with limiting health care access. True, a lack of transportation may result in missed medical appointments, delays in obtaining medication, and, ultimately, poorer health outcomes and increased health care costs, but paratransit use highlights the real breadth of these barriers. Equally important is the link between transportation and social needs, such as grocery shopping, banking, and employment activities. These barriers also impact how people can access recreational activities that are vital to sustaining a personal sense of fulfillment and wellbeing.

Counties and transit agencies are increasingly recognizing the need to expand transportation options for vulnerable populations. Under the Americans with Disabilities Act (ADA), transit authorities must offer specialized door-to-door transportation for eligible individuals who, due to a physical or cognitive disability, cannot ride the regular bus (Americans with Disabilities Act of 1990). While paratransit programs have been implemented to enhance transportation access nationwide, historically, such systems have proven costly and inefficient. Even with these programs in place, eligible individuals may struggle to cover the cost of specialized transportation or face limitations in how and when to schedule their rides.

This paper reviews key steps in developing a successful on-demand paratransit program to maximize the efficiency of services, minimize operating costs, and remove transportation barriers for populations.

Challenge

Transportation barriers aren't the only social or personal factors contributing to poor health outcomes. Economic stability, literacy, infrastructure, and environmental safety are just a handful of other influences on health outcomes. Before introducing new services to augment current paratransit offerings, it's important to understand how prevalent transportation barriers are in your population. Conducting a needs assessment in the community may be an effective means of gauging the scope of the issue and developing meaningful improvement plans.

Beyond a needs assessment, a transit authority can assess the need for on-demand paratransit through the following data points:

- **Population Age.** Through U.S. Census Data and surveys, agencies can understand what proportion of the community is seniors. Knowing that senior residents are more likely to experience transportation barriers, having a larger cohort of seniors may indicate a greater need for on-demand, flexible services.

- **Distribution of Healthcare Locations.** A locale with fewer healthcare centers, or one that is primarily rural, is likely to have greater need for supplemental transportation options. Understanding the geographic landscape and the density of healthcare resources in the area is an important consideration in program initiation.

- **Operational Costs.** Before developing an on-demand paratransit program, paratransit agencies should measure the operational costs of their existing program. If the current per-trip cost is high, the agency might consider implementing an on-demand program for vulnerable individuals.

- **Customer Satisfaction with Existing Program.** Finally, agencies should gauge user satisfaction with, and utilization of, their current ride scheduling process. This data can be collected via phone surveys, direct mailers, and tracking ridership in operating areas

Key Considerations for On-Demand Services

Service Models

When developing a paratransit program, agencies will have to evaluate different types of service models to understand which best meets the needs of their population. The most common model is a subsidy program, where a transit provider subsidizes rides to the end-user on services other than the transit company vehicles (Kimley-Horn, 2018).

For other agencies, On-Demand Flexible Transit programs may be more appropriate, where passengers can request transit rides at the time they're needed, with or without a co-pay. If your agency chooses to implement on-demand services, there are additional considerations beyond the standard eligibility screening criteria. For example, someone could benefit from a good on-demand program if they live in areas without public transit access. Perhaps they don't qualify for Medicaid but still need a low-cost option to travel to healthcare facilities, and they are willing to pay a marginally higher co-pay for point-to-point, on-demand service.

Research Existing Programs and Services

Agencies can glean valuable insights and best practices from existing transit programs. Understanding the service models, eligibility criteria, payment process, and types of travel services offered in comparable communities can help your team make informed decisions as you construct your own program. Some of the transit programs in place today include:

- The Greater Richmond Transit Company (Richmond, VA)

- NV Rides (Fairfax County, VA)

- Access On Demand (Chesterfield, VA)

- Atlanta Regional Commission Rides to Wellness (Atlanta, GA)

Next, it's key to understand the local transportation services that already serve your population, including public transit, rideshare offerings, and non-emergency medical transportation services. An effective paratransit program will build upon and enhance these offerings, rather than replace them.

In addition to researching transit programs, agencies should investigate various third-party ride scheduling platforms. According to Kimley-Horn, such companies can help to mitigate technology barriers experienced by eligible riders (2018). Companies such as Roundtrip have assisted agencies by leveraging technology in a user-friendly way while aggregating actionable data on ridership.

Define Program Delivery

Once you have established the type of service model, you will need to decide the level(s) of service that will be offered, and how individuals will schedule their rides.

Vehicle Types. Depending on residents' mobility needs, agencies may need to offer different levels and types of transportation. While a more ambulatory population might primarily utilize rideshare options, an older, less mobile population might need more expansive medical sedans, wheelchair accessible vehicles, or wheelchair vans for greater assistance.

Because the cost of transportation varies depending on the level of assistance or equipment provided, it's important to do your research on the mobility needs of your eligible population. Community assessments, questionnaires, and surveys are a helpful way to gather this data. Once you have an understanding of the types and breakdown of vehicles your population needs, you can begin outreach to appropriate transportation companies, or connect with a third-party scheduling company to do this outreach on your behalf.

Rideshare: This is an appropriate option for ambulatory passengers who can get curb-to-curb without driver assistance.

- 4-door sedan
- Independent contractor
- On-demand service (~5-minute ETA)

Medical Sedan:

- 4-door sedan
- Medically trained driver
- Recommend 15-60-minute lead time for reservations

Wheelchair Van: This is a good option for riders who must be transported in a wheelchair, cannot self-transfer into the vehicle, and need door-to-door or door-through-door assistance.

- ADA or medically-trained driver
- Include a wheelchair lift into the vehicle
- Recommend a 60-minute lead time for reservations

Ride Scheduling Process. While some transit programs have individuals schedule directly with transportation providers, others partner with third-party reservation companies to assist individuals in scheduling rides. Under this model, individuals may phone into a call center operated by the third-party company, and have agents schedule rides on the individual's behalf. Alternatively, for more tech-savvy populations, agencies can work with the third-party company to develop and offer an online platform for individuals to verify eligibility and schedule trips electronically.

Member   Transportation Company
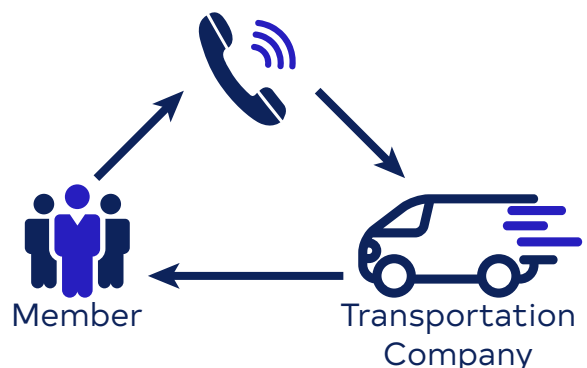
Develop Pricing Strategy

In determining the pricing strategy for a paratransit program, an obvious consideration is the extent of funding agencies have available for the program. There are several additional considerations, however, that agencies must keep in mind.

First, the cost charged to the customer must be affordable for the vulnerable population that is utilizing the service. Seniors living on a fixed income, for example, may have financial limitations when it comes to transportation.

Further, paratransit programs can only cost the customer two times the amount of the fixed-route fare. In other words, if the customer would have paid $1.75 to take the bus, the on-demand paratransit program can only cost the customer $3.50, at most.

Finally, as detailed by the ADA, paratransit programs cannot discriminate based on physical ability. This means that the cost to the customer cannot be different for an ambulatory individual using rideshare than for an individual who requires a wheelchair van. While this condition can be challenging due to the increased cost of wheelchair vans and other higher levels of transportation, agencies should look to third-party vendors for assistance. By connecting with a network of rideshare and wheelchair van companies, Roundtrip successfully offers both levels of service at the same cost to the customer, regardless of mobility.

Here are three common examples of pricing models:

1. **Fixed Rate to User with a Mileage-Tiered Subsidy from Agency**

   A common pricing strategy is for users to pay a fixed cost for each ride, regardless of trip distance, with the remaining trip cost subsidized by the agency based on mileage. Here's an example of this structure:

Trip Mileage	Cost to Customer	Cost to Agency
1-5	$6	$18
6-10	$6	$25
11-15	$6	$32
16-20	$6	$39

2. **Mileage-Tiered Cost to User with a Mileage-Tiered Subsidy from Agency**

   Another pricing option is to have both the cost to the user as well as the subsidy from the agency be tiered based on trip mileage.

Trip Mileage	Cost to Customer	Cost to Agency
1-5	$4	$18
6-10	$6	$25
11-15	$8	$32
16-20	$10	$39

3. **Mileage-Tiered Cost to User with a Fixed Subsidy from Agency**

   Finally, transit agencies may choose to subsidize a fixed portion of the trip, regardless of mileage, and have the passenger pay variable amounts based on trip distance.

Trip Mileage	Cost to Customer	Cost to Agency
1-5	$6	$15
6-10	$8	$15
11-15	$10	$15
16-20	$12	$15

Determine User Payment Process

After deciding what individuals will pay for each trip taken, agencies will need to determine how payment will occur. Transit agencies must have a good understanding of the resources available to eligible members to determine an appropriate payment process.

Many programs operate by having users pay directly for their trips, whether that is a fixed or variable cost. To maximize ridership under this approach, eligible members must have the funding/resources available to cover this cost directly. While Greater Richmond Transit Company (GRTC) utilizes this approach, payment information does not need to be collected each time a customer schedules a ride. By partnering with Roundtrip, GRTC uses a cashless system whereby an eligible member creates a profile with a validated debit/credit card that is automatically charged the co-pay amount upon ride completion.

Another common approach is for agencies to provide a fare/debit card to eligible passengers to use for their trips. Depending on program structure, this may be a one-time offering or funding on the card may be replenished on a predetermined cadence.

Finally, agencies may choose to provide cards or keys that members can load cash onto for paratransit services. This may be most effective when serving populations that have limited access to credit/debit cards. Using existing transportation cards, such as the key cards provided by SEPTA in Philadelphia, PA, customers can load cash at various sites or fare kiosks, which then functions as a debit card to use on paratransit services.

Determine Program Objectives and KPIs

Without establishing clearly defined objectives, it is impossible to understand whether your para-transit program is achieving its intended purpose. When setting program objectives, we recommend utilizing a framework known as "SMART", ensuring they are specific, measurable, achievable, realistic, and time-bound. This will facilitate actionable data collection after program launch.

With any new program or initiative, it is critical to measure quality and evaluate success. Tracking key metrics allows your agency to understand whether the program is contributing to your defined objectives and making a meaningful impact for members. The following sample metrics can aid in evaluating your program's success:

- **Ride Timeliness.** The difference between the driver's designated pick-up time and the actual time of arrival.

- **Passenger No-Shows.** Any instance where the passenger was not available or ready for their scheduled pick-up.

- **Member Feedback.** Qualitative or quantitative feedback provided by passengers on their transportation experiences.

- **Rideshare Cost Savings.** The estimated costs saved from utilizing rideshare when compared to average national taxi rates

See how Roundtrip Roundtrip reduced ride wait times for 11,000 paratransit trips in Richmond, VA with GRTC.

Invest in Marketing

After detailing the essential components of your paratransit program, it's time to get the word out! It is critical to conduct some market research to understand what marketing tactics resonate most with your target population. For example, when marketing to seniors, incorporating larger text will likely lead to more successful outreach. Further, seniors are probably more comfortable with something familiar, such as print articles and advertisements, rather than social media or electronic mediums.

Another essential marketing consideration is literacy. Investing in marketing is useless if materials are not accessible to your target demographic. According to a study Using a tool called Flesch-Kincaid, your team can assess the readability of materials, designated by a grade-level score. As the average US adult reads at an eighth-grade level (Eltorai et al., 2014), any materials written about your paratransit program should use concise language, active voice, common words, and short sentences.

Sample Marketing Strategies:

- Direct mailers
- Flyers posted at popular sites/centers
- Local newspaper or magazine articles and advertisements
- Email campaigns
- Community events

References

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Contact Us

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