

Rides to Wellness Demonstration Grants Program Evaluation

MARCH 2021

FTA Report No. 0190

PREPARED BY

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COVER PHOTO

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Metric Conversion Table

SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft³	cubic feet	0.028	cubic meters	m ³
yd³	cubic yards	0.765	cubic meters	m ³
NOTE: volumes greater than 1000 L shall be shown in m ³				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C

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TABLE OF CONTENTS

1	Executive Summary
9	Section 1: Rides to Wellness Demonstration Grants Program
13	Section 2: Riverside County Transportation Commission – Blythe Wellness Express
22	Section 3: Atlanta Regional Commission – Rides for Wellness
31	Section 4: Delaware, Dubuque, Jackson County Regional Transit Authority – Delaware County Connections
37	Section 5: Ohio Department of Transportation – Mommy and Me Ride Free
47	Section 6: Niagara Frontier Transportation Authority – GO Buffalo Mom
54	Section 7: Conclusions and Recommendations
62	References

LIST OF TABLES

3	Table ES-1: Rides to Wellness Project Outcomes
12	Table 1-1: Rides to Wellness Projects Receiving FTA Assistance, FY2019
61	Table 7-1: Rides to Wellness Project Outcomes

LIST OF FIGURES

17	Figure 2-1: Passengers ride BWE to Desert Regional Medical Center in Palm Springs
23	Figure 3-1: Rides to Wellness Stakeholder Summit
36	Figure 4-1: Delaware County Connections volunteer driver with riders
43	Figure 5-1: Mother and children using Mommy and Me Ride Free service

Abstract

To address transportation barriers to healthcare access, the Federal Transit Administration (FTA) funded eight Rides to Wellness demonstration projects valued at \$2,865,233 through the 49 U.S.C. § 5312 program to identify and test promising, replicable public transportation healthcare access solutions that support the “triple aim” of increased access to healthcare, improved health outcomes, and reduced healthcare costs. Federal transportation law 49 U.S.C. § 5312 requires an independent evaluation of demonstration projects. FTA engaged the Center for Urban Transportation Research (CUTR) at the University of South Florida to serve as the independent evaluator to conduct a summative evaluation of the grants. CUTR conducted document review and a series of interviews with individual project grantees, data from which were analyzed to assess project actual vs. expected outcomes against the overall goals of the initiative. This evaluation report includes an overview of the Rides to Wellness Initiative, profiles of each demonstration project including project outcomes and lessons learned, and findings and recommendations.

Introduction

A significant factor in rising U.S. healthcare costs is the prevalence of chronic disease across the country, with a disparate impact on low-income populations. According to the U.S. Centers for Disease Control and Prevention (CDC), chronic conditions such as heart disease, stroke, cancer, diabetes, obesity, and arthritis are among the most common, costly, and preventable of all health problems and the leading causes of death and disability in the U.S. It is also widely documented that lack of transportation access can create a barrier to healthcare treatment and screening, with an estimated 3.6 million Americans missing or delaying non-emergency medical care simply because they do not have a ride. Many of these people resort to seeking care only in medical emergencies, resulting in reduced quality of life for individuals and higher costs for both the individual and the healthcare system at large.

To help address these challenges, the Federal Transit Administration (FTA) published a Notice of Funding Opportunity (NOFO) in Fiscal Year (FY) 2016 seeking proposals for its Rides to Wellness Initiative, a program that provided funding to transit agencies and other entities to help finance innovative pilot projects that would improve access to healthcare by fostering partnerships between healthcare and transportation providers. The purpose of the demonstration grants was to identify and test promising, replicable solutions that would achieve the following goals:

- Increased access to care.
- Improved health outcomes.
- Reduced healthcare costs.

Proposers were expected to serve as the lead agency of a local consortium of stakeholders from the transportation, healthcare, human services, and/or other sectors, with members of the consortium eligible as subrecipients. Additionally, applicants were required to plan the proposed project through an inclusive process with the involvement of all sectors across the consortium. Eligible projects were required to demonstrate replicable solutions to healthcare access challenges, which could be achieved through a variety of approaches such as mobility management, health and transportation provider partnerships, technology, and other actions that drive change. The federal cost share for the demonstration grants was 80%, requiring applicants to provide a local match of 20% of project costs.

Program Evaluations

Based on a competitive application process, FTA awarded a total of \$7,211,518 for 19 Rides to Wellness demonstration projects. Of the 19 grants, 11 capital-only projects were funded with \$4,346,285 in FY 2016 and FY 2017 Fixing America's Surface Transportation (FAST) Act Section 3006(b) Pilot Program for Innovative Coordinated Access and Mobility funding. The remaining eight projects, which

included both capital and operating assistance, were funded at \$2,865,233 through 49 U.S.C. § 5312. All demonstration projects that receive assistance under this section are required by federal transportation law to undergo an independent evaluation. FTA engaged CUTR to serve as the independent evaluator (IE) of these eight projects and to produce this final evaluation report.

Methodology

This evaluation was summative in scope, with the goal of assessing the actual vs. expected outcomes of the individual projects against the overall goals of the Rides to Wellness Initiative. This was not an impact evaluation; therefore, it was beyond the scope of this effort to establish direct, causal links between projects and impacts or to determine the outcomes that would have occurred in the absence of the projects.

The CUTR IE team used two primary methods to conduct the Rides to Wellness evaluation – document review and a series of interviews with individual project grantees. The evaluation began with a thorough review of relevant background documents, including the NOFO and the original project proposals. Grantees provided progress updates and summary project data to the IE team on a quarterly basis and were required to submit a final report to FTA within 90 days of the project's completion.

A series of telephone interviews with grant representatives provided the other source of information for the evaluation. To accommodate each project's unique scope, funding, and goals, the IE team used the information gathered during the document review process to develop an individualized protocol to guide each interview. This approach produced an interview process that was methodical and comprehensive while also allowing the flexibility to discuss each project's unique characteristics. The documentation and interview data were then analyzed to assess project actual vs. expected outcomes against the overall goals of the Rides to Wellness Initiative.

Challenges and Limitations

It should be noted that the IE team was not tasked with data collection; rather, all primary data were self-reported by the individual demonstration project grantees. Although it was assumed in good faith that all grantees provided accurate data and were forthright with regard to their projects, there was no opportunity to independently verify the information. There was also significant variation among the final reports with regard to content, from simple project summaries to detailed reports of project activities and outcomes.

In addition, it was expected that the Rides to Wellness grants would be funded in early 2017, with projects scheduled for a duration of up to 18 months from the date of execution. However, due to a delay in the execution of funds, actual project implementation began between mid-2017 and mid-2018, with four

concluding in 2019 and one still underway at the time of this report. Due to complications with project partners, funds for the remaining three projects were de-obligated and returned to FTA. As a result, conclusions are limited to the experiences of the four projects completed during this period. As summarized in Table ES-1, these four projects produced a number of positive results.

Table ES-1 *Rides to Wellness Project Outcomes*

Project	Improved Access to Health Care	Improved Health Outcomes	Reduced Healthcare Costs
Blythe Wellness Express (BWE) <ul style="list-style-type: none"> Project Recipient: Riverside County Transportation Commission Description: Provided long-distance regional transportation to improve healthcare access. Trips were provided from rural Blythe and surrounding communities to healthcare facilities in Coachella Valley. 	<ul style="list-style-type: none"> 1,662 one-way trips provided to 270 users. 85% of trips for health reasons. Numerous survey respondents noted that BWE was their only way to access healthcare. Many participants had health insurance but could not use it in their community. 	<ul style="list-style-type: none"> 45% of participants with trackable health status reported health improvements. 43% reported no change in health status (i.e., health status maintained). 	<ul style="list-style-type: none"> Access to user health records blocked by HIPAA. Self-reported survey data limited, could not yield information about reductions in healthcare costs.
Rides for Wellness <ul style="list-style-type: none"> Project Recipient: Atlanta Regional Commission (ARC) Description: Provided travel training and free transit passes and paratransit or reduced fare enrollment assistance to help make transit a feasible option for preventive healthcare appointments and other trips. Participants referred from four area healthcare providers. 	<ul style="list-style-type: none"> 36,386 trips to 213 unique participants. Before-after data collected for 167 participants. 68% of participants improved healthcare appointment adherence—40% increased attendance, 52% decreased cancellation, 35% decreased their no-show rate. 	<ul style="list-style-type: none"> 140 participants reported their health as “good” in post-test as opposed to “fair” in pre-test. Average gain of 3.4 healthy days per month per participant (4.3 days for those who improved healthcare appointment adherence). Program was cost-effective method to improve patient health-related quality of life 	<ul style="list-style-type: none"> ARC used incremental cost-effectiveness ratio (ICER) to show that Rides for Wellness was cost-effective. ICER analysis found average quality-adjusted life years (QALY) gain of 0.331. Incremental cost per QALY gain of \$98.17 (lower than cost of missed appointment, estimated at \$154).
Delaware County Connections <ul style="list-style-type: none"> Project Recipient: Iowa DOT Description: Used ADA-accessible van to transport rural and small urban residents to healthcare appointments and wellness trips. Service connected residents to healthier food alternatives such as farmers markets and meal sites. 	<ul style="list-style-type: none"> Those reporting transportation as a barrier to healthcare services dropped 90% (from 59 to 6 participants) after pilot project period). 	<ul style="list-style-type: none"> Data on no-show rates and health outcomes not able to be tracked during project. 	<ul style="list-style-type: none"> Data on no-show rates and health outcomes not able to be tracked during project.

Project	Improved Access to Health Care	Improved Health Outcomes	Reduced Healthcare Costs
Mommy and Me Ride Free <ul style="list-style-type: none"> Project Recipient: Ohio DOT Description: Leveraged local transit agency resources to increase access to healthcare, employment, and other wellness trips (healthy food, social services) for pregnant and parenting women in areas where poverty and infant mortality rates higher than state and national averages. Limited resources and focus on infant mortality restricted participants to pregnant women and those with children under age 1. 	<ul style="list-style-type: none"> 619 enrolled clients took 474 one-way trips on paratransit services. Thousands of trips reported to be taken via local fixed-route bus services but were not able to be tracked. 92% of renewing clients said program helped them make needed trips. 58% of trips were for healthcare appointments. 75% no longer missed healthcare appointments. 64% were no longer late to healthcare appointments. Increased access to food shopping, work, and children's school. 	<ul style="list-style-type: none"> Birth outcomes not able to be tracked, self-reported data on births limited. Increased attendance at healthcare appointments and increased access for other wellness trips likely correlated with improved health outcomes. 	<ul style="list-style-type: none"> Data needed to quantitatively show reduced healthcare costs not able to be collected or tracked for project.

Conclusions and Recommendations

As a whole, the 2016 Rides to Wellness demonstration projects produced a number of positive results. Though some projects encountered challenges when attempting to quantify outcomes, particularly individual and societal cost outcomes, they clearly made a meaningful, and sometimes invaluable, difference for the people they served. For those with no other transportation options, these services provided lifeline access to healthcare. Most projects also helped clients to support their and their family's health through other activities such as grocery shopping, accessing employment, and taking their children to school. Overall, program participants credited the projects with significant improvements to their health. Some reported that because of the program they were more active and independent, had more control over their lives, experienced less emotional hardship, and were better able to reach their goals. In addition, the program raised awareness about the connection between transportation and healthcare and opened the door for partnerships to build upon the ideas and experiences of the projects. Based on its independent evaluation, the following conclusions and recommendations were reached regarding the Rides to Wellness demonstration grants program.

Conclusions

- The program was successful at identifying innovative public transportation solutions to healthcare access challenges.** The 2016 Rides to Wellness demonstration grants provided funding to help finance innovative pilot projects that would improve access to healthcare by fostering

partnerships between healthcare and transportation providers. FTA funded a range of project types to explore various approaches to solving healthcare access challenges. Although these projects varied in terms of their impacts, they succeeded in identifying several promising approaches that are worthy of consideration for further investment or investment on a broader scale.

2. **Due to concerns related to health information privacy, grantees were unable to gain access to patient health records as planned and instead had to rely solely on self-reported health data.** Most project proposals included plans to measure health-related outcomes using a combination of health records and self-reported health data from program participants. However, project partners did not have the time or resources to surmount the confidentiality concerns relating to health privacy laws such as the Health Insurance Privacy and Portability Act (HIPAA) and relied solely on self-reported data from program participants.
3. **In rural, isolated communities, lack of transportation may not be a barrier to healthcare access but rather an indicator of “upstream” problems stemming from the healthcare and insurance industries.** A notable and unexpected finding from the experience of the Blythe Wellness Express (BWE) was that most riders had health insurance but needed to travel over 100 miles to the Coachella Valley for several reasons: 1) the need to see a specific doctor because of insurance requirements, 2) doctors in Blythe were not accepting new patients, or 3) the needed specialist services were not available in Blythe. In other words, although riders had health insurance, they could not use it in their home community.
4. **In general, project grantees were able to use self-reported pre- and post-intervention data from program participants to demonstrate improved access to healthcare.** By asking relatively simple questions about topics such as barriers to healthcare access, trip purpose, and appointment adherence and by keeping track of unique users, grantees were able to attribute to their projects a range of improvements, including reductions in transportation barriers to health access, increased appointment attendance, and decreased appointment cancellation and no-show rates.
5. **Several grantees were able to demonstrate limited evidence of improved health outcomes using self-reported data from program participants.** For instance, at the conclusion of the Atlanta Regional Commission’s (ARC) Rides for Wellness Program, participants reported in general that their health was “good” as opposed to “fair” before entering the program. Patients also consistently reported an improvement in healthy days each month. Furthermore, the participants who improved their appointment adherence reported an even greater improvement in healthy days. In the case of the BWE, 45% of riders whose self-reported health status was trackable reported an improvement in health. In addition, most riders who reported an

improvement in their health attributed this outcome to the improved access to healthcare provided by the BWE.

6. **The goal of improved health outcomes may underestimate the value of programs that help people to maintain their health status.** In the case of the BWE, 43% of riders whose self-reported health status was trackable indicated no change in health over the course of the program. Although this may seem insignificant, it is important to emphasize that these patients were receiving regular care and able to maintain their health status. This is a crucial element in maintaining quality of life, especially for patients with chronic health conditions.
7. **Most grantees struggled with how to measure improved health outcomes and found that relying on self-reported data to quantify or attribute such outcomes to their projects yielded limited results.** Overall, participants noted significant improvements to their health, which they attributed to the improved access to healthcare provided by the pilot programs. However, although self-reported health data were often the best tool for programs unable to overcome the issues surrounding health privacy laws, this approach lacked the empirical rigor to address the many confounding variables influencing health outcomes. For instance, without access to longitudinal patient care data, grantees were unable to follow through with plans to compare project outcomes to a control group.
8. **Of all the Rides to Wellness goals, reductions in healthcare costs proved to be the most difficult to measure when relying solely on self-reported data.** Attempting to do so required grantees to survey program participants about past hospitalizations, visits to the emergency department, and changes to those behaviors, an approach that produced minimal data. In the case of Mommy and Me Ride Free in Toledo, program staff noted that a number of their clients were transient, making it challenging to collect self-reported data on a consistent basis. According to BWE representatives, many riders were unable or unwilling to take surveys on every trip and had difficulty remembering details about their healthcare or past appointments, perhaps because of their fragile condition or the relatively complicated nature of the questions.
9. **Applicants need to better identify the data (and data sources) that will be used for performance measurement.** In the grant applications and during the beginning phases of the projects, the grantees often developed ideas for excellent performance measures that could be used to demonstrate the effectiveness of their pilots. Grantees were optimistic about being able to acquire the data to be used for their proposed measures. However, in practice, it was often more difficult than anticipated to either identify or collect the necessary data. These difficulties sometimes arose due to HIPAA restrictions, limits of self-reported survey data, or other data simply not

being available (e.g., not being able to track trip details of fixed-route transit trips).

10. **Programs need better planning for sustainability.** Some grantees were successful in channeling their successes to secure bridge funding or ongoing grants from outside organizations to help sustain projects. However, a lack of planning for how to proceed after FTA funds were exhausted left some projects at risk of becoming isolated, one-off interventions. Innovative programs were created and then refined or improved over the pilot period but with no means to market or maintain them over the long term.

Recommendations

1. **Consider designating the healthcare provider, rather than the transit agency, as the primary recipient of the grant.** The preponderance of opinion among grantees was that accurately measuring cost savings would have required access to longitudinal patient care data, something that falls outside the purview of public transportation. A potential solution to this problem would be to assign the role of project lead to the healthcare provider rather than the transit agency. Due to legal and contractual issues, this would likely be a complex and lengthy process, a point that underscores the importance of Recommendation #2.
2. **Enact longer funding cycles to allow the necessary time to demonstrate cost savings.** Another factor that hindered the ability of grantees to track healthcare costs was the relatively short timeframe of the grants. Although the healthcare industry has effective methods for measuring cost savings, setting up the arrangements to do so in collaboration with outside organizations takes significant time and resources. Moreover, irrespective of the administrative and time costs associated with tracking healthcare dollars, several grantees expressed serious doubts about whether it is realistic to expect cost savings to materialize within the 18-month pilot period.
3. **Consider expanding the health outcome goal to include health maintenance.** As previously noted, the ability to maintain health is a crucial element in maintaining quality of life, especially for patients with chronic health conditions. To account for the full value of the Rides to Wellness Initiative, a finding of no change in health status should be regarded a positive health outcome.
4. **Grantees should take great care designing the methodology for collecting self-reported data, especially when working with vulnerable populations such as those who are older, homeless, or ill.** As previously noted in Conclusion #9, the complicated nature of collecting self-reported health data can pose significant challenges, particularly in the case of on-board surveys. If surveys are the only option, they should be kept as short and simple as possible.

5. **In cases when it simply is not possible to acquire the necessary patient care data to quantify cost savings, grantees should consider using the incremental cost-effectiveness ratio (ICER) to examine other dimensions of cost.** For instance, although ARC was unable to find the data necessary to determine dollars saved as a result of Rides for Wellness, ICER analysis found that providing Breeze Cards through the program was a cost-effective method to improve patient health-related quality of life. It should also be noted that the ICER has been deemed valid and reliable by the Agency for Healthcare Research and Quality (AHRQ) and is one of the most commonly-used methods of assessing the efficacy of health programs.
6. **Require applicants to submit a data plan as part of their grant applications.** Although the 2016 NOFO for these grants required applicants to provide specific performance measures that would be used to quantify actual outcomes against expected outcomes, the criteria should go a step further and require the preparation of a data plan for the proposed project. As part of the grant application process, proposers should collaborate with partners not only to research potential performance measures but also to seek out and confirm appropriate data sources. Although it is understood that certain performance measures may need to be amended during the course of a project, the requirement for a data plan would at least ensure that the proposers have confirmed the availability of data that can be used to measure the project outcomes.
7. **Require grantees to submit a sustainability plan as part of their final project reports.** As noted, projects were at risk of being isolated, one-off interventions due to a general lack of planning for how to proceed after FTA funds were exhausted. Although FTA's 2016 NOFO stated the intent to select projects with a high likelihood of long-term success and sustainability, FTA should consider adding an explicit requirement that grantees include a sustainability plan in their final project reports.
8. **FTA may wish to consider creating final report templates for grantees.** The structure and content of the grantees' final reports varied significantly; some provided detailed, high-quality descriptions and analysis of the project and its outcomes, and others were much briefer and less detailed. A report template may help to address this lack of consistency.

Rides to Wellness Demonstration Grants Program

A significant factor in rising U.S. healthcare costs is the prevalence of chronic disease across the country, with a disparate impact on low-income populations. According to the U.S. Centers for Disease Control and Prevention (CDC), chronic conditions such as heart disease, stroke, cancer, diabetes, obesity, and arthritis are among the most common, costly, and preventable of all health problems and the leading causes of death and disability in the U.S. It is also widely documented that lack of transportation access can create a barrier to healthcare treatment and screening, with an estimated 3.6 million Americans missing or delaying non-emergency medical care simply because they do not have a ride. Many of these people resort to seeking care only in medical emergencies, resulting in reduced quality of life for individuals and higher costs for both the individuals and the healthcare system at large.

To help address these challenges, the Federal Transit Administration (FTA) published a Notice of Funding Opportunity (NOFO) in Fiscal Year (FY) 2016 seeking proposals for its Rides to Wellness Initiative. The program provided funding to transit agencies and other entities to help finance innovative pilot projects that would improve access to healthcare by fostering partnerships between healthcare and transportation providers. The purpose of the demonstration grants was to identify and test promising, replicable solutions that would achieve the following goals:

- Increased access to care.
- Improved health outcomes.
- Reduced healthcare costs.

Proposers were expected to serve as the lead agency of a local consortium of stakeholders from the transportation, healthcare, human services, and/or other sectors, with members of the consortium eligible as sub-recipients. Additionally, applicants were required to plan the proposed project through an inclusive process with the involvement of all sectors across the consortium. Although eligible projects were required to demonstrate replicable solutions to healthcare access challenges, this could be achieved through a variety of approaches such as mobility management, health and transportation provider partnerships, technology, and other actions that drive change. The federal cost share for the demonstration grants was 80%, requiring applicants to provide a local match of 20% of project costs.

Based on a competitive application process, FTA awarded a total of \$7,211,518 for 19 Rides to Wellness demonstration projects. Of the 19 grants, 11 capital-only projects were funded with \$4,346,285 in FY 2016 and FY 2017 FAST Act Section 3006(b) Pilot Program for Innovative Coordinated Access and Mobility Funding. The remaining eight projects, shown in Table I-I, were funded at \$2,865,233 through 49 U.S.C. § 5312. All demonstration projects that receive assistance under this section are required by federal transportation law to undergo an independent evaluation. FTA engaged the Center for Urban Transportation Research (CUTR) at the University of South Florida to serve as the independent evaluator (IE) of these eight projects and to produce this final evaluation report.

Evaluation Methodology

The evaluation was summative in scope, with the goal of assessing the actual vs. expected outcomes of the individual projects against the overall goals of the Rides to Wellness Initiative. This was not an impact evaluation; therefore, it was beyond the scope of this effort to establish direct, causal links between projects and impacts or to determine the outcomes that would have occurred in the absence of the projects.

The CUTR IE team used two primary methods to conduct the Rides to Wellness evaluation—document review and a series of interviews with individual project grantees. To gain familiarity with the demonstration program, its projects, and related FTA processes, the team began with a thorough review of relevant background documents, including the NOFO and the original project proposals from grantees outlining goals, expected outcomes, and performance measures. Grantees provided progress updates and summary project data to the IE team on a quarterly basis and were required to submit a final report to FTA within 90 days of the project's completion. CUTR also examined other supporting materials provided by project staff, such as survey instruments and marketing materials.

A series of interviews with grant representatives provided the other source of information for the evaluation. To accommodate each project's unique scope, funding, and goals, the IE team used the information gathered during the document review process to develop an individualized protocol to guide each interview. Although all interviews shared common themes organized within a similar structure, questions were tailored to address the distinguishing elements of the project and any issues cited in the proposal or final report. This approach produced an interview process that was methodical and comprehensive while also allowing the flexibility to discuss each project's unique characteristics.

The interviews were held by teleconference and conducted in two rounds. An initial interview was held to introduce the IE team, explain the purpose of

the evaluation, discuss the roles and responsibilities of the grantee, and begin gathering project information through specific interview questions. After the conclusion of a project, the IE team held a closeout interview to discuss the final report and revisit questions from the initial interview where appropriate. The IE team provided questions to grantees in advance of the teleconferences and conducted the interviews in a conversational style. With the permission of interview participants, the IE team recorded and later transcribed the teleconferences. By eliminating the distraction of taking notes, this process afforded the IE Team a maximum level of engagement in the discussions with grantees. The documentation and interview data were then analyzed to assess project actual vs. expected outcomes against the overall goals of the Rides to Wellness Initiative.

Challenges and Limitations

It should be noted that the IE team was not tasked with data collection; rather, all primary data were self-reported by the individual demonstration project grantees. Although it was assumed in good faith that all grantees provided accurate data and were forthright with regard to their projects, there was no opportunity to independently verify the information. There was also significant variation among the final reports with regard to content, from simple project summaries to detailed reports of project activities and outcomes.

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Table 1-1
*Rides to Wellness
 Projects Receiving FTA
 Assistance, FY 2019*

Project Title	Project Recipient	City and State	FTA Award
Blythe Wellness Express	Riverside County Transportation Commission	Riverside, CA	\$185,753
Rides to Wellness: Coordinating Inpatient Medical Transportation for San Diego County	San Diego Association of Governments	San Diego, CA	<\$160,000>*
Rides for Wellness	Atlanta Regional Commission	Atlanta, GA	\$337,628
Delaware County Connections Program	Iowa Department of Transportation	Ames, IA	\$130,560
Rides2Wellness Detroit	Detroit Department of Transportation	Detroit, MI	<\$509,475>*
Gateway Program	Bi-State Development Agency	Saint Louis, MO	<\$940,251>*
GO Buffalo Mom	Niagara Frontier Transportation Authority	Buffalo, NY	<\$468,566>**
Mommy and Me Ride for Free Program	Ohio Department of Transportation	Columbus, OH	\$133,000
Total			\$2,865,233

* In early 2021, the grantee requested via the FTA Regional Office to keep the funds and repurpose them to a different project but one that is still consistent with the Rides to Wellness program. The request is being put into writing by the grantee for FTA's review.

**Project still underway, therefore unable to report on final outcomes.

SECTION 2

Riverside County Transportation Commission – Blythe Wellness Express

Background and Barriers to Healthcare Access

The Riverside County Transportation Commission (RCTC) is the transportation planning agency serving Riverside County, California, which has a population of over 2.2 million and covers 7,303 square miles. The Palo Verde Valley Transit Authority (PVVTA) is the public transit operator for eastern Riverside County's Palo Verde Valley, a primarily agricultural region that includes the isolated, lower-income, rural community of Blythe. Riverside County's Coordinated Plan 2016 emphasized the need for improved healthcare access to meet demand for cross-regional trips by providing more services to medical care facilities. There are no public transportation options that connect residents of Blythe to the nearest major medical center, which is over 100 miles away in the Coachella Valley. Public transit is a critically important service, as 11% of Blythe residents do not have access to a vehicle. Blythe and the surrounding communities in the Palo Verde Valley face significant barriers to accessing healthcare, as there are few local medical clinics in the area and limited healthcare options.

The California Office of Statewide Health Planning and Development identified Blythe as a designated shortage area in five of six categories; this region of California has among the lowest number of physicians and specialists in the state. Because of this, residents of Blythe must travel over 100 miles to Coachella Valley to receive specialized care. Those who do not have access to a vehicle, cannot drive, or cannot afford the trip do not receive care, thus leading to an overdependence on emergency services to treat chronic care conditions and many going without the critical care needed to manage these illnesses.

Proposed Public Transportation Solution

RCTC works in coordination with PVVTA to support the planning and provision of transit services in eastern Riverside County. The two agencies, in partnership with the Palo Verde Valley healthcare network, jointly spearheaded the Blythe Wellness Express (BWE) project, with the goal of improving health access and providing long-distance regional transportation for Blythe and the surrounding rural communities of the Palo Verde Valley. RCTC took the lead role in developing the Rides to Wellness grant application to help support PVVTA

as operator of the proposed service and to foster PVVTA's role as mobility manager for the Palo Verde Valley. The BWE program was established to provide trips for eligible participants from the rural city of Blythe and surrounding communities to healthcare facilities in the Coachella Valley, including hospitals, two regional medical centers, medical offices, dialysis centers, pharmacies, dental clinics, and radiology clinics.

The BWE program was expected to yield the following potential benefits:

- Expand mobility options for rural residents of Blythe and Palo Verde Valley.
- Improve health outcomes by enhancing access to health screenings, pharmacies, and other preventive care measures, supporting better management of chronic health conditions and reducing healthcare costs.
- Lower hospital readmissions and over-reliance on emergency room use at Palo Verde Hospital (in 2015, Palo Verde Hospital had 1,095 inpatient admissions and its Emergency Department had 10,453 patient visits; 50% of these were of lower acuity diagnoses, implying that patients were using emergency services for conditions meant to be addressed by primary care).
- Increase patient compliance with scheduling and attending medical appointments through improved access to healthcare.

Partnership

The BWE is operated by PVVTA and supported by the Rides to Wellness grant and local match obtained through in-kind contributions. Funding and operational support were also provided through additional partnerships. Lead agencies are PVVTA and RCTC. PVVTA is the public transportation provider for Blythe and eastern Riverside County.

RCTC and the PVVTA partnered with Palo Verde Hospital, SunLine Transit Agency, the Palo Verde Valley Community Improvement Fund (CIF), the Riverside County Supervisor's 4th District Office, the Blythe Cancer Resource Center, and the Independent Living Partnership's Transportation Reimbursement Program, which also operates a volunteer driver transportation service. There is a demonstrated history of cooperation and engagement between RCTC and PVVTA, as the Authority provides transit service to a portion of Riverside County. In addition, both PVVTA and RCTC have longstanding relationships with some of the key funding and operational partners, including Palo Verde Hospital, SunLine, and Amma Transit Planning. In total, 27 letters of support were supplied from community partner organizations, and a Steering Committee was formed with representation from the partner organizations. RCTC served as the primary planning and financial partner and was responsible for leading the Rides to Wellness grant application process. Other partners included Palo Verde Hospital, which assisted with mobility management and patient referrals;

the Independent Living Partnership, which established a mileage reimbursement program contractor for the volunteer driver segment; and SunLine Transit Agency. Funding was obtained through local match contributors including the Palo Verde Valley CIF, the County of Riverside 4th District Supervisor, and the Blythe Cancer Resource Center.

Budget and Matching Funds

RCTC applied for the Rides to Wellness grant, requesting \$185,753 and an additional \$125,825 in local funding match, for a total project cost of \$311,578. The local match included \$25,000 from the Blythe Community Improvement Foundation, \$5,000 from the Riverside County Community Improvement Designation, and \$1,500 from the Blythe Cancer Resource Center, for a total local cash match of \$31,500, representing 10.1% of the total project cost.

In-kind cost share was provided by project partners. Lead grant applicant Palo Verde Valley Transit Agency provided in-kind match, including agency overhead, one-half of the cost of the Mobility Management position, and the vehicles, for a total of \$65,575 (21% of total cost share). Palo Verde Hospital supported half of the hospital's Mobility Manager's time, which was monetized at \$11,250 (3% of total project cost). The RCTC provided in-kind staff support for grant administration valued at \$5,000 and an additional \$7,500 to assist with the health outcomes data collection and evaluation component of the project.

Projected BWE ridership was estimated at 2,888 passenger trips over the 18-month pilot to produce approximately \$33,713 from fare revenue.

Project Implementation

The BWE project launched on July 3, 2017, and provided service until December 31, 2018, under the FTA Rides to Wellness grant. The Riverside County Executive Office Air Quality program provided a single bridge-funding contribution of \$74,000 to expand BWE operations to December 31, 2019. There were several phases of implementation, including establishing health assessments, planning and outreach, and service implementation.

Health Assessments

To measure and report on the goals of the Rides to Wellness Initiative, the BWE program was designed to capture changes in rider access to healthcare and health status as they used the service. Participants filled out an initial registration and provided a self-reported health history and status and then were asked to complete a survey on each trip that contained the same questions. RCTC and PVVTA intended to measure improvements in health outcomes of riders by evaluating hospital and outpatient clinic health measures and utilization, self-reported pre- and post-surveys from riders, on-board surveys, and boardings and

alightings by trip destination and stops. Health outcomes were to be evaluated based on survey data and data obtained through hospital and outpatient clinic health measures.

Planning & Outreach

Prior to implementation of the BWE service, a six-month planning phase was conducted to market the program, followed by an 18-month phase of scheduled service. Key medical facilities in the Coachella Valley and other preferred healthcare destinations were then identified to inform the development of the operating plan. PVVTA ran test vehicle trips to plan travel times and routes. Passenger fares were determined through consultation with project partners, a peer review of fares from similar long-distance service providers, and consideration of fuel prices and reasonable trip costs. Best practices from the Imperial County MedTrans project informed BWE's operating plan, including reservation process design, requirement to pay the fare in advance, and establishment of emergency road procedures with SunLine. A marketing campaign was launched in the target service area, which included brochures, flyers, telephone inquiries, and outreach activities. A website was developed to promote the service and share information about trip routes, scheduling, hours of operation, fares, and reservation instructions. In addition, PVVTA partnered with the Veteran's Transportation and Community Living Initiative to help share information about the BWE service.

Coordination with healthcare providers was a key planning step. RCTC and PVVTA coordinated with Palo Verde Hospital and the non-profit Blythe Cancer Resource Center. The Palo Verde Hospital Mobility Manager was tapped to help promote the BWE service to patients, coordinate with the PVVTA Mobility Manager to schedule trips and make reservations, and assist with collecting health status data. PVVTA also worked with SunLine to establish protocol for connections between the BWE service and existing transit services in the Coachella Valley.

Additionally, trips that were to extend beyond Coachella Valley were to be provided through partnerships with two existing volunteer driver programs—the Independent Living Partnership's TRIP and Salud Clinic—to help maximize resources and extend transportation service to the Moreno Valley Hospital and Loma Linda VA Medical Center care facilities.

Service Implementation

The BWE program began providing service on July 31, 2017. The service, which runs as a deviated fixed-route shuttle, serves three hospitals and deviates to additional healthcare destinations as time allowed. Stops are located at medical centers in Indio, Rancho Mirage, and Palm Springs and serve as timepoints for

the inbound destinations and outbound pick-up locations for the return trip to Blythe. Each trip from Blythe to the Desert Regional Medical Center in Palm Springs is 118 miles one-way, and the BWE service registers 265 route miles per service day.

During the 18-month grant-supported project phase, BWE provided service on Mondays, Wednesdays, and Fridays, leaving Blythe at 6:30 AM for the Coachella Valley medical facilities and making the first pick-up for the return to Blythe at 1:00 PM. To keep no-shows to a minimum, BWE riders were required to reserve and pay the fare for their rides at least one day prior to taking a trip. The fare for a one-way trip was \$10.00 and was \$15.00 for a same-day round trip. BWE also offered a free roundtrip ride for first-time users to incentivize ridership; the cost of those rides was provided through local match from partners.

Figure 2-1

*Passengers riding
BWE to Desert
Regional Medical
Center in Palm
Springs*



Project Outcomes and Lessons Learned

In addition to providing lifeline service to Blythe and the surrounding communities, the BWE program produced valuable information about developing and operating pilot transportation programs to provide isolated, rural communities with access to healthcare. To assess BWE's contributions to the goals of Rides to Wellness Initiative, the program was designed to track changes to rider access to healthcare and health status over time. Despite the participation of Palo Verde Hospital during grant and project development, access to rider health records could not be secured due to confidentiality concerns relating to the Health Insurance Privacy and Portability Act (HIPAA) and the Institutional Review Board (IRB); therefore, RCTC developed a reporting process that relied on self-reported data from BWE riders. After completing an initial registration that provided baseline information through questions about health history and health status, riders were asked to complete a survey with parallel questions on every trip to the Coachella Valley. A year-end health

assessment, including focus groups with riders, was conducted to provide input that could not be readily provided through the surveys.

Improved Access to Healthcare

BWE provided 1,662 one-way trips to 270 unique users during the 18-month pilot period. Over this timeframe, 261 (97%) of the 270 total registered BWE riders completed 381 trip surveys. At registration, 42% of riders reported that in the last six months, they had been unable to go to the doctor because of a lack of transportation. Riders reported on their trip purpose for 311 trips. Of these, 263 trips (85%) were taken for health-related reasons. Approximately two-thirds, or 178, of the healthcare trips were for specialist appointments, 55 (20%) were for routine appointments, 14 (5%) were made for dental appointments, and 2 were for pharmacy services. Specialist appointments included dialysis, optometry and ophthalmology, oncology, dermatology, cardiology, endocrinology, gastroenterology, pulmonology, psychology, radiology, audiology, and orthopedics. Of particular note, a single rider used BWE to make at least 47 appointments for dialysis treatment. In addition to responses regarding trip purpose, numerous survey comments from riders noted that BWE was their only way to access healthcare.

With regard to healthcare access barriers, a notable and unexpected finding from the survey analysis was that of the 261 riders who completed usable registration forms, the majority (81%) had health insurance. Focus group conversations revealed that despite being insured, riders needed to travel to the Coachella Valley for several reasons: 1) requirements to see a specific doctor mandated by insurance, 2) doctors in Blythe were not accepting new patients, or 3) the needed specialist services were not available in Blythe. In other words, although riders did have health insurance, they could not use it in the community.

Improved Health Outcomes

To measure improved health outcomes of BWE riders, the program tracked changes to rider self-reported health status during the period from registration to their most recent trip. On the registration form and trip surveys, riders were asked the same question: “Overall, how would you rate your health over the past four weeks?” and presented with a scale from Very Poor to Excellent. Of the 93 riders (36% of registered riders) whose self-reported health status was trackable, 45% reported an improvement in health and a similar proportion, 43%, indicated no change. Although a report of no change in health status may seem insignificant, it is important to emphasize that these patients were receiving regular care and able to maintain their health status; this is a crucial element in maintaining quality of life, especially for patients with chronic health conditions. Bearing this in mind, the fact that 88% of riders whose health status could be

tracked reported that they had been able to improve or maintain their health status is indeed noteworthy.

Additionally, most riders who reported an improvement in their health status attributed this outcome to the improved access to healthcare provided by BWE, an experience that was validated by the year-end health assessment and rider focus group. One such anecdote came from a rider who was previously restricted to a wheelchair. He revealed that since using BWE to see specialists in the Coachella Valley, he had gotten a prosthetic leg, was now able to walk independently, and had been able to get his first pair of glasses. After learning that his daughter went into early labor and was alone for delivery in a Coachella Valley hospital, he also was able to ride BWE to visit his daughter and meet his new grandchild.

Although riders noted the significant improvement to their health and quality of life because of the healthcare trips provided by BWE, quantifying these outcomes through surveys proved difficult and yielded limited results. As previously noted, since the BWE program was administered by RCTC and not the Palo Verde Hospital, access to rider health records could not be secured due to health information privacy rules.

Reduced Healthcare Costs

Of all the Rides to Wellness goals that the BWE program attempted to measure, reductions in healthcare costs proved to be the most difficult. As previously noted, access to rider health records could not be secured due to health information privacy rules. Since only self-reported data on BWE riders would be available, registration forms and trip surveys were designed to ask riders about past hospitalizations, visits to the emergency department, and changes to these behaviors. However, these questions were relatively complicated in comparison to the straightforward questions relating to healthcare access and health outcomes and yielded minimal data.

Although great care was taken to design a simple survey that was easy to understand, analysis of the survey data showed that many riders, perhaps because of their fragile condition or the more complicated nature of the questions, were unable or unwilling to take surveys on every trip and had difficulty remembering details about their healthcare or past appointments. Thus, due to the limited availability of self-reported data, reductions in healthcare costs could not be determined.

In addition to the difficulties surrounding the collection of self-reported data, the BWE team cited the relatively short 18-month timeframe of the pilot period as another factor that hindered the program's ability to track healthcare costs.

Transit-related Outcomes

After a gradual start in July 2017, BWE increased its ridership, consistently delivering over 100 one-way trips per month since February 2017. This falls below the projected ridership of 2,888 one-way trips over the pilot period. Nonetheless, the gradual increase in ridership helped to lower the program's cost per trip at the end of the pilot period to \$183.67, which is not surprising for an origin-to-destination service that travels more than 250 route miles per day. In addition, the program's final cost per revenue mile, \$5.89, is comparable to other directly-operated, demand-response, and shuttle services.

BWE's total operating cost over the pilot period was \$404,795; of that, \$305,254 went to support vehicle operations and \$99,541 supported project administrative work, including start-up planning, marketing, and program reporting and evaluation. Despite experiencing the highest receipt of fare revenue (\$1,315) during the last reported month of service in December 2018, the program's overall farebox recovery ratio of 3.4% is still short of the 10% minimum for rural programs required by the California Transportation Development Act.

Moving Forward

PVFTA has secured a new bus from FTA's Section 5310 program and plans to continue operation of BWE with bridge funding from local sources and continued funding from FTA Section 5311 for rural transit operations. Beginning in January 2019, BWE service will run on Mondays and Wednesdays as during the pilot phase but will reduce its Friday service to the first and third Friday of each month. Operating hours will not change. Although the City of Blythe has suggested that the round-trip fare be raised from \$15 to \$20, PVFTA felt that too many changes at once could cause riders to lose faith in the service and, therefore, decided not to pursue a fare increase at this time.

As discussed, although use of BWE increased and held steady throughout the pilot period, ridership was lower than projected and new registrations did not increase dramatically. Because Blythe's smaller population and rural isolation limits the pool of potential riders, continuing promotion and outreach to the local community will be a critical element of the program's sustainability. Interestingly, in meetings with hospital managers, the BWE planning team discovered that many Blythe residents are discharged from Coachella Valley hospitals with no transportation for their return home, forcing the hospitals to find high-priced private transportation for these trips. Realizing that BWE could be an option for these return trips, the program launched an expanded "destination end" marketing effort to promote the service at medical facilities in the Coachella Valley. Additionally, in continuation beyond the pilot period, BWE eligibility criteria are being expanded to allow trips beyond medical purposes, a change that is expected to induce new registrations and help to increase ridership.

To address the issue of the low farebox return ratio, BWE planners are focusing on providing service on the days of the week or month that are most productive and eliminating service on days with low ridership. This was part of the reason for reducing service on Fridays from every week to twice per month. However, to attain the 10% farebox recovery ratio mandated by California law for rural programs, PVVTA staff must continue to find ways to reduce service costs and increase ridership. Despite this challenge, the steady increase in the farebox return ratio is encouraging and suggests that the program might attain compliance after the expansion of the eligibility criteria and possible reexamination of the fare.

SECTION 3

Atlanta Regional Commission – Rides for Wellness

Background and Barriers to Healthcare Access

The Atlanta Regional Commission (ARC) serves a population of approximately 4.2 million over 10 counties and 7 cities in the Atlanta region. ARC is designated as both the Metropolitan Planning Organization (MPO) and the Area Agency on Aging (AAA) for the region. ARC recognizes that access to transportation is essential for access to healthcare and that those without access to transportation tend to forgo preventive care, which, in turn, means that care may be sought only for medical emergencies, which leads to higher costs not only for the individual but for the healthcare system as a whole.

In the car-centric Atlanta region, two primary factors were identified as limiting transportation access—disability and income. These two factors can make car ownership and use out of reach due to either financial or physical limitations. Further, over the next decades in the Atlanta region, the percentage of residents over age 65 will double from 1 in 10 (as of 2000) to 1 in 5 (by 2040). A recent *Forbes* article ranked Atlanta as number one for growth of the older adult share of the population from 2010 to 2014. As the Atlanta region ages more rapidly than other large metro areas, it is likely that the incidence of chronic disease will increase and the ability to drive will decrease.

The Atlanta region has several transit agencies, including the Metropolitan Atlanta Rapid Transit Authority (MARTA), which provides fixed-route bus and rail services, as well as complementary paratransit services. However, due to a lack of knowledge about how to use the system, many people do not use the fixed-route services to access important destinations, including healthcare appointments. In addition, like most transit systems in the U.S., paratransit services have a higher cost per trip than fixed-route services. For users, the paratransit service is also more expensive than fixed-route service.

This information regarding the background and barriers to access in the Atlanta metro area serve as a reminder of the importance of exploring innovative transportation solutions to the healthcare and other daily needs of the area's residents. ARC sought to find a solution that could help area residents remain healthy and independent for as long as possible.

Proposed Public Transportation Solution

ARC proposed a project to provide transit travel training, free transit passes for a six-month period, and paratransit or reduced-fare enrollment assistance to a minimum of 200 people. Participants in the program would be referred from four area healthcare providers (which are also partners in the program, as discussed below). The project would also include a regional stakeholder summit to investigate opportunities for collaboration, identify any barriers, propose new solutions, and develop recommendations for moving forward beyond the grant period. The project covered three counties in the Atlanta region—Clayton, DeKalb, and Fulton—that comprise 937 square miles and a population of 1,938,506.

It was envisioned that providing travel training to older adults, persons with disabilities, and low-income residents would help these individuals to better understand the available transit services, thereby making transit a feasible option for preventive healthcare appointments and other necessary trips. In addition, the project would benefit MARTA by generating additional fixed-route trips and increasing customer satisfaction for paratransit users.

The Rides for Wellness Program was expected to yield the following potential benefits:

- Increase in MARTA's fixed-route transit ridership
- Increased satisfaction of MARTA's paratransit ridership
- Increased access to care for preventive healthcare
- Improved health outcomes and reduced healthcare costs, to be measured using the CDC's Healthy Day Core Four Module (CDC HRQOL-4)

Figure 3-1
*Rides to Wellness
Stakeholder Summit*



Partnership

Six partners, including ARC and MARTA, collaborated on this program. The remaining four partners included Grady Health Systems, Mercy Care, Choice Healthcare Network, and Morehouse School of Medicine. ARC held monthly partner meetings to provide financial and programmatic management for the Rides for Wellness program.

Grady Health Systems serves as the Atlanta region's largest public safety net hospital and operates nine health centers in Fulton and DeKalb counties. Mercy Care operates three medical clinics and is a federally-qualified health center that represents Atlanta's only Healthcare for the Homeless program. Choice Health Care Network is also a federally-qualified health center, with more than 20 locations in the Atlanta region. The Morehouse School of Medicine, a top educator of primary care physicians, has a mission to improve the health and well-being of individuals and communities and to increase the diversity of the health professional and scientific labor force.

Budget and Matching Funds

For the program budget, the federal amount was \$337,628 with a local match of \$84,407 for a total budget of \$422,035. ARC and MARTA provided the matching funds as cash (\$71,771 in salary, fringe, and indirect) and in-kind contributions from volunteers (\$12,636).

Project Implementation

Project Goals

The Rides for Wellness program had the following goals:

- In the short-term, healthcare providers gain awareness of the needs of transportation-disadvantaged clients and establish protocols for recommending clients for the program. ARC provides travel training.
- In the mid-term, data collection protocols are established and data are analyzed to quantify benefits, and recommendations are made for system improvements. A Rides for Wellness Summit will be held to raise awareness and develop solutions with stakeholders (including clients/patients).
- In the long-term, the action plan to be developed from the Rides for Wellness program will be implemented and will help to continuously improve access to healthcare for transportation-disadvantaged individuals through systems and operational adjustments to MARTA's fixed-route and paratransit services.

Identification of Clients

From February 2017 through April 2017, ARC and its partners worked on planning of the program, laying the groundwork, and having frequent partnership

meetings with the clinics and MARTA. The client referral process started in May 2017.

To identify appropriate clients, the partners collaborated on developing criteria to capture patients who were frequently missing healthcare appointments and/or visiting hospital emergency rooms on a frequent basis. The healthcare providers used the following minimum criteria to identify the appropriate clients for the Rides for Wellness program:

- Three or more missed appointments over the last six months
- Two or more chronic conditions
- Currently living in Fulton, DeKalb, or Clayton county
- 18 years of age or older
- Minimum of three scheduled appointments over the next six months

Secondary Screenings and Surveys

The patients identified through the process outlined above were referred to ARC for a secondary screening and a pre-test survey. The purpose of the secondary screening was to determine travel behavior as well as any barriers to using MARTA, with the goal of identifying whether the patient would be a good candidate for the travel training. The questions on the pre-test included:

- How often do you currently ride MARTA?
- Besides healthcare appointments, what other destinations or activities would you like to access using MARTA?
- How confident are you in your ability to use MARTA to get to your healthcare appointments?

ARC conducted additional surveys of participants to analyze and quantify individual benefits and increased access to care. As part of the surveys, ARC also measured the improved health outcomes and reduced healthcare costs by using the CDC HRQOL-4 tool, which has been validated and used in the State-based behavioral risk factor surveillance system since 1993. These questions are also used in the National Health and Nutrition Examination Survey and the Medicare Health Outcome Survey. ARC conducted the baseline surveys, and a follow-up survey after the patient had been enrolled for six months.

Travel Training

If a patient was referred for travel training, the mobility and stamina of the patient was assessed before engaging in the training. During the training, participants were taught how to read a transit map and plan a trip. The training concluded with the patient and a Rides for Wellness coordinator taking a MARTA bus or train trip together to a destination selected by the patient.

The coordinator then instructed the patient to navigate back to the trip origin independently so he/she could be observed and the coordinator could ensure that the patient could use MARTA independently.

Breeze Cards

The Breeze Card is MARTA's regional electronic smart fare card; patients received one after completing the travel training or after enrollment into MARTA's special programs (discussed below). The Breeze Cards were initially loaded with 10–40 trips per month, and additional trips were loaded monthly to match usage for up to six months. The number of trips loaded on the Breeze Cards was dependent on the patient's current MARTA usage and the number of scheduled appointments. ARC coordinated with its partner clinics to provide Breeze Cards to patients who did not receive the travel training or who needed reduced fare or paratransit enrollment assistance (discussed below).

Paratransit and Reduced Fare Enrollment

MARTA's paratransit program is available to those who are not able to use the fixed-route system independently. These riders pay \$4 per trip but can ride the fixed-route system for free. MARTA also has a reduced fare program that allows riders to use the fixed-route system for a fare of \$1 instead of the full fare of \$2.50 per trip. To qualify for a reduced fare, the rider must either be over age 65, have Medicare, or have a physical or mental disability identified by a healthcare provider. MARTA facilitated the paratransit and reduced fare enrollment for Rides for Wellness participants, as appropriate. Those potentially eligible for these special programs are required to complete a full application, and MARTA determines eligibility for the programs.

Additional Community Outreach

During the course of the project, MARTA hosted three community charrettes to obtain feedback from other residents in MARTA's service areas, with the goal of comparing information between the Rides for Wellness participants and the general population. MARTA also served as the lead organizer of the Rides for Wellness Summit for healthcare and transportation providers. The Summit, held after the six-month pilot program, brought together stakeholders to explore opportunities for collaboration, identify barriers, propose solutions, and create an action plan with recommendations for moving forward and sustaining the existing partnerships.

Project Outcomes and Lessons Learned

ARC and its partners developed the Rides for Wellness program to empower patients to use public transportation with confidence, thereby increasing their access to preventive healthcare services and other quality-of-life destinations. To

measure the goals of the Rides to Wellness Initiative, ARC analyzed appointment adherence data provided by the healthcare partners and gathered longitudinal data from participants by conducting baseline pre-test surveys and follow-up post-test surveys six months after enrollment in the program. To quantify health outcomes and reduced healthcare costs, ARC designed the surveys to include questions based on the CDC Health Related Quality of Life (HRQOL) survey. Data from these questions were used to calculate Incremental Cost-Effectiveness Ratios (ICER), a method widely used by community health organizations to evaluate program efficacy.

Improved Access to Healthcare

During the six-month pilot period, the program provided 36,386 trips to 213 individual participants. At the time of the baseline survey, nearly 54% of the 213 patients enrolled in the Rides for Wellness program reported using MARTA on a daily basis. Of those who used MARTA, 69% stated they did so because they did not own a personal car. Among those who reported using MARTA less frequently, 72% stated that the main barrier to riding MARTA was that they could not afford a transit pass.

During the pilot period, all patients received between 10 and 40 trips each month, with full-fare patients receiving a maximum of 20 trips per month and reduced-fare patients receiving a maximum of 40 trips per month. On average, reduced-fare patients received 35 trips per month, paratransit patients received 10 trips per month, and full-fare patients received 19 trips per month. Of the 213 patients enrolled in Rides for Wellness, 165 (nearly 78%) were enrolled in the reduced fare program; of these, 22% received reduced-fare enrollment assistance through the Rides for Wellness Program.

Data were successfully collected six months before and six months after the start of Rides for Wellness for 167 patients. Of these, 68% improved their appointment adherence during the program in the following ways: 40% increased their appointment attendance rate, 52% decreased their appointment cancellation rate, and 35% decreased their no-show rate.

Improved Health Outcomes

To measure improved health outcomes, ARC designed the pre- and post-test surveys to include questions based on the CDC HRQOL survey. Before and after their participation in Rides for Wellness, patients were asked about their perceived health status as measured by their reported number of unhealthy days and a self-rating of their overall health. After the program, the 140 participants who completed the post-test survey reported in general that their health was “good” as opposed to “fair” before entering the program. Patients also consistently reported an improvement in healthy days each month, with the data

ranging from 3–7 healthy days gained after completing the program. On average, Rides for Wellness participants reported 12.9 days of poor health at baseline compared to 9.5 days at the conclusion of the program. These results show that program participants gained an average of 3.4 healthy days. Not surprisingly, the 85 participants who improved their appointment adherence reported an even greater improvement in healthy days, reporting an average of 12.6 days of poor health at baseline compared to 8.3 days at the program’s end, translating to an average gain of 4.3 healthy days.

During each month of enrollment, follow-up calls were made to each patient to obtain feedback on how they were using the provided rides and whether the program was useful. These calls provided an abundance of information, with patients reporting that they had become more active and independent, experienced less stress in their lives, and were able to do a better overall job of caring for themselves.

Reduced Healthcare Costs

Whereas there is a presumption that increased healthy days leads to a reduction in healthcare costs, ARC was unable to identify the data necessary to quantify dollars saved as a result of increased healthy days. However, by using ICER, ARC was able to estimate the cost-effectiveness associated with the health outcomes of the Rides for Wellness program by comparing the difference in cost between two interventions to the difference in effectiveness of those same interventions.

$$ICER = C_1 - C_0$$

$$E_1 - E_0$$

For this analysis, ICER compared the Rides for Wellness intervention to a no-intervention control group. In the above equations, C1 represents the cost of the Rides for Wellness program and C0 represents the cost of no intervention; likewise, E1 represents the effectiveness of the Rides for Wellness program and E0 represents the effectiveness of no intervention. ICER was calculated as the average cost per participant in the Rides for Wellness program divided by quality-adjusted life years (QALYs) gained as a result of the program. The resulting ratio estimates how much it cost for each additional QALY gained for participants in the Rides for Wellness program.

$$ICER = \text{Average cost per participant} - \$0$$

$$QALYs\ gained - 0$$

The measurement of cost used in the analysis was based on the average monthly cost of a Breeze card per participant of \$32.54, and effectiveness was based on QALY, a measure of perceived health ranging from zero to 1, where zero

represents death and 1 represents perfect health. To calculate QALYs, ARC used the HRQOL data from the pre- and post-test surveys to derive preference-based measures of utility called EQ-5D scores. The resultant EQ-5D scores were then used to calculate QALYs. A detailed description of this estimation and the ICER method can be found in Jia and Lubetkin (2008) and Akanni, Smith, and Ory (2017).

Through the ICER analysis, ARC found that the average QALY gain of 0.331 for Rides for Wellness participants resulted in an incremental cost per QALY gain of \$98.17. This is lower than the average cost of a missed appointment of \$154, which suggests that providing Breeze Cards through the Rides for Wellness program was a cost-effective method to improve patient health-related quality of life. It should be noted that ARC based the cost of a missed appointment on the average Medicare appointment reimbursement; however, the total cost of a missed appointment varies by healthcare system and is likely greater than \$154. Therefore, ARC's estimate of the cost-effectiveness of the Rides for Wellness program may be understated.

Transit-related Outcomes

Among Rides for Wellness participants, average MARTA ridership increased by three trips. At baseline, program participants reported riding MARTA 15 times within the last 30 days, compared to an average of 18 times after completing the program. Attitudes and perceptions of MARTA were unchanged over the course of the program. At baseline and after completing Rides for Wellness, participants reported feeling confident that they could navigate MARTA to get to their healthcare appointments and other activities. Likewise, participants reported feeling that MARTA could improve their ability to get to their healthcare appointments and other destinations at baseline and after completing the program.

The Rides for Wellness program led to a more streamlined enrollment process for MARTA's paratransit and reduced-fare programs. The program established a direct line of communication from provider to intake for MARTA Mobility, which expedited the initial process of accepting an application. The improved efficiency of these special programs allows those who qualify to receive trips quickly, which, in turn, increases the likelihood that they will remain in the program over the long term. As a result, MARTA has begun conducting "pop-up" enrollments for older adults and people with disabilities at health clinics and other social service locations.

Moving Forward

As is often the case with any pilot program, adjustments were made to maximize the program's success. In the case of Rides for Wellness, each clinic initially

was to receive 50 referrals into the program. As the program progressed, referrals were coming in more slowly than expected. Therefore, ARC adjusted the number to allow for clinics to refer as many patients as they thought would qualify. Staff felt that limiting the referrals to 50 per clinic, when each clinic could easily find 50 people in need of the service, may have added unnecessary pressure to find the most qualified patients. Removing the 50-patient limit enabled ARC's healthcare partners to expand into multiple clinics within its health systems, such as Grady's Outpatient Behavioral Health Clinic, Cancer Center, and the Centering Program, which provides prenatal care. Additionally, ARC made adjustments to the criteria for patients in the Cancer Center and the Centering Program, as many of them did not have chronic conditions. ARC recently received an award through [The Complete Trip – ITS4US Deployment Program](#).

In terms of sustaining the Rides for Wellness program, there are no specific plans other than continuing with the travel training. Nonetheless, the Rides to Wellness grant allowed ARC to do something new and innovative that has raised awareness about the connection between transportation and healthcare. MARTA gained valuable insight into this issue through Rides for Wellness and, due to the program's positive outcomes, is exploring other innovative ways to provide increased access to healthcare. In addition, by forging mutually-beneficial partnerships between healthcare and transportation providers, the grant has opened the door for future opportunities to collaborate and build upon the ideas and experiences of the Rides for Wellness program. For instance, Georgia State University has received funding from the Robert Wood Johnson Foundation to pilot a transportation study modeled after Rides for Wellness that will incorporate other modes of transportation support to determine which are most effective at achieving health-related outcomes.

Delaware, Dubuque, Jackson County Regional Transit Authority – Delaware County Connections

Background and Barriers to Healthcare Access

A 2015 Community Health Needs Assessment (CHNA) conducted in rural Delaware County, Iowa, found that 20% of respondents identified transportation as one of their top three needs. Rural residents had limited options for accessing transportation to routine healthcare, including dental, physical therapy, dialysis, and wellness appointments. Other community surveys found that lack of transportation service to medical and dental appointments presented significant barriers for residents, particularly for low-income persons and persons with disabilities.

The area's public transportation provider, the Regional Transit Authority (RTA), serves Delaware, Dubuque, and Jackson counties, which include rural and small urban communities. At the time of the 2015 CHNA, the majority of transit service was provided in the cities of Manchester and Dyersville. Results of the CHNA revealed that the greatest need for transportation was on evenings and weekends, which at that time did not exist in rural Delaware County. In addition, because RTA operates on a split-shift basis, there were multiple hours in the morning and afternoon when service was unavailable due to capacity issues. Furthermore, certain medical services were unavailable at the Regional Medical Center but could be provided at satellite sites; however, these sites were not served by public transportation and were, therefore, difficult to reach for residents without access to a personal vehicle.

Proposed Public Transportation Solution

The overall objective of the Delaware County Connections program sought to reduce barriers to healthcare access. The program proposed using an ADA-accessible van 40 hours per week, with the potential for additional night and weekend service based on demand, to transport rural and small urban Delaware County residents to healthcare appointments and wellness trips. In addition to providing access to healthcare, this additional service would connect residents to healthier food alternatives such as farmers markets and meal sites, which often

are open in the evening and on weekends. RTA estimated that this van service would increase ridership by 46% per year.

The Delaware County Connections Program was expected to yield the following potential benefit:

- Reduce transportation barriers for Delaware County residents to access healthcare and wellness activities.

The program hoped to reach the following target:

- Ridership expected to increase by 46% in Delaware County over 18-month project duration.

Partnership

RTA had been part of the Transportation Advisory Committee for several years prior to the Delaware County Connections program and had a well-established practice of collaboration with a broad range of community organizations, healthcare centers, and public entities. RTA served as project lead and worked with a number of outside organizations and agencies to evaluate potential solutions to address Delaware County's rural transportation challenges. Partners include Delaware County, Delaware County Community Services, the City of Manchester, the Regional Medical Center, the Manchester Police Department, Delaware County Economic Development, Delaware County Public Health, Delaware County Chamber of Commerce, Northeast Iowa Area on Aging, the Iowa Department of Transportation (IDOT) Office of Public Transit, the Eastern Iowa Regional Housing Authority, and the Veteran's Administration (VA).

Partners submitted letters of support and provided varying levels of financial and operational resources to the van service program. The City of Manchester arranged for vehicle maintenance and insurance, and the Regional Medical Center provided advertising and marketing services to ensure that the targeted rider market was reached.

Budget and Matching Funds

The total budget was \$163,200, with \$130,560 from the federal grant and \$32,640 in local matching funds, representing 25% of the federal total. The City of Manchester supplied \$4,000 for vehicle insurance and maintenance costs, the Regional Medical Center provided marketing support through printed and online advertisements, and the Delaware County Community Service allocated \$12,000 from a grant fund to expand bus service to Manchester and surrounding communities. Although not providing direct financial support, the VA is assisting with recruitment of volunteer drivers, an important component of the project's long-term vision and financial sustainability.

Project Implementation

The Delaware County Connections project was originally planned to launch in February 2017; however, due to a delay in delivery of the van, the service did not begin until July 1, 2017. As a result, the project was extended by one year and closed on June 30, 2019. There were several phases of implementation, including community health assessments, service planning, marketing and outreach, and service implementation.

Project Mobilization and Visioning

As a response to the findings of the 2015 CHNA and other community surveys and discussions, the East Central Region Community Coordinator for Mental Health/Disability Services initiated discussions with RTA and other community leaders on how to address transportation barriers to healthcare access. Soon thereafter, the VA, the Regional Medical Center, community organizations, and local governments convened a Transportation Advisory Group to develop specific project ideas. To better address rural transportation needs, sub-committees were formed to determine specific solutions for after-hours and weekend service, long-distance regional and local transportation, and enhancing access to medical and healthcare appointments.

Service Planning

To plan for the implementation of the Delaware County Connections service, RTA participated in project committee meetings to discuss the elements of the project, establish goals and objectives, determine the eligibility and application process, and prepare a marketing approach to help promote the service and encourage strong ridership.

An existing partnership between a local vehicle dealership and the Community Transportation Association of America (CTAA) provided discounted rates for ADA-accessible minivans for CTAA members that could accommodate four passengers and one wheelchair. An ADA-accessible van was purchased through this agreement using grant funding. During this time, RTA began planning a campaign to recruit drivers for the program. For the initial phase, the program was budgeted to support two part-time transit drivers to allow for flexibility in scheduling, with the goal of transitioning to a fully volunteer-supported initiative for the next phase.

Marketing and Outreach

The overall marketing goal of Delaware County Connections was to reduce negative perceptions of paratransit and effectively communicate to rural communities that all residents were eligible to participate in the new service. Program partners committed to promoting the service through each of their networks and advertising through newspapers, radio ads, public service

announcements, community bulletins, and newsletters. Brochures and flyers were distributed to all healthcare-related businesses and medical centers in the rural communities and to faith centers, movie theatres, VA meetings, school events, food pantry events, and meal delivery services. To recruit volunteer drivers, the program developed a radio advertisement that included volunteer driver testimonials from the nearby Jackson County volunteer driver network.

Service Implementation

After delivery of the ADA-accessible van, Delaware County Connections began its first phase of service using paid drivers. As previously noted, RTA operates on split shifts, resulting in morning and afternoon service gaps. To help fill these gaps, the Delaware County Connections program extended RTA service to 40 hours of weekly service in Manchester and the rural areas of Delaware County, including evenings and Saturdays when RTA buses stopped running. The program also provided free rides to the local farmers market for eligible low-income households as a deviated fixed-route service. All residents living in Delaware County were eligible to use the service. To track ridership, RTA integrated the new service into existing transit data software for efficiency and ease of use.

Project Outcomes and Lessons Learned

During the pilot period, the Delaware County Connections program provided 364 rides, traveled over 3,649 vehicle miles of service, and secured 4 volunteer drivers. The program sought to increase access to healthcare for rural Delaware County residents through the expansion of public transportation services. In addition to providing a transportation alternative for accessing healthcare and wellness activities, the program produced several lessons with regard to rural, volunteer-based transit services.

Improved Access to Healthcare

As part of the 2015 CHNA, 59 respondents reported transportation as a major barrier to accessing healthcare services. For the 2019 CHNA conducted after the Delaware County Connections pilot period, the number of respondents reporting transportation as a barrier had dropped to only 6, a decrease of 90%. However, although these results indicate improved access to healthcare, this improvement cannot be determined conclusively or attributed entirely to the Delaware County Connections program, as the program did not track longitudinal trip data across unique users.

Improved Health Outcomes and Reduced Healthcare Costs

Although it was hoped that the program would yield the secondary benefits of improved health outcomes and reduced healthcare costs, RTA was unable to

track data on no-show rates and health outcomes, needing instead to focus its resources on expanding its public transportation services.

Transit-related Outcomes

The Delaware County Connections program provided 364 rides over the entire pilot period. This fell short of the 46% increase in rides per year that RTA estimated would occur in Delaware County because of the additional service provided by the program. An initial struggle was that despite offering free rides to people with monthly incomes below \$1,000, the service was not being used. Applications to qualify for free rides were provided at various social service agencies. Once qualified, potential riders were to contact RTA using a phone number provided on the application. Perhaps people were reluctant to take the first step in reaching out to RTA or were confused by the “no strings attached” nature of the offer of free rides; whatever the reason, potential riders were not contacting RTA. In response, RTA began providing qualified applicants with six-punch ride tickets, good for six free round-trip rides. Since implementing this change, the program has taken off and ridership has increased. Free rides were also provided to the local farmer’s market for eligible low-income households as a deviated fixed-route service, but this service did not really catch on and was underused. Program staff noted that the service was promoted to people living in low-income housing units, which may have had the unintended consequence of limiting awareness of the program.

With regard to volunteers, a Delaware County Connections representative emphasized the importance of starting the recruitment process right away to ensure adequate time to deal with any unexpected problems. She noted, “It seemed like when we had volunteers on board, we wouldn’t receive enough ride requests and the volunteers would lose interest, and then we would get a lot of ride requests and not have enough volunteers.” This dilemma underscores the difficulty of finding the right balance between retaining volunteers while promoting the service to increase ride requests and having enough volunteers to accommodate every ride request. Another important consideration for volunteer-based programs is training. RTA’s volunteer drivers received wheelchair securement training and general information on what to expect. However, because volunteers often did not have an understanding of basic transit operations and terminology, it was a challenge to implement certain procedures. To address this issue, RTA plans to include future volunteers in the same training sessions conducted for paid drivers.

Figure 4-1

*Delaware County
Connections Volunteer
driver and riders*



Moving Forward

Now that service is successfully in place, RTA plans to transition Delaware County Connections to a fully volunteer-supported initiative to ensure the sustainability of the program. Plans for volunteer recruitment include radio advertisements with drivers giving testimonials about their experiences serving as volunteers. Actively recruiting on a continual basis to expand the pool of volunteer drivers will be critical to the program team's new focus—developing the capacity to accommodate every ride request. Delaware County Connections is still a work in progress and continues to evolve, with project partners meeting on a quarterly basis to monitor, assess, and refine the program as necessary.

There are multiple other automation-related research projects planned or underway at FTA. Agencies can sign up to receive e-mail updates on FTA's future automation research⁷ or provide input⁸ regarding additional types of resources that would be beneficial.

SECTION 5

Ohio Department of Transportation – Mommy and Me Ride Free

Background and Barriers to Healthcare Access

The Hospital Council of Northeast Ohio (HCNO) is a member-driven organization that represents and advocates on behalf of its member hospitals and affiliates. Beginning in 2006, HCNO has led a collaborative community-wide effort known as the Northwest Ohio Pathways HUB, with the goals of increasing access to healthcare for socially high-risk residents, improving health outcomes by removing barriers to care, and reducing healthcare system costs. The HUB coordinates services to identify and connect low-income, at-risk residents to healthcare and other social services. HCNO's HUB has worked to address the high rate of low birthweight babies in Lucas County, the largest county in northwest Ohio.

Infant mortality rates, calculated as the number of babies who died within the first year of life for every 1,000 live births, are considered a key measure of the overall health of a population. As of 2014, the infant mortality rate in Lucas County was 9.3, which is higher than Ohio's rate of 7.3 and the U.S. rate of 6.0. A key concern is the disparity in birth outcomes for certain racial/ethnic groups and certain geographic areas in Ohio, with African-Americans having particularly high infant mortality rates.

Toledo, the largest city in Lucas County, has experienced significant population declines over the last several decades, resulting in a lower tax base that has strained social, educational, healthcare (and public transportation) infrastructure and services. According to 2013 data from the Ohio Department of Health, 27% of all children in Lucas County were living in poverty. More than one-third of the women participating in the Pathways HUB identified transportation as a barrier for not only traveling to doctor appointments but also for accessing healthy foods and obtaining and keeping a job. Pregnant women and women with babies under age 1 without access to reliable transportation will likely be unable to make or keep prenatal and postpartum doctor appointments. Instead, they may have to wait until a medical emergency occurs just to be able to see a doctor. Such medical emergencies can be life-threatening to the mother and baby.

Proposed Public Transportation Solution

HCNO's Pathways HUB sought to leverage public transportation assets and services to improve healthcare access and outcomes while reducing unnecessary healthcare costs. The project, called Mommy and Me Ride Free, was proposed to increase access to transportation to pregnant and parenting women who reside in the identified "hot spot" ZIP codes. Five "hot spot" ZIP codes were identified in which the infant mortality rate is higher than the Lucas County average, and up to 73% of families with children under age 5 are below the poverty level. Participants were to be identified and selected through the Pathways HUB program and connected to transportation options via the Toledo Area Regional Transit Authority (TARTA) and its Toledo Area Regional Paratransit Service (TARPS) and Call-A-Ride programs. Specifically, the goal was to expand the TARPS services to pregnant women and women with children under age 1.

The Mommy and Me Ride Free (MMRF) program was expected to yield the following potential benefits:

- Supplement the often unreliable or unavailable Medicaid taxicab service with the more readily-available public transportation services provided by TARTA and TARPS.
- Improve health status and birth outcomes by removing barriers to transportation so women can have better access to prenatal and postpartum healthcare and other social services.
- Lower Lucas County's high infant mortality rate (also a goal of the Pathways HUB) to no more than 6.0 infant deaths per 1,000 live births, the target rate defined by Healthy People 2020.

Partnership

HCNO collaborated with several partners for the MMRF program. The primary partner is TARTA, which worked with HCNO to determine the best way to use available transit resources to provide the needed services to the target population. One of the strategies used was to expand TARTA's TARPS and Call-A-Ride services. Another partner is the Toledo Metropolitan Area Council of Governments (TMACOG), which focuses on transportation planning and has a mission to improve the quality of life in the region. TMACOG was committed to assisting with the planning for this project and helping to leverage resources to improve access to the needed transportation services. HCNO also added the United Way of Greater Toledo as a partner, which provided an additional \$18,000 for rides for the target population. Additional partners included the Toledo-Lucas County Health Department, which is key in addressing infant mortality as a public health issue, and the Ohio Equity Institute, which provided transportation for community members to a related statewide conference.

Budget and Matching Funds

The Ohio Department of Transportation (ODOT) applied for the grant on behalf of HCNO. The total budget was \$166,200, with \$133,000 from the federal grant and \$33,200 in local matching funds. The source of the matching funds was a grant from the United Way of Greater Toledo (\$23,200) and the Health Resources Services Administration Healthy Start Funds (\$10,000). The matching amount represented 25% of the federal total. In addition, as noted, United Way contributed an additional \$18,000 in funding.

Project Implementation

The start date for the implementation of the project's transportation services was April 1, 2017. Match funding was used to extend the services from through September 30, 2018, and HCNO was able to secure enough additional funding to extend the project to March 31, 2019 (the amount of that funding is not included in this report). The stages of the grant were conducting a transportation assessment, planning, and implementation.

Transportation Assessment

Prior to the implementation start date, the Toledo-Lucas County Health Department (TLCHD) had funding from the Ohio Department of Health to conduct a transportation assessment related to infant mortality, and HCNO worked with TLCHD on this assessment. Data collection was completed in May 2017, and results were compiled in September 2017 in a transportation resource guide. In May 2018, the guide was updated and re-released in conjunction with three trainings that were held to inform agencies in the community interested in learning about transportation services. The topics of the trainings included using the guide, the MMRF program, mobility management, and using transportation through Medicaid Managed Care Plans.

Planning

In planning for the implementation of the grant, HCNO and TARTA (which oversees TARPS) met regularly to discuss program eligibility, the application process, and the parameters and logistics of the program. MMRF was to serve pregnant women or women with children under age 1 who were enrolled in a home visiting program in Lucas County (which includes Pathways HUB, Healthy Start, Help Me Grow, etc.). The application process begins with the Care Coordinator or home visitor completing an application and pre-enrollment survey (or a mid-enrollment survey if completing a renewal application). The application and survey, along with a photo of the client, are sent to the Transportation Coordinator at HCNO, who would ensure the completeness of the materials and send them to TARPS, which would process the application and mail an ID card/bus pass and related program information to the client.

It was estimated that the program would generate approximately 100 one-way trips per month. Enrolled clients would also be allowed two round-trip rides per month for transportation to places not covered by Medicaid Manager Care, such as grocery stores, diaper banks, employment, and Cribs for Kids classes.

Service Implementation

Over the life of the grant, 619 women were enrolled in the MMRF program. Every new client enrolled in the program completed a pre-enrollment survey, and every client who renewed her enrollment completed a mid-enrollment survey. All clients completed a post-enrollment survey either upon leaving the home visiting program or in the last quarter of the grant's cycle. The pre-enrollment surveys showed that the top three transportation issues for the clients were not having a car, not having a driver license, and that the regular buses were too expensive. The pre-enrollment surveys indicated that, as a result of these issues, the majority of clients either missed or were late to doctor appointments. In addition, over half of the clients reported that they were not able to go grocery shopping due to a lack of transportation.

Clients received two round-trip rides per month for transportation to places not covered by Medicaid Managed Care services (the MMRF program was intended to be a supplement, not a total replacement, for Medicaid services). In addition, clients were provided with a free bus pass to ride TARTA fixed-route buses. When using TARPS, the clients ideally would provide 24-hour notice whenever possible, with the exception of same-day medical appointments.

Project Outcomes and Lessons Learned

HCNO and its partners established the MMRF program with the objectives of increasing access to transportation for pregnant and parenting women who reside in the identified “hot spot” ZIP codes. Five “hot spot” ZIP codes were identified in which the infant mortality rate is higher than the Lucas County average, and up to 73% of families with children under age 5 are below the poverty level. The program was specifically intended to provide TARPS and TARTA services to pregnant women and women with children under age 1. MMRF hoped to supplement the Medicaid program, improve health status and birth outcomes by removing barriers to transportation, and decrease the infant mortality rate in Lucas County.

In total, 619 clients were enrolled in MMRF, 105 clients were renewed, and 474 one-way trips were provided using TARPS. The usage varied by month but was steadily increasing. In addition, many more trips were taken by clients using TARTA fixed-route bus services (potentially thousands, according to HCNO); however, the number of TARTA rides was not able to be tracked as part of this program.

The population served is pregnant women or women with children under age 1 who are enrolled in a home visiting program in Lucas County. Initially, only clients enrolled in the Pathways program were eligible for MMRF. However, in September 2017, the program expanded to include all home visitation programs for pregnant women and women with children under age 1.

Of the 619 women enrolled in MMRF, approximately half reside in one of the “hot spot” ZIP codes with high poverty and high infant mortality. The age of the clients ranged from 14 to 53, with an average age of 25.4. Also, 60% of the enrolled clients are African-American.

MMRF was well-received by the clients. According to feedback from the Care Coordinators, the program made the women more independent, as they “no longer had to depend on others” and also made them feel more “in control” of their lives. In addition, according to a Care Coordinator, “stress was reduced” because the program allowed her client to “do a lot of the running around that she needed to do.”

Improved Access to Healthcare

As noted, the pre-enrollment surveys indicated that the top three transportation issues for MMRF clients were not having a car, not having a driver license, and that the regular buses are too expensive. The surveys showed that 82% of clients report that, due to these factors, a lack of transportation causes problems for them and their children, as a majority either missed or were late to doctor appointments. The pre-enrollment surveys also indicated that the clients were not able to make other trips that could impact their health and well-being as well as that of their children. For example, 53% reported that they were unable to grocery shop, 31% were unable to get to or from work, and 17% had trouble transporting their children to school. Other responses included difficulty meeting with parole officers or attending parent-teacher conferences.

As a result of participation in MMRF, mid-enrollment surveys indicated that 92% of renewing clients stated that the program helped them make the trips they needed to take, including doctor appointments and social services appointments. Specifically, the transportation issues resolved due to MMRF included:

- No longer miss doctor appointments (75%)
- No longer late to doctor appointments (64%)
- Now able to grocery shop (59%)
- Now have transportation to/from work (29%)
- Now able to take children to school (14%)
- Other (13%)

With 75% of clients no longer missing doctor appointments and 64% no longer being late to appointments, it is clear that MMRF improved access to healthcare for its clients.

Although the program was unable to track the number of trips and trip destinations for clients using the fixed-route TARTA system, this information was able to be tracked for the trips taken on the TARPS system using address data. TARPS trip destinations included:

- Doctor appointments (58%)
- Other (18%)
- Social services (8%)
- Shopping (6%)
- Cribs for Kids (4%)
- Unknown – destination cannot be determined by address (4%)
- Diaper bank (2%)

The “Other” destinations included Ohio Means Jobs, Lucas County Children’s Services, Lucas Metropolitan Housing Authority, church, Catholic Club, Kids In Safe Seats (K.I.S.S.) car seat appointments, Bureau of Motor Vehicles, Toledo Museum of Art, etc.

There is additional evidence of MMRF improving access to healthcare, with the data showing that 58% of TARPS trips were for doctor appointments. Clients also used TARTA for medical trips, but these could not be tracked. Whether clients used TARTA, TARPS, or cab service depended on a number of factors including service availability (for the destination and the time needed), whether a car seat was needed, and client preference, among others. It was up to the Care Coordinators to assist the client with selecting the best provider for a particular trip.

Improved Health Outcomes

The MMRF program hoped to track birth outcomes to document a decrease in the infant mortality rate in Lucas County. Unfortunately, they were not able to do so with the resources available. The program did collect some self-reported information on births, but it was not included in HCNO’s final report. Much of the information that would have been needed to track such outcomes is housed in the Pathways program, and HCNO did not have access to those birth records. In addition, when the program was expanded to other home visiting programs, they were not always able to collect all information because they could not track those clients.

Despite a lack of verifiable data regarding birth outcomes of MMRF clients, the surveys indicated that 75% were able to regularly attend doctor appointments and 64% were better able to arrive at those appointments on time; 58% of TARPS trips were taken to doctor appointments. These results likely correlate with improved health outcomes for the clients and their children, although the outcomes cannot be quantitatively assessed with the available data. Furthermore, the surveys showed an increased ability for the clients to grocery shop, access work to support their children, and take their children to school, which may also correlate with increased health outcomes.

Figure 5-1

*Mother and children
using Mommy and Me
Ride Free service*



Reduced Healthcare Costs

The MMRF was not able to quantitatively demonstrate a reduction in healthcare costs, as additional time, resources, and data would be required to further track the clients and their healthcare needs and costs. However, given that the MMRF program can quantitatively demonstrate that clients were able to significantly increase their access to medical appointments and other activities correlated with health (food shopping, work, getting their children to school), it would be reasonable to hypothesize that this access would also correlate with a decrease in the ongoing future healthcare costs associated with these clients.

Transit-related Outcomes

Regarding the transit services provided by TARTA and TARPS, clients were able to use both services. The 474 one-way trips reported represent only the TARPS system; it is known that many more trips were taken using the fixed-route TARTA service, but those trips were not able to be tracked (but potentially number in the thousands, according to HCNO). Survey results from renewing clients indicated that 65% preferred the fixed-route bus services operated by TARTA over the TARPS services. Reasons for this preference included client

familiarity with TARTA, shorter wait times, more convenience, no need to schedule rides in advance, and the unlimited number of trips (as opposed to two trips per month allowed on TARPS). The 20% of clients who preferred TARPS to TARTA indicated that TARPS was a more personal ride experience, there were fewer people, it was more convenient in cold weather, and it was easier to transport their children. One client stated that she preferred TARPS because she did not have to worry about her young autistic child running out into the street while they walked to or waited at a TARTA bus stop. In total 16% of clients reported that they had no preference between TARTA and TARPS.

Due to the apparent underutilization of TARPS for these trips, a focus group regarding MMRF was held in September 2017 with the Care Coordinators that identified three primary barriers to using TARPS: 1) lack of an available car seat, which is required for trips on TARPS and the Medicaid cab rides; 2) clients often needed transportation immediately, yet had to wait up to two weeks after applying to the program to receive their pass; and 3) the service area covered by TARPS (and TARTA) did not include all of the destinations needed.

The following excerpts from the focus group illustrate these issues:

- “They use more of the regular bus line than they do TARPS because ... families that have multiple children who are of car seat age ... don’t have car seats for all of their kids and, on TARPS, you have to have the car seats.”
- “They’d rather use the TARTA because they can use it any day, any time.”
- “I have clients that go to Maumee Bay OB in Oregon. The bus or TARPS does not take them there because there’s no bus stops.”

Despite the underutilization of TARPS, clients consider the service to be more reliable (as well as TARTA) than Medicaid cab services. Further, use of the TARTA services increased from 39% of clients at enrollment to 72% of clients after enrollment. Additional information on client use of TARTA from the pre-enrollment and post-enrollment surveys include the following:

- Percentage of clients taking zero trips per month on TARTA decreased from 25% pre-enrollment to 10% post-enrollment.
- Percentage of clients taking 1–5 trips per month on TARTA increased from 32% pre-enrollment to 36% post-enrollment.
- Percentage of clients taking 6–10 trips per month on TARTA increased from 13% pre-enrollment to 15% post-enrollment.
- Percentage of clients taking 11–15 trips per month on TARTA increased from 9% pre-enrollment to 17% post-enrollment.
- Percentage of clients taking 16 or more trips per month on TARTA increased from 21% pre-enrollment to 22% post-enrollment (as discussed, some clients were already familiar with using the TARTA system).

Overall, HCNO reported having a very positive, productive relationship with TARTA/TARPS for the MMRF program. However, HCNO representatives noted that they were previously unfamiliar with TARTA/TARPS services and the challenges the local transit agency faces regarding its very limited resources. As discussed, the funding challenges at TARTA have been exacerbated by the declining tax base in the Toledo area. HCNO noted that clients were very excited about the program and had high expectations for TARTA/TARPS to be able to provide the needed transportation. Ultimately, they needed to work within the confines of the services that were available (hours, routes, stop locations, etc.). One additional challenge was that TARTA/TARPS policy is that any rider can have up to two children under age 5 with them ride free. However, many clients have more than two children, so the clients would either have to pay the fare for the other children or have another adult ride with them.

Moving Forward

Based on the results of the focus groups and other feedback on the MMRF program, several changes were made. In January 2018, HCNO and TARPS held a meeting to discuss the progress of the program and agreed to extend and expand the program. Passes processed for clients after February 21, 2018, received updated expiration dates of September 30, 2018. Also, TARPS expanded its hours of operation for clients from the original span of 10:00 AM to 3:00 PM to the new hours of 9:00 AM to 5:00 PM. The original span of service offered to MMRF clients on TARPS was due to capacity constraints of the TARPS program during peak morning and evening hours from other non-MMRF riders. However, upon further review and analysis, TARPS was able to extend those hours as indicated.

Additionally, as a result of feedback on the program, in February 2018, the Pathways HUB proposed that the additional \$18,000 in funding from the United Way of Greater Toledo be reallocated to acquire approximately 100 car seats for clients enrolled in the MMRF program. Other changes included the HUB's purchase of TARTA bus tokens for 100 clients to use while waiting for their MMRF program application to be processed. Also, the HUB used remaining funds to expand the service to clients who live in Lucas and Wood counties but are outside the TARTA/TARPS service area (these clients were served via cab rides).

Between February 2018 and September 2018, 35 car seats were distributed to clients, 5 clients were enrolled in the cab program for the expanded service area, and 40 rolls of tokens were provided for clients during the gap period between their program application and the receipt of their pass.

The MMRF program was operating with limited resources and had to allocate them in ways that would have the best chance of achieving their objectives of improving birth outcomes and reducing infant mortality. As a result, the program

had to be limited to only pregnant women and women with children under age 1, and many women were disappointed that they could not continue in the program after their child reached age 1. In addition, it was inconvenient that other caregivers (fathers, grandparents, etc.) did not qualify for the program. Furthermore, MMRF program representatives also were disappointed that they could not continue to provide services to clients after their children's first birthday. According to a Care Coordinator, many clients are very interested in getting an education, setting career goals, and becoming more self-sufficient. Most mothers, however, are not in a position to begin acting on those aspirations until their child is somewhat older, when the programs are no longer available to them. These facts do not reflect poorly on the MMRF program; rather, they serve to emphasize even more strongly the critical need for additional resources to fund these types of programs.

Despite some program limitations primarily due to restrictions of TARPS and TARTA, the feedback received about MMRF was overwhelmingly positive, and numerous clients and Care Coordinators expressed concern about the program's end. Due to the program's successes, HCNO was able to secure funds from Care Source, an Ohio managed care plan, to extend MMRF for a three-year duration through March 31, 2022, and to expand the program to include other custodial caregivers, such as grandparents.

SECTION 6

Niagara Frontier Transportation Authority – GO Buffalo Mom

Background and Barriers to Healthcare Access

Buffalo, New York, is one of the most economically-disenfranchised cities in the U.S; approximately 60% of residents live within distressed communities characterized by concentrated poverty. The National Institute of Health (NIH) identifies socio-economic vulnerability as the determining risk factor for pre-term births above all other risk factors. Buffalo's pre-term birth rate is 11.4%, which is higher than any other city in New York.

A 2012 study from the *American Journal of Perinatology* found that the risk of prematurity, stillbirth, early and late neonatal death, and infant death is correlated with a decrease in prenatal care. Improving access to adequate prenatal healthcare is a key determinant in improving pre-term birth rates. Research conducted in the Buffalo area found that transportation poses the most significant barrier to accessing primary care and other health services; data reported from the Women and Children's Hospital in Buffalo indicated that 25–30% of patients cite lack of transportation as the reason for missed prenatal appointments. Furthermore, interviews conducted locally found that low-income pregnant women face challenges with affording transit passes.

Proposed Public Transportation Solution

The GO Buffalo Mom is a travel training, education, and financial planning program for low-income, high-risk pregnant women who experience significant barriers to accessing transportation services for prenatal medical care. The program provides information on availability and use of public transportation options through a dedicated travel navigator who works closely with clients through one-on-one meetings to develop an individualized trip plan to help them access transportation to medical appointments and other services to support a healthy pregnancy. The navigator also works with Belmont Housing Resources to refer clients to financial education and savings programs that help to address transportation affordability and provide them with affordable monthly transit passes and other financial education resources.

The GO Buffalo Mom program was expected to yield the following potential benefits:

- Ensure that low-income, high risk pregnant woman have access to prenatal medical appointments and other health-related services.
- Provide affordable transportation options through subsidizing monthly transit passes.
- Enhance quality of life of low-income pregnant women through provision of affordable transportation and financial management resources.
- Reduce the rate of pre-term births in Buffalo.
- Improve the rate of prenatal appointment attendance and birth outcomes.
- Scale the program and establish sustained funding mechanisms.

Specifically, the GO Buffalo Mom program established the following targets:

- Reduce missed appointments by 15% and pre-term deliveries by 20% to produce net savings of \$390,000.
- Serve 500 low-income pregnant women through the trip planning and navigation program.
- Serve 100 low-income pregnant women through the financial education and savings program.
- Have 40 eligible women complete the savings program and 25 women purchase a monthly transit pass.

Partnership

The Niagara Frontier Transportation Authority (NFTA) is a public benefit corporation that owns and manages the airport and public transit systems in Erie and Niagara counties. NFTA delivers public transportation service in these counties and was the lead agency to carry out the Rides to Wellness grant in partnership with healthcare organizations, medical facilities, and transportation regional planning councils. Program partners include the United Way of Buffalo & Erie County Healthy Start Coalition, which develops initiatives to support healthy families and children; the Greater Buffalo-Niagara Regional Transportation Council, which serves as the MPO for Erie and Niagara counties; Catholic Health, a group of five hospitals and a network of ministries to provide healthcare to western New York including Sister's Hospital Women's Services; the Kaleida Health Women & Children's Hospital of Buffalo, which serves as the region's center for comprehensive pediatric, neonatal, perinatal, and obstetrical services; and Belmont Housing Resources, which provides affordable housing, community development, asset-building, and housing retention services; it provided financial coaching for patients participating in the partner prenatal centers. These healthcare partners, in addition to supplying local match, were also expected to participate in webinars, events, forums, meetings, reporting, and engagement with NFTA.

Budget and Matching Funds

The total budget was \$610,629, with \$468,566 from the federal grant and \$142,063 in local match funds. United Way provided \$60,000 from its Fund for Shared Insight to develop customer feedback loops after the GO Buffalo Mom program was implemented. The Community Health Foundation of Western and Central New York supplied \$20,000 in cost match for this \$60,000 grant and an additional \$15,000 for consulting services for program development and performance measures. United Way also provided \$38,362 of in-kind match for administration and facility costs. Belmont Housing Resources supplied \$16,397 for employment, training, and facility costs, Catholic Health provided \$7,059 for training and administrative costs, and Kaleida Health contributed \$20,245 to cover administrative and supervision costs.

Project Implementation

The GO Buffalo Mom program was established in part as a result of federal and State investment to improve access to healthcare, as outlined in a strategic roadmap designed by the HUD Sustainable Communities Initiative. Early planning for the program relied on transportation planning tools and resources provided through the GO Buffalo Niagara Initiative, coupled with expertise of the United Way's Healthy Start and Healthy Future for All Coalition.

A key principle in the development of the program was to use a human-centered design approach that directly engaged potential program participants in the design of the program. Interviews were conducted with eligible participants to identify key considerations that would inform the development of the transportation education, trip planning, and financial education elements that would form the foundation of the GO Buffalo Mom program.

Trip Planning

For the trip planning component of the program, a dedicated travel navigator would work closely with clients through one-on-one meetings to develop an individualized trip plan to help them access transportation to medical appointments and other services to support a healthy pregnancy. As reported in the GO Buffalo Mom Rides to Wellness application, the transportation navigators would work in participating clinics at the Kaleida Health System or Catholic Health System as direct employees of those hospitals. The navigator would use a tablet and smartphone to develop customized trip plans based on one-on-one meeting with participating pregnant women. Tools from the GO Buffalo Niagara transportation clearinghouse website would be used to inform trip plans, which would be distributed to participants via Google Docs.

Belmont Savings and Financial Education Program

In addition to providing trip planning assistance, GO Buffalo Mom also would offer a savings and financial education service program, to be administered by Belmont Housing Resources. Belmont Housing Resources had already been managing an Individual Development Account program, which employed a local financial counselor. Belmont would integrate this new financial education/savings program, administered through the GO Buffalo Mom program, into existing asset-building programs to allow eligible program clients to purchase monthly transit passes, which would provide unrestricted access to transit services over a 30-day period. Participating families would set up a bank account through a local financial institution to receive tailored financial education and arrange a personalized savings plan. As incentive to participate in this program, eligible families would receive transit passes for a six-month period to encourage participation. In addition to the initial financial consultation and savings plan development, participants would attend classes and participate in biweekly financial consulting sessions with a financial counselor.

Data Collection

NFTA, in coordination with program partners, planned to collect data on performance metrics regularly throughout the implementation of the GO Buffalo Mom program. Performance metrics included tracking the number and percentage of women referred to and enrolled in both GO Buffalo Mom and the financial education and savings program. Demographic information would be collected as would health outcome tracking, including number and percentage of women attending prenatal appointments as well as missed appointments and the number and percentage of women accessing first trimester medical care. The number of weeks of gestation of GO Buffalo Mom participant deliveries and the percentage of those that were pre-term as well as birthweights and infant mortality rates would also be tracked.

Data would be collected through customer feedback loops, which was supported by a Fund for Shared Insight grant. SMS text messaging would be used to help enhance personalized trip planning and access to the transportation navigator, set appointment and class reminders, and communicate feedback with program partners.

Implementation

The savings and financial education component of the GO Buffalo Mom program launched in July 2018. However, the trip planning element of the program experienced some delay and was not fully implemented until May 2019. The initial plan for the trip planning portion of the program was that participating hospital clinics would hire the transportation navigators directly; however, the clinics lacked the experience to oversee this type of work and also found that it did

not integrate well with the healthcare hiring model. To solve this issue, NFTA contracted with a non-profit agency, the Buffalo Prenatal Perinatal Network (BPPN), to hire the navigators. Although the hiring process was further delayed as one of the partner clinics developed a vetting process, BPPN ultimately was able to fully embed the navigators in the clinics, as planned.

To overcome challenges relating to healthcare privacy laws such as HIPAA, BPPN was able to hold itself legally accountable for the privacy of patient information by signing a business associate agreement with the participating healthcare systems. Nevertheless, the GO Buffalo Mom program encountered significant operational hindrances relating to health system bureaucracies. Because transportation navigators are not direct employees of the clinics, they have encountered numerous barriers to accessing electronic medical records (EMR). Additionally, although the clinics have an existing system to flag patients by program, there is a hierarchy to prioritize IT requests, and because the GO Buffalo Mom program is operated outside the healthcare system, it is not considered a critical priority and has therefore encountered significant delays.

Without the ability to flag patients within the EMR in a timely manner, it was not possible to effectively monitor patient appointments, key prenatal milestones, or birth outcomes. This challenge severely limited the ability of the GO Buffalo Mom program to carry out its case coordination activities (such as reminding patients of upcoming appointments) or to monitor its own success. To resolve this issue, NFTA coordinated a training with the healthcare systems on how to flag people in the EMR. Unfortunately, the EMR training was postponed due to the COVID-19 pandemic, which forced New York State to shut down on the day the training was scheduled to take place.

The pandemic has caused additional challenges for program implementation and data collection, as the transportation navigators no longer can work on-site and have been interfacing with clients by phone. Furthermore, the participating healthcare systems have had to direct all their resources toward the more immediate demands of managing the pandemic.

Project Outcomes and Lessons Learned

Improved Access to Healthcare

In addition to facilitating healthcare access through regular transit trips, the transportation navigators have been educating GO Buffalo Mom clients on how to make use of Medicaid transportation, a benefit for which most of the program's clients qualify. The navigators are working closely with clients to facilitate the often complicated process of enrolling in and arranging trips through Medicaid to enable clients to independently plan trips in the future, not only for medical appointments but to access other services to support a healthy pregnancy.

The transportation navigators have given positive anecdotal feedback with regard to client appointment adherence. However, without the ability to flag patients within the EMR, it has not been possible to effectively monitor patient appointments and key prenatal milestones. Until this challenge is resolved, the GO Buffalo Mom program is unable to report quantitative data with regard to improved healthcare access.

Improved Health Outcomes and Reduced Healthcare Costs

GO Buffalo Mom transportation navigators have reported anecdotally that program clients are having full-term pregnancies and healthy babies. However, without the ability to flag patients within the EMR, it has not been possible to track birth outcomes. As with improved access to healthcare, until this challenge is resolved, the GO Buffalo Mom program is unable to report quantitative data with regard to improved health outcomes or reduced healthcare costs.

Housing-related Outcomes

The initial plan for the savings and financial education component of the GO Buffalo Mom program was to have a savings program to help clients to access transportation. Unexpectedly, the program has enabled clients to save money for housing. Feedback from clients revealed that, for many of them, a lack of safe, stable housing is the most critical obstacle to health and quality of life, an obstacle that must be resolved before any secondary barriers such as access to transportation can be resolved. Because of GO Buffalo Mom's human-centered design approach, the program adapts according to the needs that clients communicate through customer feedback loops.

Through GO Buffalo Mom's financial coaching and assistance with finding matching funds from other programs, the 36 clients enrolled in the housing program saved more than \$50,000 over the period from the program's inception in July 2018 through March 2020, an average of \$1,400 per client—an impressive result, especially considering that most GO Buffalo Mom clients are Medicaid eligible and do not have much discretionary income.

Moving Forward

GO Buffalo Mom staff hope to pilot NFTA's Transit Token tool to improve the experience for clients that qualify for the Medicaid transportation benefit but are assigned public transportation. The current process for distributing transit passes to the Medicaid transportation recipient requires the patient to call at least five days in advance of an appointment and then wait to receive transit passes by postal mail. This process is challenging for the GO Buffalo Mom client population, as phone numbers and addresses may change and medical appointments may come up in a window less than five days. The Transit Token tool enables a trip to

be sent electronically to a rider's smartphone, which is convenient for program clients and also has a time-tracking stamp for the trip documentation required by Medicaid.

GO Buffalo Mom staff held early discussions with Medical Answering Service, the agency that administers Medicaid transportation in New York, about the possibility of piloting the Token Transit tool within GO Buffalo Mom's small client population and then expanding it on a broader scale. Although progress regarding the pilot was put on hold due to the pandemic, program staff hope to revisit this idea with Medical Answering Service and hope that the Token Transit tool can eventually be used to improve the efficiency of Medicaid transportation in the Buffalo area and beyond.

In terms of program sustainability, the GO Buffalo Mom program has applied for additional local funds to support interim continuation of the program and to allow additional time for data collection. The ultimate goal for the long-term continuation of the program is to secure funding from insurers by demonstrating healthcare cost savings resulting from the program. Regarding the need for more time to collect data and determine program outcomes, GO Buffalo Mom staff noted that the 18-month timeframe of the pilot period was a challenge, especially considering the 9-month duration of a full-term pregnancy.

SECTION 7

Conclusions and Recommendations

As a whole, the 2016 Rides to Wellness demonstration projects produced several positive results (see Table 7-1). Though some projects encountered challenges when attempting to quantify outcomes, particularly individual and societal cost outcomes, they clearly made a meaningful, and sometimes invaluable, difference for the people they served. For those with no other transportation options, these services provided lifeline access to healthcare. Most projects also helped clients support their and their family's health through other activities such as grocery shopping, accessing employment, and taking their children to school. Overall, program participants credited the projects with significant improvements to their health. Some also reported that because of the projects, they were more active and independent, had more control over their lives, experienced less emotional hardship, and were better able to reach their goals. In addition, the projects raised awareness about the connection between transportation and healthcare and opened the door for future partnerships to build upon the ideas and experiences of the program.

Improved Access to Healthcare

In general, project grantees were able to use pre- and post-intervention data reported by program participants to demonstrate improved access to healthcare. By asking relatively simple questions about topics such as barriers to healthcare access, trip purpose, and appointment adherence and by keeping track of unique users, grantees were able to attribute to their projects a range of improvements, including reductions in transportation barriers to health access, increased appointment attendance, and decreased appointment cancellation and no-show rates.

Regarding transportation barriers to healthcare access in rural communities, a notable and unexpected finding from the experience of the BWE in Blythe, California, was that although the majority of riders had health insurance, for various reasons they could not use it in the community. This suggests that in Blythe and perhaps other rural, isolated communities, lack of transportation may not be a barrier to healthcare access but an indicator of “upstream” problems stemming from the healthcare and insurance industries.

Improved Health Outcomes

Several grantees were able to demonstrate improved health outcomes to some degree using self-reported data from program participants. For instance, at

the conclusion of ARC's Rides for Wellness Program, participants reported in general that their health was "good" as opposed to "fair" before entering the program. Patients also consistently reported an improvement in healthy days each month, with the data ranging from 3–7 healthy days gained after completing the program. Not surprisingly, the participants who improved their appointment adherence reported an even greater improvement in healthy days.

In the case of BWE, 45% of riders whose self-reported health status was trackable reported an improvement in health. Moreover, most riders who reported an improvement in their health attributed this outcome to the improved access to healthcare provided by BWE. In addition, a similar proportion, 4%, indicated no change. Although a report of no change in health status may seem insignificant, it is important to emphasize that these patients were receiving regular care and able to maintain their health status. This is a crucial element in maintaining quality of life, especially for patients with chronic health conditions. Therefore, it is worth considering whether the goal of improved health outcomes may underestimate the value of programs such as the Rides to Wellness Initiative.

Overall, participants noted significant improvements in their health, which they attributed to the healthcare trips provided by these programs. Nonetheless, these results should be viewed in light of their caveats and limitations. Although self-reported health data were often the best tool for programs unable to overcome the legal concerns surrounding HIPAA, IRB, and other privacy rules, this approach lacked the empirical rigor to address the many confounding variables influencing health outcomes. As a result, most grantees found that using surveys to quantify or attribute these outcomes to their programs yielded limited results. Additionally, because response bias is prevalent in many fields of behavioral and healthcare research where self-reported data are used, relying solely on data collected through questionnaires or surveys may negatively affect the validity of findings.

Reduced Healthcare Costs

Although there is a presumption that improved health outcomes will lead to reduced healthcare costs, grantees were not able to acquire the necessary patient care data to quantify cost savings. Of all the Rides to Wellness goals, reductions in healthcare costs proved to be the most difficult to measure when relying solely on self-reported data. Attempting to do so required grantees to survey program participants about past hospitalizations, visits to the emergency department, and changes to those behaviors, an approach that produced minimal data. In the case of Mommy and Me Ride Free, program staff noted that a number of their clients are transient, making it challenging to collect self-reported data on a consistent basis. According to BWE representatives, many riders were unable or unwilling to take surveys on every trip and had

difficulty remembering details about their healthcare or past appointments, perhaps because of their fragile condition or the more complicated nature of the questions. These experiences call attention to the crucial importance of the methodology that will be used to collect self-reported data, especially when working with vulnerable populations, such as those who are older, homeless, or ill. If surveys are the only option, they should be kept as short and simple as possible.

In cases when it simply is not possible to acquire the necessary patient care data to quantify cost savings, grantees should consider the potential of using the incremental cost-effectiveness ratio (ICER) to examine other dimensions of cost. For instance, although ARC was unable to find the data necessary to determine dollars saved as a result of Rides for Wellness, ICER analysis found that providing Breeze Cards through the program was a cost-effective method to improve patient health-related quality of life. It should also be noted that the ICER has been deemed valid and reliable by the Agency for Healthcare Research and Quality (AHRQ) and is one of the most commonly-used methods of assessing the efficacy of health programs.

Another factor that hindered the ability of grantees to track healthcare costs was the relatively short timeframe of the grants. Most grantees felt that accurately measuring cost savings would have required access to longitudinal patient care data, something that falls outside the purview of public transportation. A potential solution to this problem would be to designate the healthcare provider, rather than the transit agency, as the primary recipient of the grant. However, due to legal and contractual issues, this would likely be a complex and lengthy process. Additionally, although the healthcare industry has effective methods for measuring cost savings, setting up the arrangements to do so in collaboration with outside organizations takes significant time and resources. As one grantee put it, “Hospitals are not nimble organizations.” Irrespective of the administrative and time costs associated with measuring healthcare cost savings, several grantees expressed serious doubts about whether it is realistic to expect changes in healthcare costs to materialize within the 18 month pilot period. Taken together, these observations suggest that a longer-term program may be necessary to demonstrate cost savings.

Conclusions

1. **The program was successful at identifying innovative public transportation solutions to healthcare access challenges.** The 2016 Rides to Wellness demonstration grants provided funding to help finance innovative pilot projects that would improve access to healthcare by fostering partnerships between healthcare and transportation providers. FTA funded a range of project types to explore various approaches to solving healthcare access challenges. Although these projects varied in terms of their impacts,

they succeeded in identifying several promising approaches that are worthy of consideration for further investment or investment on a broader scale.

2. **Due to concerns related to health information privacy, grantees were unable to gain access to patient health records as planned and instead had to rely solely on self-reported health data.** Most project proposals included plans to measure health-related outcomes using a combination of health records and self-reported health data from program participants. However, project partners did not have the time or resources to surmount the confidentiality concerns relating to health privacy laws such as the Health Insurance Privacy and Portability Act (HIPAA) and relied solely on self-reported data from program participants.
3. **In rural, isolated communities, lack of transportation may not be a barrier to healthcare access but rather an indicator of “upstream” problems stemming from the healthcare and insurance industries.** A notable and unexpected finding from the experience of the Blythe Wellness Express (BWE) was that most riders had health insurance but needed to travel over 100 miles to the Coachella Valley for several reasons: 1) the need to see a specific doctor because of insurance requirements, 2) doctors in Blythe were not accepting new patients, or 3) the needed specialist services were not available in Blythe. In other words, although riders had health insurance, they could not use it in their home community.
4. **In general, project grantees were able to use self-reported pre- and post-intervention data from program participants to demonstrate improved access to healthcare.** By asking relatively simple questions about topics such as barriers to healthcare access, trip purpose, and appointment adherence and by keeping track of unique users, grantees were able to attribute to their projects a range of improvements, including reductions in transportation barriers to health access, increased appointment attendance, and decreased appointment cancellation and no-show rates.
5. **Several grantees were able to demonstrate limited evidence of improved health outcomes using self-reported data from program participants.** For instance, at the conclusion of the Atlanta Regional Commission’s (ARC) Rides for Wellness Program, participants reported in general that their health was “good” as opposed to “fair” before entering the program. Patients also consistently reported an improvement in healthy days each month. Furthermore, the participants who improved their appointment adherence reported an even greater improvement in healthy days. In the case of the BWE, 45% of riders whose self-reported health status was trackable reported an improvement in health. In addition, most riders who reported an improvement in their health attributed this outcome to the improved access to healthcare provided by the BWE.

6. The goal of improved health outcomes may underestimate the value of programs that help people to maintain their health status.

In the case of the BWE, 43% of riders whose self-reported health status was trackable indicated no change in health over the course of the program. Although this may seem insignificant, it is important to emphasize that these patients were receiving regular care and able to maintain their health status. This is a crucial element in maintaining quality of life, especially for patients with chronic health conditions.

7. Most grantees struggled with how to measure improved health outcomes and found that relying on self-reported data to quantify or attribute such outcomes to their projects yielded limited results.

Overall, participants noted significant improvements to their health, which they attributed to the improved access to healthcare provided by the pilot programs. However, although self-reported health data were often the best tool for programs unable to overcome the issues surrounding health privacy laws, this approach lacked the empirical rigor to address the many confounding variables influencing health outcomes. For instance, without access to longitudinal patient care data, grantees were unable to follow through with plans to compare project outcomes to a control group.

8. Of all the Rides to Wellness goals, reductions in healthcare costs proved to be the most difficult to measure when relying solely on self-reported data.

Attempting to do so required grantees to survey program participants about past hospitalizations, visits to the emergency department, and changes to those behaviors, an approach that produced minimal data. In the case of Mommy and Me Ride Free in Toledo, program staff noted that a number of their clients were transient, making it challenging to collect self-reported data on a consistent basis. According to BWE representatives, many riders were unable or unwilling to take surveys on every trip and had difficulty remembering details about their healthcare or past appointments, perhaps because of their fragile condition or the relatively complicated nature of the questions.

9. Applicants need to better identify the data (and data sources) that will be used for performance measurement.

In the grant applications and during the beginning phases of the projects, the grantees often developed ideas for excellent performance measures that could be used to demonstrate the effectiveness of their pilots. Grantees were optimistic about being able to acquire the data to be used for their proposed measures. However, in practice, it was often more difficult than anticipated to either identify or collect the necessary data. These difficulties sometimes arose due to HIPAA restrictions, limits of self-reported survey data, or other data simply not being available (e.g., not being able to track trip details of fixed-route transit trips).

10. **Programs need better planning for sustainability.** Some grantees were successful in channeling their successes to secure bridge funding or ongoing grants from outside organizations to help sustain projects. However, a lack of planning for how to proceed after FTA funds were exhausted left some projects at risk of becoming isolated, one-off interventions. Innovative programs were created and then refined or improved over the pilot period but with no means to market or maintain them over the long term.

Recommendations

1. **Consider designating the healthcare provider, rather than the transit agency, as the primary recipient of the grant.** The preponderance of opinion among grantees was that accurately measuring cost savings would have required access to longitudinal patient care data, something that falls outside the purview of public transportation. A potential solution to this problem would be to assign the role of project lead to the healthcare provider rather than the transit agency. Due to legal and contractual issues, this would likely be a complex and lengthy process, a point that underscores the importance of Recommendation #2.
2. **Enact longer funding cycles to allow the necessary time to demonstrate cost savings.** Another factor that hindered the ability of grantees to track healthcare costs was the relatively short timeframe of the grants. Although the healthcare industry has effective methods for measuring cost savings, setting up the arrangements to do so in collaboration with outside organizations takes significant time and resources. Moreover, irrespective of the administrative and time costs associated with tracking healthcare dollars, several grantees expressed serious doubts about whether it is realistic to expect cost savings to materialize within the 18-month pilot period.
3. **Consider expanding the health outcome goal to include health maintenance.** As previously noted, the ability to maintain health is a crucial element in maintaining quality of life, especially for patients with chronic health conditions. To account for the full value of the Rides to Wellness Initiative, a finding of no change in health status should be regarded a positive health outcome.
4. **Grantees should take great care designing the methodology for collecting self-reported data, especially when working with vulnerable populations such as those who are older, homeless, or ill.** As previously noted in Conclusion #9, the complicated nature of collecting self-reported health data can pose significant challenges, particularly in the case of on-board surveys. If surveys are the only option, they should be kept as short and simple as possible.

5. **In cases when it simply is not possible to acquire the necessary patient care data to quantify cost savings, grantees should consider using the incremental cost-effectiveness ratio (ICER) to examine other dimensions of cost.** For instance, although ARC was unable to find the data necessary to determine dollars saved as a result of Rides for Wellness, ICER analysis found that providing Breeze Cards through the program was a cost-effective method to improve patient health-related quality of life. It should also be noted that the ICER has been deemed valid and reliable by the Agency for Healthcare Research and Quality (AHRQ) and is one of the most commonly-used methods of assessing the efficacy of health programs.
6. **Require applicants to submit a data plan as part of their grant applications.** Although the 2016 NOFO for these grants required applicants to provide specific performance measures that would be used to quantify actual outcomes against expected outcomes, the criteria should go a step further and require the preparation of a data plan for the proposed project. As part of the grant application process, proposers should collaborate with partners not only to research potential performance measures but also to seek out and confirm appropriate data sources. Although it is understood that certain performance measures may need to be amended during the course of a project, the requirement for a data plan would at least ensure that the proposers have confirmed the availability of data that can be used to measure the project outcomes.
7. **Require grantees to submit a sustainability plan as part of their final project reports.** As noted, projects were at risk of being isolated, one-off interventions due to a general lack of planning for how to proceed after FTA funds were exhausted. Although FTA's 2016 NOFO stated the intent to select projects with a high likelihood of long-term success and sustainability, FTA should consider adding an explicit requirement that grantees include a sustainability plan in their final project reports.
8. **FTA may wish to consider creating final report templates for grantees.** The structure and content of the grantees' final reports varied significantly; some provided detailed, high-quality descriptions and analysis of the project and its outcomes, and others were much briefer and less detailed. A report template may help to address this lack of consistency.

Table 7-1 *Rides to Wellness Project Outcomes*

Project	Improved Access to Health Care	Improved Health Outcomes	Reduced Healthcare Costs
Blythe Wellness Express (BWE) <ul style="list-style-type: none"> Project Recipient: Riverside County Transportation Commission Description: Provided long-distance regional transportation to improve healthcare access. Trips were provided from rural Blythe and surrounding communities to healthcare facilities in Coachella Valley. 	<ul style="list-style-type: none"> 1,662 one-way trips provided to 270 users. 85% of trips for health reasons. Numerous survey respondents noted that BWE was their only way to access healthcare. Many participants had health insurance but could not use it in their community. 	<ul style="list-style-type: none"> 45% of participants with trackable health status reported health improvements. 43% reported no change in health status (i.e., health status maintained). 	<ul style="list-style-type: none"> Access to user health records blocked by HIPAA. Self-reported survey data limited, could not yield information about reductions in healthcare costs.
Rides for Wellness <ul style="list-style-type: none"> Project Recipient: Atlanta Regional Commission (ARC) Description: Provided travel training and free transit passes and paratransit or reduced fare enrollment assistance to help make transit a feasible option for preventive healthcare appointments and other trips. Participants referred from four area healthcare providers. 	<ul style="list-style-type: none"> 36,386 trips to 213 unique participants. Before-after data collected for 167 participants. 68% of participants improved healthcare appointment adherence—40% increased attendance, 52% decreased cancellation, 35% decreased their no-show rate. 	<ul style="list-style-type: none"> 140 participants reported their health as “good” in post-test as opposed to “fair” in pre-test. Average gain of 3.4 healthy days per month per participant (4.3 days for those who improved healthcare appointment adherence). Program was cost-effective method to improve patient health-related quality of life 	<ul style="list-style-type: none"> ARC used incremental cost-effectiveness ratio (ICER) to show that Rides for Wellness was cost-effective. ICER analysis found average quality-adjusted life years (QALY) gain of 0.331. Incremental cost per QALY gain of \$98.17 (lower than cost of missed appointment, estimated at \$154).
Delaware County Connections <ul style="list-style-type: none"> Project Recipient: Iowa DOT Description: Used ADA-accessible van to transport rural and small urban residents to healthcare appointments and wellness trips. Service connected residents to healthier food alternatives such as farmers markets and meal sites. 	<ul style="list-style-type: none"> Those reporting transportation as a barrier to healthcare services dropped 90% (from 59 to 6 participants) after pilot project period). 	<ul style="list-style-type: none"> Data on no-show rates and health outcomes not able to be tracked during project. 	<ul style="list-style-type: none"> Data on no-show rates and health outcomes not able to be tracked during project.
Mommy and Me Ride Free <ul style="list-style-type: none"> Project Recipient: Ohio DOT Description: Leveraged local transit agency resources to increase access to healthcare, employment, and other wellness trips (healthy food, social services) for pregnant and parenting women in areas where poverty and infant mortality rates higher than state and national averages. Limited resources and focus on infant mortality restricted participants to pregnant women and those with children under age 1. 	<ul style="list-style-type: none"> 619 enrolled clients took 474 one-way trips on paratransit services. Thousands of trips reported to be taken via local fixed-route bus services but were not able to be tracked. 92% of renewing clients said program helped them make needed trips. 58% of trips were for healthcare appointments. 75% no longer missed healthcare appointments. 64% were no longer late to healthcare appointments. Increased access to food shopping, work, and children’s school. 	<ul style="list-style-type: none"> Birth outcomes not able to be tracked, self-reported data on births limited. Increased attendance at healthcare appointments and increased access for other wellness trips likely correlated with improved health outcomes. 	<ul style="list-style-type: none"> Data needed to quantitatively show reduced healthcare costs not able to be collected or tracked for project.

REFERENCES

- Akanni, Olufolake, Matthew Smith, and Marcia Ory (2017). Cost-effectiveness of a community exercise and nutrition program for older adults: Texercise Select. *International Journal of Environmental Research and Public Health*, 14(5): 545. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5451995/>
- Jia, Haomiao, and Erica Lubetkin (2008). Estimating EuroQol EQ-5D scores from population healthy days data. *Medical Decision Making*, 4: 491-499. <https://www.ncbi.nlm.nih.gov/pubmed/18556640#>



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