Handbook for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination

DETAILS

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TRANSIT COOPERATIVE RESEARCH PROGRAM

TCRP RESEARCH REPORT 202

Handbook for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination

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TRANSIT COOPERATIVE RESEARCH PROGRAM

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The need for TCRP was originally identified in *TRB Special Report 213—Research for Public Transit: New Directions,* published in 1987 and based on a study sponsored by the Urban Mass Transportation Administration—now the Federal Transit Administration (FTA). A report by the American Public Transportation Association (APTA), *Transportation 2000,* also recognized the need for local, problem-solving research. TCRP, modeled after the successful National Cooperative Highway Research Program (NCHRP), undertakes research and other technical activities in response to the needs of transit service providers. The scope of TCRP includes various transit research fields including planning, service configuration, equipment, facilities, operations, human resources, maintenance, policy, and administrative practices.

TCRP was established under FTA sponsorship in July 1992. Proposed by the U.S. Department of Transportation, TCRP was authorized as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). On May 13, 1992, a memorandum agreement outlining TCRP operating procedures was executed by the three cooperating organizations: FTA; the National Academies of Sciences, Engineering, and Medicine, acting through the Transportation Research Board (TRB); and the Transit Development Corporation, Inc. (TDC), a nonprofit educational and research organization established by APTA. TDC is responsible for forming the independent governing board, designated as the TCRP Oversight and Project Selection (TOPS) Committee.

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FOREWORD

By Dianne S. Schwager
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TCRP Research Report 202 presents information for a broad range of transportation providers, public agencies, and other relevant stakeholders to improve their understanding of what influences state Medicaid agencies to establish Non-Emergency Medical Transportation (NEMT) brokerages and the resulting effects on NEMT customers, human services transportation, and public transportation. The handbook also addresses the trend for states to include NEMT as part of the Medicaid managed care.

Federal transportation policy calls for coordination of public transportation with human services transportation to avoid duplicative and overlapping services and to achieve cost savings for all federally funded programs. The Medicaid program is the largest federal program for human services transportation, spending approximately $3 billion annually on Non-Emergency Medical Transportation (NEMT). The successful coordination of transportation services is affected by the extent to which resources for NEMT are coordinated with and complement public transportation and other human services transportation programs. Because the Medicaid program is administered by states, which are able to set their own rules within federal regulations and guidelines set by the Centers for Medicare and Medicaid Services, coordination of NEMT with public transit and human services transportation is highly dependent on each state Medicaid agency's policies and priorities.

Over the past decade, many states have made significant progress coordinating NEMT with other federally funded transportation services, most often by allowing local or regional transportation providers to coordinate NEMT trips with numerous other trip types. This approach results in transportation resources and costs being shared across multiple programs and transportation providers.

TCRP Research Report 202: Handbook for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination provides background information about NEMT and describes the different models available to states for providing NEMT for Medicaid beneficiaries. The handbook also discusses why human services transportation and public transportation providers encourage coordination of NEMT with other transportation services.

The research approach for this project included:

- **Review of literature, regulations, and prior research.** To understand NEMT, the researchers studied applicable laws and regulations, and reviewed literature and previous studies on the topic.
- **State survey**. To determine how states are providing NEMT and the changes that have occurred in recent years, the researchers conducted a survey of the Medicaid agencies in the 50 states and the District of Columbia.

- **Case studies.** The research team first prepared mini case studies for 15 states using information from personal interviews, the previous literature review, and Internet research. From the 15 mini case studies, the research team then selected seven for full case studies representing a range of models for providing NEMT.

NEMT, human services transportation, and public transportation have common desired outcomes: to improve health outcomes, to contribute to a better quality of service for customers, and to maximize transportation services delivered within available resources. This handbook identifies opportunities and suggests strategies to coordinate these transportation programs to contribute to the common desired outcomes.

The audiences for this research include the following key stakeholders:

- State-level officials,
- Regional and local transportation providers including human services transportation providers and public transit agencies,
- For-profit and not-for-profit NEMT brokers,
- Human services program managers,
- Mobility managers, and
- Managed care organizations.

Although not a primary audience for the handbook, customers of NEMT services (Medicaid beneficiaries) are directly affected by the different models for providing NEMT and represent an important stakeholder for this research. Each of these stakeholders has different perspectives that are important to consider. Understanding the differences in perspectives is fundamental to seeing opportunities to coordinate transportation programs and to achieve positive outcomes.

Further serving the stakeholders, this report is supported by a companion document, "State-by-State Profiles for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination," available on the TRB website (www.trb.org) by searching for "TCRP Research Report 202."

CONTENTS

SUMMARY

Handbook for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination

Introduction

This summary provides an overview of TCRP Research Report 202: *Handbook for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination*. A companion document, "State-by-State Profiles for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination," presents a non-emergency medical transportation (NEMT) profile for each of the 50 states and the District of Columbia.

Medicaid is a joint federal and state program that provides health coverage for millions of individuals and families with limited incomes and resources. The Medicaid program provides critical health insurance for millions of people who might not otherwise be able to afford it. The assurance of transportation to necessary medical care is an important feature that sets Medicaid apart from traditional health insurance. Medicaid NEMT is an important benefit for Medicaid beneficiaries who need to get to and from medical services and have no other means of transportation.

The purpose of this handbook is to provide information to better understand what influences state Medicaid agencies to establish separate NEMT brokerages and the resulting effects on NEMT customers, human services transportation, and public transportation.

The handbook also addresses the trend for states to include NEMT as part of Medicaid managed care. The handbook provides background information about NEMT and describes the different models available to states for providing NEMT for Medicaid beneficiaries. The handbook also discusses why human services transportation and public transportation providers encourage coordination of NEMT with other transportation services.

Stakeholders for NEMT, human services transportation, and public transportation have common desired outcomes for providing NEMT services. The desired outcomes are to:

- Improve health for Medicaid beneficiaries who need help with transportation,
- Provide better quality of service for NEMT customers, and
- Maximize transportation services within available resources.

This handbook identifies opportunities and suggests strategies to coordinate these transportation programs to contribute to the common desired outcomes.

The handbook is organized into seven main chapters, as discussed in this summary. **Chapter 1: Introduction** introduces readers to the handbook and describes the study

research objectives, audiences, and research process, as well as the purpose and organization of the handbook.

Medicaid

Chapter 2: Medicaid provides background on the Medicaid program to understand the context for NEMT. The chapter discusses the requirement for state Medicaid programs to assure NEMT for Medicaid beneficiaries who need transportation to get to and from medical services, how recent federal legislation has increased Medicaid enrollment, and why states are seeking to reduce the costs of providing NEMT. Key findings of this research include the following:

- **Medicaid serves the most vulnerable**. The beneficiaries of Medicaid include the nation's most vulnerable populations: infants and children in low-income families, individuals and families with low incomes or limited resources, individuals of all ages with disabilities, and very low-income seniors. Often, these groups lack the resources to afford a reliable means of getting to medical appointments, have limited options and long travel times, and may have frequent appointments for certain medical conditions. In addition to access to health care services, Medicaid beneficiaries also experience mobility challenges in other important areas of life, such as accessing jobs and shopping for necessities. These mobility challenges can also affect health outcomes.
- **States are required to assure NEMT for Medicaid services**. State Medicaid programs are required to assure NEMT for Medicaid beneficiaries who need to get to and from medical services and have no other means of transportation. Without NEMT, the individuals who most need medical care might not be able to access critical services.
- **NEMT is different in every state**. Each state administers its own Medicaid program, consistent with federal regulations and guidelines. This means that there are significant state-to-state variations in how NEMT is provided.
- **Medicaid expenses are increasing**. The Patient Protection and Affordable Care Act (ACA) of 2010 extended Medicaid eligibility to individuals under 65 years of age with an income below 133 percent of the federal poverty level. In addition, ACA gave states the option to provide coverage to individuals that have an income between 133 percent and 200 percent of the federal poverty level. Nearly 17.2 million additional individuals were enrolled in Medicaid in December 2016 compared to 2013, prior to ACA. ACA has amplified the concerns of states about controlling the cost of Medicaid services.
- **States seek to reduce NEMT costs**. Although NEMT is estimated to be less than 1 percent of the federal and state investment in the Medicaid program, states are looking for ways to reduce the cost of NEMT.

State Medicaid programs are required to provide NEMT for Medicaid beneficiaries who need to get to and from medical services and have no other means of transportation.

NEMT for Medicaid

Chapter 3: Non-Emergency Medical Transportation for Medicaid discusses the requirement to assure NEMT for those who need transportation to get to and from medical services, the ability for each state to determine how to deliver NEMT, and how major legislation affects NEMT trends to brokerages and managed care. Important topics in this chapter include the following:

- **States are creating NEMT brokerages**. In recent years, numerous state Medicaid programs have separated NEMT from locally or regionally coordinated transportation systems by creating a statewide or regional NEMT brokerage. This trend was accelerated by the Deficit Reduction Act (DRA) of 2005, which provided an option to establish an NEMT brokerage without the administrative burden of applying for a waiver every few

years. The DRA included an incentive to establish an NEMT brokerage: the ability for a state Medicaid agency to receive a higher federal matching rate for NEMT as a medical service expense. States pursue the broker model for cost savings, fraud deterrence, and administrative efficiency.

- **The Medicaid program is moving to managed care**. Passage of the ACA is encouraging a shift in the Medicaid program from traditional, state-administered fee-for-service medicine to a coordinated or accountable care model that rewards medical providers for keeping people healthy and out of costly emergency facilities. Increasingly, states are moving to assign managed care organizations with the responsibility to provide NEMT.
- **The trends for NEMT brokers and managed care with carved-in NEMT may lead to less transportation coordination**. Professionals responsible for transportation coordination and mobility management say the changes to create NEMT brokerages and move to managed care are leading to less coordination of transportation resources. The trends also create challenges for Medicaid beneficiaries, who may be required to arrange travel with multiple transportation providers, depending on the purpose of each trip.

Chapter 3 also identifies the different models available to state Medicaid agencies for providing NEMT and discusses the trend to create statewide or regional brokerages. This research identified the following principal NEMT models in use in the 50 states and the District of Columbia:

- **In-house management**. The in-house management model is one in which a state Medicaid agency administers NEMT for beneficiaries at a state, regional, or county level. States using the in-house management model usually contract NEMT to transportation providers on a fee-for-service basis.
- **Brokers**. Some state Medicaid agencies contract with brokers to provide NEMT service. Brokers qualify and authorize beneficiaries for transportation and then contract with transportation providers to perform NEMT services. Broker types include:
  - **Statewide broker**. Under a statewide broker NEMT model, the broker manages services statewide, centralizing call centers, eligibility determination, and trip authorization. Statewide brokers are typically for-profit, national brokers.
  - **Regional broker**. A regional broker is responsible for eligibility determination and trip authorization at a regional level. A broker may operate in one region or several regions, as the state Medicaid agency may specify. Regional brokers may be for-profit or not-for-profit. Not-for-profit brokers may be human services agencies, public transit agencies, other governmental entities, or nonprofit organizations.
- **Managed care organization (MCO)**. Managed care is an organized health care delivery system designed to manage health care cost, use, and quality. Through contracted arrangements with state Medicaid agencies, MCOs seek to improve health care for a population of Medicaid beneficiaries, often with chronic and complex conditions, while also managing the cost of that care. MCOs may integrate NEMT in the health care system. This strategy is referred to as carved-in NEMT.
- **Mixed NEMT models**. Some state Medicaid agencies use more than one model to provide NEMT. In-house management, MCOs, and statewide or regional brokers often coexist in a state to provide NEMT services.

Brokers qualify and authorize beneficiaries for transportation and then contract with transportation providers to perform NEMT services.

Coordination of Public Transportation with Human Services Transportation

Federal transportation policy encourages public transit agencies that receive federal funds to coordinate public transportation with human services transportation, which includes NEMT. **Chapter 4: Coordination of Public Transportation with Human Services**

Transportation provides the context to understand why human services transportation providers and public transit agencies want to coordinate NEMT with other transportation services.

Human Services Transportation

Human services transportation refers to a range of transportation services designed to meet the needs of individuals who have difficulties providing their own transportation due to age, disability, or income, sometimes referred to as transportation-disadvantaged populations. Medicaid NEMT is an example of human services transportation to provide access to authorized medical services for Medicaid beneficiaries with low incomes. Key findings include the following:

- **Human services transportation is complex and not consistently coordinated**. Spending for human services transportation is typically funded from federal programs, state and local funds, and private sources of revenue. With so many organizations involved, human services transportation has become a complex and often fragmented system. The large number and diversity of human services transportation programs can lead to underutilization of resources, inconsistent standards, greater administrative costs due to fragmented or duplicative services, and customer inconvenience. Services can overlap in some areas and be entirely absent in others.
- **Human services transportation** refers to a range of transportation services designed to meet the needs of individuals who have difficulties providing their own transportation due to age, disability, or income.
- **Advocates for the transportation disadvantaged encourage transportation coordination**. To address the problems of the complexity of human services transportation, governmental entities, human services organizations, and transportation providers have advocated improved coordination among human services transportation services, including Medicaid NEMT.

Public Transportation

The purpose of providing public transportation is to offer the general public better access to economic and community activities such as employment, education and training, medical appointments and health services, social services, and shopping.

The purpose of providing public transportation is to offer the general public better access to economic and community activities such as employment, education and training, medical appointments and health services, social services, and shopping. In this handbook, **public transportation** refers to the transportation programs and services that are eligible for federal funding from FTA. Key findings include the following:

- **The types of public transportation are fixed route, flexible route, or demand response**. Fixed-route transit operates on a schedule with vehicles passing on a regular frequency. Fixed-route bus and rail services generally have the capacity to include additional passengers at a low or no marginal cost per additional passenger. In a variation on fixed routes, flexible-route buses operate along a fixed route, but the buses may deviate from the route to go to a specific location. Demand-response public transportation responds to individual passenger requests for service between a specific origin and destination. Each additional demand-response passenger or flexible-route deviation increases operations costs. Shared rides (i.e., two or more passengers transported in the same vehicle trip) can help to improve demand-response cost-effectiveness (cost per passenger).
- **Public transportation providers that operate fixed-route services must provide complementary paratransit in accordance with the Americans with Disabilities Act**

(**ADA**). Complementary paratransit or ADA paratransit is a form of demand-response public transportation for individuals with disabilities. ADA regulations require public transit agencies that provide local fixed-route transit services (bus or rail) to operate complementary paratransit for individuals who cannot use the local fixed-route service because of a disability. ADA and FTA regulations do not permit a public transit agency to deny a trip request from an ADA-eligible traveler due to capacity constraints.

- **Fixed-route public transportation offers lower-cost transportation**. If appropriate for the individual, Medicaid beneficiaries can travel to and from medical appointments on fixed-route public transportation for the fare. This is usually the lowest-cost transportation available.
- **Public transportation providers can contract to provide demand-response NEMT**. Public transit agencies are interested in providing demand-response NEMT to complement other public transportation services for low-income passengers and to earn revenues that can provide local match for federal transit grants.
- **Federal transportation policy calls for coordination**. The federal transportation policy for coordinating transportation has been included in provisions of every federal transportation authorization bill since 2005. According to the federal legislation, public transit agencies are expected to coordinate public transportation with human services transportation.
- **The Coordinating Council on Access and Mobility represents federal agencies that fund transportation**. Chaired by the secretary of transportation, the council is responsible for promoting federal interagency cooperation and developing appropriate mechanisms to minimize duplication of federal programs and services so that transportation-disadvantaged persons have access to more transportation services.

Coordination

Medicaid NEMT is the largest source of federal revenues for human services transportation. Federal NEMT expenditures are about $3 billion per year, which is less than 1 percent of the federal investment in Medicaid but equal to about 25 percent of the annual federal transit appropriation.

Public transit agencies often attempt to coordinate NEMT with public transportation. The purpose of coordination is to enhance customer access to the variety of transportation services available and to ensure the most efficient use of the resources available. Coordinating NEMT with other human services transportation and public transportation offers the following advantages:

- **Expand access to transportation and improve mobility**. The coordination of NEMT with public transportation and other human services transportation programs can better meet the needs of transportation-disadvantaged individuals for all trip purposes.
- **Leverage public transportation expertise and resources**. Coordinating NEMT with the local public transportation provider can help to make full use of required compliance with federal and state regulations, increasing the safety and quality of service for NEMT. Federal cost principles enable public transit agencies to share the use of vehicles to provide NEMT.
- **Improve service efficiency**. Coordinating transportation can improve the efficiency of transportation services by reducing unnecessary duplication of service and more efficiently using existing transportation resources for shared-ride transportation.
- **Benefit from lower-cost fixed-route public transportation**. Where appropriate, individuals can travel to medical appointments on fixed-route public transportation for the

cost of the fare charged to all riders. Public transit agencies benefit from NEMT riders on fixed routes to increase productivity and cost-effectiveness. Medicaid benefits from the lower cost for an NEMT trip.

- **Improve accessibility for individuals with disabilities**. A public transit agency that operates local fixed-route transit must provide ADA paratransit service for people with disabilities. A state Medicaid agency or broker can work with a public transit agency to provide NEMT trips on ADA paratransit at a rate no more than the rate charged to other human services agencies for similar trips. The public transit agency benefits from recovering a part of the cost of an ADA paratransit trip, and Medicaid benefits from a lower cost for an NEMT trip for an individual with a disability. The Medicaid beneficiary with a disability benefits from improved accessibility and the convenience of scheduling service with one transportation provider.
- **Provide local match for FTA funding programs**. Revenues earned by a transit agency that contracts to provide NEMT can be applied as local match for FTA funding programs.

Models for Providing NEMT

The purpose of **Chapter 5: Models for Providing Non-Emergency Medical Transportation** is to describe how seven case study states provide NEMT and the effects of the models on transportation coordination. Interviews with different stakeholders help to understand the complex issues surrounding NEMT and make possible contextual analysis of the information. The chapter documents the impacts of different NEMT models on access to Medicaid services, coordination with human services transportation, and coordination with public transportation.

NEMT models and the corresponding case study states are as follows:	
In-house management:	**North Carolina**—community transportation with county-based in-house management. **Pennsylvania**—coordinated transportation with county-based in-house management (in all counties except Philadelphia County). **Texas**—in-house management in one region.
Statewide broker:	**New Jersey**—change from county-based community transportation with in-house management to a statewide broker.
Regional brokers:	**Massachusetts**—coordinated transportation with regional transit authorities as regional brokers. **Texas**—change from in-house management to regional brokers (multiple for-profit brokers and one not-for-profit human services broker). **Pennsylvania**—regional broker (for-profit) in Philadelphia County.
Managed care organizations:	**Florida**—change from county-based coordinated transportation to MCOs with carved-in NEMT. **Oregon**—change from coordinated transportation with public agencies as regional brokers to coordinated care organizations with carved-in NEMT.

The state Medicaid agencies in Texas and Pennsylvania operate mixed NEMT models (two different models). Case study summaries for the seven states are included in the appendix of this handbook.

Common Desired Outcomes

Although stakeholders have different perspectives about NEMT, they also share common desired outcomes for providing NEMT services, as shown in the following illustration. **Chapter 6: Common Desired Outcomes** identifies shared desired outcomes and sets a framework for collaboration to achieve better results.

Strategies to Achieve Common Desired Outcomes

Chapter 7: Strategies to Achieve Common Desired Outcomes identifies opportunities and suggests strategies to coordinate NEMT with human services transportation and public transportation. If stakeholders collaborate on the opportunities that apply best to specific circumstances, the strategies can help to achieve common desired outcomes.

Strategies to Focus on Common Desired Outcomes

The first three strategies can help stakeholders with different perspectives to focus on opportunities to achieve positive outcomes:

1. Align goals and objectives to achieve common desired outcomes.
2. Include NEMT stakeholders when preparing or updating a locally developed, coordinated human services transportation–public transportation plan.
3. Adopt common geographic boundaries for service areas.

Strategies to Document Better Health Outcomes

Access to medical services and general mobility are important to improve health outcomes and lower medical costs; however, more data are needed to accurately measure transportation-related benefits and actual reduced health costs. Three strategies will help to demonstrate how NEMT and transportation to other services and activities contribute to better health outcomes:

4. Measure the contribution of transportation to better health outcomes and reduced health care costs.
5. Coordinate NEMT with public transportation to meet the unique requirements of Medicaid beneficiaries, particularly in rural areas.
6. Demonstrate and evaluate the value of a ridesourcing program for NEMT medical appointments.

Strategies to Contribute to a Better Quality of Service for NEMT

Stakeholders agreed that providing dependable NEMT services that are safe and on time will improve access to medical services, contribute to improved health outcomes, and lead

Stakeholders agreed that providing dependable NEMT services that are safe and on time will improve access to medical services, contribute to improved health outcomes, and lead to a better quality of life.

to a better quality of life. Two strategies will contribute to providing a better quality of service through coordinated transportation:

7. Use technology to enhance NEMT program administration and verify medical trips.
8. Identify the key data required and establish standard procedures for data collection and reporting of NEMT performance.

Strategies to Maximize Transportation Services Delivered Within Available Resources

Delivering efficient transportation can help to maximize transportation services delivered within the constraints of limited funding. Six strategies are identified to help to maximize transportation services delivered within available resources by coordinating NEMT with public transportation:

9. Use fixed-route transit for appropriate NEMT trips at the lowest cost.
10. Coordinate shared-ride, demand-response NEMT with other transportation programs to reduce costs per trip.
11. Implement a transparent cost allocation methodology to show how shared-ride public transportation can lower the cost for an NEMT trip.
12. Establish a procedure to set a rate for NEMT trips on ADA paratransit that is consistent with Medicaid guidelines.
13. Negotiate operations practices and reimbursement rates for transportation providers to recover the direct costs of delivering NEMT service.
14. Adopt procedures and timelines for invoicing and payment for NEMT.

CHAPTER 1

Introduction

Non-emergency medical transportation (NEMT) services are sponsored by a number of agencies and organizations, but the largest NEMT program in the United States is funded by Medicaid. This handbook addresses Medicaid NEMT.

Medicaid NEMT is an important benefit for Medicaid beneficiaries who need to get to and from medical services and have no other means of transportation. The Code of Federal Regulations requires states to ensure that eligible, qualified Medicaid beneficiaries have NEMT to take them to and from medical providers (*1*). Medicaid is the federal government's largest program for human services transportation, with approximately $3 billion spent annually on NEMT for Medicaid beneficiaries (*2*). Throughout this handbook, Medicaid non-emergency medical transportation will be referenced as NEMT without the antecedent, Medicaid.

The Code of Federal Regulations requires states to ensure that eligible, qualified Medicaid beneficiaries have NEMT to take them to and from medical providers.

Medicaid is jointly funded by the federal and state governments. Each state administers its own Medicaid program, consistent with federal regulations and guidelines (*3*). The Centers for Medicare and Medicaid Services (CMS), within the DHHS, oversees the Medicaid program for the federal government. The role of the state in administering the Medicaid program means there are significant state-to-state variations in program, policies, and operations, including NEMT. The variations reflect the flexibility that states have in designing Medicaid programs that meet each state's policies (*3*).

NEMT presents both opportunities and challenges for human services transportation providers and public transit agencies wishing to coordinate the passenger trips provided in various service areas. In recent years, numerous state Medicaid programs have separated NEMT from locally or regionally coordinated transportation systems by creating a statewide or regional NEMT brokerage. States often pursue the broker model for cost savings, fraud deterrence, or administrative efficiency. Transportation coordination and mobility management professionals have expressed concerns about this trend, saying that it leads to less coordination of transportation resources and challenges for Medicaid beneficiaries who may be required to arrange travel with multiple transportation providers, depending on the purpose of each trip.

Objectives

This research was conducted to better understand what influences states to establish NEMT brokerages and the resulting impacts on customers, human services transportation, and public transportation. This handbook summarizes the research.

There were three objectives for this research:

- To describe the different models available to states for providing NEMT,
- To use case study research to understand the effects of the different models for providing NEMT on access to Medicaid services and on coordination with other human services transportation and public transportation, and

- To identify opportunities to coordinate NEMT, human services transportation, and public transportation in the future.

Audiences

The audiences for this research include the following key stakeholders:

- **State-level officials** responsible for relevant transportation programs, including NEMT, public transportation, and coordinated transportation services.
- **Regional and local transportation providers** including human services transportation providers and public transit agencies that currently provide or are interested in providing NEMT.
- **For-profit and not-for-profit brokers** who qualify and authorize beneficiaries for transportation and then contract with transportation providers to perform the NEMT service.
- **Human services program managers** who provide a range of services to Medicaid beneficiaries including sometimes serving as an NEMT broker.
- **Mobility managers** who coordinate transportation resources in a community to assist individuals with arranging travel for various purposes, including for medical services.
- **MCOs** responsible for an organized health care delivery system including transportation services.

Although not a primary audience for the handbook, **customers of NEMT services** (Medicaid beneficiaries) are directly affected by the different models for providing NEMT and represent an important stakeholder for this research.

Each of these stakeholders has different perspectives that are important to consider in studying the effects of the various models for providing NEMT. Understanding the differences in perspectives is fundamental to seeing opportunities to coordinate transportation programs and to achieve positive outcomes.

Research Methodology

Researchers used a variety of research methods to conduct this project:

- **Review of literature, regulations, and prior research**. To understand NEMT, the researchers studied applicable laws and regulations, and reviewed literature and previous studies on the topic.
- **State survey**. To determine how states are providing NEMT and the changes that have occurred in recent years, the researchers conducted a survey of the Medicaid agencies in all 50 states and the District of Columbia.
- **Case studies**. The research team also conducted case study research, first by preparing mini case studies for 15 states using information from personal interviews, previous literature review, and Internet research. From the 15 mini case studies, the research team selected seven states for full case studies. These seven states represent a range of models for providing NEMT. The states selected for case studies are shown in Figure 1.

The researchers visited each of the seven states to learn how NEMT is provided, the opportunities and challenges faced by each of the states, and their experiences in coordinating NEMT with human services transportation and public transportation. The researchers interviewed stakeholders with different perspectives: state Medicaid agencies, state departments of transportation (DOTs), MCOs, customer advocacy groups, public transit agencies, human services program managers, nonprofit NEMT brokers, and for-profit NEMT brokers.

The case study research provided the material to understand how states have revised their approaches to NEMT and what influenced those decisions. A summary for each of the seven

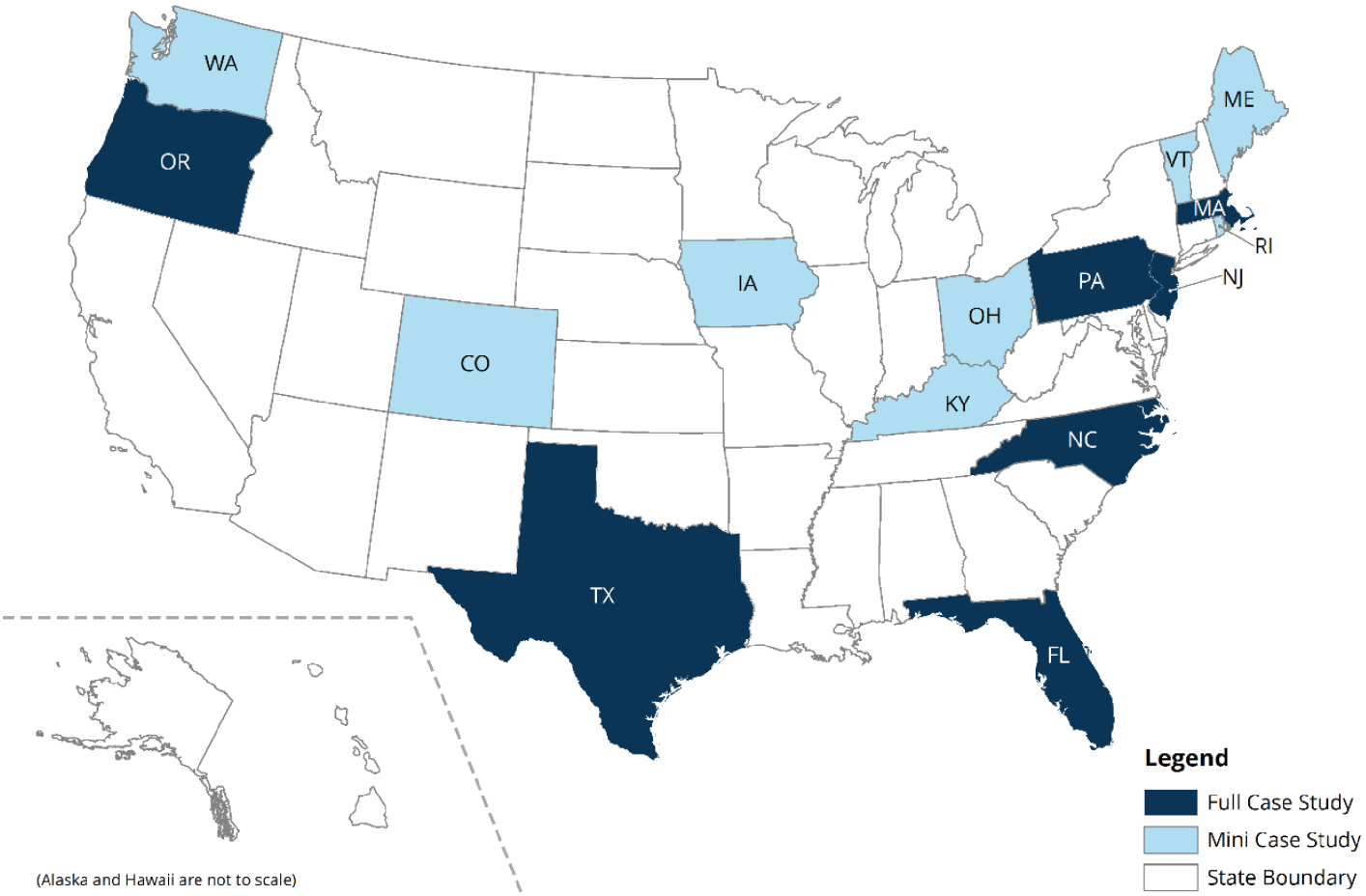


Figure 1. Case study states.

case studies is provided in the appendix to this handbook. Effective practices and lessons learned from the case studies also contributed to the suggested strategies for coordinating NEMT, human services transportation, and public transportation.

Purpose of This Handbook

This handbook presents information about NEMT and the different models available to states for providing NEMT. This handbook also documents why human services transportation providers and public transit agencies encourage coordination of transportation services. Using case study examples, this handbook discusses the effects of the different models for providing NEMT on:

- Access to Medicaid services,
- Coordination with human services transportation, and
- Coordination with public transportation,

NEMT, human services transportation, and public transportation have common desired outcomes—to improve health outcomes, to contribute to a better quality of service for customers, and to maximize transportation services delivered within available resources. This handbook presents strategies to coordinate transportation programs to contribute to the common desired outcomes.

This handbook documents why human services transportation providers and public transit agencies encourage coordination of transportation services.

Organization of This Handbook

The handbook includes the following information:

- Chapter 1: Introduction introduces the subject of NEMT.
- Chapter 2: Medicaid provides information on the Medicaid program in the United States and the impact of recent federal legislation.
- Chapter 3: Non-Emergency Medical Transportation for Medicaid describes state options to provide NEMT and recent state trends.
- Chapter 4: Coordination of Public Transportation with Human Services Transportation provides information about human services transportation, public transportation, and the opportunities and challenges to coordinate these transportation services with NEMT.
- Chapter 5: Models for Providing Non-Emergency Medical Transportation examines how NEMT models have been applied in seven case study states and how the different NEMT models affect access to Medicaid services and coordination with human services transportation and public transportation.
- Chapter 6: Common Desired Outcomes discusses the nexus of desirable outcomes for NEMT, human services transportation, and public transportation.
- Chapter 7: Strategies to Achieve Common Desired Outcomes identifies key opportunities and strategies to coordinate transportation services and move toward common desired outcomes.
- Acronyms is a list of the acronyms and the full forms.
- Glossary defines the key terms.
- References documents works cited and other suggested references.
- The appendix gives case study summaries to document how NEMT models have been applied in seven states.

A companion volume, "State-by-State Profiles for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination," presents NEMT profiles for all 50 states and the District of Columbia.

CHAPTER 2

Medicaid

Understanding NEMT starts with learning about Medicaid. In the Medicaid program, NEMT is a benefit for eligible Medicaid beneficiaries who need transportation to an authorized medical service. The purpose of this chapter is to provide information on the Medicaid program in the United States and the impact of recent federal legislation.

What Are the Medicare and Medicaid Programs?

Medicare and Medicaid are two different federal programs created in 1965 for older and low-income Americans who could not afford private health insurance. Congress passed legislation as Title XVIII and Title XIX of the Social Security Act, establishing the Medicare and Medicaid programs, respectively (*4*).

Medicare

Medicare is a federal health insurance program for people ages 65 and over and people with permanent disabilities, regardless of income. Medicare helps to pay for hospital and physician visits, prescription drugs, and other acute and post-acute care services. Medicare provided health insurance for 57 million people and accounted for 15 percent of the federal budget, about $540 billion, in the federal fiscal year (FY) 2015 (*5*). Reported expenses included mandatory Medicare spending—less income from premiums and other offsetting receipts in FY 2015.

Medicaid

Medicaid is a joint federal and state program that provides health coverage for individuals and families with limited incomes and resources (*4*). Congress added the Children's Health Insurance Program (CHIP) to the Medicaid program in 1997 as Title XXI of the Social Security Act. CHIP provides health coverage for infants and children in low-income families that do not qualify for Medicaid but cannot afford private health insurance (*6*).

Medicaid is a joint federal and state program that provides health coverage for individuals and families with limited income and resources.

Changes in Medicaid and CHIP services under the ACA took effect on January 1, 2014. In addition to extending Medicaid eligibility to individuals under 65 years of age with an income below 133 percent of the federal poverty level, the ACA gave states the option of creating a Basic Health Program (BHP). Under the BHP, states have the option to provide coverage to individuals who do not qualify for Medicaid, CHIP, or other minimum essential health coverage and have an income between 133 percent and 200 percent of the federal poverty level (*7*).

The Medicaid program is jointly funded by the federal and state governments (including in the District of Columbia and the U.S. territories) to assist states in furnishing medical assistance

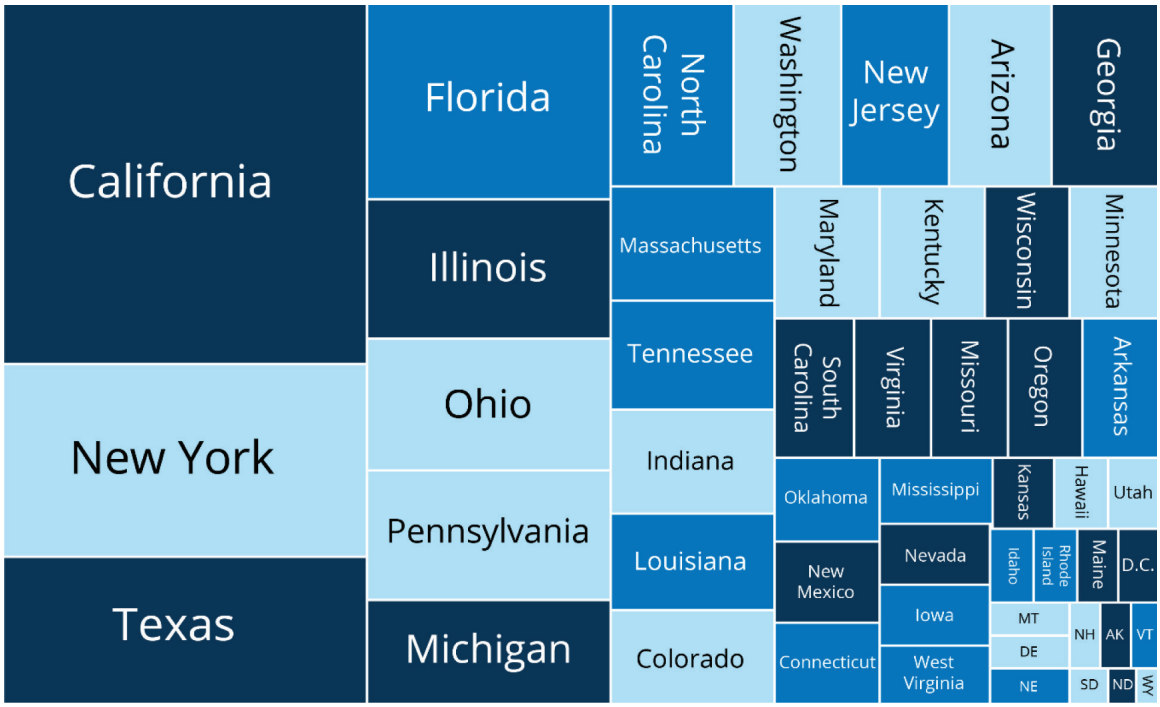
to eligible persons. The federal and state expenditures for Medicaid in FY 2015 were $334 billion and $198 billion, respectively, for total federal and state expenditures of $532 billion (*8*). The federal share for Medicaid was about 9 percent of the federal budget in FY 2015 (*5*). For state expenditures, Medicaid accounted for 18.7 percent of all state general fund spending in FY 2015, in second place behind state spending on primary and secondary education (35.6 percent of state general fund spending in FY 2015) (*9*).

Medicaid and CHIP currently provide health insurance for over 74 million of America's poorest people (*10*). Figure 2 illustrates the relative enrollment for Medicaid and CHIP by state as of December 2016.

Centers for Medicare and Medicaid Services

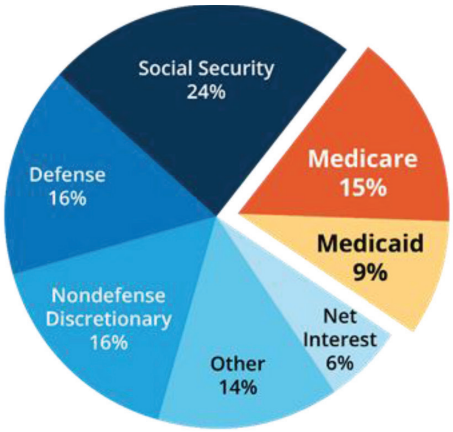
CMS oversees the federal Medicare and Medicaid programs. Considering both Medicare (15 percent of the federal budget) and Medicaid (9 percent of the federal budget) expenditures, CMS was responsible for almost one-fourth (24 percent) of all federal spending in FY 2015 (*5, 8*). The Medicare and Medicaid share of the federal budget in 2015 is illustrated in Figure 3.

The Center for Medicaid and CHIP Services is one of six centers within CMS and serves as the focal point for the three national health insurance programs for low-income people: Medicaid, CHIP, and BHP, collectively referred to as Medicaid. Each of these programs is administered at the state level. The state role in administering the programs means each state has the flexibility, within federal guidelines, to design programs to meet specific state needs. Under the Medicaid program, the CMS mission is to work with states and other partners to advance state efforts to ensure access to affordable health care, promote health, improve quality of care, and lower health care costs (*11*).



Source: Center for Medicaid and CHIP Services, December 2016 Data.

Figure 2. State Medicaid and CHIP enrollment as of December 2016.



Total Federal Outlays, 2015: $3.7 trillion
Net Federal Medicare Outlays, 2015: $540 billion[1]
Net Federal Medicaid Outlays, 2015: $334 billion[2]

Note: All amounts are for federal fiscal year 2015.
[1] Consist of mandatory Medicare spending minus income from premiums and other offsetting receipts.
[2] Excludes Medicaid administrative costs, accounting adjustments, and the U.S. Territories.

Source: Congressional Budget Office as provided by the Kaiser Family Foundation.

Figure 3. Medicare and Medicaid as a share of the 2015 Federal Budget.

What Do I Need to Understand About Medicaid?

In the Medicaid program, NEMT is a benefit for eligible Medicaid beneficiaries who need transportation to an authorized medical service. When state Medicaid agencies discuss NEMT, the policies and practices as well as the terminology used are from this perspective. This section discusses NEMT within the context of the Medicaid program.

Regional and local transportation providers (including human services transportation but particularly state-level public transportation officials and public transit providers) view NEMT as a transportation service and may not be familiar with the policies, practices, and terms from Medicaid.

To understand NEMT from the perspective of state Medicaid agencies, one must first know about Medicaid and its state-level administration.

State Medicaid Programs Including NEMT Vary from State to State

As stated previously, Medicaid is a shared federal-state program. Within broad national guidelines established by federal statutes, regulations, and policies, each state establishes its own eligibility standards; determines the type, amount, duration, and scope of Medicaid services; sets the rate of payment for services; and administers its own Medicaid program, including its own NEMT program.

Medicaid policies for eligibility, services, and payment are complex and vary from state to state.

Medicaid policies for eligibility, services, and payment are complex and vary considerably from state to state. Thus, a person who is eligible for Medicaid and NEMT in one state may not be eligible in another state, and the Medicaid-funded services provided by one state may differ considerably in amount, duration, or scope from services provided in another state. In addition, within overall federal guidelines, state legislatures may change Medicaid eligibility, services, and/or reimbursement at any time. Based on program flexibility, spending per Medicaid enrollee varies significantly across eligibility groups and states.

Minimum Federal Requirements for Medicaid

While Title XIX of the Social Security Act gives states considerable discretion over Medicaid program administration and design, the law establishes a series of federal requirements that participating states must satisfy. Each state must have a state Medicaid plan that meets the following:

- **Statewide availability**. The plan is available in all political subdivisions of the state (referred to as statewideness in Medicaid policy).
- **Comparability**. The plan is furnished in the same amount, duration, and scope to all individuals in a group.
- **Freedom of choice**. The plan is available to eligible recipients from qualified providers of their choice.

Two additional key federal requirements are that Medicaid services be provided with reasonable promptness and in a manner consistent with the best interests of the recipient of the service. These minimum federal requirements apply to any medical service, including NEMT, provided under a state Medicaid plan, unless a state applies for and receives CMS approval for a waiver.

Some Federal Requirements May Be Waived

Federal Medicaid law requires a state to have an approved state plan to operate its Medicaid program including NEMT. Section 1115 of the Social Security Act allows states to waive some of the federal requirements in the state plan. Medicaid waivers are a basic policy tool for many states' Medicaid programs.

Public transportation audiences are familiar with FTA regulations that allow grant recipients to submit a waiver requesting FTA to permit some local practices not addressed or otherwise prohibited under a regulation. The perspective for waivers in public transportation is the exception and not the rule. Transit agencies infrequently request a waiver, and FTA even less frequently grants a waiver.

An approved Medicaid waiver means that a state is not required to comply with one or more of the minimum requirements for statewideness, comparability, and freedom of choice. Many states use waivers for NEMT. The two primary types of waivers that apply to NEMT policy and practice are:

- **Section 1115 demonstration waivers**. States can apply for waivers to test and implement approaches that diverge from federal Medicaid rules. The purpose of these demonstrations is to use innovative service delivery systems that improve care, increase efficiency, and reduce costs.
- **Section 1915 (a) and (b) managed care waivers**. States can apply for waivers to provide services through managed care delivery systems or otherwise limit beneficiaries' freedom of choice of providers.

States must submit a written application to CMS for the approval of the requested waivers.

State spending for NEMT can be reimbursed as a medical service expense or as an administrative expense for purposes of federal matching.

Federal Medicaid Payments to States for NEMT Expenses

State spending for NEMT can be reimbursed as a medical service expense or as an administrative expense for purposes of federal matching. States choose the type of reimbursement, which affects the amount of federal reimbursement for NEMT costs.

NEMT as an optional medical service allows for reimbursement at the state's regular federal matching rate for medical services, which ranges from 50 percent to 74.6 percent in FY 2017 (see additional discussion of federal matching payments later in this chapter). As a medical service

expense, NEMT is subject to additional federal guidelines, including statewideness, comparability, and freedom of choice of providers.

Reimbursement for NEMT as an administrative expense caps the federal match at 50 percent, like other administrative expenses. NEMT as an administrative expense gives states greater flexibility in the delivery of NEMT services and eliminates the freedom of choice of provider requirement, allowing for contracts with a single provider and alternative types of payment, like vouchers for NEMT clients (*12*).

NEMT as a *medical service* is the perspective of many state Medicaid agencies. This is different from the perspective of many public transportation and human services transportation providers who think that NEMT is a *transportation service*.

Federal Matching Payments

If a state chooses to include NEMT as a medical service expense, the federal government matches state spending for eligible beneficiaries and qualifying medical services by a formula set in statute that is based on a state's per-capita income. The formula is known as the federal medical assistance percentage (FMAP). Under current law, Medicaid provides a guarantee to states for federal matching payments with no preset dollar limit.

Federal matching with no preset limit is a perspective unique to the Medicaid program and applies to the NEMT program when NEMT is a medical service expense. In public transportation and human services transportation, federal matching payments are limited by annual apportionments and transportation program budgets.

FMAP is designed so that the federal government pays a larger share of Medicaid costs for medical services in states with lower average personal incomes. FMAP varies by state from a floor of 50 percent to a high of 74.6 percent (FY 2017). In FY 2015, the federal government paid about 60 percent of Medicaid costs, with states paying 40 percent.

If a state chooses to include NEMT as an administrative expense, the federal match rate for Medicaid administrative expenses is 50 percent. Administrative expenses represent a relatively small portion of the total Medicaid spending (*13*).

Medicaid is the largest source of federal revenues for state budgets and is critical to state finances (*14*). Federal funds for Medicaid expenses were $334 billion in FY 2015. Of that total, federal NEMT expenditures are estimated to be approximately $3 billion annually, or less than 1 percent. State funds for Medicaid expenses were $198 billion in FY 2015. In most states, Medicaid expenses are the second largest expenditure category in the annual state budget, behind expenditures for primary and secondary education. To address long-term strategies for cost control, more states are implementing payment and medical service delivery system reforms, including a move to managed care.

In most states, Medicaid expenses are the second largest expenditure category in the annual state budget, behind expenditures for primary and secondary education.

The $3 billion federal NEMT expense compares to $10.9 billion federal funds appropriated to FTA for all grant programs, capital and operating, for public transportation in FY 2015. While most federal funds for public transportation go toward capital expenses, FTA reimbursed public transit agencies about $3 billion for operating expenses in FY 2015. This includes eligible operating expenses (preventive maintenance and paratransit) that are reimbursable at the capital rate of reimbursement.

Fee for Service and Managed Care

States have the discretion as to how they want to purchase covered Medicaid services and the amounts to pay to providers. These purchase-of-services choices also apply to NEMT:

- **Fee for service**. Under the fee-for-service method, providers (doctors, hospitals, and other service providers such as NEMT) are paid for each service performed. For example, a primary doctor may be paid per office visit and an NEMT provider is paid per passenger trip.
- **Managed care**. Managed care describes a variety of techniques intended to reduce the cost of providing health benefits and improve the quality of care. A managed care organization (MCO) supervises the medical care delivered to members. For example, an MCO manages who provides the health care, where services are provided, and the different kinds of doctors in that particular system (*15*). Managed care can include services such as NEMT. An MCO typically uses a capitated pay system (see the discussion later in this chapter).

Purchase of service in public transportation is typically fee for service, based on service consumed (per passenger trip) or based on units of service supplied (per mile or per hour of service).

Capitation Payment in Managed Care

Capitation payment is a part of managed care. The word *capitation* is derived from the term *per capita*, which means per person.

Capitation payment for NEMT services is not a practice or term used in public transportation or other human services transportation. Understanding the benefits and disadvantages of capitation payment can help to understand the use of the payment method for NEMT brokerages and MCOs.

Formally defined, capitation is a flat periodic payment per enrollee to a health care provider; it is the sole reimbursement for providing services to a defined population. Generally, capitation payments are expressed as some dollar amount per member per month (PMPM), where member means the enrollee in some managed care plan. For example, a primary care physician group may receive a capitated payment of $25 PMPM for attending to the health care needs of 250 members of an MCO. Under this contract, the physician group receives $25 PMPM × 250 members × 12 months = $75,000 in total capitation payments over the year, and this amount must cover all of the primary care services offered to the 250-patient population specified in the contract (*16*).

The following are some potential benefits from the health care provider perspective associated with capitation:

- Providers receive a fixed payment regardless of the services actually rendered.
- Providers receive capitation payments before services are provided, not based on reimbursement, as under fee for service.
- Capitation revenues are predictable and timely.
- Capitation increases an emphasis on cost control.

The potential disadvantages associated with capitation are:

- Service providers are motivated to provide only needed services.
- Capitation increases emphasis on earnings and the lowest cost for expenses will increase earnings.

Capitation payment to NEMT brokers is discussed in the next chapter.

What Is the Impact of the Affordable Care Act of 2010?

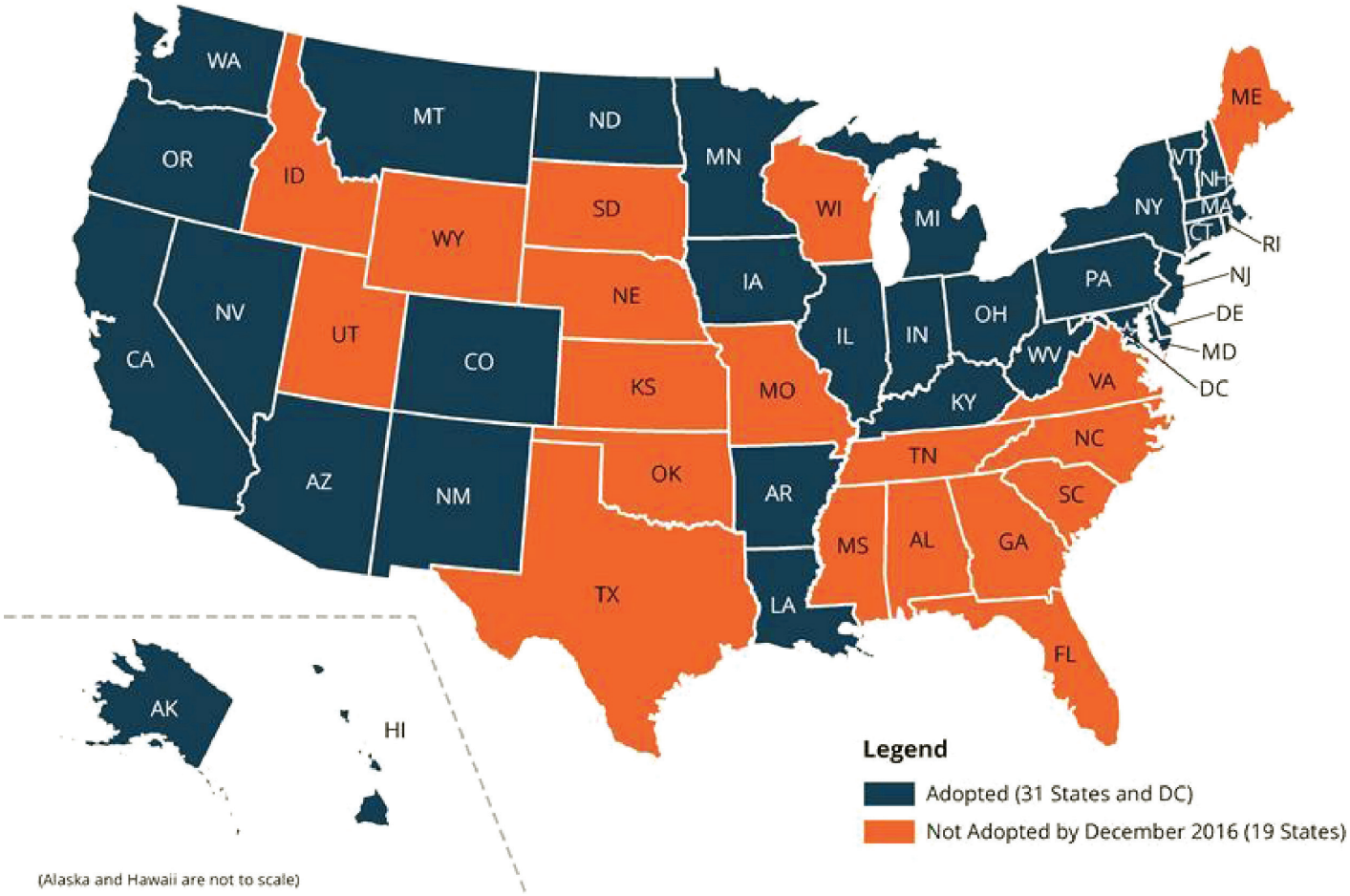
Effective January 1, 2014, the ACA provides states the authority to expand Medicaid eligibility. The ACA also standardizes the rules for determining eligibility and providing benefits through Medicaid.

States Have the Option to Expand Eligibility

The ACA created the opportunity for states to expand Medicaid to cover nearly all low-income Americans under age 65. Eligibility for children was extended to at least 133 percent of the federal poverty level (FPL) in every state, and states were given the option to extend eligibility to adults with income at or below 133 percent of the FPL. In addition, the ACA gave states the option of providing coverage to individuals that have an income between 133 percent and 200 percent of the FPL. For states that implement the expansion, the federal government financed 100 percent of the costs of the newly Medicaid-eligible beneficiaries from 2014 to 2016. After 2016, the federal contribution is phasing down to 90 percent by 2020 and beyond date. States continue to pay the traditional Medicaid FMAP match rate for increased participation among those currently eligible (*11, 17*).

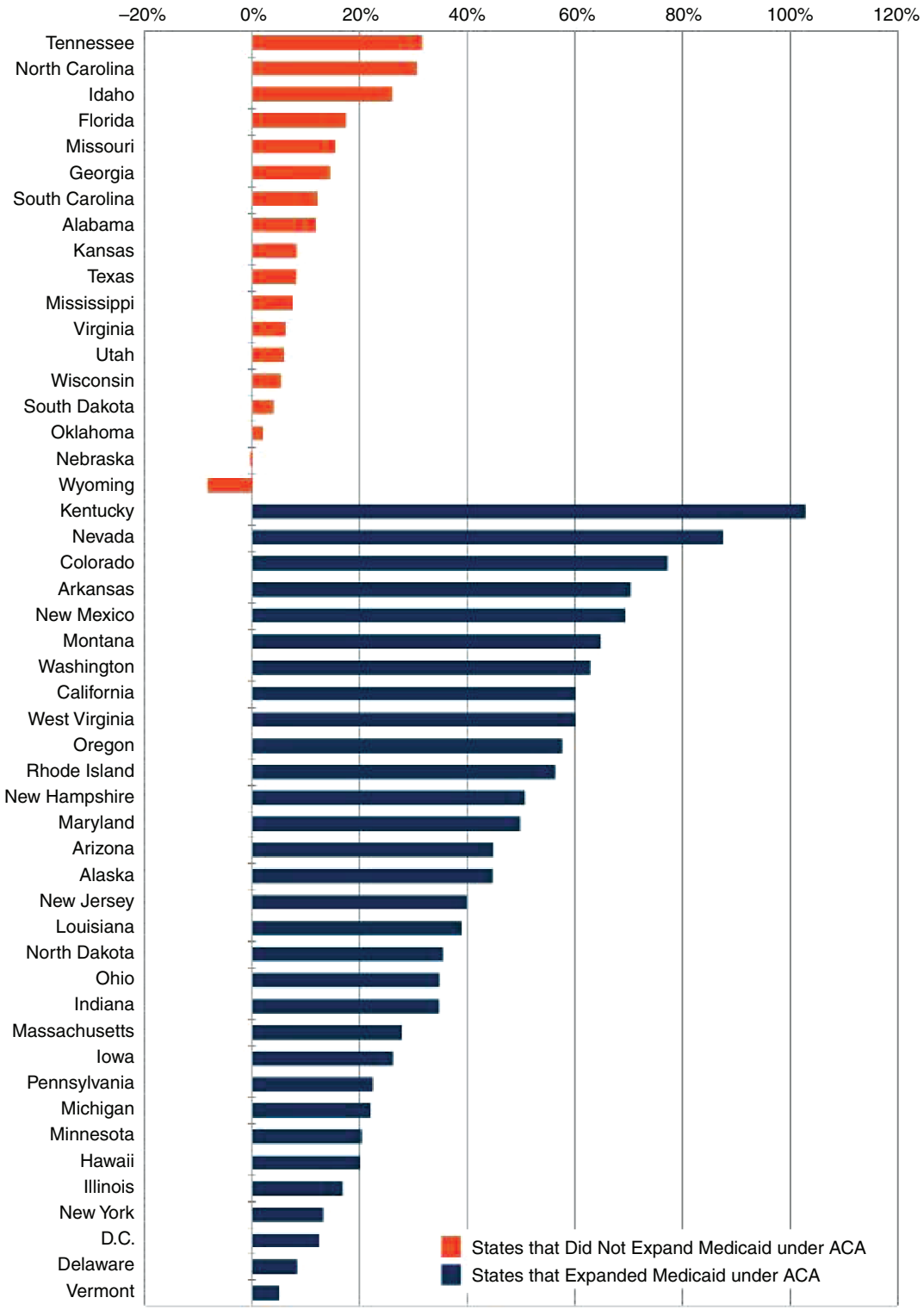
As illustrated in Figure 4, 31 states and the District of Columbia had elected to expand Medicaid as of December 2016. In November 2017, voters in Maine approved a ballot measure to expand the Medicaid program under the ACA. Maine is the 32nd state to expand Medicaid.

Figure 5 illustrates the cumulative Medicaid/CHIP enrollment change pre-ACA summer 2013 to post-ACA December 2016 by state.



Source: Center for Medicaid and CHIP Services, December 2016 Data.

Figure 4. Status of state Medicaid expansion decisions as of December 2016.



Source: Center for Medicaid and CHIP Services, Data as of December 2016.
Note: Data represent 48 states and the District of Columbia. Connecticut and Maine did not provide pre-ACA baseline data to CMS.

Figure 5. Medicaid/CHIP enrollment change Pre-ACA 2013 to Post-ACA 2016 by state.

Impacts of ACA Expanded Eligibility

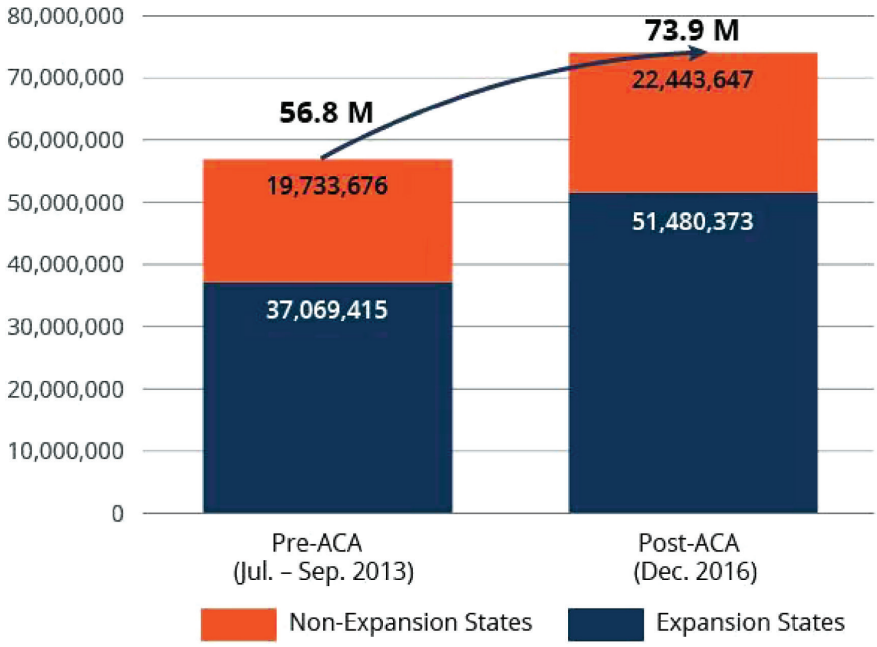
The comparisons illustrated in Figure 6 show the important impacts of ACA expansion:

- **Prior to ACA**, implemented in 2014, about 57 million Americans were enrolled in the Medicaid programs in the 48 states that reported relevant data and the District of Columbia—18 percent of the population. Connecticut and Maine are not included because they did not report pre-ACA data to CMS (*10*).
- **After ACA expansion**, as of December 2016, about 74 million Americans were enrolled in the Medicaid programs—approximately 23 percent of the U.S. population (*10*).

Nearly 17.2 million additional individuals were enrolled in Medicaid and CHIP in December 2016 compared to the data available for the period prior to the start of the first ACA open enrollment period (July to September 2013). Medicaid enrollment change differs from state to state:

- **In states that implemented Medicaid expansion by December 2016** (31 states and the District of Columbia), growth in Medicaid enrollment from 2013 pre-ACA to December 2016 post-ACA was an average of 38.9 percent.
- **In states that did not expand Medicaid** (19 states), growth in Medicaid enrollment for the same period was an average of 13.7 percent.

Although the federal government pays a share of Medicaid's costs, which ranged from 50 percent to 74.6 percent in FY 2017, the state's share ranges from 25.4 percent to 50 percent and has an impact on the state budget. Facing substantial Medicaid enrollment increases, almost all states are implementing or planning Medicaid cost-containment strategies.



Source: Center for Medicaid and CHIP Services, December 2016 Data.
Note: Data represent 48 states and the District of Columbia. Connecticut and Maine did not provide pre-ACA baseline data to CMS.

Figure 6. Medicaid/CHIP enrollment Pre-ACA and Post-ACA in 48 states and the District of Columbia.

Summary

Understanding NEMT starts with learning about Medicaid. Medicaid is a shared federal-state program. Within federal guidelines, each state administers its own Medicaid program, including choices about how to deliver NEMT services. Medicaid policies for eligibility, services, and payment are complex and vary considerably from state to state.

Medicaid expenses represented 9 percent of all federal outlays in FY 2015. In most states, Medicaid is the second largest expenditure in the state budget. Although NEMT is a small fraction of the total cost of Medicaid, states have adopted policies and practices to contain NEMT expenses.

The next chapter describes the different models available to state Medicaid agencies for providing NEMT and discusses how the Deficit Reduction Act (DRA) of 2005 has influenced the manner in which states have decided to deliver NEMT services.

CHAPTER 3

Non-Emergency Medical Transportation for Medicaid

This chapter describes how the Deficit Reduction Act of 2005 (DRA) has influenced how states have decided to deliver NEMT services. The chapter describes the different models available to state Medicaid agencies for providing NEMT and discusses the recent trend to create statewide or regional brokerages for NEMT or to move to MCOs with responsibility for NEMT.

Why Is Transportation Important to Medicaid?

The Medicaid program provides critical health insurance for millions of people who might not otherwise be able to afford it. The assurance of transportation to necessary medical care is an important feature that sets Medicaid apart from traditional health insurance.

The assurance of transportation to necessary medical care is an important feature that sets Medicaid apart from traditional health insurance.

The beneficiaries of Medicaid include the nation's most vulnerable populations: infants and children in low-income families, individuals and families with low incomes or limited resources, individuals of all ages with disabilities, and very-low-income seniors (*18*). Often, these groups lack the resources to afford a reliable means of getting to medical appointments, have limited options and long travel times, and may have frequent appointments for certain medical conditions (e.g., dialysis). In addition to access to health care services, Medicaid beneficiaries also experience mobility challenges in other important areas of life, such as accessing jobs and shopping for basic necessities. These mobility challenges can also affect health outcomes.

In a 2015 report, the U.S. Government Accountability Office (GAO) provided data that showed a small percentage of Medicaid-only beneficiaries (those who were not also eligible for Medicare) consistently accounted for a large percentage of the total Medicaid expenditures. According to the GAO report, in each fiscal year from 2009 through 2011, the most expensive 5 percent of Medicaid-only beneficiaries accounted for almost 50 percent of the expenditures for all Medicaid-only beneficiaries (*19*). Many of the Medicaid-only beneficiaries that fall in the 5 percent group need assistance with transportation to medical services due to the complexity and severity of their needs.

State Medicaid programs are required to assure NEMT for Medicaid beneficiaries who need to get to and from medical services and have no other means of transportation. Without NEMT, the individuals who most need medical care might not be able to access critical services.

While NEMT is estimated to be less than 1 percent of a state's total Medicaid expenses, NEMT is important for eligible beneficiaries to access the medical services that can contribute to improved quality of care and lower health care costs. By providing consistent access to medical appointments, states can save money by helping Medicaid beneficiaries to avoid emergency room visits and hospital stays. A study in 2008 examining Florida's NEMT costs found that if 1 percent of the total trips to medical services resulted in avoiding a hospital stay, the state could save $11 for each dollar spent on NEMT (*20*).

. . . the lack of transportation for Medicaid beneficiaries can impede their ability to access medical services, particularly for individuals living in rural or medically underserved areas, as well as those with chronic health conditions.

Lack of Transportation Can Affect Health Outcomes

Interviews with research and advocacy groups confirm that the lack of transportation for Medicaid beneficiaries can impede their ability to access medical services, particularly for individuals living in rural or medically underserved areas, as well as those with chronic health conditions (*21*). The literature shows two distinct health effects of poor transportation: less use of preventive and primary care and more use of emergency rooms (*22*).

Lack of transportation can restrict access to medical care, affecting health outcomes for individuals and higher costs for medical services. Research finds that missed medical appointments due to transportation issues can lead to costly subsequent medical care, such as hospitalization and the use of an ambulance for emergency transportation (*23*).

Assurance of Transportation

The original 1965 Title XIX legislation establishing Medicaid does not mention a requirement to provide transportation. Assurance of transportation appeared in 1966 in federal interpretive guidance, *Handbook of Public Assistance* (Supplement D) (*18*). The interpretive guidance provides criteria to ensure a high quality of care and services, including the "provision for necessary transportation for a Medicaid-eligible recipient to and from the suppliers of medical and remedial care and service" (*18*).

There is a long-standing regulatory basis for the transportation assurance. The requirement to provide transportation was included in CMS rulemaking in 1968 (*24*). In 1978, these regulations were codified in the Code of Federal Regulations as 42 CFR Section 431.53 (*25*). The regulation reads as follows:

> § **431.53 Assurance of Transportation**
>
> A state plan must—
> (a) Specify that the Medicaid agency will ensure necessary transportation for beneficiaries to and from providers; and
> (b) Describe the methods that the agency will use to meet this requirement (*25*).

Despite the regulatory obligation to assure transportation on behalf of eligible individuals, state Medicaid plans were subject to numerous legal challenges. Different state Medicaid policies and practices resulted in lawsuits regarding a state's failure to assure transportation to medical care. In most cases, the courts ruled that transportation assurance is an enforceable right and that the state must assure transportation for eligible Medicaid beneficiaries. All states now comply with this regulatory obligation. This requirement to assure transportation is referred to as *non-emergency medical transportation* because it is for situations that do not involve an immediate threat to the life or health of an individual.

Requirements for NEMT to Be Medicaid Covered

NEMT is transportation to and from appointments for medical services for Medicaid-eligible beneficiaries who have a medical need for approved services. Each state has broad discretion to determine who is eligible for NEMT. In most states, *qualified* means eligible to receive medical services through the Medicaid program and eligible for NEMT.

In general, NEMT will be covered by Medicaid if the following conditions for medical necessity are met (*1*):

- The beneficiary is eligible for a medical assistance program (Medicaid).
- The medical service for which the trip is needed is a Medicaid-covered service.
- The beneficiary has no other means of getting to and from the covered medical service.

- The NEMT trip is authorized in advance by the appropriate agency or broker.
- The NEMT trip is to the nearest qualified medical provider as authorized by Medicaid.
- The NEMT trip is the lowest cost available transportation mode that is both accessible for the client and appropriate for the client's medical condition and personal capabilities.

Health Care Reasons for Using NEMT

Medicaid beneficiaries frequently use NEMT to access behavioral health services, preventive health services, and care for chronic conditions. While there are no comprehensive national data about beneficiary use of NEMT (because states are not required to separately report these data), information is available from one company that provides Medicaid NEMT services in 32 states. As shown in Figure 7, the information indicates that the most frequently cited reasons for using NEMT are to access:

- Behavioral health services (including mental health and substance abuse treatment),
- Dialysis,
- Preventive services (including doctor visits),
- Specialist visits,
- Physical therapy/rehabilitation, and
- Adult day health care services.

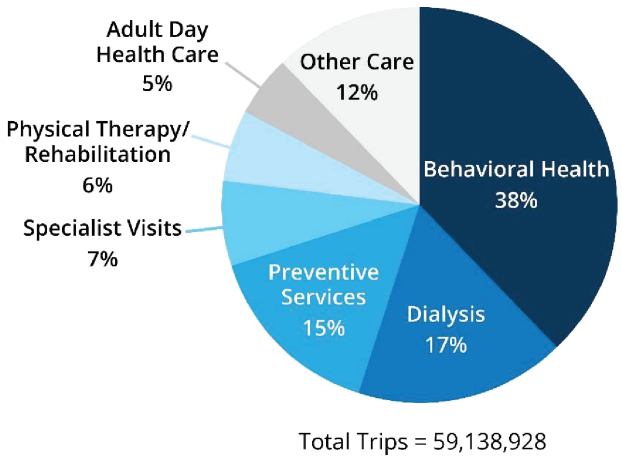
What Is the Deficit Reduction Act of 2005?

More than any other legislation, including ACA, DRA has influenced how states have decided to deliver NEMT services.

Approved by Congress and signed into law by President George W. Bush on February 8, 2006, DRA was intended to slow the growth in spending for the Medicare and Medicaid entitlement programs (*26*). As described by CMS, DRA provides states with the flexibility needed to make significant reforms to their Medicaid programs and to pursue innovative ideas in health care (*27*).

How DRA Impacts NEMT

Section 6083 of DRA amended the Social Security Act by adding a new section—Section 1902(a)(70)—which provides states the flexibility to establish an NEMT brokerage



Source: LogistiCare Solutions, Medicaid Gross Trips by Treatment Type, 2015.

Figure 7. Medicaid trips by treatment type.

. . . the fundamental function of an NEMT broker is to be the single point of contact for eligible Medicaid beneficiaries and to arrange the most appropriate and lowest-cost transportation to and from authorized medical services.

program regardless of the statutory requirements for statewideness, comparability, and freedom of choice (*26*). States have the following options:

- **Prior to DRA**, unless a state obtained a Section 1915(b) waiver authority or provided NEMT as an administrative expense, the state could not restrict beneficiary freedom of choice in providers and had to provide NEMT uniformly throughout the state. Some states described the process of obtaining a Section 1915(b) waiver every two years as burdensome, and providing NEMT as an administrative expense meant a maximum 50 percent federal match.
- **Post-DRA,** states have an additional option of establishing an NEMT brokerage through a Section 1902(a)(70) state plan amendment. DRA included as an incentive for this NEMT model the ability to receive the federal matching rate (which ranged from 50 percent to 74.6 percent in FY 2017) as a medical service expense (*26*).

NEMT brokerage programs vary from state to state; however, the fundamental function of an NEMT broker is to be the single point of contact for eligible Medicaid beneficiaries and to arrange the most appropriate and lowest-cost transportation to and from authorized medical services.

State Option to Establish an NEMT Brokerage

Under the new Section 1902(a)(70) of the Social Security Act, a state may establish an NEMT brokerage in order to more cost-effectively provide NEMT services for individuals who are eligible for medical assistance under the state Medicaid plan, who need access to medical services, and who have no other means of transportation. These transportation services include wheelchair vans, taxis, stretcher cars, bus passes, and tickets; transportation to address the needs of individuals with disabilities; and other forms of transportation otherwise covered under the state plan. For example, some states provide mileage reimbursement for an eligible individual or a family member who can drive to appointments, and some states approve airfare for long-distance travel.

For approval to implement an NEMT brokerage under a Section 1902(a)(70) state plan amendment, the state Medicaid agency must meet the following requirements (*26*):

- **Competitive bidding**. Select the broker or brokers though a competitive bidding process based on the state's evaluation of the broker's experience, performance, references, resources, qualifications, and costs.
- **Oversight**. Establish oversight procedures to monitor beneficiary access and complaints and ensure that transportation is timely and that the transportation providers are licensed, qualified, competent, and courteous.
- **Auditing**. Provide for regular auditing and oversight by the state in order to ensure the quality and timeliness of the transportation services provided and the adequacy of beneficiary access to medical care and services.
- **Prohibition of referrals**. Impose, through the contract with the broker, requirements related to prohibition of referrals and conflicts of interest that the Secretary of DHHS establishes (based on the Medicaid prohibition of physician referrals).

The prohibition of referrals and conflicts of interest were later described in the implementing regulations 42 CFR Section 440.170(a)(4)(ii).

Prohibition of Referrals and Conflicts of Interest

CMS issued regulations to implement Section 6063 of DRA as 42 CFR Section 440.170(a)(4), effective January 20, 2009. These regulations apply to those states that choose to file a Section 1902(a)(70)

state plan amendment to obtain authority to provide NEMT as a medical service through a broker (*28*).

A key provision of the regulation is the prohibition against self-referral. This means that the broker cannot assign a trip where the broker has some organizational, financial, or personal relationship with the provider. The basis to include this provision was a matter of law but implemented by discretion of the Secretary of DHHS by regulation. The law directed the Secretary of DHHS to apply the conflict of interest rules issued for physicians to prevent doctors from making referrals to other health care providers where the physician has some type of ownership interest (Section 1877 of the Social Security Act) (*26*).

. . . the broker cannot assign a trip where the broker has some organizational, financial, or personal relationship with the provider.

Under 42 CFR Section 440.170(a)(4)(ii), a broker is prohibited from providing NEMT services or making a referral or subcontract to a transportation provider if:

- The broker has a financial relationship with the transportation provider.
- The broker has an immediate family member that has a direct or indirect financial relationship with the transportation provider (*28*).

Exceptions for Non-governmental Brokers

The regulation provides exceptions to the provisions for self-referral. Three exceptions to the self-referral and conflict of interest provisions assume the broker is a non-governmental entity (*28*):

- **Rural area**. An exception to the self-referral prohibition may apply for transportation provided in a rural area when there are no other available Medicaid providers determined to be qualified except the non-governmental (e.g., private or nonprofit) broker. The definitions of rural and urban areas are consistent with other Medicaid regulation (42 CFR Section 412.62). A *rural area* is defined as any area outside an urban area, and an *urban area* is defined as a metropolitan statistical area or New England county metropolitan area.
- **Specialized transportation**. An exception to the self-referral prohibition may apply for transportation so specialized that there is no other available Medicaid-participating transportation provider determined to be qualified except the non-governmental broker.
- **Insufficient to meet the need**. An exception to the self-referral prohibition may apply if the state Medicaid agency determines that the availability of other qualified Medicaid-participating transportation providers is insufficient to meet the need for transportation.

Exception for Governmental Brokers

Another exception to the self-referral and conflict of interest provisions applies if the broker is a governmental entity. If the broker is a governmental entity and the individual transportation service is provided by the broker, or is referred to or subcontracted with another government-owned or -operated transportation provider generally available in the community, then additional financial conditions must be met:

- **Exclude shared costs**. The contract between the state Medicaid agency and the governmental broker provides for payment that does not exceed the actual costs calculated as though the broker were a distinct unit, and excludes from these payments any personnel or other costs shared with or allocated from parent or related entities. Medicaid will not pay costs that are shared with or allocated from other governmental entities (*28*).
- **Separate cost accounting system**. The governmental unit that acts as a broker maintains an accounting system such that all funds allocated to the Medicaid brokerage program and all costs charged to the brokerage program will be completely separate from any other program.

- **Lowest cost**. The governmental broker must document that its service (or the service contracted to another governmental entity) is the most appropriate and lowest-cost alternative with respect to an individual's specific transportation needs.
- **Limits on charges for public transportation**. The government broker must document that when setting charges to Medicaid, the entity charges no more than the following for public transportation:
  - **Fixed-route transit**—the standard fare charged to the public.
  - **Paratransit**—the rate charged to other state human services agencies for comparable services.

Other Themes from the DRA That Influence NEMT

Rule-setting discussion in the *Federal Register* for the regulation 42 CFR 440.170(a)(4) to implement Section 6083 of the DRA provided additional Medicaid guidance that influences NEMT policy and practice (*29*):

- **NEMT flexibility**. States continue to have the flexibility to provide NEMT as an optional medical service expense or as an administrative expense. States that wish to establish an NEMT brokerage without being required to comply with general Medicaid requirements such as freedom of choice, comparability, and statewideness may continue to do so through the Section 1915(b) waiver process every two years. The Section 1915(b) waiver does not prohibit the broker from self-referral, nor does it require that the broker be selected through competitive bidding. Providing NEMT as an administrative expense (maximum 50 percent federal match) provides a state with the greatest flexibility in designing the NEMT program.
- **Medicaid funding limited to Medicaid services**. Medicaid funds may only be used for Medicaid-approved services provided to eligible Medicaid beneficiaries. The Medicaid program's responsibility is limited to ensuring cost-effective transportation for beneficiaries to and from Medicaid providers.
- **Protect against fraud and abuse**. DRA included provisions that are intended to protect the integrity of the Medicaid program and prevent fraud and abuse. Federal regulations require each state Medicaid agency to establish an integrity program that includes methods for identifying and investigating suspected fraud and abuse cases, including NEMT. Medicaid rules define fraud as "an intentional deception or misrepresentation made by a person with the knowledge that the deception could result in some unauthorized benefit to himself or some other person" (*30*). The Medicaid rules define abuse as practices "inconsistent with sound fiscal, business, or medical practices, and result in an unnecessary cost to the Medicaid program, or in reimbursement for services that are not medically necessary" (*30*). Examples of NEMT provider abuse are billing Medicaid for services when taking a beneficiary to pick up groceries or run other errands or billing for a trip when the beneficiary did not show up for the service.
- **Coordination should not conflict with the Medicaid program**. For initiatives such as coordination of human services transportation and public transportation, coordination is appropriate as long as it does not conflict with the policies and rules of the Medicaid program.

Medicaid funds may only be used for Medicaid-approved services provided to eligible Medicaid beneficiaries.

Table 1 provides a summary of the impacts of DRA on NEMT.

What Is CMS Guidance on the Use of Bus Passes?

In 1996, several years before DRA, CMS provided guidance on the purchase of bus (transit) passes for NEMT and the use of transit passes for non-Medicaid purposes. The guidance was in the form of a letter to state Medicaid directors for states that claimed NEMT as an administrative expense (not as a medical service expense) (*31*).

Table 1. DRA impacts on NEMT.

DRA Provision	DRA Impacts NEMT in the Following Ways:
NEMT brokerage	A state Medicaid agency can establish an NEMT brokerage through a Section 1902(a)(70) state plan amendment regardless of the requirements for statewideness, comparability, and freedom of choice. State Medicaid agencies must select the broker through competitive bidding.
Incentive	Brokerages established under Section 1902(a)(70) may be claimed by the state as an optional medical service at the FMAP rate (50 percent to 74.6 percent in FY 2017).*
Oversight	The state Medicaid agency must provide oversight for brokers and must provide for regular audits. An NEMT broker must have oversight procedures to monitor beneficiary access and complaints, to ensure that transportation is timely, and to confirm that transportation providers are licensed, qualified, competent, and courteous.
Prohibition against self-referral	**Non-government brokers** (for profit or not for profit) have three exceptions to the prohibition against self-referral: • Transportation provided in a rural area where no other provider is available, • Specialized transportation that is not available from another provider, and • Transportation providers are insufficient to meet the need. **Governmental brokers** must meet certain requirements in order to be the provider of NEMT transportation: • Maintain a separate cost accounting system for NEMT, • Exclude shared costs or costs allocated from another governmental entity, • Document the government transportation service that is the most appropriate and lowest cost to meet the Medicaid beneficiary's transportation need, and • Limit charges for public transportation to the standard fare for fixed route or no more than the rate charged to other human services agencies for paratransit.
Medicaid funding limited to Medicaid-approved services	NEMT is for eligible Medicaid beneficiaries who need to get to authorized medical services and have no other means of transportation. Medicaid funds may only be used for Medicaid services provided to eligible Medicaid beneficiaries. Using Medicaid funds for any NEMT service that is not for an eligible Medicaid beneficiary to an authorized medical service could be identified as fraud or abuse of the Medicaid program.
Medicaid is the payer of last resort	By law, the Medicaid program is the payer of last resort. If another insurer or program has the responsibility to pay for medical costs incurred by a Medicaid-eligible individual, that entity is generally required to pay the cost of the claim prior to Medicaid making any payment.
Transportation coordination	For initiatives such as coordination of human services transportation and public transportation, coordination is appropriate as long as it does not conflict with the policies and rules of the Medicaid program.

** States may continue to establish an NEMT brokerage through the Section 1915(b) waiver process every two years as an optional medical service.*

According to the guidance, a state can claim federal matching payments for transit passes as an administrative expense if the state can show the pass is cost effective compared to other modes of transportation. The cost of a monthly pass should not exceed the cost of the individually approved NEMT trips in the month. If the transit pass is used by the Medicaid beneficiary for other trip purposes, the state Medicaid agency should determine whether there are other funding sources to allocate a portion of the cost of the pass and prepare a cost allocation plan. If the only or primary need of the Medicaid beneficiary is to obtain transportation to Medicaid-approved medical service providers, and there are no other, or minimal, uses of the pass, no cost allocation is necessary (*31*).

What Are the Models for Providing NEMT?

After examining the different models to provide NEMT in the 50 states and the District of Columbia, the research team identified the following principal NEMT models:

- In-house management,
- Brokers,
  - Statewide broker and
  - Regional broker
- MCOs, and
- Mixed NEMT models.

In-House Management

The Medicaid in-house management model for NEMT is when a state Medicaid agency administers transportation for beneficiaries at a state, regional, or county level:

- **In-house management**. The Medicaid agency responsibilities include operating the call center for Medicaid beneficiaries to request transportation, reviewing and providing transportation authorizations, and assigning trips to qualified private or public transportation providers.
- **Fee for service**. States using the in-house management NEMT model operate on a fee-for-service basis. Transportation providers submit reimbursement requests for services rendered. States that operate using only an in-house management model (not a mix of models) usually claim federal financial participation as an administrative expense (at the 50 percent matching rate) unless they have requested waivers or have amended the state Medicaid plan for approval to use the higher FMAP rate for medical services.

Brokers

A state Medicaid agency may contract with an NEMT broker to manage preauthorized NEMT services in a designated area. Brokers have several responsibilities:

- Confirm the Medicaid beneficiary's medical eligibility to receive the NEMT benefit;
- Verify the trip is to an approved Medicaid destination for a medically necessary service;
- Arrange transportation that is most appropriate for the beneficiary at the lowest cost;
- Contract with qualified transportation providers to provide the NEMT service;
- Confirm transportation providers have proper background checks, licensing, training, and safe driving records for drivers;
- Confirm transportation providers have proper licensing and safety inspections for vehicles;
- Pay transportation providers for the services provided as agreed upon in the contract but typically on a fee-for-service basis or a fixed rate per mode of transport and/or distance traveled;
- Schedule eligible Medicaid beneficiaries' transportation through one of the qualified transportation providers; and
- Document that all Medicaid requirements are met.

NEMT brokers may operate statewide or within a region, and they may be full-risk brokers or shared-risk brokers.

Brokers execute contracts with private, human services transportation or public transportation providers to make authorized trips for eligible Medicaid beneficiaries under the supervision of the broker. Brokers pay transportation providers for the authorized trips by eligible Medicaid beneficiaries. The transportation providers are required to document the authorized Medicaid passenger trips delivered for the broker.

According to the requirements of the state Medicaid agency, NEMT brokers may operate statewide or within a region, and they may be full-risk brokers or a shared-risk brokers.

Statewide Broker

Under a statewide broker NEMT model, the broker manages service statewide, centralizing call centers, eligibility determination, and trip authorization. Statewide brokers are typically for-profit, national brokers.

Regional Broker

Though it operates much like a statewide broker NEMT model, the regional broker NEMT model uses multiple call centers in a state, each responsible for eligibility determination and trip authorization at a regional level. A broker may operate in one region or several regions, as the state Medicaid agency may specify. States use a variety of means to determine regional boundaries, including metropolitan statistical area boundaries, health care service areas, public transit service areas, regional planning areas, and county boundaries.

Regional brokers may be for-profit, not-for-profit, or human services program brokers. Not-for-profit brokers may be human services agencies, public transit agencies, or other nonprofit organizations serving as a regional broker.

Full-Risk Broker

A full-risk broker accepts the financial risk for performing all broker responsibilities under the contract with the state Medicaid agency under a capitation payment plan. As previously discussed, capitation is a flat periodic payment per Medicaid enrollee (member) to the broker; it is the sole reimbursement for providing NEMT services to a defined population.

Table 2 is an example of capitation payment for a broker. The total capitated pay includes 116,900 members who are both children and adults in rural and urban areas. The capitated rate PMPM is different by age category and if the member is in a rural or urban area. The PMPM capitated payment rate can vary significantly according to the Medicaid category of the NEMT client. If the broker accepts the full risk to provide NEMT services, the capitation payment is $6,294,900 for a population of 116,900 members.

Many statewide and regional brokers are full-risk brokers, compensated on a capitated, per-Medicaid-beneficiary basis where the number of people eligible for service, not the amount of service received, determines the payment rate. A full-risk broker takes the risk that the contractual rate agreement will cover all costs, and is responsible for reporting beneficiary and trip data. A full-risk broker contract may have an escalation clause tied to some measures of inflation, but otherwise costs increase only with the number of Medicaid beneficiaries.

Full-risk brokers provide the advantage of consistent and predictable costs to the state Medicaid agency from year to year.

From the perspective of the state Medicaid agency, full-risk brokers limit state Medicaid agency financial liability and administrative costs. Full-risk brokers provide the advantage of consistent and predictable costs to the state Medicaid agency from year to year.

Shared-Risk Broker

Shared-risk brokers do not assume all the risks of operating NEMT at a fixed rate. Payments are more directly tied to actual costs, so if the costs are either less or greater than anticipated,

Table 2. Calculation of capitation payment.

	Children		Adults		Capitation Payment
	Rural	Urban	Rural	Urban	Total
Members	34,300	55,000	10,100	17,500	116,900
Months	12	12	12	12	
Member months	411,600	660,000	121,200	210,000	
Capitated rate PMPM	$2.50	$1.60	$16.75	$10.38	
Total payment	$1,029,000	$1,056,000	$2,030,100	$2,179,800	$6,294,900

payment adjustments occur. Shared risk is less predictable and may lead to unanticipated, increased costs to the state Medicaid agency; however, the transportation provider has an opportunity to document and request a payment adjustment based on actual cost.

Managed Care Organizations

Managed care is an organized health care delivery system designed to manage health care cost, use, and quality. Through contracted arrangements with state Medicaid agencies, MCOs seek to improve health care for a population of Medicaid beneficiaries, often with chronic and complex conditions, while also managing the cost of that care. MCOs use:

- **Capitated payment**. Medicaid agencies typically pay MCOs on a capitated payment system (PMPM). This means the MCO receives a lump sum payment per month based on the number of beneficiaries, and all health costs must be covered by that payment. Capitated payment encourages cost control.
- **Carving in NEMT services**. NEMT may be a part of the responsibility of the MCO providing Medicaid services (i.e., carved in). If the MCO does carve in NEMT services, the MCO may provide NEMT in a variety of ways using a combination of the following options:
  - Operate at a statewide, regional, or local (county) level;
  - Use for-profit, not-for-profit, or human services program brokers;
  - Use private, human services, or public transportation providers; and
  - Pay for NEMT based on capitation or fee for service, or a combination of both.
- **Carving out NEMT services**. If the MCO does not include NEMT (i.e., carved out), the state Medicaid agency uses one of the other NEMT models to provide transportation for Medicaid beneficiaries who need to get to and from medical services and have no other means of transportation.

Mixed NEMT Models

State Medicaid agencies often do not use just one model for NEMT services. Examples of mixed models include:

- In-house management and MCO,
- In-house management and statewide broker,
- In-house management and regional broker, and
- MCO and statewide broker.

What Are the Current Trends in NEMT?

As previously noted, many states have created a statewide or regional brokerage for NEMT in the years following DRA. There has also been a significant trend toward MCO models with carved-in NEMT. State Medicaid agencies that use broker and MCO models typically use a capitated payment system.

The trend to use statewide or regional NEMT brokers also reflects a trend that separates NEMT from locally or regionally coordinated transportation systems.

As part of the research for this handbook, the research team conducted a survey of state Medicaid agencies about NEMT in 2014. Participants who responded to the survey said the most important reason for using a transportation broker and/or including NEMT services in an MCO's capitated payment system is to:

- Achieve cost certainty or savings (37 percent),
- Improve access to primary care (30 percent),

Table 3. Summary of NEMT models by state.

NEMT Model	Number of States	States
In-house management	8	Alabama, Maryland, Minnesota, North Carolina, North Dakota, Ohio, South Dakota, Wyoming
MCO	10	Arizona, Florida, Hawaii, Illinois, Indiana, Iowa, Kansas, New Mexico, Oregon, Tennessee
Statewide broker	13	Alaska, Connecticut, Delaware, Idaho, Mississippi, Nebraska, Nevada, New Jersey, Rhode Island, Utah, Vermont, West Virginia, Wisconsin
Regional broker	7	Arkansas, Georgia, Kentucky, Maine, Massachusetts, South Carolina, Washington
In-house management and MCO	4	California, Montana, New Hampshire, New York
In-house management and regional broker	4	Colorado, Michigan, Pennsylvania, Texas
MCO and statewide broker	5	District of Columbia, Louisiana, Missouri, Oklahoma, Virginia

- Reduce fraud and abuse (19 percent),
- Other (10 percent), and
- Reduce emergency room use (4 percent).

Table 3 summarizes the models used by the 50 states and the District of Columbia, and Figure 8 provides a map illustrating the state NEMT models.

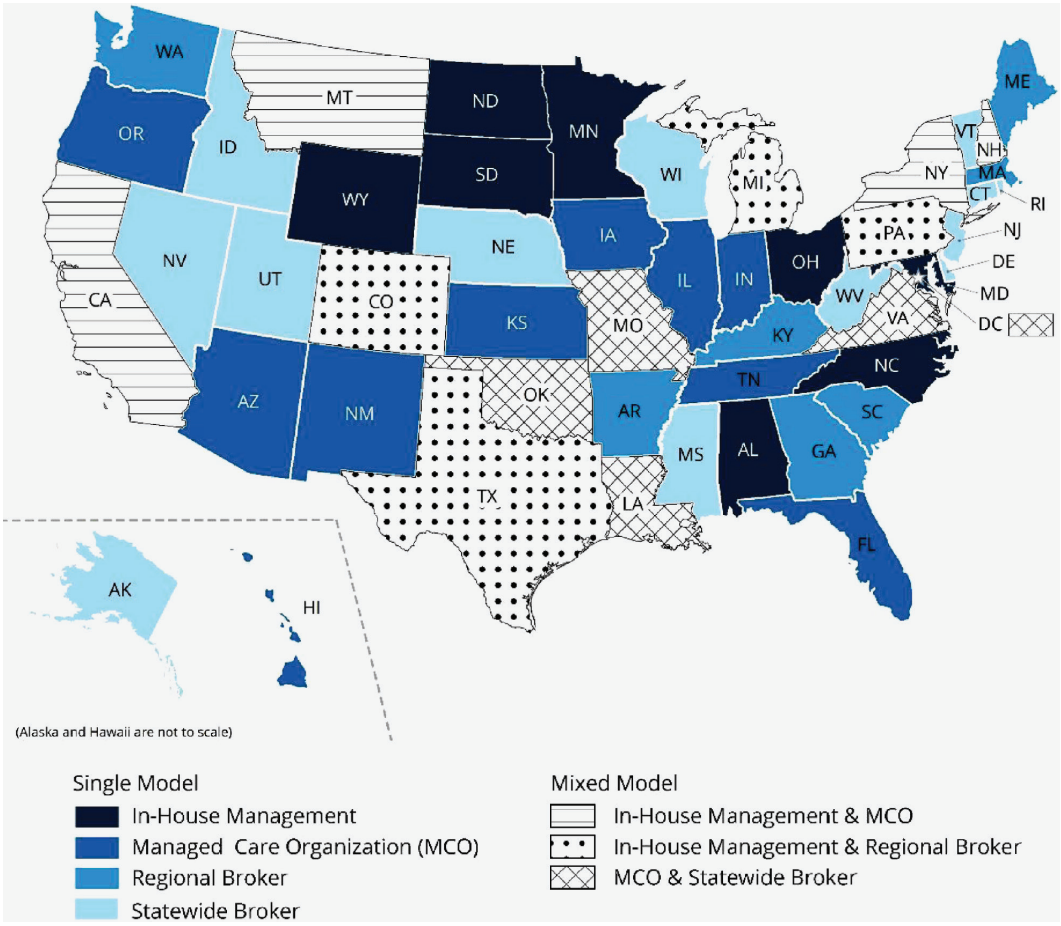


Figure 8. NEMT models by state.

Summary

More than any other legislation, including the ACA, the DRA has influenced how states have decided to deliver NEMT services. The DRA amended the Social Security Act by adding a new section that provides states the flexibility to establish an NEMT brokerage program. Many states have created a statewide or regional brokerage for NEMT in the years since the DRA. States have also moved to managed care for Medicaid health care and MCOs with carved-in NEMT.

The next chapter provides a background to help understand why human services and public transportation providers want to coordinate transportation services with Medicaid NEMT.

CHAPTER 4

Coordination of Public Transportation with Human Services Transportation

The purpose of this chapter is to provide information about human services transportation and public transportation. The information provides a context to better understand the opportunities and challenges for human services transportation providers and public transit agencies wishing to coordinate passenger trips with Medicaid NEMT. This chapter also summarizes the executive and legislative history for the federal transportation policy to encourage coordination of these transportation services.

What Is Human Services Transportation?

Human services transportation refers to a range of transportation services designed to meet the needs of individuals who have difficulties providing their own transportation due to age, disability, or income—sometimes referred to as transportation-disadvantaged populations. Many federal, state, and local public agencies, nonprofit organizations, and private entities provide or fund transportation services that are specifically for people who face mobility challenges, including veterans, older adults (also referred to as seniors), individuals with disabilities, and people with lower incomes who cannot afford private transportation. Often, these individuals live in rural and urban communities with limited or no public transportation, further restricting options for mobility.

Human services transportation refers to a range of transportation services designed to meet the needs of individuals who have difficulty providing their own transportation due to age, disability, or income.

Sources of Funds for Human Services Transportation

Spending for human services transportation is typically funded from federal programs, state and local funds, and private sources of revenue.

Federal Programs

Many federal programs authorize the use of funds for transportation so that individuals can access government programs. The total federal spending on transportation services for the transportation disadvantaged is unknown because transportation spending is not always tracked separately from other program spending.

In a 2003 report, GAO identified 62 federal programs that provided funds that could be used to pay for transportation services for transportation-disadvantaged populations (*32*). In 2012, GAO revisited this subject and identified 80 such programs in that year's report to Congress (*33*).

Most of these programs are administered by four federal agencies—DHHS, the Department of Labor, the Department of Education, and U.S. DOT. Other programs are administered by the Department of Housing and Urban Development (HUD), the Department of Veterans Affairs, the Department of Agriculture (USDA), and the Department of Interior (*32*).

The following are some examples of the federal programs that provide funding for transportation services for transportation-disadvantaged populations:

- DHHS's Medicaid NEMT;
- The Department of Energy's Head Start;
- The Department of Labor's Job Corps;
- HUD's Community Development Block Grants, Entitlement Areas;
- U.S. DOT and FTA's Enhanced Mobility for Seniors and Individuals with Disabilities; and
- The Department of Veterans Affairs' Veterans Health Care Benefits.

Medicaid NEMT is the largest source of federal revenues for human services transportation.

Medicaid NEMT is the largest source of federal revenues for human services transportation (*34*).

A more complete listing of programs can be found in "Appendix II: Inventory of Federal Programs Providing Transportation Services to the Transportation Disadvantaged" in GAO 12–647, *Transportation-Disadvantaged Populations, Federal Coordination Efforts Could Be Further Strengthened* (*33*).

Under most of the federal programs, funds can be used to purchase transportation services from existing public or private transportation providers; provide public transit passes, taxi vouchers, or mileage reimbursement to program participants; or use some combination of these methods. Some programs provide capital funds for the purchase of vehicles (*32, 33*).

State, Local, and Private Funds

Total state and local spending for human services transportation is likely significant, although the total is undetermined because most programs do not require grantees to report these data (*33*). Local private companies and nonprofit or charitable programs also fund human services transportation but do not report such data to a central database.

Matching requirements represent an obligation for nonfederal contributions to the program's costs that come from state, local, or private funds. About half of the federal programs for human services transportation have matching requirements that generally require states and local agencies to contribute between 5 and 50 percent of total costs (*32*).

Human Services Transportation Is Complex with Limited Coordination

With so many organizations involved, human services transportation has become a complex and often fragmented system (*32, 35*). Public and private agencies that administer or refer clients to human services transportation programs may have different goals, serve different populations, and receive funds from different sources, each of which have its own rules and restrictions. The large number and diversity of human services transportation programs can lead to underutilization of resources, inconsistent standards, greater administrative costs due to fragmented or duplicative services, and customer inconvenience. Services can overlap in some areas and be entirely absent in others (*35, 36*).

Purposes for Coordinated Human Services Transportation

To address these problems, governmental entities, human services organizations, and transportation providers have advocated improved coordination among human services transportation services. While the objectives for coordinated services may differ somewhat from community to community, the fundamental purposes are usually to (*36*):

- Avoid duplicative and overlapping services,
- Reduce service gaps,

- Increase services,
- Ensure cost-effectiveness and cost savings, and
- Provide safe and reliable transportation services.

Obstacles to Human Services Transportation Coordination

Obstacles impeding coordination include concern among program sponsors that their own participants might be negatively affected, program rules that limit use by others, real and perceived regulatory barriers, and limited guidance and information on coordination. Coordination of services is also challenging due to differences in federal program requirements and statutory barriers, according to federal agency officials (*33*).

For example, officials with CMS expressed a concern that coordinating NEMT with other human services or public transportation programs increases the risk of comingling federal program funds and the potential for fraud (*33*). In another example, officials at the Department of Veterans Affairs said that the department has the authority to provide transportation to certain qualifying veterans and nonveterans in relation to veterans affairs health care but has no legal authority to transport non-beneficiaries (*33*).

What Is Public Transportation?

Public transportation is a shared-ride passenger transportation service that is available to the public, usually for a fare per ride. Public transportation is operated by a governmental entity or by a private entity that receives financial assistance to provide the service from a governmental entity. In this handbook, public transportation refers to the transportation programs and services that are eligible for federal funding from FTA.

In this handbook, public transportation refers to the transportation programs and services that are eligible for federal funding from FTA.

The purpose of providing public transportation is to offer the general public better access to economic and community activities such as employment, education and training, medical appointments and health services, human services, shopping, entertainment and recreation, and personal business.

According to the American Public Transportation Association, 820 public transit agencies provide public transportation in urbanized areas and nearly 1,400 public transit agencies operate in rural areas. Another 4,600 nonprofit organizations and agencies operate specialized transportation for seniors, people with disabilities, and low-income individuals (*37*).

Types of Public Transportation

Public transportation can be characterized as fixed route, flexible route, or demand response. One type of demand-response public transportation is the Americans with Disabilities Act (ADA) complementary paratransit. The different types of services illustrate how public transportation serves individuals who need to make trips for medical appointments or health services:

- **Fixed-route** public transportation is provided along a designated route and operated at set times or headways (e.g., every 15 minutes). Most local bus routes, commuter bus, bus rapid transit, and all forms of rail operate on fixed routes with designated, scheduled stops. Fixed-route public transportation services are most common in more densely populated urban areas.
- **Flexible-route** buses operate along a fixed route, but the buses may deviate from the route to go to specific locations. This may include traveling to residences, employment locations, schools, and shopping areas.

- **Demand response** is a form of public transportation characterized by flexible routing and scheduling of small- to medium-sized vehicles operating in shared-ride services between pickup and drop-off locations according to passengers' requests. Scheduling may be immediate response, similar to taxi service, or it may be advance reservation, so that trip requests are required a day or more in advance. Generally, public demand response is appropriate transportation service in a low-density rural area with a geographic dispersion of transit trip generators (e.g., employment, schools, shopping, and medical facilities) or in neighborhoods where low demand does not warrant fixed-route transit service.

ADA and FTA regulations require public transit agencies that provide local fixed-route transit services to operate complementary paratransit services for people with disabilities . . .

The ADA guarantees equal opportunity for individuals with disabilities in public transportation (*38*). FTA is responsible for regulations to implement ADA provisions for public transportation. Public transit agencies are required to operate wheelchair-accessible vehicles for fixed-route and demand-response transit service. ADA and FTA regulations require public transit agencies that provide local fixed-route transit services to operate complementary paratransit services for people with disabilities who cannot use the local fixed-route bus or rail service because of a disability (*39*).

Capacity is an important concept in comparing the cost of different types of public transportation. Capacity for fixed-route public transportation is measured as the number of passengers that can be carried past a single point on a fixed route in a given period of time. The most common measure of capacity is in terms of passengers per hour. Because fixed-route transit operates on a schedule with vehicles passing on a regular frequency, bus and rail services generally have the capacity to increase passengers at a low or no marginal operations cost per additional passenger.

On the other hand, demand-response public transportation responds to individual passenger requests for service between a specific origin and destination. Each new rider requires a specific trip pattern and associated travel time, limiting passengers per hour even with shared rides (two or more passengers transported on the same vehicle trip). Each additional demand-response passenger increases operations costs.

Funding Public Transportation Through FTA

FTA provides financial assistance to local public transit agencies. The purpose of this section is to document the sources of federal funding for public transportation and to highlight federal requirements for coordination of public transportation and human services transportation.

Federal Authorization and Appropriation for Public Transportation

Authorization bills passed by Congress approve federal funding programs for all surface transportation investments, including public transportation. Each federal authorization bill sets the federal policy for transportation for the duration of the bill. The three most recent federal authorization bills are:

- **SAFETEA-LU**. The Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU) was signed into law in 2005 to fund federal surface transportation programs through FY 2009. Congress extended the authorization bill three additional years through 2012 (*40*).
- **MAP-21**. The federal authorization bill Moving Ahead for Progress in the 21st Century (MAP-21) authorized surface transportation programs for three years, FY 2013–2015 (*40*).
- **FAST Act**. The current federal authorization bill, the Fixing America's Surface Transportation Act (FAST Act), was passed by Congress and signed by the president in December 2015. The FAST Act reauthorizes surface transportation programs for five years through FY 2020 (*41*).

Based on the applicable authorization bill, Congress provides an annual appropriation that funds U.S. DOT programs. In FY 2015, Congress appropriated $80.5 billion to U.S. DOT for transportation for the United States and its territories. This represents about 2 percent of the total federal budget ($3.7 trillion) (*42*). The appropriation to U.S. DOT compares to $347 billion to DHHS for Medicaid in FY 2015 (*43*).

The U.S. DOT agency responsible for public transportation funding is FTA. The federal appropriation to FTA for public transportation (all grant programs, capital, and operating) was $10.9 billion in FY 2015 under MAP-21, or about 15 percent of the U.S. DOT appropriation and 0.3 percent of the total federal budget (*41, 44*). The appropriation was $11.7 billion in FY 2016 and increases to $12.6 billion in FY 2020 under the FAST Act (*44*).

After receiving the annual appropriation, FTA apportions formula program funds to states and urbanized areas and awards competitive discretionary grants (*44*). State DOTs, metropolitan planning organizations, and designated recipients in urbanized areas allocate the formula funds to public transportation providers.

Based on data reported to the FTA National Transit Database (NTD), public transit agencies provided more than 10.5 billion passenger trips in 2015 (*45*). Public transit agencies in urbanized areas carried more than 98 percent of all transit passenger trips, and those in rural areas carried about 1.5 percent. Specialized transportation for seniors and people with disabilities represents one-half of 1 percent of all passenger trips (*45*).

FTA Funding Programs

FTA administers various funding programs for public transportation under the FAST Act. While no FTA program specifically funds transportation for medical trips, three FTA programs can be used to fund a part of the cost of operating public transportation to provide better access to economic and community activities including transportation for medical appointments and health services. The three FTA programs are (*41*):

- **49 U.S.C. Section 5307—Urbanized Area Formula Grants** authorizes federal assistance for capital, planning, and, in some cases, operating assistance for public transportation in urbanized areas. An urbanized area is an area with a population of 50,000 or more that has been designated as such by the U.S. Census Bureau.
- **49 U.S.C. Section 5311—Formula Grants for Rural Areas** provides formula funds to states to provide capital, planning, and operating assistance to support public transportation in rural areas. A rural area is an area with a population of less than 50,000.
- **49 U.S.C. Section 5310—Formula Grants for the Enhanced Mobility of Seniors and Individuals with Disabilities** provides formula funds to states and large urban areas to meet the transportation needs of seniors and people with disabilities.

The FAST Act also encourages coordination of public transportation and human services transportation programs, and provides funding for the FTA pilot program for innovative coordinated access and mobility grants.

49 U.S.C. Section 5307 . . . provides grants to urbanized areas to support public transportation.

49 U.S.C. Section 5307—Urbanized Area Formula Grants. The largest FTA grant program, Section 5307, provides grants to urbanized areas to support public transportation (*46, 47*).

Eligible Recipients. Section 5307 funding is available to designated recipients that must be public bodies with the legal authority to receive and dispense federal funds. For urbanized areas with a population of 200,000 or more (large urban areas), FTA apportions Section 5307 formula funds to the designated recipient(s) in each urbanized area. For urbanized areas with a

population of 50,000 to 199,999 (small urban areas), FTA apportions Section 5307 funds to the governor or governor's designee as the designated recipient. The designated recipient(s) can then sub-allocate funds to public transit providers and local governmental authorities.

Eligible Expenses. Eligible uses of Section 5307 funds include planning, engineering, and capital investments. All preventive maintenance and some ADA paratransit service costs are considered capital costs.

For urbanized areas with population less than 200,000, operating assistance is an eligible expense. For urbanized areas with population more than 200,000, operating assistance is an eligible expense only if a FAST Act special rule applies. The special rule applies to public transit agencies in large urban areas that operate 100 or fewer buses in fixed-route or demand-response services during peak periods. Transit agencies operating 76 to 100 buses in peak service may use up to 50 percent of the Section 5307 apportionment for operating expenses, and transit agencies operating 75 or fewer buses may use up to 75 percent of the Section 5307 apportionment for operating expenses.

Federal Share. Under Section 5307, the federal share may not exceed 50 percent of the net operating cost (operating expenses less fare revenue). The federal share is 80 percent of eligible capital costs and preventive maintenance expenses. The federal share may be 90 percent for the cost of vehicle-related equipment attributable to compliance with the Clean Air Act and ADA. The federal share may also be 90 percent for projects or portions of projects related to bicycles (*47*).

Under MAP-21, Section 5307 recipients could use 10 percent of the annual formula apportionment for ADA paratransit service, funded at 80 percent federal share. The FAST Act increases the spending cap for ADA paratransit services to 20 percent of a recipient's annual formula apportionment if the grant recipient meets particular conditions. These conditions are to provide at least two of the following:

- Provide travel training;
- Train all operators in passenger safety, disability awareness, and safety training at least every two years; and
- Have a memorandum in place with employers and the American Job Center to increase access to employment for people with disabilities (*41*).

ADA paratransit services and the connection to Medicaid NEMT are discussed later in this chapter.

49 U.S.C. Section 5311—Formula Grants for Rural Areas. Section 5311 provides funding to states and Indian tribes to support public transportation in areas with a population of less than 50,000. In such areas, many residents often rely on public transportation to reach their destinations, including medical appointments (*48*).

49 U.S.C. Section 5311 provides funding to states and Indian tribes to support public transportation in areas with a population of less than 50,000.

Eligible Recipients. FTA apportions Section 5311 funds to each state's designated recipient (typically the state DOT) to allocate to providers of public transportation in rural areas. Eligible recipients include states and federally recognized Indian Tribes. Subrecipients may include state or local government authorities, Indian Tribes, private nonprofit organizations, and private operators of public transportation or the intercity bus service that receive funds indirectly through a designated recipient.

Eligible Expenses. Section 5311 provides capital, planning, and operating assistance to support public transportation in rural areas. Although Section 5311 does not specifically fund medical transportation, individuals in rural areas often require public transportation to access medical services.

Federal Share. The federal share is 80 percent for capital expenses, administration, and planning and 50 percent for operating assistance. Section 5311 grant recipients may use up to 10 percent of the annual formula apportionment for ADA paratransit service, funded at 80 percent federal share. The FAST Act increases the spending cap for the ADA paratransit service to 20 percent of a recipient's annual formula apportionment if the grant recipient meets particular conditions (see the discussion of federal share for ADA paratransit under Section 5307).

49 U.S.C. Section 5310—Formula Grants for the Enhanced Mobility of Seniors and Individuals with Disabilities. Section 5310 provides funding to states and large urban areas to meet the transportation needs of seniors and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate (*49*). Although Section 5310 does not specifically fund medical transportation, the transportation needs of seniors and people with disabilities often include trips for medical appointments or other health services such as dialysis or physical rehabilitation.

49 U.S.C. Section 5310 provides funding to states and large urban areas to meet the transportation needs of seniors and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate.

Coordinated Transportation Plan. FTA apportions Section 5310 formula funds to state DOTs for small urban and rural areas and to designated recipients in large urban areas. Designated recipients have flexibility in how projects are selected for funding, but FTA requires projects funded under the Section 5310 program to be included in a locally developed, coordinated human services transportation–public transportation plan.

Eligible Recipients. Eligible recipients for Section 5310 funds include designated recipients in large urban areas, states, and state or local governmental entities that operate a public transportation service and are direct recipients under Section 5307 or Section 5311. Subrecipients may be local government authorities, private nonprofits, or private operators of public transportation receiving the grant indirectly from direct recipients. Often, subrecipients of Section 5310 funds are human services transportation providers.

Eligible Expenses. Section 5310 provides capital and operating assistance to improve the mobility for seniors and individuals with disabilities by removing barriers to transportation services and expanding transportation mobility options in all areas.

Section 5310 provides funds for projects that:

- Serve the special needs of transit-dependent populations beyond traditional public transportation service, where public transportation is insufficient, inappropriate, or unavailable;
- Exceed the requirements of ADA; and
- Improve access to fixed-route service and decrease reliance on complementary paratransit.

At least 55 percent of Section 5310 funds must be used on capital or traditional projects such as the purchase of buses and vans; installation of wheelchair lifts, ramps, and securement devices; transit-related information technology systems; mobility management programs; and purchase of transportation services. The remaining 45 percent can be used for additional traditional or nontraditional projects, such as projects that go beyond the requirements of ADA.

Federal Transportation Policy for Coordination

The federal transportation policy for coordinating public transportation and human services transportation is established by executive order and by provisions of the federal transportation authorization bills since 2005. This section provides a brief history of the federal policy to encourage transportation coordination, and summarizes the functions and initiatives of a federal interdepartmental coordinating council.

Executive Order 13330. President George W. Bush issued Executive Order 13330 on the Coordination of Human Service Programs on February 24, 2004. The executive order established the national transportation policy for coordination and created a federal Interagency Transportation Coordinating Council on Access and Mobility (CCAM). The purpose of the council is to undertake collective and individual departmental actions to reduce duplication among federally funded human services and transportation services, increase the efficient delivery of such services, and expand transportation access for older individuals, persons with disabilities, persons with low income, children, and other disadvantaged populations within their own communities (*50, 51*).

. . . SAFETEA-LU was the first federal transportation authorization bill to stipulate that public transit agencies should coordinate public transportation with human services transportation.

Federal Authorization Bills Require Coordination. Signed into law in 2005, SAFETEA-LU was the first federal transportation authorization bill to stipulate that public transit agencies should coordinate public transportation with human services transportation. Starting in fiscal year 2007, FTA established a requirement for a locally developed, coordinated public transit–human services transportation plan as a condition of receiving funding for certain programs directed at meeting the needs of seniors, individuals with disabilities, and low-income persons (*51*).

Under SAFETEA-LU, FTA required projects funded through three programs to be derived from a locally developed, coordinated public transportation–human services transportation plan. The three programs were Section 5310 Elderly Individuals and Individuals with Disabilities, Section 5316 Job Access and Reverse Commute, and Section 5317 New Freedom.

The next federal transportation authorization bill, MAP-21, consolidated two grant programs (Section 5316 and Section 5317) with other formula funding programs and revised the requirements for a coordinated transportation plan. Under MAP-21, Section 5316 was consolidated into Section 5307 and Section 5311. Relevant Section 5316 projects continued to be funded under these two programs. Under MAP-21, Section 5317 was consolidated into Section 5310. Projects selected for funding under Section 5310 must be included in a coordinated transportation plan (*46*).

The revisions under MAP-21 carried through into the FAST Act, and FTA continues to require projects funded under the Section 5310 program to be included in a coordinated public transportation–human services transportation plan (*41, 46, 49*).

Coordinating Council on Access and Mobility. CCAM was established by Executive Order 13330 in 2004, and the FAST Act calls for CCAM to update a strategic plan on transportation coordination across federal agencies (*50, 51*). CCAM consists of representatives from the following federal departments: U.S. DOT (chair), DHHS, the Department of Labor, the Department of Education, USDA, the Department of Veterans Affairs, HUD, the Department of Interior, the Office of the Attorney General for the Department of Justice, the Social Security Administration, and the National Council on Disability.

According to Executive Order 13330, the functions of CCAM are as follows:

- Promote interagency cooperation and the establishment of appropriate mechanisms to minimize duplication and overlap of federal programs and services so that transportation-disadvantaged persons have access to more transportation services;
- Facilitate access to the most appropriate, cost-effective transportation services within existing resources;
- Encourage enhanced customer access to the variety of transportation available;
- Formulate and implement administrative, policy, and procedural mechanisms that enhance transportation services at all levels; and
- Develop and implement a method for monitoring progress on achieving the goals of this order.

The FAST Act directs CCAM to develop a strategic plan that will (*41, 46*):

- Outline the role and responsibilities of each federal agency with respect to local transportation coordination, including NEMT;
- Identify a strategy to strengthen interagency collaboration;
- Address outstanding recommendations previously made by the council to develop a cost-sharing policy and to increase participation by recipients of federal grants in locally developed, coordinated planning processes;
- Address GAO recommendations for local coordination of transportation services (*32, 33*); and
- Examine and propose changes to federal laws and regulations that will eliminate federal barriers to local transportation coordination, including NEMT.

Coordinated Access and Mobility Pilot Program The FAST Act created a new discretionary pilot program for innovative coordinated access and mobility. The objectives of the pilot program are to assist in financing innovative projects for the transportation-disadvantaged population (older adults, individuals with disabilities, and individuals with low income) and to improve the coordination of public transportation, human services transportation, and NEMT. Authorization for the pilot program was $2 million in FY 2016 and increases to $3.5 million in FY 2020 under the FAST Act (*44*).

FTA launched the initial pilot program by announcing the Ride to Wellness demonstration projects in November 2016. The goals of the demonstration grants are to:

- Develop replicable, innovative, sustainable solutions to health care access challenges;
- Foster partnerships between health, transportation, home, and community-based services to collaboratively develop and support solutions that increase health care access; and
- Demonstrate the impacts of transportation solutions on improved access to health care and health outcomes and reduced costs to the health care and transportation sectors.

Ride to Wellness demonstration projects are expected to build community partnerships that break down industry silos, leverage existing resources, and enhance mobility for targeted groups.

Ride to Wellness demonstration projects are expected to build community partnerships that break down industry silos . . . and enhance mobility for targeted groups.

Why Coordinate NEMT with Public Transportation?

As discussed previously, Medicaid NEMT is the largest source of federal revenues for human services transportation. Public transit agencies often attempt to coordinate NEMT with public transportation. The purpose of this section is to explain why coordination offers opportunities for NEMT and public transit agencies, and to describe some of the challenges.

Opportunities for Coordinating NEMT with Public Transportation

The opportunities for coordinating NEMT with public transportation are summarized in Table 4.

Public Transportation Expertise and Resources

Public transportation providers that are recipients of federal funds are required to comply with FTA regulations, and subrecipients may be required to comply with additional state regulations. Coordinating with public transportation can help NEMT providers to benefit from compliance with FTA and state regulations in the following ways (*46*):

- Provide employee training for vehicle operators to ensure proficiency in safe vehicle operations, equipment safety, and customer service;
- Require testing for employees for alcohol and controlled substances;

Table 4. Opportunities for coordinating NEMT with public transportation.

Opportunity	Description
Benefit from the cost efficiencies of fixed-route public transportation	Where appropriate, individuals can travel to medical appointments on fixed-route public transportation for the fare. Public transit agencies benefit from NEMT riders on fixed-route services to increase productivity and cost-effectiveness. Brokers and MCOs benefit from the lowest cost for NEMT trips. If the state Medicaid agency directly contracts for NEMT, the state benefits from the lower cost.
Avoid service duplication; increase service productivity and efficiency	Coordinating transportation can improve the efficiency of transportation services in a community by reducing unnecessary redundancies in service and more efficiently using existing transportation resources (e.g., vehicles, drivers, and administrative staff).
Leverage public transportation expertise and resources	Coordinating NEMT with the local public transportation provider can help to make full use of the required compliances with FTA and state regulations, increasing the safety and quality of service for NEMT. Federal cost principles enable public transit agencies to share the use of vehicles to provide NEMT.
Follow a coordinated public transportation–human services transportation plan	The coordination of NEMT with public transportation and other human services transportation programs can better meet the needs of transportation-disadvantaged individuals for all trip purposes.
Provide local match for FTA funding programs	The revenues earned by a transit agency from contracts to provide demand-response NEMT can be applied as a local match for FTA funding programs. The contract can be with the state Medicaid agency as a direct contractor or with a broker or MCO as a subcontractor.

- Require vehicle operators to meet U.S. DOT physical examination by a licensed medical examiner at least every 24 months;
- Ensure compliance with requirements for ADA in operations, vehicles, and facilities;
- Provide a vehicle maintenance program to ensure a state of good repair;
- Ensure transit vehicles meet federal performance standards for maintainability, reliability, safety, structural integrity, fuel economy, emissions, and noise; and
- Benefit from investments in technology for safe operations, good vehicle maintenance, and convenience for passengers.

Federal cost principles enable public transit agencies to share the use of vehicles if the cost of providing transportation to the community is also shared.

Federal cost principles enable public transit agencies to share the use of vehicles if the cost of providing transportation to the community is also shared (*52*). This maximizes the use of available transportation vehicles and facilitates access to community and medical services, employment and training opportunities, and other necessary services for seniors, individuals with disabilities, and persons with low income. Such arrangements can enhance transportation services by increasing the pool of transportation resources, reducing the amount of time that vehicles are idle, and reducing or eliminating duplication of routes and services in the community. Medicaid benefits in lower cost for NEMT when public transit agencies share the use of transit vehicles.

Coordinated Public Transportation–Human Services Transportation Plan

According to provisions of federal authorization bills SAFETEA-LU, MAP-21, and the current FAST Act, public transit agencies are expected to coordinate public transportation with human services transportation. Authorized in 2005, SAFETEA-LU was the first federal transportation authorization bill to stipulate that public transit agencies should coordinate transportation services. MAP-21 included the requirement for a locally developed, coordinated public transportation–human services transportation plan as a condition of receiving Section 5310 funds (*46*). The provisions of MAP-21 carried through in the FAST Act, and FTA continues to require projects funded under the Section 5310 program to be included in a coordinated transportation plan (*49*). The Section 5310 program provides funding to meet the transportation needs of seniors and people with disabilities, many of whom need access to medical services.

The coordinated transportation plan must be developed and approved through a process that includes participation by seniors; individuals with disabilities; representatives of public, private, and not-for-profit and human services transportation providers; and other members of the public (*50*). The coordination of NEMT with public transportation and other human services transportation programs can better meet the needs of transportation-disadvantaged individuals for all trip purposes.

Benefits to Increase Service Productivity and Efficiency

The benefits of coordinating NEMT and public transportation programs include the following (*36*):

- Make the most efficient use of limited transportation resources (e.g., vehicles, drivers, and administrative staff) by avoiding duplication caused by overlapping services.
- Reduce unnecessary redundancies in service that often result from multiple providers operating uncoordinated services.
- Schedule shared rides that can lead to significant reductions of operating costs (per trip) for transportation providers and the programs they serve.
- Offer Medicaid beneficiaries easier access to transportation for non-medical purposes.

People in need of transportation also benefit from the convenience of coordinated transportation services to serve multiple trip purposes.

Cost-Efficiency of Passenger Fares for Fixed-Route Public Transportation

If available for the trip and appropriate for the Medicaid beneficiary, fixed-route transit is the lowest cost for NEMT. If a Medicaid beneficiary makes an NEMT trip on fixed-route public transit, the cost to Medicaid is the transit fare. The fare for fixed-route transit pays for a portion of the cost of the service, similar to the co-pay for a medical service.

If available for the trip and appropriate for the Medicaid beneficiary, fixed-route transit is the lowest cost for NEMT.

Public transit agencies benefit from adding NEMT riders on fixed-route transit to increase productivity (passengers per hour) and cost-effectiveness (cost per passenger). Brokers and MCOs benefit from the lowest cost for NEMT trips. If the state Medicaid agency directly contracts for NEMT (fee for service), the state benefits from the low cost for NEMT.

Nationally, passenger fares provided 23.2 percent of total operations and capital cost for public transportation reported to the NTD in FY 2015. The remainder of the cost of public transportation, including NEMT trips, is subsidized from federal, state, and local sources of revenue (*53*).

NEMT Contract Revenue as Local Match for FTA Funding Programs

FTA grant recipients must match the federal share with a local match of 10 to 20 percent for capital projects and 50 percent of the net operating cost. Passenger fares may not be used as local match.

Funds from federal programs other than U.S. DOT can be used as local match for FTA grants. The non–U.S. DOT federal funds must be eligible to be used for transportation according to the regulations and laws of the federal program that provided the funds. Revenues received from service contracts with state, local, or human services agencies can be used as local match for FTA funds.

Public transit agencies may use revenues earned from contracts to provide NEMT as local match for FTA grants. The public transit agency may contract directly with the state Medicaid agency or subcontract to a state or regional broker or MCO. Rural public transportation agencies are more likely than agencies in urban areas to rely on revenues received through service contracts as local match. NEMT is an important source of contract revenue for many rural public transportation agencies.

Challenges of Coordinating Public Transportation and NEMT

The challenges of coordinating public transportation and NEMT for public transit agencies are summarized in Table 5.

Coordination Should Not Conflict with the Medicaid Program

According to CMS, DRA did not specifically address coordinated transportation. Coordination of transportation services is considered a positive goal, and CMS encourages states to develop coordinated transportation systems in order to promote efficiency and cost-effectiveness. However, Medicaid funds may only be used for Medicaid services provided to eligible beneficiaries. When administering the Medicaid NEMT program, states must comply with all applicable Medicaid policies and rules regardless of whether the Medicaid rules interfere with their ability to coordinate their transportation efforts (*29*).

Medicaid will only permit NEMT funds to be used for transportation to authorized medical services provided to eligible Medicaid beneficiaries.

Medicaid Funds Only for Medicaid Beneficiaries to Authorized Medical Services

Medicaid will only permit NEMT funds to be used for transportation to authorized medical services provided to eligible Medicaid beneficiaries. For any trip other than NEMT, a Medicaid beneficiary must schedule and pay the fare separately. Medicaid considers providing NEMT for any other trip purpose as possible evidence of fraud or abuse. These interpretations can create challenges for a public transit agency that provides public transportation for all trip purposes.

Table 5. Challenges of coordinating NEMT with public transportation.

Challenge	Description
Coordination should not conflict with the Medicaid program	For initiatives to coordinate NEMT with public transportation, coordination is appropriate as long as it does not conflict with the policies and rules of the Medicaid program. For example, NEMT brokers can participate in a locally developed, coordinated human services transportation–public transportation plan.
Medicaid funding is limited to authorized services	Medicaid will only permit NEMT funds to be used for transporting eligible Medicaid beneficiaries to authorized medical services.
Differences in service requirements	Coordinating NEMT and public transportation may require the public transit agency to adapt to different service requirements of the state Medicaid agency, broker, and/or MCO. Adapting to different service requirements may increase costs to the public transit agency. Any costs not reimbursed by the Medicaid agency must be subsidized from other public resources.
Requirements for NEMT documentation	NEMT requires verification that the Medicaid-eligible passenger receives an authorized medical service on the date of transportation.
Shifts from NEMT to ADA paratransit	Some brokers may shift NEMT clients to the ADA paratransit program to reduce operating expenses. The public transit agency must serve any trip request for an ADA-eligible rider. Unless the broker negotiates a reasonable payment for the service, the public transit agency recovers only the fare for the ADA trip, not the cost of the trip.
Contract rates that may not cover the fully allocated costs of providing NEMT	Medicaid expects to pay only the direct costs for the eligible NEMT trip. Medicaid will not pay shared costs when NEMT is part of coordinated services. A broker has an incentive to purchase from the lowest-cost transportation provider. The public transit agency's reimbursement rate for providing NEMT may not cover the fully allocated costs of providing the service. If it does not, the public transit agency must find some other source of public subsidy.
Prohibition against self-referral for governmental NEMT brokers	If a public transit agency intends to be a governmental broker for NEMT, the public transit agency must meet certain requirements set out in DRA in order to be the provider of NEMT transportation.

CMS guidance for NEMT also does not permit charging for a trip when the Medicaid beneficiary no-shows or late-cancels the NEMT service. The transportation provider must absorb the cost of traveling to pick up the passenger who no-shows and the cost of inefficiencies in the schedule caused by a late cancel. These costs can be significant for long-distance trips, particularly in rural areas. Medicaid considers charging for a passenger no show or late cancellation as possible evidence of fraud or abuse.

The Medicaid rules define abuse as practices "inconsistent with sound fiscal, business, or medical practices, and result in an unnecessary cost to the Medicaid program, or in reimbursement for services that are not medically necessary" (*54*). Examples of NEMT provider abuse may include billing Medicaid when taking a beneficiary to pick up groceries or run other errands and billing Medicaid for a trip when the beneficiary did not show for the service.

Differences in Service Requirements

Public transit agencies and the NEMT contracting agency may have different and sometimes conflicting policies and practices. For example, a public transit agency and the state Medicaid agency may have different expectations for demand-response shared trips, reservation windows, and guarantees for travel time. A public transit agency may have to incur additional cost to meet the service requirements of the state Medicaid agency, broker, or MCO. The actual cost may be above the negotiated rate for the NEMT trip.

Documentation of the NEMT Service

As outlined by the Social Security Act, Medicaid reimbursement requires verification that the NEMT passenger receives an eligible medical service on the date of transportation. Documentation may also be required for canceled trips. Other documentation may include obtaining an original signature from the Medicaid beneficiary when boarding or alighting the transit vehicle. These documentation requirements are not a normal part of general public transportation service and therefore may place additional administrative requirements on public transit agencies providing NEMT.

Shifts from NEMT to ADA Paratransit

In some states, the state Medicaid agency or an NEMT broker may shift NEMT clients to the public transit ADA paratransit program. Some Medicaid beneficiaries have a disability and may be ADA eligible. Given ADA regulations that prohibit capacity constraints, a public transit agency cannot deny a trip request from an ADA-eligible traveler. If NEMT trips are requested by (or on behalf of) ADA-eligible riders, public transit agencies must absorb NEMT trips within the ADA paratransit program. A growth in demand for ADA paratransit services stemming from shifts of NEMT trips to public transportation can be a significant issue for some public transit agencies. Typically, the fare for an ADA paratransit trip covers only a small portion (7.5 percent) of the cost of the service (*55*).

CMS has stated that DRA will permit a state Medicaid agency or broker to pay more than the fare for an NEMT trip using ADA paratransit but no more than the rate charged to other human services agencies for paratransit (*29*). This guidance can alleviate the concern of costs transferring from Medicaid to public transportation.

NEMT Rates May Not Cover Fully Allocated Costs for Public Transportation

Medicaid expects to pay only the direct (marginal) costs for NEMT trips. The public transit agency's price for providing NEMT may not cover the fully allocated costs of providing the service.

Medicaid expects to pay only the direct (marginal) costs for NEMT trips.

Fixed, Variable, and Marginal Cost. Fixed cost, variable cost, and marginal cost are important concepts to understand in the economics of public transportation and NEMT:

- **Fixed costs** are business expenses that do not change with the amount of service (e.g., administrative salaries and facility depreciation).
- **Variable costs** change according to the amount of service provided (e.g., driver wages, fuel costs, and vehicle maintenance costs).
- **Marginal cost** is the change in total cost for one additional NEMT trip; usually the marginal cost is made up of variable costs only.

Fully Allocated Cost Versus Marginal Cost. A public transit agency looks to negotiate a price for NEMT demand-response service to cover the fully allocated cost of the NEMT trip. Fully allocated costs include the variable costs of the NEMT trip plus a share of the fixed costs (*36*). Some public transit agencies also seek to recover a portion of the capital investment in the vehicles used for NEMT services. However, according to CMS, Medicaid should be responsible for only the direct costs of delivering the specific NEMT trip and not be expected to pay for any shared costs or the cost of a vehicle purchased with public funds.

Importance of Negotiating a Reasonable Price. When a public transit agency provides NEMT directly to the state Medicaid agency for a fixed fee for service, the restriction to pay only the direct (marginal) cost may apply. When a public transit agency negotiates a subcontract with a broker or MCO that receives a capitated payment for NEMT, the transit agency may be able to negotiate the price. As discussed previously, the public transit agency should have a cost allocation plan to document actual fixed and variable costs as a basis for negotiating price. If a public transit agency operates NEMT for a price less than the variable costs and the related direct fixed costs, a financial subsidy is required from another source. If a public transit agency does not recover the costs of providing the contracted NEMT services, the public transit agency may operate at a financial deficit that will negatively affect the transit agency's ability to sustain public transportation services.

The Medicaid program is the payer of last resort.

Payer of Last Resort. The Medicaid program is the payer of last resort. Some state Medicaid agencies interpret that policy very strictly. For example, one state Medicaid agency considers public transportation as an available resource and expects any Medicaid beneficiary to use public transportation. Under this interpretation, the state does not reimburse for the cost of the fare. If a Medicaid beneficiary is eligible for ADA paratransit, the individual is expected to use the public transit service and pay personally for the fare, rather than schedule the trip through NEMT (*56*). In such a situation, the public transit agency and the passenger bear the entire cost of NEMT, with no payment from Medicaid. In another state, the state Medicaid agency requires the state revenues for seniors to be applied first, before Medicaid. In this case, the state Medicaid agency pays only 15 percent of the balance of the cost of an NEMT trip for a person 65 years of age or older.

Prohibition Against Self-Referral for Governmental Brokers

If a public transit agency intends to be a governmental broker for NEMT, the public transit agency must meet certain requirements in order to be the provider of NEMT transportation.

If NEMT trips are provided by the transit agency (or subcontracted to another public transit agency), then specific financial conditions must be met, according to the DRA:

- **Separate accounting system**. The public transit agency that acts as a broker must maintain a separate accounting system for the brokerage, and costs charged to the brokerage must be completely separate from all other programs.
- **Exclude shared costs**. Medicaid will not pay NEMT costs that are shared with or allocated from a parent or related governmental entity.

- **Lowest cost**. The public transit agency that serves as the broker must document that its service is the most appropriate and lowest-cost alternative with respect to an individual's specific transportation needs.
- **Limits on charges for public transportation**. The public transit agency that is the broker must document the agency is charging no more than the standard fare for fixed-route transit or no more than the rate charged to other state human services agencies for comparable demand-response transportation.

Summary

Human services transportation refers to a range of transportation services designed to meet the needs of individuals who have difficulties providing their own transportation due to age, disability, or income, sometimes referred to as transportation-disadvantaged populations. NEMT is an example of human services transportation for Medicaid beneficiaries who need to get to and from authorized medical services and have no other means of transportation.

In this handbook, public transportation refers to the transportation programs and services that are eligible for federal funding from FTA. The purpose of providing public transportation is to offer the general public better access to economic and community activities such as employment, education and training, medical appointments and health services, human services, and shopping. Public transportation providers are interested in providing NEMT for low-income passengers to complement other transportation services and to earn revenues that can provide local match for federal transit grants.

This chapter provides information to understand the opportunities and challenges for coordinating human services, public transportation, and NEMT. The chapter also discusses the federal transportation policy to coordinate public transportation and human services transportation, and describes initiatives by CCAM to strengthen interagency collaboration.

The next chapter in this handbook documents the effects on human services and public transportation of the different models for providing NEMT based on case study research in seven states.

CHAPTER 5

Models for Providing Non-Emergency Medical Transportation

This chapter describes case study research to document the effects of different models for providing NEMT on access to Medicaid services, on coordination with other human services transportation, and on coordination with public transportation. Case study research provided an opportunity to review different models for providing NEMT in seven states. Table 6 lists the seven case study states and the different NEMT models.

The effects of different models for providing NEMT were confirmed through multiple interviews with stakeholders in each state. In some states, the state Medicaid agency had changed the NEMT approach to a model using brokers or managed care. Case study research helped to identify influences for the decision to change the NEMT model and the impacts on access to Medicaid services and transportation coordination.

What Is the NEMT Model in Each Case Study State?

This section provides a brief description of NEMT in each of the seven case study states, and the following section summarizes the effects of each NEMT model on access to Medicaid services, on coordination with other human services transportation, and on coordination with public transportation. The appendix includes an in-depth case study summary for each state.

Florida: Change to Managed Care Organizations with Carved-In NEMT

Change from County-Based Coordinated Transportation

Prior to 2014, the Florida Agency for Health Care Administration contracted with the state's Commission for the Transportation Disadvantaged (CTD) to manage NEMT for all Medicaid beneficiaries across the state. CTD contracted with county-based community transportation coordinators (CTCs) to provide NEMT. The CTCs are responsible for providing human services transportation at the county level, and this arrangement made it possible for CTCs to coordinate NEMT with other transportation programs.

[In Florida] MCOs are responsible for NEMT as a service of the managed care plan.

Change to Managed Care with Carved-In NEMT

The Florida Legislature established the Managed Medical Assistance program in 2011. The program was implemented in 2014. The state is divided into 11 managed care regions, and each region has two or more MCOs to provide the Medicaid beneficiary a choice. The MCOs are responsible for NEMT as a service of the managed care plan. Each MCO receives a capitated payment to provide medical care and NEMT.

Table 6. Case study states and NEMT models.

State	NEMT Models
Florida	• Managed care with carved-in NEMT
Massachusetts	• Regional brokers (regional transit authorities)
New Jersey	• Statewide broker (for profit)
North Carolina	• In-house management (county based)
Oregon	• Managed care with carved-in NEMT
Pennsylvania	• Regional broker (for profit) in Philadelphia County • In-house management all other counties
Texas	• Regional broker (for profit and not for profit) • In-house management (one region)

Each MCO Contracts with Private For-Profit Brokers

Each MCO contracts with one of three for-profit brokers to provide NEMT under the managed care plan. The brokers contract with a variety of transportation providers including taxi companies, public transit agencies, human services transportation providers, and for-profit transportation companies. In some counties, the CTC that was once responsible for providing NEMT now competes with other transportation providers for NEMT trips assigned by the broker.

Community Transportation Coordinators Report Fewer Shared NEMT Trips Since Managed Care

CTCs, particularly in rural areas, report a significant loss of revenues earned from providing NEMT. With fewer shared NEMT passenger trips, the cost per passenger for other transportation programs has increased. The loss of NEMT revenues has reduced the capacity of CTCs to provide other human services transportation.

Massachusetts: Regional Brokers

NEMT Is Part of a Coordinated Transportation Program

In Massachusetts, the state Medicaid agency is MassHealth, a part of the Executive Office of Health and Human Services (EOHHS). MassHealth provides NEMT through a coordinated transportation program operated by EOHHS through the Human Service Transportation Office. In Massachusetts, NEMT is known as the Prescription for Transportation (PT-1).

Human Service Transportation Office Oversees Coordinated Transportation

In 2001, EOHHS established the Human Service Transportation Office to coordinate transportation for multiple health and human services agencies, including NEMT for MassHealth. Human services transportation oversees a system of coordinated transportation services for eligible EOHHS consumers to access medical, social, and day habilitation services across Massachusetts. Human services transportation also provides technical assistance and outreach programs called MassMobility in support of local mobility and transportation coordination efforts for transportation-disadvantaged Massachusetts residents.

[In Massachusetts] human services transportation contracts with six regional transit authorities to act as brokers for transportation services . . .

Brokers Are Regional Transit Authorities

The human services transportation system was designed and implemented in partnership with the Massachusetts DOT. Massachusetts is divided into nine regions for human services

The move to a statewide broker [in New Jersey] was influenced by multiple factors, including recent and projected cost increases.

transportation coordinated transportation. Human services transportation contracts with six regional transit authorities to act as brokers for transportation services for EOHHS clients.

Brokers Reduce State Administration

The goal of coordinated brokerages is to reduce administrative burden at the state level. All brokers are required to adhere to performance standards defined by EOHHS. The Human Service Transportation Office confirms compliance with vehicle maintenance, driver qualifications, insurance compliance, and timely payment of vendors.

Each Broker Subcontracts with Transportation Providers in the Region

Transportation providers are primarily private for-profit and not-for-private companies. Five regional transit authorities, which do not act as brokers for human services transportation, serve as transportation providers. These brokers dispatch demand-response transportation based on the lowest cost among the transportation providers in each region. A feature of the NEMT model is the shared-cost-savings incentives built into broker contracts.

New Jersey: Change to Statewide Broker

Change from Community Transportation Provider in Each County

The Division of Medical Assistance and Health Services (DMAHS) in the Department of Human Services is the state Medicaid agency responsible for NEMT in New Jersey. Prior to 2009, DMAHS contracted for NEMT primarily with county-based community transportation providers in each of the 21 counties in the state with a fee-for-service payment. These transportation providers coordinated transportation by providing shared-ride services for NEMT riders and other general public or sponsored riders.

Change to Statewide Broker with Capitated Payment

In July 2009, DMAHS changed the NEMT service model to a statewide broker with capitated payment. The current statewide broker is a private company operating similar services nationally. The move to a statewide broker was influenced by multiple factors, including recent and projected cost increases. DMAHS needed greater cost control and was concerned about fraud in claims for providing NEMT trips.

North Carolina: In-House Management

In-House Management for NEMT Is County-Based

The North Carolina DHHS is the state Medicaid agency. The Division of Medical Assistance in the North Carolina DHHS is responsible for overseeing NEMT. The Department of Social Services in each of the 100 counties is responsible for meeting NEMT obligations through community transportation.

Community transportation in North Carolina coordinates public transportation with human services transportation.

Public Transportation Is Part of Community Transportation

Community transportation in North Carolina coordinates public transportation with human services transportation. Each of the 100 counties in North Carolina has a community transportation system. Generally, transportation services are provided at the county level, but in a few cases, a regional provider operates services for multiple counties. A few counties have gone further and combined the urban transportation services into a unified urban-rural service within a county.

County-Based Management for NEMT Using Community Transportation

Each county DSS contracts with the local community transportation provider to provide NEMT on a fee-for-service basis. DSS is responsible for determining if a Medicaid beneficiary is eligible for NEMT, authorizing trip eligibility, and record keeping for post-trip verification. The community transportation system schedules and provides the authorized transportation.

Medicaid Is Transitioning to Managed Care

In September 2015, the North Carolina General Assembly enacted legislation to transition the state Medicaid plan from a fee for service for Medicaid services to managed care. The North Carolina DHHS submitted the proposed program design for Medicaid managed care to CMS in August 2017 and anticipates launching Medicaid managed care in 2019. The North Carolina DHHS proposes entering into contracts with companies that will offer managed care with carved-in NEMT.

Oregon: Change to Managed Care Organizations with Carved-In NEMT

Change from Coordinated Transportation Through Regional Community Brokers

Prior to 2012, NEMT in Oregon was provided as coordinated transportation through regional community brokers. The first public agency community broker was the Tri-County Metropolitan Transportation District of Oregon (TriMet). TriMet worked in collaboration with the Oregon DOT and the Oregon Department of Human Services to coordinate ADA paratransit, NEMT, and other human services transportation programs. TriMet provided the call center and brokered transportation service to for-profit and not-for-profit transportation providers.

After the TriMet example, Oregon DOT and the Oregon Department of Human Services cooperated in the expansion of the community broker model statewide, eventually establishing eight regional community brokers. In addition to TriMet, other transit agencies and councils of governments established community brokers. Each public agency established the broker as an independent business unit with a cost accounting system separate from the transit agency, consistent with Medicaid guidelines.

Change to Managed Care with Carved-In NEMT

The Oregon Health Authority began transforming the Oregon Health Plan to a managed care model in 2012. The Oregon Health Authority refers to managed care as coordinated care. The goals for the Oregon Health Plan under coordinated care are known as the Triple Aim: better health, better care, and lower costs. Coordinated care involves consolidation of health-supportive services under the umbrella of a coordinated care organization (CCO). Coordinated care is delivered through 16 CCOs operating in all counties around the state. In some counties, two or more CCOs have overlapping service areas.

The goals for the Oregon Health Plan under coordinated care are known as the Triple Aim: better health, better care, and lower costs.

Each CCO Is Responsible for NEMT for Its Members

Each CCO provides NEMT through transportation brokers. The type of broker (i.e., public agency, private company, or nonprofit agency) and the approach to NEMT within the Oregon Health Authority guidelines differ by CCOs. Statewide, 12 NEMT brokers provide service to 16 CCOs.

Case study research helped the researchers to learn about the change in NEMT in Oregon. The case study focused on the change to NEMT under coordinated care in three areas: Lane County, southern Oregon (seven counties), and the Tri-County/Portland metropolitan area.

[In Pennsylvania] the MATP [NEMT] coordinator arranges transportation for eligible Medicaid beneficiaries to approved medical services . . .

Pennsylvania: In-House Management and Regional Broker

County Coordinators for Transportation Services

In Pennsylvania, NEMT is called the Medical Assistance Transportation Program (MATP). In 66 counties (other than Philadelphia County), the state Medicaid agency, the Department of Human Services, provides MATP funding through a combination of fee for service and block grants to the MATP coordinator in each county. The MATP coordinator is a part of the county government or, in a few counties, the public transportation authority. The MATP coordinator arranges transportation for eligible Medicaid beneficiaries to approved medical services using fixed-route public transportation, mileage reimbursement, or local transportation providers for shared-ride transportation. Generally, each county has its own program, but some counties have pooled resources and formed multicounty organizations to serve their residents who are eligible for MATP.

Shared-Ride Human Services Transportation

Pennsylvania began shared-ride human services transportation in 1980. The purpose of human services transportation is to provide affordable, accessible, individualized transportation for people with limited mobility options. In 66 counties, NEMT is coordinated with human services transportation. Pennsylvania has not made substantial changes in NEMT in recent years, except to encourage the regional coordination of transportation services.

Full-Risk Broker in Philadelphia County

In the most densely populated county in the state, Philadelphia County, MATP is provided by a full-risk private broker with capitated payment.

Case study research in Pennsylvania focused on three MATP examples: the private broker in Philadelphia County; ACCESS, the ADA paratransit provider for the Port Authority of Allegheny County (Pittsburgh); and the Central Pennsylvania Transportation Authority.

Texas: Regional Brokers and In-House Management

Change from In-House Management

The Health and Human Services Commission (HHSC) is responsible for the Medical Transportation Program in Texas. Through the Medical Transportation Program, HHSC arranges NEMT services for Medicaid-eligible beneficiaries. Prior to 2012–2014, HHSC provided demand-response NEMT through fee-for-service contracts with transportation providers in 24 transportation service areas. Fifteen transportation providers served the 24 transportation service areas. Of the 15 service providers, 10 were rural or urban public transit districts, three were for-profit transportation companies, and two were nonprofit human services transportation providers.

[In Texas] the Health and Human Services Commission changed NEMT from in-house management to regional brokers in 2012–2014.

Change to Regional Brokers

HHSC changed NEMT from in-house management to regional brokers in 2012–2014. The purpose of the change was to improve transportation service delivery to NEMT clients, contain program cost, and reduce the incidence of fraud, waste, and abuse.

In 2012, HHSC implemented full-risk brokers with capitated payment in two service delivery areas in Dallas/Fort Worth and Houston. Effective 2014, HHSC implemented managed transportation organizations in 10 regions (originally 11 regions), changing from in-house management to a system of regional brokers with capitated payment. The broker in one region was terminated

for failure to maintain adequate financial records and client encounter data, and HHSC assumed responsibility for in-house management in that one region.

Benefits of the Change to Regional Brokers

From the perspective of the state Medicaid agency, the change to regional brokers lowered the capitated payment for NEMT after 2014 and reduced the potential for fraud, waste, and abuse. Contracts with brokers include performance standards and minimum requirements for vehicle condition and driver qualifications. Concerns include broker performance; HHSC has terminated contracts with one public transit district and one private broker for performance.

Challenges for Coordination of NEMT with Other Transportation Services

In Texas, lead entities in 24 regions develop regionally coordinated transportation plans; however, most NEMT regional brokers are not actively involved in the efforts to coordinate transportation services. Rural transit districts reported data that show NEMT ridership and revenues have decreased 41 percent from 2014 to 2016 after the change to regional brokers. Fewer passengers and fewer shared rides led to higher cost per passenger trip for public transportation and NEMT, especially in rural areas. A loss of NEMT revenues also reduces this source of funds for a rural transit district to match federal transit grants.

What Are the Effects of the NEMT Models?

The purpose of this section is to document how different NEMT models affect access to Medicaid services, coordination with human services transportation, and coordination with public transportation. Table 7 identifies the NEMT models and corresponding case studies.

In Texas, the state Medicaid agency terminated the contract with a regional broker in one region and now contracts with transportation providers in that region on a fee-for-service basis. Given this circumstance, Texas is not discussed as an example for in-house management in the next section.

Table 7. Identification of NEMT models by case study states.

NEMT Model	Case Study States
In-house management	• **North Carolina**—community transportation with county-based in-house management. • **Pennsylvania***—coordinated transportation with county-based in-house management (in all counties except Philadelphia County). • **Texas***—in-house management in one region.
Statewide broker	• **New Jersey**—change from county-based community transportation with in-house management to statewide broker.
Regional broker	• **Massachusetts**—coordinated transportation with regional transit authorities as regional brokers. • **Texas***—change from in-house management to regional brokers (multiple for-profit brokers and one not-for-profit human services broker). • **Pennsylvania***—regional broker (for-profit) in Philadelphia County.
Managed care organization	• **Florida**—change from county-based coordinated transportation to MCOs with carved-in NEMT. • **Oregon**—change from coordinated transportation with public agencies as regional brokers to CCOs with carved-in NEMT.

**States with mixed NEMT models.*

In-House Management

Case study states for in-house management are North Carolina and Pennsylvania. In both states, the NEMT model is in-house management for county-based, coordinated transportation, shown in Table 8.

Statewide Broker

The case study state for a statewide broker is New Jersey. Prior to 2009, the state Medicaid agency contracted for NEMT primarily with county-based community transportation providers in each of the 21 counties in the state with a fee-for-service payment. In July 2009, New Jersey changed the NEMT service model to a statewide broker with capitated payment. The current statewide broker is a private company operating similar services nationally. Table 9 identifies the effects of the change to a statewide broker.

Table 8. Case study states for NEMT model: in-house management.

Effects	North Carolina	Pennsylvania
Access to Medicaid services	• Each county Department of Social Services may contract with the community transportation provider for NEMT service on a fee-for-service basis. • The state Medicaid agency solicited proposals from NEMT brokers in 2012, but the existing model for coordinated transportation was less expensive. • The state Medicaid agency has applied for approval from CMS to change the Medicaid program to managed care with carved-in NEMT, effective 2019.	• The state Medicaid agency provides NEMT funding through a combination of fee-for-service and block grants to the NEMT coordinator in 66 of 67 counties (except Philadelphia County). • Coordinated transportation service delivers more NEMT trips for Medicaid services than any state with comparable population. • Pennsylvania reports the lowest cost per passenger trip for NEMT compared to other case study states.
Coordination with human services transportation	• Community transportation increases operating efficiencies for shared rides on demand-response transportation services. • Coordinating NEMT trips with community transportation achieves increased productivity of 5 percent. • NEMT clients can arrange transportation for multiple trip purposes with one call/one click.	• Human services transportation is unique in every county, and the complexities of the various programs may be difficult for local human services agencies and users to understand. • NEMT clients can arrange transportation for multiple trip purposes with one call/one click in most counties.
Coordination with public transportation	• Most community transportation systems that are public entities are the public transit agency in the counties served. • The matching funds earned by public transit agencies for NEMT are used as local share for federal transit grants.	• NEMT's coordination with public transportation reduces the cost per passenger trip. A fare on fixed-route public transit is the lowest-cost transportation for an NEMT trip. • Forty-one percent of NEMT trips statewide are on public transportation.
NEMT expenses per trip statewide	Estimated $28 per passenger trip (2014)	Estimated $13 per passenger trip (2014)

Table 9. Case study state for NEMT model: statewide broker.

Effects	New Jersey
Access to Medicaid services	• From the perspective of the state Medicaid agency, the statewide broker has enhanced cost control and reduced the risk of fraud. • The state Medicaid agency reports access to health care services has improved since the change to the statewide broker. • Some medical providers believe that improvements in reliable NEMT are still required. • New Jersey reports a higher cost per passenger trip for NEMT compared to other case study states.
Coordination with human services transportation	• There has been a decline in NEMT trips coordinated with other transportation services since the change to a statewide NEMT broker. Fewer NEMT trips are on county-based transportation services. • NEMT clients do not have the ability to arrange transportation for multiple trip purposes with one call/one click.
Coordination with public transportation	• The broker purchases tickets and monthly passes for NEMT clients who can use public transportation in urban areas. In urban areas, public transportation represents 23.5 percent of NEMT trips. • In rural areas, not every public transportation provider has a meaningful participation in the NEMT program. The statewide broker may not assign trips to the rural public transportation provider. In rural areas, public transportation represents about 2.4 percent of NEMT trips. • The loss of NEMT revenue reduces a source of local match for federal transit funds for public transportation in rural areas.
NEMT expenses per trip statewide	Estimated $34 per passenger trip (2014)

Regional Brokers

Case study states for regional brokers are Massachusetts and Texas. In Massachusetts, the regional brokers are regional transit authorities. A feature of the Massachusetts NEMT model is the shared-cost-savings incentives built into broker contracts. Brokers are rewarded for reducing trip expenses and improving efficiency, with the cost savings reinvested back into the brokerage. The shared-cost-savings incentive program was introduced in 2009.

Texas changed the NEMT model from in-house management with fee for service to regional brokers with capitated payment in 2012 and 2014. The regional brokers are three for-profit private companies and one not-for-profit human services agency.

The NEMT model in Philadelphia County, Pennsylvania, is also a regional broker. Philadelphia County is the most urbanized county in Pennsylvania and the only county where the NEMT model is a for-profit broker with capitated payment. In FY 2013, over 74 percent of all NEMT trips in Philadelphia County were on regional public transit. Philadelphia County is not identified as a state case study in Table 10.

Managed Care Organizations

The case study states for managed care are Florida and Oregon. Both states implemented managed care with carved-in NEMT between 2012 and 2014. The state Medicaid agency in Florida changed from an NEMT model for county-based, coordinated transportation to MCOs responsible for NEMT. The state Medicaid agency in Oregon changed from public agencies as regional community brokers to CCOs responsible for NEMT. Table 11 lists the effects of the change to managed care.

Table 10. Case study states for NEMT model: regional brokers.

Effects	Massachusetts	Texas
Access to Medicaid services	• The use of regional transit authorities to broker coordinated human services transportation has produced positive results for the state Medicaid agency by containing costs per passenger trip and ensuring service quality. • Massachusetts reports a lower cost per passenger trip for NEMT compared to other case study states.	• From the perspective of the state Medicaid agency, the change to regional brokers lowered the capitated payment for NEMT and reduced the potential for fraud, waste, and abuse with increased oversight. • Performance standards for NEMT (on-time performance, wait times and maximum travel times) may require transportation providers to operate single-passenger trips, reducing shared rides and increasing costs.
Coordination with human services transportation	• The state Medicaid agency sets consistent service standards and monitors service quality for all coordinated transportation services. • Coordination is promoted through well-regarded mobility managers. • NEMT clients can arrange transportation for multiple trip purposes with one call/one click.	• Lead entities develop regionally coordinated transportation plans; however, most NEMT regional brokers are not actively involved. • NEMT clients do not have the ability to arrange transportation for multiple trip purposes with one call/one click.
Coordination with public transportation	• Regional transit authorities serve as the brokers for NEMT and coordinate transportation services. • Regional brokers are successful in serving an increased number of NEMT trips while also containing costs per passenger trip.	• Rural transit districts reported NEMT ridership and revenues decreased after the change to regional brokers. • The loss of NEMT revenue reduces a source of local match for federal transit funds for public transportation in rural areas. • Brokers may not be using fixed-route transit to full advantage.
NEMT expenses per trip statewide	Reported $18 per passenger trip (2015)	Estimated $28 per passenger trip (2014)

Table 11. Case study states for NEMT model: MCOs.

Effects	Florida	Oregon
Access to Medicaid services	• The change to managed care with carved-in NEMT has enabled private brokers to increase NEMT coverage across multiple regions in the state. • From the perspective of the state Medicaid agency, the change to managed care has curtailed the increase in the costs of Medicaid.	• The CCOs have included NEMT into fully integrated care. • From the perspective of the state Medicaid agency, the change to coordinated care with carved-in NEMT helps the Triple Aim: better health, better care, and lower costs.

Table 11. (Continued).

Effects	Florida	Oregon
Coordination with human services transportation	• The CTD reports a decline in coordination of NEMT trips with community transportation services since the change to managed care. • The CTCs report higher per-passenger trip costs with fewer NEMT shared rides. • NEMT clients can no longer arrange transportation for multiple trip purposes with one call/one click.	• For those CCOs that continue to work with the regional community broker, coordination continues. • Transportation coordination is more difficult if the community broker is no longer the NEMT broker for all CCOs in a region. • In some regions, the regional community broker is no longer involved in NEMT in any way, limiting transportation coordination.
Coordination with public transportation	• The loss of NEMT revenue reduces a source of match for federal transit funds, particularly in rural counties. • The Jacksonville Transportation Authority documented the increase in trips on ADA paratransit during the Demonstration Pilot Program for Managed Care with carved-in NEMT. The public transportation authority did not recover the increased cost from the MCO or the MCO broker.	• For those CCOs that continue to work with the regional community broker, public transportation may provide NEMT trips. • In regions where the community broker is no longer the NEMT broker for all CCOs in a region, public transportation may or may not serve a role in NEMT. • In the Tri-County/Portland area, TriMet was the regional community broker but is no longer involved in NEMT in any capacity.
NEMT expenses per trip statewide	Estimated $22 per passenger trip (2014)	Estimated $26 per passenger trip (2013)

Summary

This chapter examines how the different NEMT models affect access to Medicaid services and coordination with human services transportation and public transportation. The different NEMT models are in-house management, statewide broker, regional brokers, and MCOs.

Case study research provided the opportunity to learn what influences states to use different models for NEMT. Recently, several states have made strategic decisions to revise the approach to NEMT, implementing brokerages or moving toward managed care with carved-in NEMT. The case studies helped to explore the influences for those decisions.

A summary for each of the seven case studies is provided in the appendix to this handbook. In addition, a companion document, "State-by-State Profiles for Examining the Effects of Non-Emergency Medical Transportation Brokerages on Transportation Coordination," presents NEMT profiles for each of the 50 states and the District of Columbia.

The next chapter discusses different stakeholder perspectives about NEMT. The chapter also presents a discussion of the nexus of desirable outcomes for NEMT, human services transportation, and public transportation.

CHAPTER 6

Common Desired Outcomes

The meaningful results that all stakeholders for NEMT seek to achieve—transportation to improve access to medical services for individuals and families with low incomes—require the efforts of state officials, regional and local transportation providers, and, in a growing number of states, statewide or regional brokers and MCOs. Other stakeholders include human services program managers and mobility managers who help Medicaid beneficiaries arrange NEMT or find transportation to non-medical services. With so many stakeholders, a wide variety of perspectives exists about the goals and objectives for NEMT. Designing and operating NEMT programs that create benefits for all parties can be challenging. A focus on common desired outcomes can lessen these challenges and lead to successful program outcomes.

A key to successful collaboration is defining and articulating common desired outcomes across agencies.

As the number of Medicaid beneficiaries continues to grow, stakeholders find it is increasingly important to consider how improved coordination and collaboration can help to provide NEMT to meet the need for transportation assistance but with limited resources. GAO has reported that a key component to successful collaboration is the importance of defining and articulating common desired outcomes across agencies. In a collaborative process, the participants may not have the same overall interests—in fact, participants may have conflicting interests. However, by establishing goals based on what stakeholders share in common, rather than on where there is disagreement among specific objectives, collaboration can be successful (*57*).

The purpose of this chapter is to summarize different stakeholder perspectives based on a review of literature and previous studies, original research for this project, and information gathered during the case studies in seven states. This chapter also highlights the common expected outcomes for NEMT that are agreed upon by all stakeholders.

What Are the Stakeholder Perspectives About NEMT?

The following summarizes the different stakeholder perspectives about NEMT:

- **State Medicaid agencies** fund NEMT to ensure Medicaid beneficiaries who have no other means of transportation can get to and from authorized medical services in a safe, efficient, and reliable manner. State Medicaid agencies consider different models to deliver NEMT at the lowest cost for eligible individuals while preventing fraud and abuse. Most state Medicaid agencies look to recover a higher rate of federal reimbursement by providing NEMT as a medical service at the federal matching assistance percentage or through a brokerage.
- **State DOTs** and recipients of federal transit funds in urbanized areas are responsible for coordinating public transportation and human services transportation, including NEMT, to improve general mobility. The objectives for coordinated transportation services are to avoid duplicative and overlapping services, reduce service gaps, and achieve cost savings through improved efficiency and effectiveness.

- **Regional and local transportation providers**, including human services transportation providers and public transit agencies, are interested in providing NEMT for low-income passengers as a complement to other transportation services. Regional and local transportation providers hope to improve efficiency and increase ridership by coordinating NEMT with other transportation. By contracting to provide NEMT with state Medicaid agencies, brokers, or MCOs, public transportation providers want to recover the cost of providing the transportation service and use the contract revenues as local share to match federal transit grants.
- **For-profit and not-for-profit brokers** qualify and authorize Medicaid beneficiaries for transportation and then contract with transportation providers to perform the NEMT service according to a broker contract with the state Medicaid agency or MCO. For-profit brokers look to generate profits by effectively managing the cost of providing NEMT. Accordingly, for-profit brokers want to purchase NEMT from human services transportation providers, public transit agencies, or private transportation companies at the lowest cost while meeting the requirements of the state Medicaid agency.
- **MCOs** responsible for an organized health care delivery system that includes transportation services (carved-in NEMT) try to purchase NEMT services from transportation providers that are cost effective, safe, on time, and dependable. MCOs focus on three critical objectives known as the triple aim: improve health, enhance the patient care experience (including reliable transportation to medical services), and reduce, or at least control, cost.
- **Human services program managers** provide a range of services to Medicaid beneficiaries including sometimes serving as an NEMT broker. Human services program managers seek to ensure each program client has transportation to medical and non-medical services. Coordinated transportation helps clients arrange linked trips or multiple trips with one call/one click.
- **Mobility managers** coordinate transportation resources in a community to assist individuals to arrange travel for various purposes, including for medical services. Mobility managers seek to improve transportation services for individuals with disabilities, older adults, and individuals with lower incomes by ensuring that communities coordinate transportation resources through multiple programs.

What Are the Common Desired Outcomes for NEMT?

Identifying shared outcomes sets a framework for collaboration to achieve better results.

Although stakeholders have different perspectives about NEMT, they also share common desired outcomes for providing NEMT services. Common desired outcomes for NEMT emerged from the literature and conversations with stakeholders during case study research. Identifying shared outcomes sets a framework for collaboration to achieve better results. Figure 9 illustrates the common desired outcomes.

Desired Outcome: Improved Health

Stakeholders agree that NEMT is an important benefit for Medicaid beneficiaries who need to get to and from medical services but have no other means of transportation. Without NEMT, individuals who most need medical care might not be able to access critical services.

Figure 9. Common desired outcomes for NEMT.

Interviews with stakeholders confirm that the lack of transportation for Medicaid recipients can impede their ability to access medical services, particularly for individuals living in rural or underserved areas as well as those with chronic health conditions. Lack of transportation can restrict access to medical care, affecting health outcomes for individuals and higher costs for medical services. The case study research confirmed that missed medical appointments due to transportation issues lead to costly subsequent medical care, such as hospitalization and the use of an ambulance for emergency transportation.

All stakeholders agree that providing reliable NEMT will contribute to improved health outcomes for Medicaid beneficiaries.

Desired Outcome: Better Quality of Service

Stakeholders agree that better quality of NEMT service is a desired outcome:

- **Medical service providers** emphasize the importance of on-time NEMT service for drop-offs and pickups for patients. Dependable NEMT will contribute to increased access to preventive and primary medical care, leading to better health outcomes and eventually to reduced costs for medical services.
- **CMS** emphasizes state Medicaid agency responsibility to provide oversight for the quality of NEMT service. Under DRA, the state Medicaid agency is responsible for establishing standards for quality of service and the NEMT broker is required to monitor beneficiary access and complaints, and to ensure transportation is timely and transportation providers are licensed, qualified, competent, safe, and courteous.
- **Human services and public transportation providers** seek to enhance the economic and social well-being of all passengers by creating and maintaining a reliable, integrated, and accessible transportation system. Public transportation is intended to enhance choices for all riders by providing access to educational and employment opportunities, health care, and other destinations. Public transportation providers that are recipients of federal funds are required to comply with FTA regulations for safety, qualifications of drivers, and state of good repair for transit vehicles. Most public transit agencies set performance standards for safety, on-time service, and passenger satisfaction and monitor performance metrics on a monthly, quarterly, or annual basis.
- **Human services program managers and mobility managers** assist individuals that need transportation to arrange travel for various purposes, including for medical services. These stakeholders use the ability to arrange linked trips or multiple trips for any purpose conveniently as a measure of the quality of service.

During case study research, stakeholders agreed that providing dependable NEMT service that is safe and on time will improve Medicaid beneficiary access to medical services, contribute to improved health outcomes, and lead to a better quality of life.

Desired Outcome: Maximize Services Delivered Within Available Resources

Stakeholders know that delivering efficient transportation can maximize service delivered within available resources.

Medicaid funds may be used only to provide NEMT for eligible beneficiaries to authorized medical services. NEMT must be the lowest cost for the most appropriate transportation to meet the client's transportation need. More efficient NEMT is a priority for CMS and state Medicaid agencies.

Through FTA, U.S. DOT encourages public transportation providers to coordinate transportation services with human services agencies, including NEMT, to improve the efficiency of transportation services. Economies of scale can be realized by reducing unnecessary redundancies in service and more efficiently using existing transportation resources (e.g., vehicles, drivers, and administrative staff).

CCAM was established to promote interagency cooperation, to minimize duplication and overlap of federal programs and services, and to maximize access to more transportation services. Agency representatives participating in CCAM recognize the importance of maximizing service delivery within limited resources and seek ways to achieve the highest return on investment by enhancing efficiencies and simplifying access for consumers.

Summary

Defining and articulating common desired outcomes across agencies are a key component to successful collaboration. Common desired outcomes for Medicaid NEMT emerged from the literature review and case study research. The common desired outcomes are improved health for Medicaid beneficiaries who need transportation assistance, better quality of NEMT service, and the ability to maximize transportation services delivered within available resources.

The challenge is to find ways human services transportation, public transportation, and Medicaid NEMT programs can work together to recognize shared desired outcomes and achieve better results through coordination and collaboration. The next chapter identifies strategies that can help to achieve common desired outcomes.

CHAPTER 7

Strategies to Achieve Common Desired Outcomes

The previous chapter explains different stakeholder perspectives about NEMT and coordinated transportation. It also identifies the common expected outcomes for NEMT that are agreed upon by all stakeholders: improved health for Medicaid beneficiaries who need transportation assistance, better quality of transportation service, and the ability to maximize transportation services delivered within available resources.

This chapter identifies 14 strategies to coordinate NEMT with human services transportation and public transportation in order to move toward the common desired outcomes.

This chapter identifies 14 strategies to coordinate NEMT with human services transportation and public transportation in order to move toward the common desired outcomes. First, the 14 strategies are briefly identified according to desired outcome. Following the brief summary, each strategy is presented as a dedicated page with details of the opportunities, challenges, and roles of stakeholders for a successful strategy implementation. Examples for each strategy are described from the case study research in Chapter 5 and useful resources are suggested.

All strategies do not necessarily apply to every state or every NEMT model. If stakeholders look for opportunities that apply best to specific circumstances, collaboration and coordination are possible. Collaboration and coordination will help to achieve common desired outcomes.

What Strategies Focus on Common Desired Outcomes?

The first three strategies can help stakeholders with different perspectives to focus on common desired outcomes:

1. **Align goals and objectives to achieve common desired outcomes.** By establishing goals and objectives based on what stakeholders share as common desired outcomes, rather than on where there is disagreement among specific objectives, collaboration can be more effectively pursued.
2. **Include NEMT stakeholders when preparing or updating a locally developed, coordinated human services transportation–public transportation plan**. The federal transportation authorization bill, the FAST Act, stipulates that public transit agencies should coordinate public transportation services with human services transportation. The coordination of NEMT with public transportation and other human services transportation can better meet the needs of transportation-disadvantaged individuals for all trip purposes to improve their quality of life. Coordinated transportation can improve the efficiency of transportation services.
3. **Adopt common geographic boundaries for service areas**. Coordination is more likely to improve the efficiency of transportation services if Medicaid and transportation agencies can find a way to adopt common geographic boundaries for NEMT and public transportation service areas. At a minimum, common boundaries for different types of transportation services will improve the ability to communicate available services to customers. State Medicaid

agencies are typically responsible for defining NEMT service areas. Public transportation service areas may be defined by the state DOT (in particular, for rural transit), or by regional or local decision makers according to city or county boundaries, or by voter approval for specific jurisdictions.

What Strategies Can Help to Document Better Health Outcomes?

Access to medical services and general mobility are important to improve health outcomes and lower medical costs; however, more data are needed to accurately measure transportation-related benefits and actual reduced health costs. NEMT in rural areas is a particular challenge and rural public transit can help to serve the unique requirements of Medicaid beneficiaries living in rural areas. Innovations in technology and transportation may help to provide better access to medical appointments. Three strategies help to demonstrate how NEMT and transportation to other services and activities contribute to better health outcomes:

4. **Measure the contribution of transportation to better health outcomes and reduced health care costs**. More research is needed to quantify transportation's contribution to improved health quality and related cost savings. Both medical and transportation providers can develop experience-based data to confirm the value of NEMT and transportation to other services and activities to keep people healthy.
5. **Coordinate NEMT with public transportation to meet the unique requirements of Medicaid beneficiaries, particularly in rural areas**. NEMT is necessary for access to medical care, particularly for Medicaid beneficiaries living in rural areas where travel distances to medical services can be long and transportation options are limited. State Medicaid agencies, brokers, and MCOs can coordinate with public transit agencies that operate rural public transportation to provide demand-response NEMT.
6. **Demonstrate and evaluate the value of a ridesourcing program for NEMT medical appointments**. Mobile technologies and ridesourcing companies are transforming transportation. Ridesourcing is a type of transportation that provides a vehicle for hire on demand from a pool of private passenger vehicles. Passengers source rides through a smartphone app. Ridesourcing companies are sometimes called transportation network companies (TNCs) or ride-hailing services. Health care providers and benefits managers are providing patients with transportation via ridesourcing for preventive and chronic care services. Demonstration projects will provide the opportunity to address concerns and evaluate the value of ridesourcing programs for NEMT.

What Strategies Contribute to a Better Quality of Service for NEMT?

Stakeholders agreed that providing dependable NEMT service that is safe and on time will improve Medicaid beneficiary access to medical services, contribute to improved health outcomes, and lead to a better quality of life. Two strategies contribute to providing a better quality of service through coordinated transportation:

7. **Use technology to enhance NEMT program administration and verify medical trips**. Available technology can enhance NEMT program administration and facilitate transportation coordination.
8. **Identify the key data required and establish standard procedures for data collection and reporting of NEMT performance**. Obtaining high-quality, consistent data is a key to measuring performance, monitoring compliance, and addressing the other components of

transportation program management. Particularly in situations where state Medicaid agencies contract with other entities—for example, brokers or MCOs—standard procedures for collecting data and reporting performance for NEMT will help to inform all stakeholders.

What Strategies Maximize Transportation Services Delivered Within Available Resources?

Delivering efficient transportation can help to maximize transportation services delivered within available resources. CMS and state Medicaid agencies expect NEMT to be provided at the lowest cost for the most appropriate transportation service for the Medicaid beneficiary. More efficient NEMT will help to achieve the lowest cost. Public transit agencies seek to coordinate transportation services with human services agencies to improve the efficiency of public transportation services. Economies of scale can be realized by reducing unnecessary redundancies in service and more efficiently using transportation assets. Six strategies are identified to help to maximize transportation services delivered within available resources by coordinating NEMT with public transportation:

9. **Use fixed-route transit for appropriate NEMT trips at the lowest cost**. If available for the trip and appropriate for the Medicaid beneficiary, fixed-route transit is the lowest cost for NEMT. If a Medicaid beneficiary makes an NEMT trip on fixed-route public transit, the cost to Medicaid is the transit fare.
10. **Coordinate shared-ride, demand-response NEMT with other transportation programs to reduce costs per trip**. Coordinating shared-ride, demand-response transportation can reduce the costs per NEMT trip by more efficiently using existing transportation resources (e.g., vehicles, drivers, and administrative staff).
11. **Implement a transparent cost allocation methodology to show how shared-ride public transportation can lower the cost for an NEMT trip**. Public transportation providers can adopt a comprehensive cost accounting system that clearly identifies all costs incurred and all services rendered in order to establish and implement cost allocation to identify direct costs for coordinated services, including NEMT. A comprehensive cost allocation methodology can help to document accurately the direct costs of providing NEMT. The transparency of such a model ensures accountability for NEMT.
12. **Establish a procedure to set a rate for NEMT trips on ADA paratransit that is consistent with Medicaid guidelines**. When NEMT is provided for individuals with disabilities, a state Medicaid agency or an NEMT broker may have an opportunity to work with a public transit agency to establish a cost-effective rate per NEMT trip on ADA paratransit. CMS has stated that DRA will permit a state Medicaid agency or broker to pay more than the public transit fare for an NEMT trip using ADA paratransit but no more than the rate charged to other human services agencies for similar trips. Public transit agencies can work with other stakeholders to establish an appropriate procedure to set a rate for the use of ADA paratransit that applies to human services agencies and NEMT.
13. **Negotiate operations practices and reimbursement rates for transportation providers to recover the direct costs of delivering NEMT service**. Public transit agencies and NEMT brokers can work effectively together to the benefit of both if there is a mutual business interest and if both parties have the opportunity to negotiate operational practices and reimbursement rates (pricing) to reflect the direct costs of delivering NEMT service.
14. **Adopt procedures and timelines for invoicing and payment for NEMT**. Public and private stakeholders for NEMT recognize the benefits of good business practices, including the preparation of accurate and complete invoices and timely payment. Providers of NEMT need prompt payment of invoices to ensure cash flow for incurred expenses such as payroll, fuel, and parts and supplies for vehicle maintenance. Buyers of NEMT service can

ensure positive relationships with transportation providers and benefit from lower prices based on good business practices.

Description of Strategies

In the following boxes, each strategy is described—its opportunities, challenges, stakeholder roles, examples, and useful resources.

Strategy 1. Align goals and objectives to achieve common desired outcomes.	
Opportunities	Stakeholders find it is increasingly important to consider how improved coordination and collaboration can help to meet the growing need for NEMT within the constraints of limited financial resources. By establishing goals based on what stakeholders share as common desired outcomes, rather than on where there is disagreement among specific objectives, collaboration can be more effectively pursued. The common desired outcomes are improved health, better quality of service, and maximum services delivered within available resources (more efficient delivery of NEMT service).
Challenges	Stakeholders involved in funding and providing NEMT reflect different perspectives. For example, the Medicaid perspective focuses on getting eligible beneficiaries to and from approved medical services with the most appropriate mode of transportation at the lowest cost, while avoiding the risks of fraud and abuse. Reflecting a different perspective, public transportation agencies focus on getting all riders to and from a variety of destinations, including medical services, through shared rides and coordinated funding programs.
Stakeholder roles	Transportation to improve access to medical services for individuals and families with low incomes requires the efforts of state officials, regional and local transportation providers, statewide or regional brokers (in a growing number of states), and MCOs. All stakeholders can participate in the effort to align goals and objectives from different stakeholder perspectives. Human services program managers and mobility managers can serve as facilitators.
Highlights from case study examples	**Massachusetts**. The Commonwealth coordinates human services transportation, including NEMT, and public transportation under brokerages operated by regional transit authorities. A regional mobility manager in each of nine regions works to coordinate the goals and objectives for community transportation in each region. **North Carolina**. Community transportation providers are required to have a Transportation Advisory Board (TAB). The TAB includes stakeholders with a variety of perspectives that participate in an open dialogue about the objectives for coordination of all transportation with a single provider within a county or region. **Oregon**. Lane Transit District (LTD) is the public transit agency for Eugene-Springfield and the NEMT broker for the CCO in Lane County. LTD attributes the successful collaboration to the effort to align goals and objectives of public transit with the CCO when the partnership began.
Resources	U.S. General Accountability Office. 2006. *Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, GAO-06-15. https://www.gao.gov/assets/250/248219.pdf. U.S. General Accountability Office. 2012. *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms,* GAO-12-1022. https://www.gao.gov/products/GAO-12-1022. Schlossberg, M. 2003. "Developing Coordination Policies for Paratransit and the Transportation Disadvantaged," *Transportation Research Record: Journal of the Transportation Research Board*, No. 1841. http://trrjournalonline.trb.org/doi/abs/10.3141/1841-08.

Strategy 2. Include NEMT stakeholders when preparing or updating a locally developed, coordinated human services transportation–public transportation plan.	
Opportunities	The federal transportation authorization bill, the FAST Act, stipulates public transit agencies should coordinate public transportation services with human services transportation. The coordination of NEMT with public transportation and other human services transportation can better meet the needs of transportation-disadvantaged individuals for all trip purposes to improve quality of life. Coordinating transportation can improve the efficiency of transportation services by reducing unnecessary redundancies in service and more efficiently using existing transportation resources.
Challenges	State agencies responsible for Medicaid NEMT and public transportation may not currently align programs for the purpose of meeting the transportation needs of the transportation disadvantaged (older adults, individuals with disabilities, and individuals with low income). In states with in-house management, coordination of NEMT with public transportation may be a missed opportunity. In other states where a statewide or regional broker is the NEMT model, the state Medicaid agency may not require or encourage brokers to consider public transportation providers.
Stakeholder roles	The purpose of CCAM is to reduce duplication among federally funded transportation services, increase the efficient delivery of such services, and expand transportation access for older adults, individuals with disabilities, and persons with low income. The FAST Act directs CCAM to develop a strategic plan that outlines the role and responsibilities of each federal agency with respect to local transportation coordination, including NEMT, to strengthen interagency collaboration. FTA requires projects funded under the Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program to be included in a locally developed, coordinated human services transportation–public transportation plan. Regional and local transportation providers, NEMT brokers, MCOs, human services program managers, and mobility managers can contribute to locally developed, coordinated transportation plans.
Highlights from case study examples	**Texas.** State statute requires each of 24 regions to develop regionally coordinated human services–public transportation plans to promote strategic partnerships among local and state agencies. A lead entity in each region works with other stakeholders to prepare and update the coordinated transportation plans. Lead entities are encouraged to involve NEMT brokers and transportation providers in the regional coordination effort. Participation varies by region. When the NEMT regional broker does participate, the effectiveness of the process is enhanced.
Resources	U.S. General Accountability Office. 2012. *Transportation-Disadvantaged Populations, Federal Coordination Efforts Could Be Further Strengthened*, GAO-016-15. http://www.gao.gov/assets/600/591707.pdf. FTA. "Coordinating Council on Access and Mobility." https://www.transit.dot.gov/ccam. National Center for Mobility Management. http://nationalcenterformobilitymanagement.org/.

Strategy 3. Adopt common geographic boundaries for service areas.	
Opportunities	Coordination is more likely to improve the efficiency of transportation services if Medicaid and transportation agencies can find a way to adopt common geographic boundaries for NEMT and public transportation services. At a minimum, common boundaries for different types of transportation services will improve the ability to communicate available services to customers.
Challenges	State agencies use a variety of means to determine the geographic boundaries for delivery of transportation services. For example, some state Medicaid agencies may define NEMT service areas according to metropolitan areas, county jurisdictions, health care catchment areas, or a variety of other boundaries. Public transit agencies may be defined by city or county boundaries, or by voter approval for specific jurisdictions. Complex and overlapping service areas may confuse customers and make coordination of NEMT with public transportation more difficult. Sometimes the differences in service coverage areas or policies for crossing jurisdiction boundaries may present challenges. For example, if public transportation is not available throughout an entire state, the state Medicaid agency has no choice but to find other providers. Medicaid trips in rural areas are likely to cross the boundaries of a public transit agency. In some instances, public transit agencies cannot, by statute or by policy, provide service outside jurisdiction boundaries.
Stakeholder roles	State Medicaid agencies can consider public transportation geographic service areas when deciding regions for delivery of NEMT services by fee for service or broker. State, regional, and local public transportation agencies can more effectively collaborate with the state Medicaid agency if service areas can be flexible to accommodate NEMT trips. This may mean finding operational solutions for trips that cross jurisdiction boundaries or seeking legislative relief if statutes or local ordinances prohibit this type of coordination.
Highlights from case study examples	**Massachusetts.** The state Medicaid agency provides NEMT through a coordinated transportation program. Six regional public transit authorities serve as brokers to provide transportation services in nine regions. **North Carolina.** Each county Department of Social Services may contract with the local community transportation provider for NEMT. **Pennsylvania.** The broker for MATP (NEMT) in Allegheny County is ACCESS, the ADA paratransit provider for the Port Authority of Allegheny County (Pittsburgh). ACCESS provides NEMT by subcontracting to six different transportation providers.
Resources	KFH Group, Inc. 2008. *TCRP Report 124: Guidebook for Measuring, Assessing, and Improving Performance of Demand-Response Transportation*. http://www.trb.org/Publications/Blurbs/159758.aspx. Ellis, E., and KFH Group, Inc. 2009. *TCRP Report 136: Guidebook for Rural Demand-Response Transportation: Measuring, Assessing, and Improving Performance*. http://www.trb.org/Publications/Blurbs/162701.aspx.

Strategy 4. Measure the contribution of transportation to better health outcomes and reduced health care costs.	
Opportunities	More research is needed to quantify transportation's contribution to improved health outcomes and related cost savings. Both medical and transportation providers can develop experience-based data to confirm the value of NEMT and transportation to other services and activities to keep people healthy.
Challenges	Improved mobility is an important factor in keeping people healthy. Mobility involves more than an occasional trip to the doctor. Preventive health care and community-based rehabilitation services, for example, contribute to maintaining good health. Access to fresh and affordable groceries, pharmacies, and recreational and socialization activities helps to keep people healthy. Within some age groups, access to employment is a key to maintaining good health. Mobility and access to services are important to improve health outcomes and lower (or at least control) medical costs; however, more research is needed to accurately measure transportation-related benefits and actual reduced costs.
Stakeholder roles	All stakeholders can participate in projects to measure the contribution of transportation to better health outcomes and reduced health care costs. CCAM can encourage related research. State Medicaid agencies can document the reduced number and duration of hospital visits and reduced use of ambulances for emergency transportation. Brokers and transportation providers can document NEMT trips. MCOs, human services program managers, and mobility managers can document experience-based data and link to evidence of health outcomes.
Highlights from case study examples	**Florida.** Medicaid recipients in Florida now enroll in a health plan provided by an MCO. NEMT is carved in to each health plan. The MCOs are responsible for health outcomes. **Oregon.** The CCOs in Oregon have made significant progress integrating required services and encounter data into the information systems. Some CCOs have integrated NEMT service data and health services encounter data.
Resources	Cheung, P. T., J. T. Wiler, R. A. Lowe, and A. A. Ginde. 2012. "National Study of Barriers to Timely Primary Care and Emergency Department Utilization Among Medicaid Beneficiaries," *Annals of Emergency Medicine*, Vol. 60, No. 1. http://www.annemergmed.com/article/S0196-0644(12)00125-4/pdf. National Center for Mobility Management. http://nationalcenterformobilitymanagement.org/. Hughes-Cromwick, P., R. Wallace, H. Mull, et al. 2005. *TCRP Web-Only Document 29: Cost-Benefit Analysis of Providing Non-emergency Medical Transportation*. https://www.nap.edu/catalog/22055/cost-benefit-analysis-of-providing-non-emergency-medical-transportation. Wallace, R., P. Hughes-Cromwick, and H. Mull. 2006. "Cost Effectiveness of Access to Nonemergency Medical Transportation: Comparison of Transportation and Health Care Costs and Benefits," *Transportation Research Record: Journal of the Transportation Research Board*, No. 1956. http://trrjournalonline.trb.org/doi/abs/10.3141/1956-11.

Strategy 5. Coordinate NEMT with public transportation to meet the unique requirements of Medicaid beneficiaries, particularly in rural areas.	
Opportunities	NEMT is necessary for access to medical care, particularly for Medicaid beneficiaries living in rural areas where travel distances to medical services can be long and transportation options are limited. Fewer transportation providers are available for NEMT in rural areas. State Medicaid agencies, brokers, and MCOs can contract with public transit agencies that operate rural public transportation to provide demand-response NEMT. Coordination with public transportation can leverage FTA Section 5311 funds and make full use of required compliance with federal and state regulations, increasing the safety and quality of service for NEMT in rural areas. Federal cost principles enable public transit agencies to share the use of vehicles to provide NEMT. FTA requires public transit agencies to operate wheelchair-accessible vehicles, which can benefit NEMT clients who use mobility devices.
Challenges	A public transit agency may incur additional costs to meet the NEMT service challenges in rural areas. Rural NEMT trips tend to be longer, and there is less opportunity for shared rides to medical appointments. Due to long distances and limited ability to share rides, one passenger trip can take several hours for travel to/from the medical appointment, requiring the dedication of a driver and vehicle for several hours. Performance standards for wait time and travel time may be difficult or not possible to meet for long-distance travel and shared rides.
Stakeholder roles	Brokers and MCOs that receive capitation payments have some flexibility to adapt service strategies and reimbursement rates to meet NEMT challenges in rural areas. MCOs can demonstrate strategies that reduce costs associated with long-distance medical trips (e.g., group scheduling for medical appointments). Public transit agencies can demonstrate through a transparent cost allocation methodology and proven performance that rural public transportation can be cost effective and add value for NEMT with qualified, trained drivers and well-maintained, accessible vehicles that meet federal and state transit regulations.
Highlights from case study examples	**North Carolina.** By coordinating NEMT with rural public transit, community transportation systems in North Carolina achieve increased productivity estimated at 5 percent (expressed in terms of passengers per hour and passengers per mile). **Texas.** Regional NEMT brokers serving very rural areas in Texas do not have access to many transportation providers. A rural transit district may be one of the few possible NEMT providers. Rural transit districts report that the cost for NEMT passenger trips tends to be higher in very rural areas due to the longer trips and less opportunity for shared rides due to limits on total NEMT passenger travel time.
Resources	Mattson, J. 2011. "Transportation, Distance, and Health Care Utilization for Older Adults in Rural and Small Urban Areas," *Transportation Research Record: Journal of the Transportation Research Board*, No. 2265. http://trrjournalonline.trb.org/doi/abs/10.3141/2265-22. Burkhardt, J. E., C. A. Nelson, G. Murray, et al. 2004. *TCRP Report 101: Toolkit for Rural Community Coordinated Transportation Services.* http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_101.pdf.

Strategy 6. Demonstrate and evaluate the value of a ridesourcing program for NEMT medical appointments.	
Opportunities	The Medicaid program is changing from traditional, state-administered fee-for-service medicine to managed care or coordinated care that rewards medical providers for keeping people healthy and out of costly emergency facilities. At the same time, mobile technologies and ridesourcing companies are transforming transportation. Ridesourcing companies are also known as TNCs or ride-hailing services. The concurrence of these emerging developments has implications for NEMT.
Challenges	Ridesourcing for NEMT may offer opportunities, but there is a need to evaluate potential challenges surrounding the use of nontraditional transportation and new technologies. The same socioeconomic and demographic factors that create transportation barriers for Medicaid beneficiaries may also mean the same individuals do not have access to technology such as smartphones. NEMT clients may require personal assistance, which can lead to slower service at odds with the financial incentives for ridesourcing drivers. Ridesourcing companies have been reluctant to enter into the NEMT business because of requirements for driver credentialing and data sharing. These and other challenges require evaluation and resolution to confirm the value of a ridesourcing program for NEMT.
Stakeholder roles	Health care providers and benefits managers are providing patients with transportation via ridesourcing for preventive and chronic care services. MCOs have the flexibility to demonstrate and adapt policies and procedures for use of ridesourcing for NEMT. Brokers can serve as intermediaries to resolve some NEMT challenges. For example, the broker's call center can accept requests for transportation from NEMT clients and then relay the request via a secure platform to dispatch a ridesource driver. In some states, public transit agencies are demonstrating use of ridesourcing to provide ADA paratransit. These experiences can contribute to finding ways to optimize the use of public transportation and ridesourcing for NEMT.
Highlights from case study examples	**Pennsylvania.** The Central Pennsylvania Transportation Authority (rabbittransit) announced in 2017 that the agency is working with TNCs to create a program in which senior citizens, people with disabilities, and Medicaid beneficiaries can use ridesourcing services if rabbittransit is overbooked or short on vehicles. Officials of rabbittransit say ridesourcing services are sometimes used to free up public transit vehicles in urban areas, and other times ridesourcing services are used for single trips in more rural areas that cannot be combined with other trips in a shared ride.
Resources	National Center for Mobility Management. http://nationalcenterformobilitymanagement.org/. TRB. 2015. Special Report 319: *Between Public and Private Mobility: Examining the Rise of Technology-Enabled Transportation Services*. http://www.trb.org/Publications/Blurbs/173511.aspx.

Strategy 7. Use technology to enhance NEMT program administration and verify medical trips.	
Opportunities	Available technology can enhance NEMT program administration in several ways: • Verify the client requesting NEMT services is eligible and the trip is for an approved, valid medical purpose. • Assign the trip to a transportation provider qualified to offer the appropriate level of service at the lowest cost. • Document the date, time, and location for each NEMT encounter. • Track and report transportation performance metrics. • Schedule NEMT and other trips with one call/one click. • Provide real-time transportation information to riders. • Connect transportation and health care datasets to measure health outcomes.
Challenges	Medicaid will permit NEMT funds to be used only for transportation for eligible Medicaid beneficiaries to authorized medical services. NEMT requires verification that the Medicaid-eligible passenger receives an authorized medical service on the date of transportation and consistent with the time of the medical appointment. Medicaid expects to pay only the direct costs for the eligible NEMT trip.
Stakeholder roles	State Medicaid agencies and state DOTs can provide funding support or incentivize brokers and transportation providers to develop technology applications for NEMT. Public transit agencies deploy technology to improve the customer experience and increase operating efficiency and effectiveness; advancements in technology for public transportation can be applied to benefit NEMT. MCOs have the flexibility to develop and implement new technology.
Highlights from case study examples	**Massachusetts.** Montachusett Regional Transit Authority (MART) brokers NEMT and other human services transportation in four regions. MART uses a web-based, real-time, competitive bidding system to keep prices affordable. **Oregon.** The benefit of coordinated care is the flexibility of some CCOs to adopt software enhancements to collect encounter data while protecting personal information under privacy provisions of the Health Insurance Portability and Accountability Act. **Pennsylvania.** FindMyRidePA is a Pennsylvania-based service designed to help anyone to identify and evaluate options to meet their transportation needs. In some cases, users can even book a trip directly. The transportation services available through FindMyRidePA are fixed-route buses and shared-ride services. Shared-ride services include the Shared-Ride Program for Senior Citizens, Rural Transportation for Persons with Disabilities Program, and MATP (NEMT).
Resources	National Center for Mobility Management. 2013. "Transportation Coordination Enabled by Technology and Innovative Design." http://nationalcenterformobilitymanagement.org/wp-content/uploads/2013/11/Promising-Practices_Transportation-Coordination-Enabled-by-Technology.pdf. Schweiger, C. L. 2011. *TCRP Synthesis 91: Use and Deployment of Mobile Device Technology for Real-Time Transit Information.* http://www.trb.org/Publications/Blurbs/166249.aspx.

Strategy 8. Identify the key data required and establish standard procedures for data collection and reporting of NEMT performance.	
Opportunities	Obtaining high-quality, consistent data is a key to measuring performance, monitoring compliance, and addressing the other components of good transportation program management. Particularly in situations where state Medicaid agencies contract with other entities—for example, brokers or MCOs—standard procedures for collecting data and reporting performance will help to inform all stakeholders. The NTD serves as an example of an effective way to gather consistent data from many transportation providers. The NTD is a reporting system that collects public transportation financial and operating information every year from all public transit agencies that receive federal funding from FTA. Each year, NTD performance data are used to apportion $5 billion of FTA formula funds to public transit agencies. FTA submits annual NTD reports to Congress summarizing transit service and safety data.
Challenges	Consistent data for NEMT across states do not exist. Federal and state funding for NEMT is not consistently tracked and reported at the state level. Without standardized and consistent data collection, tracking, and reporting practices, measuring performance in meeting goals is difficult, and decision makers lack good information to make policy and operating decisions.
Stakeholder roles	CCAM could sponsor an initiative to identify the data that are appropriate for NEMT reporting. CMS could promote a national effort for consistent data collection and reporting, similar to the NTD. CMS and FTA could enter into a cooperative agreement, perhaps through the National Center for Mobility Management, to train and provide technical backup to state Medicaid agencies, brokers, transportation providers, and other organizations to collect and report quality performance data for NEMT. State Medicaid agencies could incorporate standard procedures for collecting data and reporting NEMT data in requests for proposals and contracts with transportation providers, brokers, and MCOs. States could report annual data on standard forms to CMS.
Highlights from case study examples	**Massachusetts.** EOHHS established the Human Service Transportation Office to coordinate transportation for multiple health and human services agencies, including NEMT for the state Medicaid agency (MassHealth). Each year, the Human Service Transportation Office compiles system performance measures for all transportation services provided through regional brokerages. The performance measures are reported in an annual report by region, by the Human Service Transportation Office program, and by totals. Universal performance measures apply to all state programs operating under the brokerage. **New Jersey.** DMAHS requires that the statewide broker provide data to enable DMAHS to compile a substantial monthly *Transportation Broker Report*. This report is a valuable tool for monitoring the Medicaid NEMT program and provides current and historical data.
Resources	National Center for Mobility Management. http://nationalcenterformobilitymanagement.org/. FTA. 2017. *2017 NTD Policy Manual*. https://www.transit.dot.gov/node/57981.

Strategy 9. Use fixed-route transit for appropriate NEMT trips at the lowest cost.	
Opportunities	If available for the trip and appropriate for the Medicaid beneficiary, fixed-route transit is the lowest cost for NEMT. If a Medicaid beneficiary makes an NEMT trip on fixed-route public transit, the cost to Medicaid is the transit fare. Public transit agencies benefit from NEMT riders on fixed routes to increase productivity (passengers per hour) and cost-effectiveness (cost per passenger). Brokers and MCOs benefit from the lowest cost for NEMT trips. If the state Medicaid agency directly contracts for NEMT, the state benefits from the low cost for NEMT.
Challenges	Fixed-route public transportation is not available in all communities. Fixed-route bus and rail transit services are most common in more densely populated urban areas. Not every Medicaid beneficiary can use fixed-route transit. Some individuals cannot use fixed-route transit or get to fixed-route stops due to a disability. For these individuals, fixed-route transit is not appropriate for an NEMT trip. When fixed-route bus and rail public transportation is available for convenient travel, brokers and MCOs do not always take full advantage of this lower-cost option for NEMT.
Stakeholder roles	All stakeholders can participate in the effort to use fixed-route transit for appropriate NEMT trips at a lower cost. CMS can update the guidance on use of bus passes to reflect current technology for smart fare cards. State Medicaid agencies can require or incentivize brokers and MCOs to use fixed-route transit when appropriate. Public transit agencies can facilitate by providing customer information for ease of planning and scheduling NEMT trips on transit. Human services program managers and mobility managers can provide travel training for Medicaid beneficiaries to take advantage of fixed-route transit for greater mobility.
Highlights from case study examples	**New Jersey.** Because of the extensive public transit system in urban counties in New Jersey, many Medicaid beneficiaries can use fixed-route rail or bus service to travel to medical appointments. In urban areas, public transportation represents 23.5 percent of NEMT trips. The use of fixed-route transit reduced the cost of NEMT in New Jersey. **Oregon.** In Lane County, the CCO (Trillium) elected to continue contracting with the established regional community broker (RideSource) for a service of the public transit agency, LTD. As the NEMT broker, RideSource assigns appropriate trips to LTD fixed route. Under the CCO model, passenger trips assigned to LTD fixed route increased 117 percent. **Pennsylvania.** The Department of Health Services estimates that 41 percent of NEMT trips are on fixed-route public transportation statewide. Reported expenditures for MATP (NEMT) were an average $12.96 per passenger trip in 2013, which is one-third the average cost of NEMT per passenger trip reported by some other states.
Resources	Thacher, R., C. Ferris, D. Chia, et al. 2013. *TCRP Report 163: Strategy Guide to Enable and Promote the Use of Fixed-Route Transit by People with Disabilities*. http://www.trb.org/Publications/Blurbs/170626.aspx.

Strategy 10. Coordinate shared-ride, demand-response NEMT with other transportation programs to reduce costs per trip.	
Opportunities	Coordinating shared-ride, demand-response transportation can reduce the costs per NEMT trip by more efficiently using existing transportation resources (e.g., vehicles, drivers, and administrative staff).
Challenges	Obstacles impeding coordination include concerns of program sponsors that their own participants might be negatively affected by shared rides, program rules that limit use by others, real and perceived regulatory barriers, and limited guidance and information on coordination. Coordination of services is also challenging due to differences in federal program requirements and statutory barriers.
Stakeholder roles	All stakeholders can participate in efforts to ensure that real and perceived obstacles are addressed through good program coordination, improved quality of service, and demonstrated efficiencies. Members of CCAM can propose changes to federal regulations that will eliminate barriers to transportation coordination. Public transit agencies can demonstrate the advantages of coordinating to make full use of required compliance with federal and state regulations, increasing the safety and quality of service for NEMT.
Highlights from case study examples	**Massachusetts.** The use of regional transit authorities to broker coordinated human services transportation in Massachusetts has produced positive results for the NEMT program by containing costs per trip and ensuring service quality. **North Carolina.** Community transportation increases operating efficiencies for shared rides on demand-response transportation services. Coordinating NEMT trips with community transportation achieves increased efficiencies. Medicaid beneficiaries can arrange transportation for multiple trip purposes with one call/one click. **Pennsylvania.** rabbittransit is the shared-ride coordinator for a multicounty region in southcentral Pennsylvania. With the coordinated approach, rabbittransit is better equipped to fulfill trips across county lines and can provide additional mobility services for the region. Cost efficiencies are realized by eliminating duplicative administrative costs for county-specific programs, including MATP (NEMT).
Resources	KFH Group, Inc. 2008. *TCRP Report 124: Guidebook for Measuring, Assessing, and Improving Performance of Demand-Response Transportation*. http://www.trb.org/Publications/Blurbs/159758.aspx. Ellis, E., and KFH Group, Inc. 2009. *TCRP Report 136: Guidebook for Rural Demand-Response Transportation: Measuring, Assessing, and Improving Performance*. http://www.trb.org/Publications/Blurbs/162701.aspx. Burkhardt, J. E., R. Garrity, K. McGehee, et al. 2011. *TCRP Report 144: Sharing the Costs of Human Services Transportation*. http://www.trb.org/Publications/Blurbs/165015.aspx.

Strategy 11. Implement a transparent cost allocation methodology to show how shared-ride public transportation can lower the cost for an NEMT trip.	
Opportunities	Public transportation providers can adopt a comprehensive cost accounting system that clearly identifies all costs incurred and all services rendered in order to establish and implement cost allocation to identify direct costs for coordinated services, including NEMT. A comprehensive cost allocation methodology can help to accurately document the direct costs of providing NEMT. The transparency of such a model ensures accountability for NEMT and helps to make the case for appropriately pricing public transportation.
Challenges	A public transit agency looks to negotiate a price for NEMT demand-response service to cover the fully allocated cost of the NEMT trip. Fully allocated costs include variable costs of the NEMT trip plus direct fixed costs. However, Medicaid expects to pay only the direct costs for the NEMT trip, and Medicaid is the payer of last resort. A fundamental function of an NEMT broker is to arrange the most appropriate and lowest-cost transportation to and from authorized medical services. If the broker is a governmental entity and the individual transportation service is provided by the broker, or is referred to or subcontracted with another government-owned or operated transportation provider, then additional financial conditions must be met. The additional financial conditions are maintaining a separate cost accounting system for NEMT, excluding shared costs or costs allocated from another governmental entity, and documenting the public transportation service as the lowest-cost transportation available.
Stakeholder roles	CCAM is developing a cost-sharing policy to increase participation by recipients of federal grants in locally developed, coordinated planning processes. The state Medicaid agency and state DOT in each state can develop a cost allocation methodology appropriate for the NEMT model in that state. The state Medicaid agency can encourage private and public NEMT brokers to join the collaboration. The cost allocation methodology can be applicable to human services transportation and public transportation providers that participate in NEMT.
Highlights from case study examples	**North Carolina.** The North Carolina Department of Transportation created a standardized cost allocation methodology for use by all community transportation systems. With this spreadsheet tool, all providers had a common methodology to price service provided under contract for NEMT, as well as other human services agencies. **Pennsylvania.** The cost allocation model used by ACCESS in Allegheny County provides transparency and an explanation for the costs of services. The cost allocation model calculates an average cost per passenger trip for the system, an average cost per passenger trip that is specific to a sponsor (e.g., NEMT), and the marginal cost per passenger trip. ACCESS also uses the cost allocation model to demonstrate how sponsors can adopt operating policies that can lower cost.
Resources	Burkhardt, J. E., R. Garrity, K. McGehee, et al. 2011. *TCRP Report 144: Sharing the Costs of Human Services Transportation*. http://www.trb.org/Publications/Blurbs/165015.aspx.

Strategy 12. Establish a procedure to set a rate for NEMT trips on ADA paratransit that is consistent with Medicaid guidelines.	
Opportunities	When NEMT is provided for individuals with disabilities, a state Medicaid agency or an NEMT broker may have an opportunity to work with a public transit agency to establish a cost-effective rate per NEMT trip on ADA paratransit. CMS has stated that the DRA will permit a state Medicaid agency or broker to pay more than the public transit fare for an NEMT trip using ADA paratransit but no more than the rate charged to other human services agencies for similar trips.
Challenges	Given FTA regulations that prohibit ADA capacity constraints, a public transit agency cannot deny a trip request from an ADA-eligible traveler for an NEMT trip. Typically, the fare for an ADA paratransit trip covers only a small portion (7.5 percent) of the cost of the service. The remainder of the cost of ADA service must come from federal transit grants, state funds, or local subsidies. Growing demand for ADA paratransit service stemming from shifts of NEMT trips to public transportation can be a significant concern for some public transit agencies. A state Medicaid agency or NEMT broker may pay a rate for NEMT trips on ADA paratransit that is more than the public transit fare but no more than what the public transit agency charges other human services agencies for similar trips.
Stakeholder roles	A state Medicaid agency or broker can pay a public transit agency the rate charged to other human services agencies for similar trips on ADA paratransit. This policy is stated in Medicaid regulations for NEMT, and the state Medicaid agency can include these provisions in the contract with brokers. There is no requirement that ADA paratransit providers be paid at cost for NEMT trips by the state Medicaid agency or brokers. Public transit agencies can work with the state Medicaid agency and brokers to establish a procedure to confirm ADA eligibility using the public transit ADA certification process, document actual NEMT passenger trips on ADA paratransit, and establish a rate for NEMT trips. The rate for an NEMT trip can be more than the public transit fare for ADA paratransit but no more than what the public transit agency charges other human services agencies for similar trips.
Highlights from case study examples	**Florida.** The Jacksonville Transportation Authority (JTA) reported an increased number of ADA paratransit trips when the Managed Medical Assistance program went into effect during the Demonstration Pilot Program for Managed Care. Other than the fare for ADA paratransit, JTA received no reimbursement or shared costs from the MCO or the MCO broker. **Massachusetts.** Executive Order 530 established a Commission for the Reform of Community, Social Service, and Paratransit Transportation Services in the Commonwealth of Massachusetts. In one of 60 recommendations, the commission recommended establishing a working group to develop a mechanism to apply for Medicaid funding for NEMT services provided on Massachusetts Bay Transportation Authority fixed routes and ADA paratransit for Medicaid-eligible beneficiaries.
Resources	KFH Group, Inc. 2008. *TCRP Report 124: Guidebook for Measuring, Assessing, and Improving Performance of Demand-Response Transportation*. http://www.trb.org/Publications/Blurbs/159758.aspx. Burkhardt, J. E., R. Garrity, K. McGehee, et al. 2011. *TCRP Report 144: Sharing the Costs of Human Services Transportation*. http://www.trb.org/Publications/Blurbs/165015.aspx.

Strategy 13. Negotiate operations practices and reimbursement rates for transportation providers to recover the direct costs of delivering NEMT service.	
Opportunities	Public transit agencies and NEMT brokers can work effectively together to the benefit of both if there is a mutual business interest and if both parties have the opportunity to negotiate operational practices and reimbursement rates (pricing) to reflect the cost of delivering NEMT service. This mutual business interest can be enhanced if the cost allocation methodology is transparent and follows a cost-sharing policy approved at the federal and state levels (see Strategy 11). *Cost* means the total cost of providing transportation services. *Price* refers to a rate of payment specified in a contract between the broker and the transportation provider. Price can be specified as a cost per trip, per mile, per hour, or some combination of these; additions to the price might be allowed for special or extraordinary service or assistance.
Challenges	Reimbursement rates and performance standards should reflect the actual costs of providing NEMT services. For example, a Medicaid standard of one hour or less to pick up and return an NEMT client from a medical service to home might be less than the average time for a shared-ride trip. When the transportation provider has to make a trip for one NEMT client, the per-trip cost increases. Under a fixed-price reimbursement structure, recovering actual trip expenses may be difficult for any transportation provider. If this happens too often, private transportation providers will not be able to sustain the business in the long term. If the actual cost for an NEMT trip is not recovered by a public transportation provider, another source of public revenue will be required to subsidize NEMT trips.
Stakeholder roles	State DOTs can work with transit agencies and other NEMT transportation providers to ensure that each provider understands how operational procedures affect the costs of NEMT services and how to negotiate pricing strategies that appropriately and reasonably recover the costs of NEMT services.
Highlights from case study examples	**New Jersey.** The general practice of New Jersey's statewide broker is to negotiate specific rates for transportation with each individual public transportation provider for demand-response NEMT trips. Negotiated rates are usually flat rates per trip or mileage-based rates (with a specified amount for picking up the client). Several public transportation providers are satisfied with the rates they have been offered by the broker. Providers in other areas reported that flat rates do not cover all NEMT-related trip costs. **Pennsylvania.** The cost allocation model used by ACCESS in Allegheny County provides an explanation for the costs of services as well as transparency about the way money is spent. ACCESS also uses the cost allocation model to demonstrate how sponsors can adopt operating policies that can lower cost. **Texas.** Some public transit districts that contract with a regional broker(s) have negotiated rates to recover reasonable costs for long-distance NEMT trips where a driver and vehicle are dedicated all day to one or a few NEMT clients.
Resources	Burkhardt, J. E., R. Garrity, K. McGehee, et al. 2011. *TCRP Report 144: Sharing the Costs of Human Services Transportation* http://www.trb.org/Publications/Blurbs/165015.aspx.

Strategy 14. Adopt procedures and timelines for invoicing and payment for NEMT.	
Opportunities	Public and private stakeholders for NEMT recognize the benefits of good business practices, including preparation of accurate and complete invoices and timely payment. Providers of NEMT (for-profit, not-for-profit, and public transportation providers) need prompt payment of invoices to ensure cash flow for incurred expenses such as payroll, fuel, and parts and supplies for vehicle maintenance. Buyers of NEMT service (state Medicaid agencies, brokers, and MCOs) can ensure positive relationships with transportation providers and benefit from lower prices based on good business practices. Paying on agreed terms injects more money into the local economy, helps existing providers to be more sustainable, and benefits public transit agencies that use NEMT revenues to provide local match for federal transit grants.
Challenges	Capitation payments to brokers and MCOs may be paid in advance, but payments to transportation providers are typically for services performed and documented. Too often, payment terms and documentation requirements are not clear in purchase of service contracts between buyers and providers. The providers may not prepare accurate and complete invoices that will withstand audit, delaying payment. The buyers may choose to delay payment to the due date or later as a financial tactic to better the buyer's position. The cost of paying on time is low compared to almost anything else a buyer can do to maintain a good business reputation and ensure good relationships with transportation providers.
Stakeholder roles	State Medicaid agencies can require brokers and MCOs to include prompt payment terms in contracts with transportation providers, as well as follow best practices for fee-for-service contracts. Brokers and MCOs can make clear payment terms and documentation requirements in purchase of service contracts and provide training to prepare accurate invoices with proper documentation. Brokers and MCOs can also promptly review invoices to identify any missing information so that providers can address issues right away. Providers must use good business practices to submit accurate and timely invoices with required documentation of performance. Technology can enhance NEMT invoicing and reporting of performance metrics (see Strategy 7).
Highlights from case study examples	**Massachusetts.** The broker schedules trips with a computerized scheduling system for all human services transportation trips. For NEMT, automated mapping determines mileage, rate, and low-cost transportation provider, programmed to schedule only trips that have a valid PT-1 form (NEMT) in the system. A daily MassHealth consumer eligibility program is run, and ineligible trips are canceled through the program. Authorized scheduled trips are transferred to the transportation provider's invoice to ensure authorization of trips billed.
Resources	Burkhardt, J. E., R. Garrity, K. McGehee, et al. 2011. *TCRP Report 144: Sharing the Costs of Human Services Transportation*. http://www.trb.org/Publications/Blurbs/165015.aspx. TRB. 2001. *Special Report 258: Contracting for Bus and Demand-Responsive Transit Services*. http://onlinepubs.trb.org/onlinepubs/sr/sr258.pdf.

Acronyms and Glossary

Acronyms

The acronyms are presented in sections. The first section reflects general acronyms used throughout the handbook. The following sections reflect acronyms specific to each state case study in Chapter 5 or in the Appendix.

General

ACA	Patient Protection and Affordable Care Act of 2010
ADA	Americans with Disabilities Act of 1990
BHP	Basic Health Program
CCAM	Coordinating Council on Access and Mobility
CFR	Code of Federal Regulations
CHIP	Children's Health Insurance Program
CMS	Centers for Medicare and Medicaid Services
DHHS	U.S. Department of Health and Human Services
DOL	U.S. Department of Labor
DOT	department of transportation
DRA	Deficit Reduction Act of 2005
FFS	fee for service
FMAP	Federal Medical Assistance Percentage
FPL	Federal Poverty Level
FY	Fiscal Year
GAO	U.S. Government Accountability Office
HUD	U.S. Department of Housing and Urban Development
JARC	Job Access and Reverse Commute Program
MCO	managed care organization
NEMT	non-emergency medical transportation
NTD	National Transit Database
PMPM	per member per month
TNC	transportation network company
USDA	U.S. Department of Agriculture

Florida

AHCA	Agency for Health Care Administration
CTC	Community Transportation Coordinator
CTD	Commission for the Transportation Disadvantaged
JTA	Jacksonville Transportation Authority
TD	transportation disadvantaged

Massachusetts

EOHHS	Executive Office of Health and Human Services
MART	Montachusett Area Regional Transit
PT-1	Prescription for Transportation
RCC	Regional Coordinating Council

New Jersey

DMAHS	Division of Medical Assistance and Health Services
IPRO	Island Peer Review Organization, Inc.
NJ TRANSIT	New Jersey Transit Corporation

North Carolina

CTSP	Community Transportation Services Plan
DSS	Department of Social Services
HSTC	Human Service Transportation Council
OIG	Office of Inspector General, U.S. Department of Health and Human Services
TAB	Transportation Advisory Board

Oregon

CCO	Coordinated Care Organization
LTD	Lane Transit District
OHA	Oregon Health Authority
OHP	Oregon Health Plan
RVTD	Rogue Valley Transportation District
TriMet	Tri-County Metropolitan Transportation District of Oregon

Pennsylvania

CPTA	Central Pennsylvania Transportation Authority (rabbittransit)
MATP	Medical Assistance Transportation Program
YATA	York Adams Transportation Authority

Texas

EPSDT	Early and Periodic Screening, Diagnostic and Treatment
FRB	full-risk broker
HHSC	Health and Human Services Commission
MTO	managed transportation organization
SDA	service delivery area
TSAP	transportation service area provider

Glossary

Americans with Disabilities Act of 1990 (ADA)

The Americans with Disabilities Act of 1990 was signed into law on July 26, 1990, by President George H. W. Bush and amended with changes effective January 1, 2009. ADA gives civil rights protections to individuals with disabilities similar to those provided to individuals on the

basis of race, sex, national origin, and religion. ADA guarantees equal opportunity for individuals with disabilities in employment, public accommodations, public transportation, state and local government services, and telecommunications.

Broker

State Medicaid agencies or MCOs may contract with third-party managers (brokers) to be responsible for arranging transportation for Medicaid-eligible beneficiaries to approved services. Brokers are responsible for all functions of NEMT, including verifying a recipient's eligibility, determining the appropriateness of trips, and arranging the most efficient means of transportation. Brokers are also responsible for documentation and reporting beneficiary and trip data. Brokers execute contracts with public or private transportation providers that provide trips to eligible Medicaid beneficiaries under the supervision of the broker. A broker may operate statewide or within a region and the broker may be a full-risk broker or shared-risk broker.

Capitation payment

Formally defined, capitation is a flat periodic payment per enrollee to a health care provider; it is the sole reimbursement for providing services to a defined population. The word *capitation* is derived from the term *per capita*, which means per person. Generally, capitation payments are expressed as some dollar amount PMPM, where member means the enrollee in some managed care plan.

Carving in NEMT services

Carving in NEMT services means that NEMT is included in the responsibility of the health care provider.

Carving out NEMT services

Carving out NEMT services means that NEMT is not included in the responsibility of the health care provider.

Centers for Medicare and Medicaid Services (CMS)

Part of the DHHS, CMS administers Medicare, Medicaid, the Children's Health Insurance Program, and the Health Insurance Marketplace.

Children's Health Insurance Program (CHIP)

CHIP is a program administered by the DHHS that provides matching funds to states, specifically for health insurance to families with children.

Comparability

Comparability is one of three federal requirements that participating state Medicaid plans must meet. Service must be furnished in the same amount, duration, and scope to all individuals in a group. See also *statewideness* and *freedom of choice*.

Complementary paratransit or ADA paratransit

FTA is responsible for regulations to implement ADA provisions for public transportation. FTA and ADA regulations require public transit agencies that provide local fixed-route transit service (bus and rail) to operate complementary paratransit service for people with disabilities who cannot use the fixed-route bus or rail service because of a disability.

A public transit agency must ensure complementary paratransit service meets the following minimum service characteristics for the service to be equivalent to local fixed-route service:

- Operate within a ¾-mile corridor of local fixed routes, around stations and transit centers.
- Operate during the same days and hours as local fixed routes.
- Serve requests for all trip purposes.
- Charge a fare no more than twice the base non-discounted adult fare for fixed route.

- Operate without capacity constraints (e.g., untimely pickups, missed trips, excessive trip lengths, and excessive telephone hold times).
- Accept a reservation at least a day in advance.

Coordinated brokerage

Under a coordinated brokerage, NEMT is coordinated with other regional or local human services transportation programs, often through a public transportation provider, human services agency, or other public or nonprofit organization acting as a regional broker or transportation coordinator. Coordinated brokerages can be established under a Section 1915(b) waiver or Section 1115 demonstration waiver.

Coordinated care organization (CCO)

A variation on the MCO model, CCOs are intended to improve health outcomes for Medicaid members by coordinating physical, mental, and dental care. See also *managed care organization*.

Demand-response transportation

Demand-response transportation is a form of public transportation characterized by flexible routing and scheduling of small to medium-size vehicles operating in shared-ride mode between pickup and drop-off locations according to passengers' needs. Passengers call the transportation operator to make an advance reservation. The transportation operator then dispatches a vehicle and driver to pick up the passengers and take them to their destinations.

Fee for service (FFS)

Fee for service is a method for payment based on the specific service rendered to a specific beneficiary. Under an FFS model, payment for transportation services is made directly to the transportation provider, or payment for mileage reimbursement is made directly to the Medicaid beneficiary. These transactions are based on a predetermined FFS rate. Under most FFS models, a state, county, or local government agency is responsible for administering NEMT.

Fixed-route transit

Fixed-route transit is a form of public transportation characterized by set routing and scheduled stop times and locations, typically with large, high-capacity vehicles, including buses, trains, and streetcars.

Fixing America's Surface Transportation Act (FAST Act)

The FAST Act is the current federal funding and authorization bill governing U.S. surface transportation programs. The FAST Act was signed into law on December 4, 2015. The act authorizes the surface transportation programs of the U.S. Department of Transportation for federal fiscal years 2016 through 2020.

Flexible-route transit

Flexible-route transit is a variation on fixed routes. For flexible routes, sometimes referred to as deviated fixed routes, buses operate along a fixed route but deviate from the route to go to a specific location to pick up or drop off a transit rider. This may include traveling to residences, employment locations, schools, and shopping areas.

Freedom of choice

Freedom of choice is one of three federal requirements that participating state Medicaid plans must meet. Freedom of choice is a requirement to make available to eligible recipients a choice of qualified providers. See also *statewideness* and *comparability*.

Full-risk broker

Under a full-risk broker arrangement, brokers operate for a specified capitated payment regardless of the amount of service provided. The full-risk broker takes the risk that the

contractual rate agreement will cover all costs. Full-risk brokers carry the financial and operating risk.

Health care

Health care encompasses all aspects of clinical work including medications, rehabilitation, preventive measures, physical therapy, nursing homes, and medical supplies—just about anything that assists in helping people to be healthy. Health care also includes what you do for yourself, such as diet, exercise, and lifestyle.

Health Insurance Portability and Accountability Act (HIPAA)

HIPAA is the federal statute governing transmission of medical information between providers of medical services and payers, Public Law 104-191, 42 U.S.C. Section 1320d through Section 1320d-8. Associated federal regulations are codified in 45 CFR Parts 160, 162, and 164.

Human services transportation

Human services transportation is transportation programs or services geared toward underserved populations, including veterans, seniors, people with disabilities, and individuals and families with low incomes. Medicaid non-emergency medical transportation is included in some state definitions of human services transportation.

Managed care

Managed care is a comprehensive approach to the provision of health care that combines clinical, preventive, restorative, and emergency services, in addition to administrative procedures within an integrated and coordinated system. Managed care aims to provide timely access to primary care and other medically necessary health care services in a cost-effective manner. See also *managed care organization*.

Managed care organization (MCO)

An MCO is an entity that administers a managed care health plan. Within the context of Medicaid, an MCO contracts with a state Medicaid agency to administer Medicaid health benefits and services under a managed care model.

Medicaid

Medicaid is the joint federal and state program that provides health coverage for individuals and families with limited incomes and resources, and was established by Title XIX of the Social Security Act in 1965.

Medicaid beneficiary or beneficiary

A Medicaid beneficiary is an individual eligible for Medicaid who has applied for and has been granted Medicaid benefits by the state Medicaid office or local administrators.

Medicaid eligible

A Medicaid eligible individual is one who is eligible to receive services under a state's Medicaid program.

Medical care

Medical care is concerned with illnesses and cures for illnesses. Medical care pertains to doctors and nurses who are certified, licensed, and skilled, in particular to perform some specific medical functions.

Medicare

Medicare is the federal health insurance program for people ages 65 and over and people with permanent disabilities, regardless of income, authorized by Title XVIII of the Social Security Act.

Mobility management

Mobility management is services that include a number of roles and functions aimed at helping individuals find the most appropriate transportation for their needs.

Moving Ahead for Progress in the 21st Century Act (MAP-21)

MAP-21 is the 2012 funding and authorization bill to govern U.S. federal surface transportation spending. The act authorized the surface transportation programs of the U.S. DOT for federal fiscal years 2013 through 2015.

Patient Protection and Affordable Care Act of 2010 (ACA)

Two separate pieces of legislation—the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010—made changes to both Medicaid and the Children's Health Insurance Program, and expanded Medicaid coverage to millions of low-income Americans. The Affordable Care Act added an estimated 20 to 25 million formerly uninsured adults to the Medicaid rolls, many of whom have unique transportation needs that were unforeseen 50 years ago.

Ridesourcing

Ridesourcing is a type of transportation that provides a vehicle for hire on demand from a pool of private passenger vehicles. Passengers source rides through a smartphone app. These vehicles are typically driven by non-professional drivers who use their own personal vehicles for ridesourcing activities. Ridesourcing companies are sometimes called TNCs or ride-hailing services.

Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU)

SAFETEA-LU is the 2005 funding and authorization bill for U.S. federal surface transportation spending. The act authorized the surface transportation programs of the U.S. DOT for federal fiscal years 2006 through 2012.

Section 1115 demonstration waiver

Section 1115 of the Social Security Act gives states the ability to test demonstration projects that fulfill the objectives of the Medicaid program. This authority, provided through a Section 1115 demonstration waiver, allows states to implement major changes to their Medicaid programs such as coordinated care or accountable care models. Under Section 1115 demonstration waivers, non-emergency medical transportation programs can also implement major changes.

Section 1902(a)(70) state plan amendment

The Deficit Reduction Act of 2005 allows states to establish transportation brokerages by amending their state management plan. This authority is codified under Section 1902(a)(70) of the Social Security Act and is therefore referred to as a Section 1902(a)(70) state plan amendment.

Section 1915(b) waiver

Section 1902 of the Social Security Act stipulates that states may not restrict a recipient's freedom to choose a provider for eligible Medicaid services so long as that provider is qualified. However, under Section 1915(b), states may waive this requirement. These so-called freedom-of-choice waivers allow states to assign recipients to designated transportation providers, establish brokerages, or restrict the delivery of non-emergency medical transportation in other ways.

Shared-risk broker

Brokers that do not assume all the risks of operating at a fixed rate for a specific period are known as shared-risk brokers. Payments are more directly tied to actual costs. If the anticipated costs are either less than or greater than anticipated, adjustments in the rate of pay occur.

State Medicaid plan

By default, each state's Medicaid plan assures access to covered Medicaid benefits on a fee-for-service basis. Under this authority, non-emergency medical transportation is administered as either a medical or administrative service according to the terms of the state Medicaid plan.

Statewideness

Statewideness is one of three federal requirements that participating state Medicaid plans must meet. Service must be available in all political subdivisions of the state (referred to as *statewideness* in Medicaid policy). See also *comparability* and *freedom of choice*.

Transportation network companies (TNCs)

TNCs arrange one-time shared rides on demand, usually arranged through a smartphone app. The type of transportation provided by a TNC is also known as ridesourcing or ride-hailing services.

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APPENDIX

State Case Study Summaries

This appendix provides seven state case study summaries. The purpose of the case study research was to document the effects of different models for providing non-emergency medical transportation (NEMT) on access to Medicaid services, on coordination with other human services transportation, and on public transportation. Table A-1 documents the case study states and the NEMT models.

The case studies provided the opportunity to:

- Collect firsthand information about how NEMT is provided,
- Research the opportunities and challenges faced in each of the states by different stakeholders, and
- Examine the experiences regarding coordination of NEMT with human services transportation and public transportation.

The researchers interviewed stakeholders with many different perspectives: state Medicaid agencies, state departments of transportation, managed care organizations (MCOs), customer advocacy groups, public transit agencies, human services program managers, nonprofit NEMT brokers, and for-profit NEMT brokers.

Interviews with different stakeholders help to understand the complex issues surrounding NEMT and make possible contextual analysis of the information. In a number of cases, the research team found data to be limited and often out of date. The effects of different models for providing NEMT were confirmed through multiple interviews with stakeholders in each state. In some states, case study research provided material to understand how state Medicaid agencies

Table A-1. Case study states and NEMT models.

State	NEMT Models	Page
Florida	• Managed care organizations with carved-in NEMT	A-2
Massachusetts	• Regional brokers (regional transit authorities)	A-7
New Jersey	• Statewide broker (for profit)	A-15
North Carolina	• In-house management (county-based)	A-21
Oregon	• Managed care organizations with carved-in NEMT	A-30
Pennsylvania	• In-house management in all counties but Philadelphia County • Regional broker (for profit) in Philadelphia County	A-43
Texas	• Regional brokers (for profit and not for profit) • In-house management (one region)	A-52
Summary	• What Are the Effects of the Different Models for Providing NEMT? • Effects on Access to Medicaid Services • Effects on Coordination with Human Services Transportation • Effects on Coordination with Public Transportation	A-62

Table A-2. Sources of key data for case study states.

Key Data	Source
Demographic Features	
• State Population (2015)	U.S. Census 2015 5-Year Estimate
• Urban Population (2010)	U.S. Census 2010
• Rural Population (2010)	U.S. Census 2010
• Population at or below poverty line (2015)	U.S. Census 2015 5-Year Estimate
NEMT Oversight	TCRP B-44 research
Medicaid & NEMT Enrollment Data	
• Medicaid & Children's Health Insurance Program (CHIP) Enrollment (December 2013)	Centers for Medicare & Medicaid Services (CMS), July–September 2013
• Medicaid & CHIP Enrollment (December 2016)	CMS, December 2016
• Percent Increase 2013–2016	CMS calculated
• Medicaid Enrollees that Used NEMT (2013)	TCRP B-44 2014 National NEMT Survey
NEMT Model	TCRP B-44 research
Operating Authority	TCRP B-44 research
Medicaid Match	Kaiser Family Foundation
Expanded Medicaid under Affordable Care Act	CMS
Medicaid Enrollees in a Managed Care Program	Kaiser Family Foundation
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	Kaiser Family Foundation
• Estimate Annual NEMT Expenses	TCRP B-44 2014 National NEMT Survey
• NEMT as % of Medicaid Expenses	TCRP B-44 calculated
• Estimate Annual NEMT Passenger Trips	TCRP B-44 2014 National NEMT Survey
• % of NEMT Trips on Public Transit	TCRP B-44 2014 National NEMT Survey
• NEMT Expenses per Trip Statewide	TCRP B-44 calculated

revised the approach to NEMT and the influences for those decisions. References are listed after each state case study.

The sources for key data for each case study state are listed in Table A-2.

Florida: Change to Managed Care Organizations with Carved-In NEMT

Key Data

Key Data	
Demographic Features	
• State Population (2015)	19,645,772
• Urban Population (2010)	87%
• Rural Population (2010)	13%
• Population at or below poverty line (2015)	16%
NEMT Oversight	Agency for Health Care Administration
Medicaid & NEMT Enrollment Data	
• Medicaid & CHIP Enrollment (December 2013)	3,104,996
• Medicaid & CHIP Enrollment (December 2016)	4,337,514
• Percent Increase 2013–2016	40%
• Medicaid Enrollees that Used NEMT (2013)	2.5%
NEMT Model	Managed Care Organization
Operating Authority	Section 1115 Demonstration Waiver
Medicaid Match	Medical Service (61%)
Expanded Medicaid under Affordable Care Act	No
Medicaid Enrollees in a Managed Care Program	79%
• NEMT under Managed Care	Managed Care with carved-in NEMT
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	$21,476,052,754
• Estimate Annual NEMT Expenses (2014)	$ 61,000,000
• NEMT as % of Medicaid Expenses	<1%
• Estimate Annual NEMT Passenger Trips (2014)	2,815,811
• % of NEMT Trips on Public Transit (2014)	2.5%
• NEMT Expenses per Trip Statewide (2014)	Est. $22

NEMT Description

Change from county-based coordinated transportation. Prior to 2014, the Florida Agency for Health Care Administration (AHCA) contracted with the state's Commission for the Transportation Disadvantaged (CTD) to manage NEMT for Medicaid beneficiaries across the state. CTD contracted with county-based community transportation coordinators (CTCs) to provide NEMT. The CTCs are responsible for providing human services transportation at the county level, and this arrangement made it possible for CTCs to coordinate NEMT with other transportation programs.

Change to managed care. The Florida Legislature established the Managed Medical Assistance (MMA) program in 2011. The first phase of the MMA program was implemented on May 1, 2014, and the final phase of the program was implemented on August 1, 2014. The managed care model is approved under a Section 1115 Demonstration Waiver. The state is divided into 11 managed care regions, and each region has two or more MCOs to provide the Medicaid beneficiary a choice. NEMT is carved in the managed care plans (the MCO is responsible for NEMT as part of the managed care plan). AHCA pays each MCO a capitated payment to provide medical care and NEMT for the Medicaid members on the plan.

Each MCO contracts with one of three for-profit private brokers to provide NEMT under the managed care plans. The brokers each contract with a variety of transportation providers including taxi companies, public transit agencies, human services transportation providers, and for-profit transportation companies. In some counties, the CTC that was once responsible to provide NEMT now competes with other transportation providers for NEMT trips assigned by the broker. Not every CTC chooses to provide NEMT.

AHCA assigns the Medicaid beneficiaries who are not participating in managed care to one of the brokers in the applicable region for NEMT service.

Coordinated Transportation in Florida

The Transportation Disadvantaged Program in Florida is a coordinated statewide effort that groups riders together for a shared-ride service. The goal of this coordination is to ensure the cost-effective provision of transportation for the transportation disadvantaged by qualified transportation providers. Transportation disadvantaged in the state of Florida are defined as those individuals who because of age, disability, or low income, do not have access to conventional transportation options.

Commission for the Transportation Disadvantaged

In 1979, the Florida Legislature enacted Chapter 427 of the Florida Statutes, establishing the Coordinating Council of the Transportation Disadvantaged under the authority of the Florida Department of Transportation (FDOT). The coordinating council was created to consolidate overlapping transportation assistance programs that existed throughout the state. Over the next 10 years, the coordinating council established or designated a CTC in each county in the state.

The Florida Legislature replaced the coordinating council with CTD in 1989. CTD's mission is to ensure the coordination of transportation services that enhance access to employment, health care, education, and other life-sustaining activities for older adults, persons with disabilities, people with low incomes, and at-risk children who are dependent upon others for transportation.

Community Transportation Coordinators

The duties of CTD include approving a community transportation coordinator in each county in the state and contracting with CTCs to provide coordinated transportation services.

The CTC in each of 67 Florida counties provides transportation services for those who are eligible for the Transportation Disadvantaged Program and have no other access to transportation.

Transportation Disadvantaged Trust Fund

The Florida Legislature established the Transportation Disadvantaged (TD) Trust Fund in 1989. CTD administers the TD Trust Fund. The purpose of the TD Trust Fund is to help CTD achieve the purposes of the Transportation Disadvantaged Program. The TD Trust Fund comes from revenues collected from the statewide vehicle registration fee. For each registration or renewal, $1.50 is designated for the TD Trust Fund. Additional voluntary contributions can be indicated on the vehicle registration form.

CTD Responsibility for NEMT

In 2003, the University of Florida Bureau of Economic and Business Research produced an independent assessment of Florida's NEMT program and found coordinating NEMT with the Transportation Disadvantaged Program would be cost effective. AHCA relied upon this assessment to support a 1915(b) Freedom of Choice waiver, allowing AHCA to set up a master agreement with CTD to manage NEMT, effective 2004.

Since CTCs are responsible for providing human services transportation at the county level, the AHCA agreement with CTD allowed CTCs to coordinate NEMT with other human service transportation services, such as the state Transportation Disadvantaged Program. In some counties, the CTC is the public transit agency and coordinated services include public transportation.

A study by Florida State University in 2008 identified the return on investment to the state of Florida for transportation disadvantaged programs. The primary purpose of medical trips is to provide access to preventive medical care for the transportation disadvantaged citizens who have no other way of receiving these services. The study found if 1 percent of the medical trips funded result in the avoidance of a hospital stay, the payback to the state would be 1108 percent, or about $11.08 for each dollar the state invests in the program. The state also benefits from healthier citizens and a reduction in the need to invest in medical care for transportation disadvantaged citizens.

In 2008, when AHCA renewed the contract with CTD to manage NEMT, the new agreement required expanded reporting requirements. Each CTC was required to document additional encounter data for NEMT passenger trips. By the time the renewed contract was executed, several CTCs—mostly representing large urban areas—discontinued providing NEMT due to the increased administrative burden without financial compensation. In response, AHCA and CTD established the subcontracted transportation provider designation to allow CTD to subcontract with providers other than CTCs to provide NEMT. In 2014, the CTC in 55 of the 67 counties coordinated NEMT with human services transportation and public transportation. The remaining 12 counties provided NEMT as a separate service.

AHCA conducted the Medical Reform Demonstration Pilot Program for Managed Care in Broward (Fort Lauderdale) and Duval (Jacksonville) Counties starting in 2006, and then expanded to include Duval's neighboring counties. Under the demonstration pilot, a subset of Medicaid beneficiaries in each county was provided with a managed care health plan through an MCO, covering all Medicaid benefits including NEMT. An evaluation of the demonstration pilot by AHCA in 2011 concluded the demonstration pilot was successful in improving access to care, customer satisfaction, and cost effectiveness for medical care. The evaluation did not address NEMT.

The Florida Legislature approved the MMA program in 2011. AHCA implemented managed care between May 1 and August 1, 2014. The responsibility for NEMT changed from CTD to the MCOs.

Medicaid beneficiaries who were not participating in managed care as of May 2014 continued to receive NEMT through Florida's CTD. In February 2015, CTD transitioned NEMT recipients to one of the brokers, concluding CTD involvement in NEMT.

Effects of NEMT Change to Managed Care

In the case study research, assessments of the effects of the change to managed care with carved-in NEMT were obtained from interviews with a variety of key stakeholders, including the state Medicaid agency, the state department of transportation, MCOs, the county-based transportation providers, and the NEMT brokers.

Access to Medicaid Services

AHCA reports that managed health care has successfully curtailed the costs of the Medicaid program in Florida. In the 2011 evaluation of the demonstration pilot for AHCA, the University of Florida, Department of Health Services Research, Management, and Policy concluded the demonstration pilot was successful in improving access to care, customer satisfaction, and cost effectiveness for medical care. The evaluation did not address NEMT specifically.

The shift of NEMT to managed care has enabled private brokers to increase NEMT coverage across multiple MMA regions in the state.

Coordination with Human Services Transportation

Under the previous AHCA contract with CTD to provide NEMT, the CTCs in each county were able to coordinate NEMT rides with the Transportation Disadvantaged Program. While the CTCs in more urbanized counties may have discontinued providing NEMT between 2008 and 2014 due to the increased administrative effort required, the CTCs in rural counties continued to coordinate NEMT with other human services transportation programs.

Now the rural CTCs compete with other transportation providers to provide NEMT for the brokers that serve the MCOs. Brokers do not always contract with the CTC in each county. Some rural CTCs report a significant loss of revenues earned from providing NEMT. With fewer shared NEMT passenger trips, the cost per passenger trip for other transportation programs has increased. The loss of NEMT revenues has reduced the capacity of CTCs to provide other human services transportation.

The CTCs in rural counties report there are not consistent operating standards for different NEMT brokers and MCOs, for the CTD Transportation Disadvantaged Program, and for the FDOT rural public transportation program.

Coordination with Public Transportation

Many CTC are public transit agencies. The CTCs in more urbanized counties discontinued providing NEMT in 2008 when the AHCA contract with CTD required an increased administrative effort to document NEMT encounters. In 2013, AHCA estimated 9.2 percent of NEMT trips were on public transportation.

Other public transit agencies, especially in rural counties, continued to provide NEMT and coordinate with public transportation services. Under MMA, the rural CTCs compete with other transportation providers to provide NEMT to the private broker for each MCO. A loss of NEMT revenues for rural counties reduces a source of match for federal transit funds.

The Jacksonville Transportation Authority (JTA) provides paratransit service for individuals with disabilities as required by the Americans with Disabilities Act (ADA). JTA reported a trend for an increased number of ADA paratransit trips when MMA went into effect during the

demonstration pilot program for managed care in 2006. Other than the fare for ADA paratransit, JTA received no reimbursement or shared costs from the broker or the MCO.

JTA was the CTC in Duval County and chose not to provide demand responsive NEMT when AHCA transitioned to managed care in 2014. However, public transit agencies in urbanized areas in Florida (including JTA) with fixed-route modes (bus, rail) can accommodate NEMT trips at no increase in cost because seats are available to additional passengers on scheduled service. A fare on fixed-route transit is the lowest-cost transportation for an NEMT trip.

Summary of the Florida Case Study

The Florida AHCA changed NEMT from a contract with CTD to an MMA program with carved-in NEMT in 2014. The majority of Medicaid beneficiaries in Florida are participating in a managed care health plan. Each MCO contracts with one of three for-profit private brokers to provide NEMT under the MMA program.

Following is a summary of effects:

- **Access to Medicare services:**
  - According to AHCA, the MMA program has curtailed the increase in the costs of the Medicaid program.
  - An evaluation of the Medical Reform Demonstration Pilot Program for Managed Care in 2011 concluded the pilot was successful in improving access to care, customer satisfaction, and cost effectiveness for medical care. The evaluation did not address NEMT specifically.
  - The shift of NEMT to managed care has enabled private brokers to increase NEMT coverage across multiple MMA regions in the state.
- **Coordination with human services transportation:**
  - The three for-profit, private NEMT brokers each contract with a variety of transportation providers including human services transportation providers, taxicabs, public transit, and the community transportation coordinator in some counties.
  - According to CTD, the number of NEMT trips coordinated with other transportation services declined after the change to managed care. Fewer CTC are providing NEMT trips, and the CTCs that contract to a private broker may provide less NEMT service.
  - Some rural CTCs report a significant loss of revenues earned from providing NEMT. With fewer shared NEMT passenger trips, the cost per passenger trip for other transportation programs has increased. The loss of NEMT revenues has reduced the capacity of some CTCs to provide other human services transportation.
  - NEMT clients can no longer arrange transportation for multiple trip purposes with one call, one click.
  - The CTCs in rural counties report there are not consistent operating standards for different NEMT brokers, different MCOs, and different funding programs. For example, different rules may apply for licensing vehicles, credentialing drivers, and documenting NEMT encounters.
- **Coordination with public transportation:**
  - The loss of NEMT revenues by public transit agencies particularly in rural counties reduces a source of match for federal transit funds.
  - JTA documented the trend for an increased number of ADA paratransit trips during the Medical Reform Demonstration Pilot Program for Managed Care in 2006. ADA paratransit trips are more expensive for the public transit agency to deliver, and JTA received no reimbursement or shared costs from the broker or the MCO, other than the fare for ADA paratransit.

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Massachusetts: Regional Brokers (Regional Transit Authorities)

Key Data

Key Data	
Demographic Features	
• State Population (2015)	6,705,586
• Urban Population (2010)	90%
• Rural Population (2010)	10%
• Population at or below poverty line (2015)	11%
NEMT Oversight	MassHealth provides oversight for NEMT.
Medicaid & NEMT Enrollment Data	
• Medicaid & CHIP Enrollment (December 2013)	1,296,359
• Medicaid & CHIP Enrollment (December 2016)	1,661,951
• Percent Increase 2013–2016	28%
• Medicaid Enrollees that Used NEMT (2013)	N/A
NEMT Model	Coordinated Transportation with Regional Transit Authorities as Regional Brokers
Operating Authority	Section 1115 Demonstration Waiver
Medicaid Match	Administrative Service (50%)
Expanded Medicaid under Affordable Care Act	Yes
Medicaid Enrollees in a Managed Care Program	51.5%
• NEMT under Managed Care	NEMT carved out of Managed Care
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	$15,564,425,180
• Estimate Annual NEMT Expenses (2015*)	$63,430,832
• NEMT as % of Medicaid Expenses	<0.5%
• Estimate Annual NEMT Passenger Trips (2015)*	3,522,212
• % of NEMT Trips on Public Transit (2015)	N/A
• NEMT Expenses per Trip Statewide (2015)*	$18.01

** Human Service Transportation Office Annual Report 2015. Reported expenses and passenger trips for PT-1 (NEMT, Medicaid, MassHealth). Expenses do not include NEMT for individuals residing in rehabilitation and nursing facilities or personal mileage reimbursement.*

NEMT Description

NEMT as a coordinated transportation program. In Massachusetts, the state Medicaid agency is MassHealth, a part of the Executive Office of Health and Human Services (EOHHS). MassHealth provides NEMT through a coordinated transportation program operated by EOHHS through the Human Service Transportation Office.

EOHHS comprises 15 agencies that collectively deliver and administer most of the Commonwealth's health and human services. EOHHS agencies provide services that include Medicaid, nutrition assistance, mental health, public health, and transitional assistance for low-income individuals and families. MassHealth is one of the 15 agencies in EOHHS.

Role of the Human Service Transportation Office. In 2001, EOHHS established the Human Service Transportation Office to coordinate transportation for multiple health and human services agencies, including NEMT for MassHealth. Human services transportation oversees a system of coordinated transportation services for eligible EOHHS consumers to access medical, social, and day habilitation services across Massachusetts. Human services transportation also provides technical assistance and outreach programs called MassMobility in support of local mobility and transportation coordination efforts for transportation-disadvantaged Massachusetts residents.

Coordinated Human Services Transportation in Massachusetts

The Human Service Transportation Office is responsible for the coordination of transportation for consumers for seven human services programs within six EOHHS agencies:

- **MassHealth NEMT:** NEMT for Medicaid beneficiaries who need transportation for authorized medical services. In Massachusetts, NEMT is known as the Prescription for Transportation, or PT-1.

  MassHealth transportation for people residing in institutions (rehabilitation and nursing facilities) is not part of the human services transportation coordinated transportation program. The Human Service Transportation Office oversees fee-for-service (FFS) transportation for MassHealth members who live in rehabilitation and nursing facilities.
- **MassHealth Day Habilitation (DayHab):** Transportation to Medicaid-funded day habilitation programs.
- **MassHealth and Department of Public Health Early Intervention Program:** Transportation to and from early intervention programs for children (birth to three years) and families.
- **Department of Developmental Services:** Transportation for adults enrolled in employment workshops and residential support programs.
- **Massachusetts Rehabilitation Commission:** Transportation for individuals with disabilities to vocational rehabilitation services, community services, and other Massachusetts Rehabilitation Commission-authorized locations or programs.
- **Massachusetts Commission for the Blind:** Transportation for individuals who are blind to social and rehabilitative programs and services and other Massachusetts Commission for the blind-authorized locations or programs.
- **Department of Mental Health:** Transportation to Department of Mental Health-authorized locations for consumers of Department of Mental Health Clubhouse services. Clubhouse services provide employment and education support services, housing support services, and other support services to help individuals live a productive and stable life in the community.

Participating agencies maintain full control and responsibility for determining consumer eligibility, determining facilities or locations to which consumers will be transported, determining service areas for consumers (distances that consumers may be transported), and ensuring

adequate funding of approved transportation services, as well as reimbursing the brokers for consumer trip costs. For example, MassHealth provides oversight for NEMT services, including determining eligibility for Medicaid beneficiaries and providing funding for authorized transportation to medical services.

Human Services Transportation Brokerage Model in Massachusetts

The human services transportation system was designed and implemented in partnership with the Massachusetts Department of Transportation (MassDOT). The Commonwealth is divided into nine regions for human services transportation service that include all cities and towns. Human services transportation contracts with six regional transit authorities (RTAs) to act as brokers to provide transportation services for EOHHS consumers. The six RTAs are:

- Berkshire Regional Transit Authority,
- Cape Ann Transit Authority,
- Cape Cod Regional Transit Authority,
- Franklin Regional Transit Authority,
- Greater Attleboro/Taunton Regional Authority, and
- Montachusett Area Regional Transit (is the broker for four regions).

Human services transportation procured the original brokers for the first contract period 2001–2007 using a request for proposals. The second contract period was 2007–2015 (including contract extensions).

The Human Service Transportation Office planned to transition from six regional brokers to one statewide broker and issued a request for proposals in 2013; however, the plan was subsequently postponed. The Human Service Transportation Office renewed contracts with the six existing regional brokers for the continuation of services through June 30, 2020.

Broker Responsibilities

The goal of the coordinated brokerages is to reduce administrative burden at the state level and to establish common service standards. The primary responsibilities of brokers include:

- Arranging consumer trips and contracting for services with local providers,
- Monitoring and ensuring service quality through on-site inspections, consumer surveys, etc.,
- Developing routing and other strategies to increase system efficiency, shared rides, and cost effectiveness, and
- Tracking and reporting system usage and costs and monitoring performance benchmarks.

All human services transportation brokers are required to adhere to performance standards. The human services transportation compliance officer conducts an annual review of each broker. The Human Service Transportation Office confirms compliance with vehicle maintenance, driver qualifications, insurance compliance, timely payment of vendors, and other areas for broker performance. At the time of the on-site review, randomly selected claims are selected for review and matched to claims documentation.

Types of Human Services Transportation Service

Brokers provide human services transportation to eligible consumers, as determined by the funding agency, via two types of service:

- **Demand response:** Generally, transportation is authorized by the funding agency and consumers call to schedule their trips as needed with varying destinations, frequency, and times. This type of service is typically used for medical appointments. MassHealth PT-1 is a demand-response transportation service.

- **Program-based:** Transportation is authorized by the funding agency for a specific destination, frequency, and time, usually operating on a regularly scheduled basis. This type of transportation is used for daily travel to rehabilitation or developmental programs.

Transportation Providers

Each human services transportation broker subcontracts with qualified transportation providers, primarily private for-profit and not-for-profit companies. Five (non-broker) RTAs serve as transportation providers, usually for demand-response service. Collectively the six RTAs subcontracted with 473 different transportation providers in the Commonwealth in fiscal year (FY) 2015.

Brokers dispatch rides for demand-response transportation based on the lowest cost among the transportation provider's subcontracts in each region. A feature of the Massachusetts NEMT model is the shared-cost-savings incentives built into broker contracts. Brokers are rewarded for reducing trip expenses and improving efficiency, with the cost savings reinvested back into the brokerage. The shared-cost-savings incentive program was introduced in 2009. The incentives must be invested into the brokerage service to upgrade software, buy new computers, hire additional staff, etc.

Effects of NEMT as Coordinated Human Services Transportation with Regional Brokers

The case study research for Massachusetts focuses on the outcomes for coordinated human services transportation through regional brokers that are public transit authorities. The case study included site visits to brokers in four regions: western Massachusetts (Berkshire Regional Transit Authority), northeastern Massachusetts (Cape Ann Transit Authority), southeastern Massachusetts (Greater Attleboro/Taunton Regional Authority), and Cape Cod (Cape Cod Regional Transit Authority).

In the case study research, assessments of the effects of regional brokers and coordinated transportation are obtained from interviews with a variety of key stakeholders. Interviews included EOHHS and the Human Service Transportation Office, the statewide mobility manager for MassDOT, a representative for member services with MassHealth, the four regional brokers, the paratransit manager for the Massachusetts Bay Transportation Authority (Boston), and the director of community services for Mystic Valley Elder Services, an advocacy group for seniors and people with disabilities.

Access to Medicaid Services

The use of RTAs to broker coordinated human service transportation in Massachusetts has produced positive results for the Medicaid NEMT program by meeting an increasing demand for consumer trips, containing costs per trip, and ensuring service quality.

Cost Effectiveness. A goal of the coordinated regional brokerages is to reduce administrative burden at the state level and to increase cost effectiveness. Table A-3 provides the following performance statistics for human services transportation (all brokerage programs) and MassHealth PT-1 (NEMT) for FY 2009 through FY 2015 for actual year of expenditure.

The data in Table A-3 show the following data for MassHealth PT-1 service:

- MassHealth PT-1 beneficiaries represented 67 percent of human services transportation consumers in FY 2015, and PT-1 trips were 45 percent of human services transportation trips. MassHealth PT-1 cost was 36 percent of human services transportation total operating costs.

Table A-3. Massachusetts human services transportation and MassHealth PT-1 (NEMT) performance FY 2009–FY 2015.

Performance Statistics	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	2009–2015 % Change	2009–2015 Avg Annual % Change
Human Services Transportation (All Brokerage Transportation Programs)									
HST Operating Cost	$100,676,449	$104,952,047	$110,724,486	$122,499,523	$132,163,781	$150,240,859	$173,814,030	73%	12.1%
Broker Management Cost*	$6,318,647	$6,318,647	$6,318,647	$6,318,647	$6,318,647	$6,318,647	$7,761,631	23%	3.8%
Total HST Cost	$106,995,096	$111,270,694	$117,043,133	$128,818,170	$138,482,428	$156,559,506	$181,575,661	70%	11.6%
Total HST Trips	5,208,858	5,548,178	5,840,471	6,296,376	6,633,726	7,240,234	7,762,221	49%	8.2%
HST Consumers Served	37,760	36387	34,903	36,134	38,790	44,718	49,477	31%	5.2%
HST Operating Cost/Trip	$19.33	$18.92	$18.96	$19.46	$19.92	$20.75	$22.39	16%	2.6%
Management Cost/Trip	$1.21	$1.14	$1.08	$1.00	$0.95	$0.87	$1.00	-17%	-2.9%
Total HST Cost/Trip	$20.54	$20.06	$20.04	$20.46	$20.87	$21.62	$23.39	14%	2.3%
Management Cost/Trip As % HST Operating Cost	6.3%	6.0%	5.7%	5.1%	4.8%	4.2%	4.5%		
MassHealth PT-1 (NEMT) Program									
MassHealth PT-1 Cost	$37,067,469	$34,107,570	$33,989,773	$38,048,781	$42,116,044	$51,952,015	$63,430,832	71%	11.9%
% of Total HST Cost	41%	31%	29%	30%	32%	35%	36%		
MassHealth PT-1 Trips	2,116,882	2,187,149	2,303,978	2,507,684	2,717,257	3,100,327	3,522,212	66%	11.1%
% of Total HST Trips	43%	39%	39%	40%	41%	43%	45%		
PT-1 Cost per Trip	$17.51	$15.59	$14.75	$15.17	$15.50	$16.76	$18.01	2.9%	0.5%
MassHealth PT-1 Consumers Served	32,369	24,638	22,317	22,781	24,644	29,376	33,230	2.7%	0.4%
% of HST Consumers Served	86%	68%	64%	63%	64%	66%	67%		

Source: Human Service Transportation Office Annual Reports 2009 through 2015.
Note: HST = human services transportation.
**HST held the management fee to the brokers flat from FY2009 through FY2014. As the number of trips provided increased, the management cost per trip declined. New HST contracts signed in FY2015 with the regional brokers increased the management fee 23 percent.*

- Demand for MassHealth PT-1 increased 66 percent from 2.1 million trips in FY 2009 to 3.5 million trips in FY 2015. Cost for MassHealth PT-1 increased 71 percent from $37.1 million in FY 2009 to $63.4 million in FY 2015.
- The cost per trip for PT-1 increased 2.9 percent over six years, or an average 0.4 percent per year.
- In FY 2015, the PT-1 cost per trip was $18.01 as compared to the average total cost per trip for all human services transportation brokerage programs of $23.39.

Broker management costs are established by contract with human services transportation and are reimbursed to the broker via a monthly recurring payment. Human services transportation held the total management fee to all brokers constant from FY 2009 through FY 2014. As the number of trips provided increased, the management cost per trip declined from $1.21 per trip

in FY 2009 to $0.87 per trip in FY 2014. Human services transportation increased the broker management fee to $1.00 per trip (23 percent) in FY 2015.

Quality of Service. Another goal for the coordinated transportation program is an assurance of service quality. The Human Service Transportation Office monitors service quality for coordinated transportation services, including PT-1, through on-site inspections, consumer surveys, and monitoring monthly performance reports.

The human services transportation brokerage system consistently achieves a rating of 99 percent or better on contract performance standards. For example, human services transportation contract standards specify no more than three vehicle accidents per 10,000 consumer trips. In FY 2014, human services transportation performance was less than one accident per 25,000 consumer trips. The human services transportation system achieves greater than 99 percent on-time trips and complaint-free trips (based on consumer complaints received and on-site inspections performed).

As part of ensuring service quality, the brokers are required to perform on-site service inspections at consumer destination facilities (clinics, doctor offices, program sites, etc.). In FY 2014, brokers reported completing 6,250 inspections. In FY 2014, the brokers conducted 22,345 consumer surveys (phone and written surveys), representing 50 percent of the total 44,718 consumers transported that year. The positive response rate was 93 percent.

Challenges. Human services transportation and the brokers report a number of challenges:

- **Affordable technology**. The most consistently cited challenge for both the Human Service Transportation Office and brokers is consistent, affordable technology. Brokers use different scheduling software.
- **Limited brokerage management fee**. A second challenge mentioned by the brokers was maintaining services within the brokerage management fee. Even though the fee was increased in FY 2015, the brokers interviewed during the case study stated a need to continue to work on rate adjustments and the mechanism by which incentives are provided.
- **Regional versus Statewide Broker**. A third challenge was the discussion of a change to a single statewide broker. Brokers would like to explore if the centralized approach (statewide broker) would provide advantages over the current decentralized regional broker approach.
- **Program expansion**. Finally, human services transportation is interested in continuing to add state programs to the brokerage, specifically the MassHealth NEMT for people residing in institutions.

Coordination with Human Services Transportation

The Human Service Transportation Office is responsible for coordination of transportation for consumers for seven human services programs within six EOHHS agencies, including MassHealth PT-1 (NEMT). Human services transportation also provides technical assistance and outreach programs in support of local mobility and transportation coordination efforts for transportation-disadvantaged Massachusetts residents. Statewide and regional coordinating councils (RCCs) help to provide community input and to improve coordination.

MassMobility. MassMobility is an initiative to increase mobility for seniors, people with disabilities, veterans, and others who lack transportation access in Massachusetts. MassMobility is housed at the Human Service Transportation Office and is funded by a federal grant through MassDOT. The Human Service Transportation Office helps to build the capacity of the Massachusetts community transportation network by appointing mobility managers to raise the awareness of existing services, fostering collaboration among programs, and sharing best practices.

Statewide and Regional Coordinating Councils. Executive Order 530 (EO530) in April 2011 established a Commission for the Reform of Community, Social Service and Paratransit Transportation Services in the Commonwealth of Massachusetts (Commission). The Commission was given the responsibility for conducting a review of all state and federally funded community transportation services and making recommendations for reform, restructuring, and cost-savings initiatives.

The report from the Commission was delivered in 2012 with over 60 recommendations, including a recommendation to establish a Statewide Coordinating Council on Community Transportation. In order to ensure that the work started by the Commission continued, MassDOT and EOHHS executed a Memorandum of Understanding in March 2013 to establish the Statewide Coordinating Council on Community Transportation.

In partnership with MassDOT, the Human Service Transportation Office helped launch RCCs. There are currently 16 RCCs with diverse membership. RCC members differ from region to region but may include transit authorities and service providers; planning agencies; transportation management associations; the statewide demand management program (MassRIDES); and state community agencies that serve seniors, people with disabilities, and veterans. RCCs help to implement recommendations from the Executive Order 530 final report.

Coordination with Public Transportation

NEMT trips are not integrated with public transportation services in Massachusetts, although some human services transportation demand-response trips are provided by an RTA if the service meets the lowest cost service requirement. The EO530 final report recommended improved trip coordination by promoting shared rides by non-ADA human services transportation and ADA paratransit, where appropriate. The report also recommended establishing a working group to develop a mechanism to apply for Medicaid funding for NEMT services provided by MassDOT (specifically on Massachusetts Bay Transportation Authority fixed routes and ADA paratransit) to Medicaid-eligible beneficiaries. (At the time of the case study, this mechanism had not yet been implemented.)

Summary of the Massachusetts Case Study

In Massachusetts, the state Medicaid agency, MassHealth, provides NEMT through a coordinated transportation program operated by EOHHS through the Human Service Transportation Office. NEMT is known in Massachusetts as the Prescription for Transportation, or PT-1.

The Human Service Transportation Office contracts with six RTAs to serve as brokers to provide transportation services in nine regions. Each human services transportation broker subcontracts with qualified transportation providers to deliver transportation to the consumers. The transportation providers are primarily private for-profit and not-for-profit companies in each respective region.

Following is a summary of effects:

- **Access to Medicare services:**
  - Demand for MassHealth PT-1 increased 66 percent from 2.1 million trips in FY 2009 to 3.5 million trips in FY 2015. Cost for MassHealth PT-1 increased 71 percent from $37.1 million in FY 2009 to $63.4 million in FY 2015.
  - The cost per trip for PT-1 increased 2.9 percent over six years, or an average 0.5 percent per year.
  - In FY 2015, the PT-1 cost per trip was $18.01 as compared to the average total cost per trip for all human services transportation brokerage programs of $23.39. Of the

seven case studies, Massachusetts reported the second lowest average cost per NEMT passenger trip.

- **Coordination with human services transportation:**
  - The Human Service Transportation Office sets consistent service standards and monitors service quality for coordinated transportation services. The human services transportation system achieves greater than 99 percent completed on-time trips and complaint-free trips. In FY 2014, human services transportation performance was less than one accident per 25,000 consumer trips.
  - In FY 2014, the brokers conducted 22,345 consumer surveys (phone and written surveys), representing 50 percent of the total 44,718 consumers transported that year. The positive response rate was 93 percent.
  - Good coordination is promoted through well-regarded mobility managers.
  - PT-1 clients can arrange transportation for multiple trip purposes with one call, one click.
- **Coordination with public transportation:**
  - The use of RTAs to broker coordinated human services transportation in Massachusetts has produced positive results for the MassHealth PT-1 program by containing costs per trip and ensuring service quality.
  - Continuing challenges include:
    - The ability of all brokers to buy and maintain state of the industry software,
    - The adequacy of the brokerage management fee to sustain services, and
    - The need to add programs to the coordinated human services transportation.

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New Jersey: Change to Statewide Broker (For Profit)

Key Data

Key Data	
Demographic Features	
• State Population (2015)	8,904,413
• Urban Population (2010)	92%
• Rural Population (2010)	8%
• Population at or below poverty line (2015)	11%
NEMT Oversight	Department of Human Services, Division of Medical Assistance and Health Services
Medicaid & NEMT Enrollment Data	
• Medicaid & CHIP Enrollment (December 2013)	1,283,851
• Medicaid & CHIP Enrollment (December 2016)	1,761,395
• Percent Increase 2013–2016	37%
• Medicaid Enrollees that Used NEMT (2013)	4%
NEMT Model	Statewide Broker
Operating Authority	1902(a)(70) State Plan Amendment
Medicaid Match	Medical Service (50%)
Expanded Medicaid under Affordable Care Act	Yes
Medicaid Enrollees in a Managed Care Program	93%
• NEMT under Managed Care	NEMT carved out of Managed Care
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	$14,234,989,570
• Estimate Annual NEMT Expenses (2014)	$165,000,000
• NEMT as % of Medicaid Expenses	1.2%
• Estimate Annual NEMT Passenger Trips (2014)	4,800,000
• % of NEMT Trips on Public Transit (2014)	22.8%
• NEMT Expenses per Trip Statewide (2014)	Est. $34

NEMT Description

Move to statewide broker with capitated payment. The Department of Human Services, Division of Medical Assistance and Health Services (DMAHS) is the state Medicaid agency in New Jersey responsible for NEMT. Prior to 2009, DMAHS contracted for NEMT primarily with county-based community transportation providers in each of the 21 counties in the state with an FFS payment. In July 2009, DMAHS changed the NEMT service model to a statewide

broker with capitated payment. The current statewide broker is a private company operating similar services nationally.

The move to a statewide broker was influenced by multiple factors, including recent and projected cost increases. DMAHS needed greater cost control, and the agency was concerned about fraud in claims for providing NEMT trips.

Statewide broker responsibilities. The statewide broker's responsibilities include:

- Maintain a provider network,
- Determine the appropriate mode of transportation for each beneficiary,
- Dispatch appropriate vehicles to transport beneficiaries, and
- Develop a quality assurance program to ensure access to appropriate transportation for NEMT clients based on medical necessity.

The broker then (a) arranges NEMT trips by contracting with private and community transportation providers at the county level, (b) arranges NEMT trips on public transportation, or (c) provides mileage reimbursement for personal travel, as appropriate. The majority of NEMT trips are in urban areas.

Table A-4 shows the percent of trips by transportation category for urban and rural areas.

As part of the responsibility to maintain a provider network, the statewide broker arranges for transportation on a county-by-county basis. The broker purchases transportation from private and community transportation providers. Rates and other contractual terms and conditions may vary county to county and sometimes from provider to provider within a county. These variations are based on the geographic coverage area, the various types of transport provided, the hours of operation, and other factors.

Procedure for fulfilling transportation requests. Medicaid beneficiaries place requests for transportation with the broker by telephone or online. Requests must be placed before 2:00 p.m. two business days before the trip. Same-day scheduling is available for specific situations, such as a release from the hospital. The broker assigns trip requests to transportation providers the evening before the trip; providers have the option of not serving trip requests.

Effects of the Patient Protection and Affordable Care Act (ACA). The increase in Medicaid enrollment for ACA also increased the demand for NEMT service. DMAHS reported NEMT call volume increased about 29 percent from November 2013 to May 2015 (during the same period, Medicaid enrollment increased about 35.2 percent). The broker has a large staff of trip schedulers; if the schedulers in New Jersey are busy with other customers, the call is routed to the statewide broker's schedulers in other states.

Table A-4. New Jersey NEMT trips.

Transportation Category	Urban	Rural	Urban/Rural Unknown	Statewide
NEMT demand response	74.6%	90.9%	73.5%	75.2%
Public transportation	23.5%	2.4%	24.6%	22.8%
Mileage reimbursement	1.9%	6.7%	1.9%	2.0%
Total	100.0%	100.0%	100.0%	100.0%
Percent of statewide total	95.3%	3.3%	1.4%	100.0%

Source: Island Peer Review Organization, Inc., 2014.

Public Transportation and Community Transportation in New Jersey

The New Jersey Transit Corporation (NJ TRANSIT) is a public transportation corporation providing service throughout the state of New Jersey and connecting to New York City and Philadelphia. NJ TRANSIT operates an extensive statewide transit network comprised of fixed-route bus, light rail, commuter rail, vanpool, and complementary paratransit service known as Access Link. NJ TRANSIT is the nation's third largest transit system in terms of ridership.

Community transportation services are available in each of New Jersey's 21 counties. Community transportation providers operate demand-response and flexible transportation services to provide access to employment, essential shopping, and medical services. Services may also connect public transportation riders to NJ TRANSIT bus stops and commuter rail or light rail stations.

Some community transportation services are public transportation, open to the general public. Others are human services transportation providers with eligibility requirements restricting service to senior citizens, people with disabilities, or social services clients. Many of the community transportation services are funded by NJ TRANSIT with grants from the Federal Transit Administration (FTA) and with funds from New Jersey's Casino Revenue fund under the Senior Citizens and Disabled Residents Transportation Assistance Program. Community transportation providers also generate revenue from service contracts with a state, local, or private human services agencies or organizations, such as Medicaid to provide NEMT.

Prior to 2009, DMAHS contracted with county DHS or welfare boards that then contracted with taxi/livery providers or county community transportation system providers to operate NEMT. These transportation providers coordinated transportation by providing shared-ride services for NEMT riders and other general public or sponsored riders. Since the change to a statewide NEMT broker, the broker contracts with community transportation providers in six of the state's 21 counties.

Coordinated transportation services are also made possible by the Casino Revenue fund. These revenues fund local specialized transportation services for the transportation disadvantaged. The Casino Revenue fund has declined in recent years, reflecting the trend in the casino business economy. Casino revenues for local transportation services in 2015 were about 50 percent of the revenues in 2010, causing serious financial hardship for several community transportation providers. Counties cut back on trips previously provided—trips for medical appointments, grocery shopping, employment, and/or out-of-county destinations—due to the reduction in funds.

Effects of NEMT Change to Statewide Broker

In the case study research, assessments of the effects of the change to a statewide broker were obtained from interviews with a variety of key stakeholders, including the state Medicaid agency, the statewide broker, the state department of transportation, the local county community transportation providers, and Medicaid beneficiaries who use NEMT and their advocates. An independent evaluation prepared by IPRO in 2014 was also referenced.

Access to Medicaid Services

From the perspective of the New Jersey state Medicaid agency (DMAHS), the NEMT change from in-house management to a statewide broker is positive. Administrative responsibility for the NEMT program has been shifted from DMAHS to the broker, and the role of DMAHS is now oversight for the NEMT program. DMAHS reported saving $30 million when the state changed to a broker.

Positive Results of the Change to a Statewide Broker. According to DMAHS, the following improvements have occurred since the change to a statewide broker:

- **Improved cost control**. The contract with the statewide broker has enhanced cost control.
- **Reduced risk of fraud**. The broker is responsible for ensuring eligible riders and trips.
- **Improved access**. DMAHS reports that access to health care services has improved. The broker operates around the clock and on weekends.
- **Increased data**. DMAHS is receiving more data about NEMT services under requirements of the contract with the broker.
- **Increased number of NEMT providers**.
- **Improved vehicles used for NEMT trips**. The broker is responsible for ensuring that transportation providers use vehicles that meet a higher standard for safety.
- **Increased insurance coverage for NEMT services**.
- **Improved scheduling for NEMT trips**. With the broker's centralized reservation system, one-call access is now available for scheduling NEMT trips.

DMAHS requires the statewide broker to report data in a monthly Transportation Broker Report. This report is a tool for DMAHS to monitor the NEMT program. The types of data reported are:

- Provider network showing numbers of providers and numbers of vehicles,
- Monitoring and inspections,
- Eligible NEMT population,
- Call center operations,
- Trips including late trips, trips per capita, and provider no-shows,
- Denials of service,
- Complaints (type, percentage per trip, types during last two months), and
- Customer satisfaction.

Using such data, DMAHS can monitor and oversee NEMT services provided by the broker and the transportation providers.

Challenges of the Change to a Statewide Broker. Not all stakeholders report positive reactions to the change to a statewide broker and different transportation service providers.

Some Medicaid beneficiaries and advocates reported a reduction in transportation services with the change to a broker. At least some of these reports are due to the broker's implementation of DMAHS processes to verify eligible beneficiaries, to approve trips for medical services, and to assign the appropriate mode of transportation based on medical necessity. DMAHS also implemented a restriction on NEMT trip distance to 20 miles from the origin. The broker must provide a Closest Provider Certification for transportation over 20 miles. DMAHS will waive the 20-mile restriction if medical providers are not available or if the patient has been seeing the same medical provider for many years.

Some riders of the NEMT services and their advocates are vocal about their problems with broker operations. These problems include the following:

- **Lack of adherence to scheduled times**. Not picking up passengers on time or dropping them off at scheduled times and not picking up passengers for return trips. According to an independent survey, 34 percent of all trips were not picked up on time, and 42 percent of all trips were not dropped off on time. On-time performance was lower in rural areas than urban areas.
- **Travel times**. Trip times have increased for passengers.
- **No service provided**. No driver shows up to provide the trip requested.

- **Drivers are not familiar with the service area**. Drivers do not know local routes or destinations, leading to late pickups and drop-offs or excessive travel times.

Local medical service providers reported a number of similar concerns with transportation services provided through the brokerage program, although it could not be determined if these concerns were greater than, the same as, or less than transportation issues that existed before the brokerage was implemented. The number of NEMT clients being picked up and dropped off late was a particular concern that reportedly jeopardized medical appointments and caused the patients anxiety.

While at least some these issues are serious, independent survey data gathered by IPRO indicate that a majority of Medicaid NEMT riders are satisfied with transportation services. Of the 84 percent of IPRO survey respondents who called the broker to schedule their transportation, 86 percent rated their interactions with the broker as very good or good, while 14 percent rated their interactions poor or very poor.

Coordination with Human Services Transportation

There has been a decline in the degree to which other transportation services are coordinated with NEMT trips because of the change to a statewide broker in New Jersey. The broker acknowledges that county-based community transportation services are providing fewer NEMT trips than before because more trips are being provided by private providers. The county-sponsored community transportation services are often limited to weekdays and regular business hours, unlike other transportation providers who may be available 24 hours. The broker also seeks the lowest-cost transportation provider that can meet requirements for quality of service.

The loss of revenues from the Casino Revenue fund since 2010 has also had a negative effect on the coordination of human services transportation.

The effects of NEMT on coordination with other human services transportation are on a county-by-county basis. In counties where the broker continues to contract for NEMT services with the community transportation provider, coordination opportunities may have improved when shared rides are possible. This particularly occurs in urban counties where shared rides are more feasible.

In other counties, where the broker does not continue to contract for NEMT services with the community transportation broker, many community transportation providers have seen decreases in revenues received (from NEMT and from the casino fund), leading to decreases in service hours, geographic coverage, and the number of riders served. There has been a decline in shared rides for the county-sponsored transportation services, and this has increased the average cost per trip.

For Medicaid beneficiaries across the state, there may be one-call access to schedule NEMT services, but the same individuals have lost a one-call service to schedule trips for other purposes using a coordinated service. Now one call (or one click) is required to schedule NEMT trips, and another call is required to schedule any other trip with a county-based community transportation provider.

Coordination with Public Transportation

The change to a statewide broker for NEMT in New Jersey has affected coordination with public transportation in four ways, as discussed below.

NEMT Trips on Fixed-Route Public Transportation. Because of the extensive NJ TRANSIT public transit system, many Medicaid beneficiaries in New Jersey can use public transportation to travel to medical appointments. In urban areas, public transportation represents

23.5 percent of NEMT trips. In some counties, the broker has successfully negotiated the purchase of bulk tickets and passes at fare rates for NJ TRANSIT fixed-route bus, light rail, and commuter rail services. The broker purchases tickets and monthly passes (when the purchase will meet the Medicaid guidance on eligibility of monthly passes as an NEMT expense) for NEMT clients who can use public transportation.

Negotiated Rates for Demand-Response NEMT. The general practice of New Jersey's broker is to negotiate specific rates for transportation with each individual public transportation provider for demand-response NEMT trips. Negotiated rates are usually flat rates per trip or mileage-based rates (with a specified amount for picking up the rider). Several public transportation providers are satisfied with the rates they have been offered by the broker; others are not. Some providers feel flat rates do not recognize all variable trip costs.

Not Every County Public Transportation Provider Participates in NEMT. An important caveat is that the broker has not negotiated trip reimbursement rate that is acceptable to the public transportation provider in every county and therefore has not negotiated a contract for the public transportation provider to participate in NEMT. From the perspective of public transportation providers, the challenge is gaining the opportunity for meaningful participation in the state's Medicaid NEMT program. When contracts are successfully negotiated, there is no assurance the broker will use the public transportation provider. The broker may elect to use other transportation providers for any or all NEMT trips rather than a public transportation provider.

Reduced Revenues for Local Match for FTA Grants. County public transportation providers can use NEMT revenues as local match for FTA grants. The loss of NEMT revenues may reduce the source of match for federal transit grants. The loss of revenues from the Casino Revenue fund compounds the problem of insufficient local funds.

Summary of the New Jersey Case Study

New Jersey's DMAHS changed NEMT from in-house management to a statewide broker in 2009. Following is a summary of effects:

- **Access to Medicare services:**
  - From the perspective of DMAHS, the statewide broker has enhanced cost control and reduced the risk of fraud. DMAHS reports access to health care services has improved. Some medical providers believe that improvements in reliable NEMT are still required.
  - While there are service quality issues that the broker must address, an independent survey indicated that a majority of Medicaid NEMT riders are satisfied with transportation services.
- **Coordination with human services transportation:**
  - There has been a decline in the degree to which NEMT trips are coordinated with other transportation services after the change to a statewide broker.
  - County-based community transportation services are providing fewer trips than before because more trips are being provided by private providers.
  - NEMT clients can no longer schedule transportation for multiple trip purposes with one call, one click.
- **Coordination with public transportation:**
  - Because of the extensive NJ TRANSIT public transit system, many Medicaid beneficiaries in New Jersey can use public transportation to travel to medical appointments. In urban areas, public transportation represents 23.5 percent of NEMT trips. The broker purchases tickets and monthly passes for Medicaid beneficiaries who can use fixed-route public transportation. In rural areas, public transportation represents 2.4 percent of NEMT trips.

- The broker has negotiated per trip reimbursement rates with some public transportation providers for demand-response NEMT. Several public transportation providers are satisfied with the rates; others say the rates do not cover the cost to provide the service.
- Community transportation providers in less than one-third of New Jersey's counties have meaningful participation in the state's Medicaid NEMT program. When contracts are successfully negotiated, there is no assurance the broker will use the community provider.
- The loss of NEMT revenues may reduce the source of local match for FTA grants. Public transportation providers may need to identify another source of local match to fully access FTA funds and sustain the current level of service or planned capital investments.

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North Carolina: In-House Management (County Based) with Community Transportation

Key Data

Key Data	
Demographic Features	
• State Population (2015)	9,845,333
• Urban Population (2010)	55%
• Rural Population (2010)	45%
• Population at or below poverty line (2015)	16%
NEMT Oversight	Department of Health and Human Services, Division of Medical Assistance
Medicaid & NEMT Enrollment Data	
• Medicaid & CHIP Enrollment (December 2013)	1,595,952
• Medicaid & CHIP Enrollment (December 2016)	2,025,016
• Percent Increase 2013–2016	27%
• Medicaid Enrollees that Used NEMT (2013)	6%
NEMT Model	Community Transportation with County-Based In-House Management
Operating Authority	NEMT Assurance under the State Medicaid Plan
Medicaid Match	Administrative Service (50%)
Expanded Medicaid under Affordable Care Act	No
Medicaid Enrollees in a Managed Care Program	None Submitted Section 1115 Demonstration application to change to managed care (submitted August 2017)
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	$13,483,308,436
• Estimate Annual NEMT Expenses (2015)	$53,900,000
• NEMT as % of Medicaid Expenses	0.4%
• Estimate Annual NEMT Passenger Trips (2014)	1,916,857
• % of NEMT Trips on Public Transit (2014)	N/A
• NEMT Expenses per Trip Statewide (2014)	Est $28

NEMT Description

NEMT is part of community transportation. The North Carolina Department of Health and Human Services (NCDHHS) is the state Medicaid agency. The NCDHHS Division of Medical Assistance is responsible for overseeing NEMT. The Department of Social Services (DSS) in each of 100 counties acts as the transportation coordinating agent for NCDHHS, responsible for meeting NEMT obligations. NCDHHS issues administrative procedures related to NEMT and contracts for compliance reviews of the 100 county DSS agents for use of Medicaid transportation funds.

Types of services. Each county DSS may arrange NEMT through different types of services:

- Community transportation (demand-response service) based on FFS,
- Purchase of fixed-route public transit tickets or tokens,
- Payments made to private, for-profit transportation companies (for example, taxis),
- Payments (mileage reimbursements) made to eligible individuals who travel in private automobiles,
- Payments (mileage reimbursements) made to family or friends who provide transportation on behalf of the Medicaid beneficiary, and
- Payments (mileage reimbursements) made to volunteers.

The largest of these NEMT services is community transportation, estimated as 74 percent of NEMT services based on 2014 data.

County-based decisions. Each county DSS may contract with the local community transportation provider to provide NEMT on an FFS basis. The DSS is responsible for determining if a Medicaid beneficiary is eligible for NEMT, authorizing trip eligibility, and recordkeeping for post-trip and verification. The community transportation system schedules and provides the authorized transportation. In FY 2014, the North Carolina Department of Transportation (NCDOT) Public Transportation Division reported the community transportation systems in the state carried 6.6 million passenger trips, and 21 percent of these trips (about 1.4 million passenger trips) were for NEMT.

Public transportation is also part of community transportation. Public transportation in North Carolina is provided under a community transportation model that coordinates public transportation with human services transportation. Each of the 100 counties in North Carolina has a community transportation system. Generally, transportation services are provided at the county level, but in a few cases, a regional provider operates services for multiple counties. A few counties have gone further and combined the urban transportation services into a unified urban-rural service within a county.

The community transportation systems and the role in providing NEMT are described in more detail in the next section.

Community Transportation in North Carolina

The community transportation systems in North Carolina have evolved over four decades. A brief history of the coordination of human services and public transportation is summarized below, with specific explanation of NEMT as part of community transportation.

Early Days of Coordination

The origin of coordination of public transportation with human services transportation in North Carolina began in the 1970s.

- **Early collaboration**. Coordinated transportation services date back to 1975 and the earliest days of federal funding for transportation for seniors and people with disabilities, now the FTA Section 5310 program. This program provided federal capital assistance to nonprofit organizations to provide transportation services where existing services were insufficient, unavailable, or inappropriate. NCDOT Public Transportation Division was the administrative agency for the program. NCDOT coordinated with NCDHHS to identify appropriate projects to fund. This early collaboration set the stage for decades of interagency transportation coordination efforts at the state level.
- **County-based initiatives to support better coordination**. In 1976, Governor James Hunt asked NCDOT and NCDHHS to work together to expand transportation for persons 60 years of age and older, especially in rural areas. The two departments cooperated to conduct a yearlong study of mobility options for older adults and identify sources of funding. The governor also named a Blue Ribbon Commission on Rural Transportation. The Blue Ribbon Commission recommended strategies that encouraged county-based initiatives to support better coordination of human services transportation and public transportation. One strategy was to require a locally developed plan to reflect the coordination of transportation services in a community.
- **Executive Order 29 mandates coordination**. Signed by Governor Hunt in 1978, Executive Order 29 mandated the coordination of human services transportation for all agencies that used federal and state funding programs to support transportation. Executive Order 29 required that existing transportation resources be coordinated before additional resources would be funded.
- **Rural public transportation consistent with locally developed plan**. The Federal Public Transportation Act of 1978 (Pub L. 95–599) created the Section 18 program, now known as Section 5311, to fund public transportation in rural areas. Effective in 1979, NCDOT required applications for rural public transportation funds to be consistent with the locally developed plan.
- **NEMT part of coordinated transportation program**. A court decision (*Blue v. Craig*) required NCDHHS to amend the Medicaid state plan to include transportation services to and from authorized medical services. NCDHHS recognized the coordinated local transportation services would enable NCDHHS to fulfill its NEMT obligations under the terms of the court order. NCDHHS became a key advocate for coordinated transportation.

Transition to Community Transportation

The approach to coordinated transportation underwent modifications and refinement over the years, but combined human services transportation and public transportation remained the heart of the program.

- **Public Transportation Advisory Council**. Executive Order 29 established two committees to address public transportation issues in North Carolina. One was the Public Transportation Advisory Council, which served as a policy making body for public transportation issues, advising the governor and North Carolina Board of Transportation on matters related to public transportation. The second was the Interagency Transportation Review Committee, a technical committee with the job of reviewing all transportation funding applications.
- **Human Service Transportation Council (HSTC)**. At the state level, community transportation was facilitated by an interagency organization, originally the Interagency Transportation Review Committee, and beginning in 1991, the HSTC.
- **Community Transportation Services Plan (CTSP)**. Included in the approach to coordinated transportation was the requirement for each county to prepare a five-year CTSP and

to establish a Transportation Advisory Board (TAB) to guide the community transportation program and recommend the CTSP.
- **TABs**. Membership on the TAB varies from county to county, but TABs generally include representatives of transportation providers, human services agencies, transit users, and county government. TABs function as advisory boards; governance authority continues to rest with the county elected officials in most locations.

In recent years, the coordinated program is supported at the local level. Executive Order 29 was not renewed in 2008. As a result, the HSTC has not met since that time. The county-level TABs continue providing ongoing coordination at the local level.

Types of Community Transportation Systems

Public transportation in North Carolina is provided by a series of urban fixed-route transit agencies in the state's urbanized areas. Complementing the urban fixed-route systems, community transportation is available in all 100 counties in the state.

There are five different types of community transportation systems, as follows:

- **Community**—these are single-county, coordinated community transportation systems. This is the typical organization type (since most human services organizations were established at the county level), with 65 of the 81 systems representing this type.
- **Regional Community**—these systems represent groups of counties that have opted to run programs on a regional or multicounty basis.
- **Consolidated Urban Community**—these systems include city-operated transit systems in an urbanized area coordinating with the surrounding county or multiple counties to provide coordinated services.
- **Consolidated Small City Community**—this program is similar to the urban community systems described above, but the small city has not yet achieved urbanized area status.
- **Human Services**—these systems coordinate human services transportation within their county but do not provide general public service.

The majority of the community transportation systems operate demand-response services that coordinate human services transportation and public transportation. Table A-5 identifies the number of systems and number of counties by type of community transportation system in North Carolina. Rural public transportation is provided in 98 out of the state's 100 counties; two counties have elected to coordinate only human services transportation.

Both public agencies and not-for-profit organizations serve as the agency for coordinated transportation at the local level. Almost 80 percent of the organizations are classified as a public entity as shown in Table A-6. Most public entities are the public transit agency in the counties served.

Table A-5. North Carolina community transportation systems.

Community Transportation System Type	No. Systems	No. Counties Served
Community	65	65
Regional Community	7	22
Consolidated Urban Community	6	10
Consolidated Small City Community	1	1
Human Services	2	2
Total	81	100

Source: NCDOT, 2015.

Table A-6. North Carolina organizational status of community transportation systems.

Type of Organization	No. Systems	No. Counties Served
Public Entities	64	79
Not-for-Profit Organizations	17	21
Total	81	100

Source: NCDOT, 2015.

Estimating the Costs of NEMT

NCDHHS documented total NEMT expenditures 2007 through 2012 in a report to the North Carolina General Assembly in October 2012. The expenses and annual NEMT recipients are summarized in Table A-7.

NCDHHS reported total expenditures for NEMT, but not a breakdown by type of provider. Community transportation is one provider. Other types of provider include mileage reimbursement to eligible individuals, payments to family and friends who provide transportation on behalf of the Medicaid beneficiaries; payments to private, for-profit transportation companies; payments to volunteers; and payment for tickets or tokens for fixed-route public transit.

North Carolina community transportation systems are not required to report revenue sources by individual categories; thus, there is no definitive quantification of NEMT payments to community transportation systems for the reporting years 2007–2012. NCDOT collects information on ridership but does not collect the corresponding FFS charges assessed to Medicaid for these services.

NCDHHS has not historically collected data to calculate cost per passenger trip. Efforts to document per passenger trip costs can be a challenge. For example, any community transportation system that provides shared rides (the transport of two or more sponsored passenger groups on the same vehicle trip) generates additional complexities to document the time and distance for individual trips to calculate the cost per passenger trip. NCDHHS began to collect the data for NEMT passenger trips after 2012.

NCDOT Cost Allocation and Funding

In 2000, NCDOT created a standardized cost allocation methodology for use by all community transportation systems. By introducing this spreadsheet tool, all providers had a common methodology to price service provided under contract for NEMT, as well as to all other human services agencies.

Table A-7. North Carolina estimated NEMT expenditures.

Fiscal Year	Annual NEMT Recipients*	Total NEMT Expenditures
2007	72,787	$38,223,180
2008	74,639	$39,983,557
2009	80,153	$46,082,200
2010	85,147	$51,907,228
2011	87,926	$52,841,556
2012	91,928	$54,090,353

**NCDHHS estimated Medicaid beneficiaries who require NEMT at 6 percent of the total eligible population.*
Source: NCDHHS, October 2012.

Cost Allocation Methodology. The methodology was a variation on the fully allocated cost analysis, prepared for the U.S. Department of Transportation, Urban Mass Transportation Administration, by Price Waterhouse in 1987. Designed for fixed-route use, the model was modified for demand-response operations in *Comprehensive Financial Management Guidelines for Rural and Small Urban Public Transportation Provider*s, prepared for the Multi-State Technical Assistance Program, American Association of State Highway and Transportation Officials in 1992.

NCDOT presented the methodology to the HSTC. The members of the HSTC concurred the cost allocation methodology was a reasonable method for pricing services under contract. The same methodology is applied to all contract users, including NEMT services.

NCDOT Policy to Fund Administrative Costs and Vehicles. Typically, only the variable operating costs are used to calculate contract rates using the NCDOT cost allocation model. Variable operating costs exclude fixed administrative costs. To promote the policy goal of coordination and efficiency of service delivery to transportation-disadvantaged populations, NCDOT pays 90 percent (80 percent federal funds and 10 percent state funds) of the administrative expenses for coordinated transportation systems that serve the public in rural areas.

Community transportation systems deliver NEMT using vehicles that are owned by the respective systems. Almost all vehicles for public transportation have been purchased using federal transit funding sources. FTA will provide federal funds equal to 80 percent of cost, and NCDOT has a policy to provide state funds (at a minimum) equal to 10 percent of total cost. These vehicles must be used in public or shared-ride transportation service. Vehicles cannot be acquired specifically to transport the clients of any single human services program. While community transportation systems may include the value of vehicle depreciation on the non-federal share in contract rates, most agencies do not do so.

When DSS contracts with a community transportation system to provide NEMT, DSS benefits from lower contract rates due to the NCDOT policy to fund 90 percent of administrative costs and the shared use of transit vehicles.

Effects of NEMT as Community Transportation

The case study research for North Carolina documents the delivery of NEMT as part of the coordinated human services–public transportation service model known as the community transportation program. The resource material for the case study was research prepared originally in 2012 and updated in 2015 by a research team member familiar with North Carolina.

Access to Medicaid Services

Most, but not all, community transportation systems in North Carolina operate NEMT by contract. Each county DSS may coordinate with the local community transportation provider to provide NEMT on an FFS basis. Seventy-five of the 81 community transportation systems provide demand-response NEMT service. In 2014, the level of NEMT ridership on each of the 75 community transportation systems varied from less than 1 percent to 87 percent of total ridership, with a statewide average 21 percent. The county DSS may provide tickets or tokens for fixed-route transit if provided by the community transportation system.

Each county DSS may also arrange and pay for NEMT through other types of services such as private-for-hire (taxis), volunteer drivers, and mileage reimbursement for the Medicaid beneficiary or a family member. In FY 2014, NCDHHS reported 1.9 million NEMT trips, approximately 1.4 million on community transportation systems.

In 2012, the North Carolina General Assembly mandated NCDHHS study NEMT and then issue a request for proposals to secure the services of an NEMT broker. NCDHHS issued a report

titled *Non-Emergency Medical Transportation Services Management Report* to the Joint Legislative Oversight Committee on Health and Human Services and the Joint Legislative Oversight Committee on Transportation in October 2012. NCDHHS solicited proposals from NEMT brokers in the fall 2012. In August 2013, the proposals were rejected on the basis that the existing service model was less expensive.

Benefits. In the report to the joint legislative committees, NCDHHS identified the following benefits of the community transportation systems:

- **Safe and reliable mobility**. The coordinated model of public and human services transportation has served millions, providing the safe and reliable mobility of North Carolinian citizens for 35 years.
- **Efficiency and quality of service**. Community transportation results in overall efficiency and quality of service, and mobility for seniors and the disabled population.
- **Shared trips reduce costs per trip**. NEMT is able to take advantage of the benefit of shared trips to reduce overall fully allocated costs per passenger trip.
- **Long-term investment**. NCDHHS and NCDOT, with other local and state human services agencies, have a long-term investment of dollars, training, resources, and coordination with human services entities.
- **Higher standards**. Transportation providers that receive state and/or federal funds are held to higher standards. Greater oversight by both the state and federal government in adhering to required policies, reporting, procedures, training, and guidance make public transportation service safer.
- **Individual flexibility for multiple transportation services**. Many users have transportation services funded by multiple agencies such as an individual that may be an NEMT recipient, receive transportation services from Senior Services as well as transportation services funded by the Home and Community Care Block Grant program. The community transportation system makes it possible for that individual to use one system for almost all transportation needs.

Challenges. All NEMT services must meet the guidelines of CMS and the state Medicaid plan in order to be eligible for federal Medicaid funds.

The Office of Inspector General (OIG) of the U.S. Department of Health and Human Services conducted an audit of the North Carolina NEMT program by reviewing 2013 and 2014 records. The objective of the audit was to determine whether NCDHHS claimed federal reimbursement for NEMT services in accordance with federal and state requirements. OIG issued findings in November 2016.

Not all deficiencies were based on community transportation systems. Some deficiencies occurred because some DSSs did not provide effective oversight of mileage reimbursement, volunteer drivers, and other types of services such as private-for-hire.

The OIG findings are summarized as follows:

- NCDHHS claimed federal Medicaid reimbursement for some NEMT services that did not comply with federal or state requirements.
  - Transportation services were not necessary, reasonable, or cost effective. For example, some DSS reimbursed transportation providers for mileage incurred before pick-up, after drop-off, or between stops when there was no NEMT client on the vehicle.
  - Some DSSs did not ensure transportation providers met all requirements. For example, some counties did not verify transportation providers maintained minimum vehicle liability insurance.

  - Some DSSs lacked required supporting documentation to support the services claimed or to verify that the NEMT service provider transported the beneficiary to a location where the individual received a Medicaid-covered service.
- DSSs did not meet safety and risk management policy requirements by ensuring that transportation contracts contained guarantees that all contractors would meet safety, liability, and other program requirements.
- NCDHHS program design and oversight was inadequate.
- NCDHHS also claimed NEMT administrative expenses at the higher North Carolina federal medical assistance percentage instead of the 50 percent administrative rate.

In comments on the draft OIG report, NCDHHS generally disagreed with the OIG findings and recommendations but agreed the report identified some areas for improvement.

Future: Managed Care. In September 2015, the General Assembly enacted Session Law 2015-245, directing the transition of Medicaid from an FFS structure to a managed care structure. CMS must approve the proposed changes in the North Carolina state Medicaid plan. NCDHHS submitted the proposed program design for Medicaid managed care to CMS in August 2017. The managed care contracts would begin 18 months after federal approval. NCDHHS anticipates launching Medicaid managed care in 2019.

The NCDHHS goal is to improve the health of North Carolinians through an innovative, whole-person-centered, and well-coordinated system of care, which addresses both medical and non-medical drivers of health. The state proposes to enter into contracts with companies that will offer managed care with NEMT carved in.

Coordination with Human Services Transportation

Community transportation systems contract with other human services agencies in addition to NEMT. A best practice in program management is to create a diversified funding base; North Carolina's community transportation systems reflect this principle. Other contract sources for human services transportation in 2014 included the following (the number after the agency reflects the number of community transportation systems out of 81 that contract to provide this service):

- Senior services (70)
- Health department (56)
- Vocational workshop (49)
- Vocational rehabilitation (37)
- Nursing home (34)
- DSS—Work First (32)
- DSS—Other (28)
- Mental health (23)
- Local employer (21)
- Parks & Recreation (10)
- Head Start (8)
- United Way (3)

Based upon a 2012 study by Carolina Burnier with Noblis, Inc, community transportation systems in North Carolina achieve increased productivity estimated at 5 percent (expressed in terms of passengers per hour and passengers per mile) by coordinating NEMT clients with rural public transit passengers and other human services agency riders.

Coordination with Public Transportation

Most community transportation systems that are public entities are the public transit agency in the counties served. The North Carolina Public Transportation Association concluded that

NEMT contributed the following benefits to the community transportation system: (a) increased operating efficiencies for shared-ride demand-response transportation services, and (b) provided matching funds that could be used for FTA grants. The North Carolina Public Transportation Association estimated the matching funds for Medicaid contract revenue are $36.9 million annually.

Summary of the North Carolina Case Study

NEMT in North Carolina is provided under a community transportation model that coordinates general public transportation with human services transportation. Each of the 100 counties in North Carolina has a community transportation system. Each county DSS may also arrange and pay for NEMT through other types of transportation such as private-for-hire (taxis), volunteer drivers, and mileage reimbursement for the Medicaid beneficiary or a family member.

Following is a summary of effects:

- **Access to Medicaid services:**
  - In North Carolina, each county DSS may contract with the community transportation provider for NEMT service on an FFS basis.
  - The state Medicaid agency solicited proposals from NEMT brokers in 2012 but the existing model for coordinated transportation was less expensive than the proposals from brokers.
- **Coordination with human services transportation:**
  - Community transportation increases operating efficiencies for shared rides on demand-response transportation services. Coordinating NEMT trips with community transportation achieves increased productivity estimated at 5 percent.
  - NEMT clients can arrange transportation for multiple trip purposes with one call, one click.
- **Coordination with public transportation:**
  - Most community transportation systems are the public transit agency in the counties served.
  - Public transit agencies use funds earned for NEMT as local share for federal transit grants.

In September 2015, the North Carolina General Assembly enacted legislation to transition the state Medicaid plan from an FFS for Medicaid services to managed care. NCDHHS submitted the proposed program design for Medicaid managed care to CMS in August 2017. NCDHHS anticipates launching Medicaid managed care in 2019. NCDHHS proposes to enter into contracts with companies that will offer managed care with carved in NEMT.

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Oregon: Change to Managed Care Organizations with Carved-In NEMT

Key Data

Key Data	
Demographic Features	
• State Population (2015)	3,939,233
• Urban Population (2010)	62%
• Rural Population (2010)	38%
• Population at or below poverty line (2015)	15%
NEMT Oversight	Oregon Health Authority
Medicaid & NEMT Enrollment Data	
• Medicaid & CHIP Enrollment (December 2013)	626,356
• Medicaid & CHIP Enrollment (December 2016)	966,178
• Percent Increase 2013–2016	54.3%
• Medicaid Enrollees that Used NEMT (2013)	N/A
NEMT Model	Managed Care (Coordinated Care Organizations)
Operating Authority	Section 1115 Demonstration Waiver
Medicaid Match	Medical service (64.5%)
Expanded Medicaid under Affordable Care Act	Yes
Medicaid Enrollees in a Managed Care Program	93%
• NEMT under Managed Care	Managed Care with carved-in NEMT
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	$8,066,724,366
• Estimate Annual NEMT Expenses (2013)	$40,500,000
• Estimate Annual NEMT Passenger Trips (2013)	1,557,228
• % of NEMT Trips on Public Transit (2013)	22%
• NEMT Expenses per Trip Statewide (2013)	$26

NEMT Description

The Oregon Health Authority (OHA) is the state Medicaid agency. Previously, the Medicaid program was the responsibility of the Oregon Department of Human Services (ODHS). In 2011, the Oregon Legislature transferred many of the health-related functions to the newly created OHA. The Oregon Health Plan (OHP) is the state Medicaid program.

NEMT as part of coordinated care. Oregon began transforming the OHP to a coordinated care model in 2012, operated by 16 regional, community-based MCOs. Coordinated care

involves consolidation of health-supportive services under the umbrella of a coordinated care organization (CCO). Between 2012 and January 1, 2014, OHA certified 16 CCOs to provide coordinated care in all counties around the state. In some counties, two or more CCOs have overlapping service areas.

Each CCO is responsible for NEMT for its members. OHA is responsible for NEMT for OHP members that are not enrolled in a CCO. Each CCO and OHA operates NEMT through transportation brokers. The type of broker (i.e., public agency, private company, nonprofit agency) and the approach to NEMT within OHA guidelines differ by CCO.

Effect of ACA. In 2014, Oregon expanded Medicaid as allowed under the federal ACA. Medicaid enrollment in OHP increased 54.3 percent from 626,400 in September 2013 pre-ACA to 966,200 in December 2016 post-ACA. Almost 90 percent of the eligible Medicaid population is enrolled in a CCO. Many not enrolled in a CCO have exemptions such as dual enrollment in Medicare or other third-party coverage. Since Medicaid expansion took effect, Oregon's uninsured rate dropped from 17 percent to 5 percent. After ACA, 95 percent of Oregonians have health coverage.

The case study for Oregon focuses on NEMT in three areas: Tri-County/Portland metropolitan area, southern Oregon (seven counties), and Lane County. Before the case study discussion, the following two sections describe coordinated care in Oregon and the history of NEMT brokers in Oregon.

Coordinated Care in Oregon

The vision of the coordinated care model is to make CCOs accountable for attending to the global health needs of OHP members. The goals for OHP under the coordinated care model are known as the Triple Aim:

- **Better Health—**increase access to health care for low-income Oregonians,
- **Better Care—**improve the health of Oregonians by improving quality of care and access to preventive services, and
- **Lower Costs—**contain the cost of health care.

How Coordinated Care Organizations Work

A CCO is a network of all types of health care providers (physical health care, substance abuse and mental health care, and dental care providers) who have agreed to work together in their local communities to serve people who receive health care coverage under the OHP. CCOs are focused on prevention and helping people manage chronic conditions, like diabetes. This is expected to help reduce unnecessary emergency room visits and give people support to be healthy.

The state government has identified four key features of CCOs. They must (a) be locally governed to address community needs; (b) operate all services within a global budget with a fixed rate of growth; (c) be accountable for health outcomes of the population they serve; and (d) be governed by a partnership of health care providers, community members, and stakeholders in the health systems that have financial responsibility and risk.

How Coordinated Care Is Different

Before CCOs, the Medicaid health care program separated physical, behavioral, and other types of care. According to OHA, that made things more difficult for patients and providers and more expensive for the state.

CCOs have the flexibility to support new models of care that are intended to be team-focused. CCOs are able to better coordinate services and focus on prevention, chronic illness management,

and person-centered care. CCOs have flexibility within their budgets to provide services with the goal of meeting the Triple Aim of better health, better care, and lower costs for the population they serve.

OHA provides each CCO one budget (global budget) that grows at a fixed rate to provide mental, physical, dental care, and related services, such as NEMT. CCOs are accountable for health outcomes of the population they serve within the global budget. OHA pays each CCO a monthly capitation payment to manage and deliver health care for the CCO's members.

By November 2015, OHA included NEMT in the global budget of each of the 16 CCOs.

NEMT Brokers in Oregon

In the 1990s, Oregon introduced the use of public agencies as regional community brokers to provide NEMT. The concept was borrowed from Washington State, where regional NEMT brokers were nonprofit agencies rather than public agencies. The first public agency NEMT broker in Oregon was developed by the Tri-County Metropolitan Transportation District of Oregon (TriMet) for the three-counties that comprise the Portland metropolitan area (Clackamas, Multnomah, and Washington Counties). TriMet is the RTA that provides bus, light rail, commuter rail, and ADA paratransit services in the Portland region.

Early Collaboration. TriMet and ODHS began collaboration in 1994 to coordinate ADA paratransit and Medicaid NEMT services. In the beginning, TriMet ran parallel service, separating ADA paratransit and NEMT trips. Based on the initial demonstration, TriMet and ODHS concluded that coordination of the two programs for shared rides was possible and would result in cost savings. The Oregon Department of Transportation (ODOT) joined the collaboration to support using the expertise of transit to provide NEMT at a lower cost. ODOT provided funds for non-medical trips by Medicaid beneficiaries who were also eligible for other transportation programs.

For the next 20 years, TriMet worked in collaboration with ODHS and ODOT to coordinate ADA paratransit, NEMT, and other human services transportation programs. TriMet provided the call center and brokered transportation service to over 45 for-profit and not-for-profit transportation providers.

Regional Community Brokers. After the TriMet pilot project, ODOT and ODHS cooperated in the expansion of the broker model statewide beginning in 2001, eventually establishing eight regional community brokers. In addition to TriMet, other agencies that established community brokers were public transit agencies and councils of governments. Each public agency established the broker as an independent business unit with a cost accounting system separate from the transit agency. Table A-8 lists the regional community brokers and the corresponding public agency sponsor.

ODHS negotiated intergovernmental agreements for NEMT with the regional community brokers, providing consistency across contracts and standardizing NEMT policies and procedures statewide. ODOT provided funds for TriMet to develop the Oregon Brokerage Scheduling System, software for NEMT that was unique to Oregon. Five other regional community brokers adopted the software by 2008. TriMet also developed travel training and a volunteer driver program in cooperation with Ride Connection, a private nonprofit organization in Portland that advocates for transportation for vulnerable populations (older adults, people with disabilities, low income).

The regional community brokers contracted with private and nonprofit transportation providers to deliver NEMT trips. The brokers scheduled shared rides with other human services and public transportation riders to improve cost effectiveness.

Table A-8. Oregon regional community brokers by public agency sponsor, 2011.

Regional Community Broker	Public Agency Sponsor
Cascade East Ride Center	Central Oregon Intergovernmental Council
Mid-Columbia Medical Transportation	Mid-Columbia Council of Governments
NW Ride Center	Sunset Empire Transportation District
Ride Line	Cascades West Council of Governments
RideSource	Lane Transit District
TransLink	Rogue Valley Transportation District
TriMet Medical Transportation Program	TriMet
TripLink	Salem-Keizer Transit

Source: ODHS, 2011.

CCO Brokers. Statewide, 12 CCO NEMT brokers were active as of November 2015, as listed in Table A-9. Seven of eight regional community brokers continue to serve as the broker for one or more CCOs. TriMet no longer serves as an NEMT broker in any capacity.

Case Study Examples for Oregon

This case study for Oregon addresses how NEMT is provided under the coordinated care model for Medicaid in three areas: Tri-County/Portland metropolitan area, southern Oregon, and Lane County. The CCOs implemented NEMT through a different arrangement in each area.

Table A-9. Oregon CCO NEMT brokers by CCO, 2015.

CCO NEMT Broker	CCO
Bay Cities Ambulance	For Umpqua Health Alliance members only
Cascade East Ride Center* Central Oregon Intergovernmental Council	PacificSource Community Solutions CCO, Central Oregon Region
Cascades West Ride Line* Cascades West Council of Governments	Intercommunity Health Network CCO
ReadyRide	For AllCare Health Plan members only
Ride To Care Access2Care, American Medical Response	For Health Share of Oregon and FamilyCare, Inc. members only
RideCare* (formerly NW Ride Center) Sunset Empire Transportation District	Columbia Pacific CCO
RideSource* Lane Transit District	Trillium Community Health Plan
TransLink* Rogue Valley Transportation District	Cascade Health Alliance Jackson Care Connect Primary Health Care of Josephine County, LLC Western Oregon Advanced Health, LLC For OHP FFS members in Lake County
Transportation Network* (formerly Mid-Columbia Medical Transportation) Mid-Columbia Council of Governments	Eastern Oregon CCO PacificSource Community Solutions CCO, Columbia Gorge Region
Tri-County MedLink First Transit, Inc.	For OHP FFS members only in Clackamas, Multnomah, Washington, and Yamhill Counties
TripLink* Salem-Keizer Transit	Willamette Valley Community Health, LLC
WellRide First Transit, Inc.	For Yamhill CCO members only

**Public agency brokers provide NEMT for OHP FFS members in the counties served unless otherwise noted (Lake County).*
Source: OHA, 2015.

The case study information is based on interviews with stakeholders from OHA, ODOT, CCOs, NEMT brokers, transportation providers, public transit agencies, and customer advocates. The purpose of the interviews was to hear different perspectives and learn from diverse experiences.

Tri-County/Portland Metropolitan Area

The Tri-County/Portland metropolitan area includes Clackamas, Multnomah, and Washington Counties. Portland, the largest city in Oregon, is located in the tri-county area. The estimated 2015 population of the area was 1.7 million, about 44 percent of the state's population. Approximately 360,000 individuals (21 percent of the tri-county population) are enrolled in the OHP.

With the implementation of coordinated care, OHA certified two CCO for the tri-county area. The two CCOs are Health Share of Oregon (Health Share) and FamilyCare, Inc.

Regional Community Broker—TriMet. Prior to the transformation of the Oregon health care system to the coordinated care model, ODHS contracted with TriMet to serve as the broker for NEMT trips. TriMet subcontracted demand-response NEMT trips to private for-profit and not-for-profit transportation providers in the tri-county area. ODHS paid for NEMT on an FFS basis.

CCO NEMT Broker—Ride To Care. In 2014, Health Share and FamilyCare issued a joint request for proposals to provide NEMT broker services in the tri-county area. The CCOs received proposals from TriMet and Access2Care (at a minimum). Health Share stated the criteria for evaluating proposals included the following:

- Ability to serve a medically and culturally diverse community within a large and varied geographical area covering more than 3,000 square miles,
- Understanding and knowledge of Medicaid rules, procedures, and policies,
- Assuring that the transportation mode is appropriate and relevant to member needs,
- Responsive and works collaboratively to ensure provider concerns are addressed, and
- Available to supply members with efficient and safe transport, as needed.

Health Share and FamilyCare selected Access2Care, a division of American Medical Response to serve as the NEMT broker. American Medical Response is a national transportation management company, and Access2Care operates similar brokerages in other states. Health Share and FamilyCare each has a separate contract and different financial arrangements with Access2Care. Health Share and FamilyCare branded the NEMT program as Ride To Care.

Ride To Care is responsible for arranging transportation to meet the CCO member's needs. Ride To Care does not operate its own vehicles but instead subcontracts demand-response passenger trips to local transportation providers. The type of transportation is based on the medical condition of the CCO member at the time of the appointment. According to the Ride To Care website, "Most often, this means bus tickets/passes" (see https://www.ridetocare.healthcare/members-riders). The broker also schedules NEMT trips by car, taxi, van, wheelchair van, or stretcher van. Ride To Care can pay gas expenses to a friend or family member who provides a ride to the CCO member. Ride To Care also works with volunteers who give rides to health care appointments.

The transition to Ride To Care in January 2015 ended TriMet's 20-year service as the NEMT broker for the tri-county area. The termination of TriMet's role as the regional community broker impacted coordination of NEMT trips on shared rides with public transportation and resulted in fragmentation of other human services transportation programs such as Medicaid-funded non-medical rides for individuals enrolled in long-term care services. TriMet also no

longer provided technical support for the Oregon Brokerage Scheduling System used by other brokers in Oregon.

Following the transition of NEMT services to CCOs, OHA contracted with a private company, First Transit, Inc., to provide broker services for the small percent of Medicaid enrollees in the OHP FFS program in Clackamas, Multnomah, Washington, and Yamhill Counties.

Southern Oregon

The southern Oregon area encompasses seven counties: Coos, Curry, Douglas, Jackson, Josephine, Klamath, and Lake Counties. The 2015 population is estimated as 558,000 for the seven counties. There are two urbanized areas: Medford in Jackson County and Grants Pass in Josephine County. The OHP enrollment for the seven counties is estimated as 185,600, or 33 percent of the population.

Regional Community Broker—TransLink. From 2001 through 2014, the regional community broker in southern Oregon was TransLink, a service of the Rogue Valley Transportation District (RVTD). RVTD is the public transportation provider for the Rogue Valley, serving the cities of Medford, Ashland, Central Point, Talent, Phoenix, White City, and Jacksonville in Jackson County.

Working with ODOT and ODHS, RVTD created TransLink as the regional community broker in southern Oregon in 2001. Prior to the change in the OHP to the coordinated care model, ODHS contracted with TransLink to serve as the broker for NEMT trips in the seven-county region. TransLink provided over 400,000 NEMT trips in the year October 1, 2013, through September 30, 2014, before the transition to CCO NEMT in southern Oregon. TransLink reported that about 14 percent of NEMT trips were provided on public transportation fixed routes. TransLink subcontracted demand-response NEMT trips to RVTD and about 38 subcontractors.

CCO NEMT Brokers in Southern Oregon. Since transformation of the OHP to the coordinated care model, eight CCOs serve OHP enrollees in the seven counties in southern Oregon. Some of the CCOs have overlapping service areas in the same county. The eight CCOs contract with five different NEMT brokers.

Table A-10 identifies the CCOs and CCO NEMT brokers by county.

Table A-10. Southern Oregon CCOs and CCO NEMT brokers by county, 2015.

County	CCO	CCO NEMT Broker
Coos	Western Oregon Advanced Health	TransLink
Curry	Western Oregon Advanced Health AllCare Health Plan	TransLink ReadyRide
Douglas	Umpqua Health Alliance AllCare Health Plan (two zip codes)	Bay Cities Ambulance ReadyRide
Jackson	Jackson CareConnect AllCare Health Plan Primary Health of Josephine County	TransLink ReadyRide TransLink
Josephine	Primary Health of Josephine County AllCare Health Plan	TransLink ReadyRide
Klamath	Cascade Health Alliance PacificSource Community Solutions CCO, Central Oregon Region (specific zip codes)	TransLink Cascade East Ride Center
Lake	Eastern Oregon CCO	Transportation Network
All Counties	OHP FFS members	TransLink

Source: OHA, 2015.

Lane County

The population of Lane County, Oregon, is estimated as 362,900 in 2015. Eugene is the urbanized area in Lane County with a population about 260,000. The OHP enrollment for Lane County is estimated as 103,800 or 28.6 percent of the population.

The CCO in Lane County is Trillium Community Health Plan. Trillium is a wholly owned subsidiary of Centene Corporation, a multinational health care enterprise.

Regional Community Broker—RideSource. Lane Transit District (LTD) is the public transit agency that provides bus, bus rapid transit, and ADA paratransit service in the Eugene urbanized area and provides limited service to the rural areas of Lane County. Working with ODOT and ODHS, LTD created the RideSource call center. LTD operated the call center to broker Medicaid, ADA paratransit, and other human services demand-response transportation.

RideSource was one of the eight regional community brokers in Oregon. RideSource offered a comprehensive approach to coordinating local transportation services:

- Coordination and cost sharing with public transportation and other human services transportation programs,
- Transportation needs assessment to determine the right kind of transportation service through a personal in-the-home interview by trained transportation coordinators from Senior and Disabled Services and Alternative Work Concepts,
- Interagency collaboration with ODHS case managers, and
- Sophisticated applications for technology and software.

RideSource operates the one-call center for different transportation programs and subcontracts demand-response transportation to local public and private providers. RideSource brokered NEMT for individuals eligible under the OHP from 2008 through June 2013.

CCO NEMT Broker—RideSource. When LTD published the 2013 Update for the *Lane Coordinated Public Transit Human Services Transportation Plan*, the transit district did not know if RideSource would continue as the broker for NEMT transportation when the local CCO took over by July 1, 2013. In the updated plan, LTD explained if the RideSource call center did not continue, the five-year effort to coordinate transportation services for people who are eligible for and use multiple transportation programs would be lost.

Trillium did select RideSource as the NEMT transportation broker. After a challenging transition period, LTD reports a good relationship with the CCO. Trillium and RideSource worked through the transition by learning each other's business. LTD worked to understand the Triple Aim objectives, and Trillium worked to understand the challenges of providing NEMT. LTD collaborated with Trillium to develop a compliance plan and a cost allocation model for Medicaid NEMT services. LTD says the key is that the CCO and transportation broker both want the same thing—good customer care.

In the CCO model, RideSource works with caseworkers and mental health workers to assure continuity of care. The goal is prevention of unnecessary emergency room visits. LTD provides both medical and non-medical transportation to improve physical and mental health.

Table A-11 provides data for NEMT, ADA paratransit, and other human services transportation trips from July 2011 through June 2015 and compares trips prior to CCOs and Medicaid expansion (July 2011 through June 2012) to post-CCO and Medicaid expansion (July 2014 through June 2015).

Table A-12 shows that RideSource has increased the assignment of passenger trips to fixed-route and contracted services to serve the expanded NEMT and other human services transportation

Table A-11. Oregon RideSource passenger trips by program, 2011–2012 to 2014–2015.

Program	Community Broker July 2011 June 2012	Community Broker July 2012 June 2013	CCO NEMT Broker July 2013 June 2014	CCO NEMT Broker July 2014 June 2015	% Change 2011–12 to 2014–15
NEMT	147,936	158,778	201,044	306,424	107%
• OHP FFS	*147,936*	*158,778*	*5,937*	*9,550*	
• Trillium CCO	—	—	*195,107*	*296,874*	
ADA Paratransit	86,916	81,313	77,351	78,839	-9%
Other—Human Service	59,493	73,540	85,683	97,346	64%
Total Passenger Trips	294,345	313,631	364,078	482,609	64%

Source: LTD, 2015.

demand. RideSource also now provides mileage reimbursement to CCO members. Table A-12 compares trips prior to CCOs and Medicaid expansion (July 2011 through June 2012) to post-CCO and Medicaid expansion (July 2014 through June 2015).

Effects of NEMT Change to Managed Care

In the case study research, assessments of NEMT as a service of coordinated care were obtained from interviews with a variety of key stakeholders in Oregon, including representatives from OHA, ODOT, CCOs, NEMT brokers, transportation providers, public transit agencies, and customer advocates. The federally required annual external quality review of managed care for 2016 is also referenced.

Access to Medicaid Services

Oregon implemented CCOs following CMS approval on July 5, 2012, of the transformation of the health plan in a Section 1115 Medicaid Demonstration waiver. The waiver was renewed on January 12, 2017, and is currently approved through June 30, 2022. Currently, 16 CCOs manage physical, behavioral, and dental health services for OHP members across the state.

Key Elements of Oregon's Health System Transformation. CCOs are held accountable for outcomes that result in better health and more sustainable costs. To provide status updates on the state's progress toward the Triple Aim, OHA publishes regular reports showing quality and

Table A-12. Oregon RideSource passenger trips by provider, 2011–2012 to 2014–2015.

Provider	Community Broker July 2011 June 2012	Community Broker July 2012 June 2013	CCO NEMT Broker July 2013 June 2014	CCO NEMT Broker July 2014 June 2015	% Change 2011–12 to 2014–15
LTD Demand Response	145,811	150,521	152,043	159,088	9%
LTD Fixed Route	32,396	34,195	29,315	70,457	117%
Contracted Providers	116,138	128,915	155,536	208,839	80%
Mileage Reimbursement	—	—	27,184	44,225	100%
Total Passenger Trips	294,345	313,631	364,078	482,609	64%

Source: LTD, 2015.

access data, financial data, and progress toward reaching benchmarks. Key elements of Oregon's health system transformation include:

- **Using best practices to manage and coordinate care**. The model is built on the use of evidence-based best practices to manage and coordinate care. This is expected to produce better care and improved outcomes, including a positive patient experience and lower costs.
- **Shared responsibility for health**. Providers and consumers share responsibility and decision making for care, while coming to joint agreements on how the individual wants to improve or maintain positive health behaviors.
- **Transparency in price and quality**. Information about the price of services is publicly available. Information on plan performance including quality, patient experience, and access to medical services is publicly posted.
- **Measuring performance**. Measuring performance consistently across health systems improves accountability. Oregon's CCOs are held accountable for 33 quality metrics, which are publicly available and updated regularly. These metrics do not include specifics about NEMT performance.
- **Paying for outcomes and health**. Oregon's CCOs receive incentive payments for the quality of care they provide. Of the 33 quality and access metrics, CCOs receive incentive payments for making targeted improvements or meeting benchmarks on 17 of these metrics.
- **A sustainable rate of growth**. The target for sustainable costs is an annual health care cost growth rate not to exceed 3.4 percent.

Each of these elements individually and collectively is expected to produce better health outcomes for Oregonians at sustainable costs.

CCOs have flexibility under the global budget to include transportation as a means to improving health outcomes. CCOs have exercised this flexibility by implementing the following:

- Hired nontraditional staffing to monitor and identify issues that lead to poor health including finding stable housing and reliable transportation;
- Funded nontraditional medical trips to the gym, grocery store, and other activities to prevent illness rather than treat illness; and
- Implemented pilot transportation programs such as same-day/extended service and smartphone applications to improve customer service.

External Quality Review. Federal law requires states to conduct an annual external quality review of Medicaid services delivered through managed care. OHA contracts with HealthInsight Oregon to perform the annual external quality review in Oregon. The review for 2016 identified strengths and areas for improvement.

Overall Strengths. The external quality review found that CCOs have been able to expand their delivery networks in response to Medicaid expansion by increasing practitioner caseloads and/or adding new clinics and providers. The CCOs have established robust care management processes. CCOs have made progress in integrating physical and behavioral health care, particularly through co-location strategies. Most CCOs have begun monitoring their subcontractors for compliance with managed care requirements.

Areas for Improvement for NEMT. The external quality review for 2016 identified specific areas for improvement that involve NEMT:

- **Service integration**. Overall, the CCOs have made progress in transitioning to fully integrated care delivery systems, having added NEMT services to the benefits plans during 2014–2015. However, for the majority of CCOs, member grievances in 2016 indicated significant concerns related to NEMT services. Members reported transportation providers not providing

rides, arriving late for pick-up leading to late or missed appointments, and lack of communication, creating barriers to receiving care.
- **Timeliness**. Most CCOs have reduced avoidable emergency room visits, but most CCOs do not monitor the timeliness of NEMT services.
- **Credentialing**. Many CCOs address credentialing of licensed or certified professionals but did not address other types of employees, such as NEMT drivers. Most CCOs lacked policies and procedures that adequately addressed the credentialing of contracted transportation providers.
- **Information systems integration**. Overall, the CCOs have made significant progress integrating required services and associated claims/encounter data into the information systems. Some CCOs have integrated NEMT service data and health services encounter data, while other CCOs continue to work toward that goal. The external quality review found specific NEMT brokers had not submitted required encounter data, or the CCO had not verified the encounters.

OHA and the CCOs have not developed a statewide performance measurement system specifically for NEMT. OHA performance reports do not include NEMT metrics.

Coordination with Human Services Transportation

For those CCOs that continued to work with the regional community broker, the support for coordination with human services transportation continues. Transportation coordination for multiple programs is more difficult if the regional community broker is no longer the NEMT broker for all CCOs in a region, or is no longer involved as an NEMT broker.

Lane County. In Lane County, the CCO elected to continue contracting with the established regional community broker (RideSource) that is a service of the public transit agency, LTD. Therefore, interruption in the coordinated transportation system was minimal.

The benefits of the transit agency continuing as the NEMT broker include allowing customers to continue to have a one-call system for scheduling all types of trips, including NEMT. Customers can trip chain (i.e., take connected trips for multiple purposes). An advantage of a transit agency serving as a broker is the ability to pool funds from a variety of sources to serve diverse customer trip needs, to leverage federal transit grants, and to coordinate transportation services in shared rides for improved cost effectiveness.

Total passenger trips brokered by RideSource increased 64 percent after implementation of CCOs and Medicaid expansion (see Table A-11). Passenger trips funded by human services programs increased 64 percent. NEMT passenger trips increased 107 percent, and ADA paratransit trips decreased 9 percent.

Southern Oregon. In southern Oregon, the multiple CCOs and introduction of new transportation brokers can be confusing to the customer. The CCOs and transportation providers in southern Oregon reported challenges during the transition period and continue to work through transportation issues. Because not all CCOs continued with the established regional community broker (TransLink), there is not a central one-call provider throughout the region.

Because some CCOs serve only specific areas, Medicaid beneficiaries may find it difficult to identify what NEMT broker to contact because of overlaps in service area. If the health care trip is not handled by the community broker, then the Medicaid customer does not have the opportunity to schedule non-medical-related trips at the same time.

The benefit of the coordinated care model is the flexibility of some CCOs to fund transportation services such as same-day/late night service, extended call center hours, and software enhancements to electronically bill and collect encounter data while protecting personal

information under privacy provisions of the Health Insurance Portability and Accountability Act. CCO relationships with medical providers have also helped to schedule more efficiently medical trips to dialysis centers and substance abuse treatment clinics.

Tri-County/Portland Metropolitan Area. In the Tri-County/Portland metropolitan area, TriMet had served as the regional community broker for 20 years. With the transition to the CCO model and a new NEMT broker, TriMet is no longer the regional community broker. From the perspective of OHA, the move to coordinated care has been successful in meeting CCO performance incentives and in providing trips to health care appointments. From a transportation coordination perspective, the benefit of TriMet as the broker for coordinated transportation services and non-Medicaid funding is lost.

Coordination with Public Transportation

Similar to human services transportation, the effects of the change to CCO responsibility for NEMT on public transportation depend on the type of broker the CCO chooses.

Lane County. In Lane County, RideSource is a service of the public transit agency, LTD. As the NEMT broker, RideSource assigns appropriate trips to LTD demand response, LTD fixed route, subcontract transportation provider, or provided mileage reimbursement.

Total passenger trips brokered by RideSource increased 64 percent after implementation of CCOs and Medicaid expansion (see Table A-12). Passenger trips on LTD fixed route increased 117 percent, and passenger trips assigned to LTD demand response increased 9 percent. The trips subcontracted to transportation providers increased 80 percent. RideSource also began providing mileage reimbursement for personal transportation.

Southern Oregon. Since transformation of the OHP to the coordinated care model, eight CCOs serve OHP enrollees in the seven counties in southern Oregon. The eight CCOs contract with five different NEMT brokers. The effect on public transportation depends on the broker.

TransLink continues as the NEMT broker for four CCO (Primary Health of Josephine County, Jackson CareConnect, Cascade Health Alliance, and Western Oregon Advanced Health). TransLink is a service of RVTD, the public transit agency for the Rogue Valley.

RVTD staff stated that there has been little impact on ADA paratransit in terms of passenger trips provided since the change to the CCO model. The percent of Medicaid trips provided on fixed route is about the same—14 percent pre-CCO to 13 percent post-CCO. Now that TransLink no longer serves as the community broker for the seven-county region, there has been an estimated 21 percent decrease in NEMT trips and a 7 percent decrease in cost. Cost did not decrease at the same rate as trips because TransLink is no longer providing the lower cost, shorter distance trips in Josephine and Jackson Counties.

Other public or private brokers may subcontract NEMT service to a public transit agency. For example, ReadyRide subcontracts NEMT trips on Josephine Community Transit, the local public transit provider in Josephine County.

Additional data are not available to evaluate the impact of the change on public transportation. OHA issues performance reports for 33 quality metrics, which are publicly available and updated regularly. These metrics do not include information about NEMT performance to evaluate the effects of the change to CCO responsibility for NEMT on public transportation.

Tri-County/Portland Metropolitan Area. The biggest impact of the transformation of Medicaid to the coordinated care model on public transportation is in the tri-county area that

includes Portland. TriMet worked in collaboration with ODHS and ODOT to coordinate public transit ADA paratransit and NEMT beginning in 1994.

The transition to the Ride To Care broker in January 2015 ended TriMet's 20-year service as the NEMT broker for the tri-county area. The termination of TriMet's role as the regional community broker impacted coordination of NEMT trips on shared rides with public transportation.

TriMet's representative stated that TriMet has not experienced noticeable impacts to ADA paratransit (LIFT) ridership or applications that could be traced to client shifting by the current NEMT broker. TriMet's weekday LIFT ADA ridership growth of 1.6 percent (for the fiscal year following the transition) is in line with the agency's projections and does not appear to have been affected by the move of NEMT services to a different broker.

The one operational impact TriMet has noticed after the transition of NEMT to Ride To Care is reduced accessible taxi availability. TriMet contracts with a local taxi company to provide taxi back-up to supplement the LIFT trips. After the new NEMT broker began in January 2015, TriMet noticed more competition for accessible vans available from the taxi company.

Ride To Care purchases some LIFT rides, but the majority of purchases are for fixed-route passes and tickets. In December 2015/January 2016, Ride To Care purchased approximately 5,000 passes and 800 tickets.

Summary of the Oregon Case Study

Oregon has transformed the OHP to a coordinated care model. The goals for the OHP under the coordinated care model are known as the Triple Aim: better health, better care, and lower costs. Coordinated care involves consolidation of health-supportive services under the umbrella of a CCO.

Coordinated care is now delivered through 16 CCOs operating in all counties around the state. Each CCO is responsible for NEMT for its members. Statewide, 12 CCO NEMT brokers provide the service to the 16 CCOs.

The case study focused on the change to NEMT under the coordinated care model in three areas: Tri-County/Portland metropolitan area, southern Oregon (seven counties), and Lane County.

Following is a summary of effects:

- **Access to Medicaid services:**
  - Overall, the CCOs have made progress in transitioning to fully integrated care delivery systems, having added NEMT services to the benefits plans during 2014–2015. Most CCOs have reduced avoidable emergency room visits.
  - Some CCOs have integrated NEMT service data and health services encounter data into the information systems, while other CCOs continue to work toward that goal.
  - OHA and the CCOs have not developed a statewide performance measurement system specifically for NEMT. OHA performance reports do not include NEMT metrics. Without these data, OHA cannot assess the contributions of NEMT to the Triple Aim.
- **Coordination with human services transportation:**
  - For those CCOs that continued work with the regional community broker, coordination with human services transportation continues. Transportation coordination for multiple programs is more difficult if the regional community broker is no longer the NEMT broker for all CCOs in a region.
    - *In Lane County*, the CCO elected to continue contracting with the established regional community broker (RideSource) that is a service of the public transit agency, LTD. Therefore, interruption in the coordinated transportation system was minimal.

    - *In southern Oregon*, the multiple CCOs and introduction of new NEMT brokers create challenges for coordination. Because not all CCOs elected to continue with the established regional community broker (TransLink), there is not a central one-call provider throughout the region. If the reservation for a health care trip is not handled by TransLink, then the Medicaid customer does not have the opportunity to schedule non-NEMT related trips at the same time.
    - *In the Tri-County/Portland metropolitan area,* TriMet is no longer the regional community broker with the transition to the CCO model and a new NEMT broker. From the perspective of OHA, the move to coordinated care has been successful in meeting CCO performance incentives and in providing trips to health care appointments. From a transportation coordination perspective, the change limited coordination of transportation programs.
- **Coordination with public transportation:**
  - Similar to human services transportation, the effects of the change to CCO responsibility for NEMT on public transportation depend on the type of broker the CCO chooses.
    - *RideSource.* As the NEMT broker in Lane County, RideSource assigns appropriate trips to LTD fixed route or demand response. Under the CCO model, passenger trips assigned to LTD fixed route increased 117 percent.
    - *TransLink.* In southern Oregon, TransLink continues as the NEMT broker for four CCOs. TransLink is a service of RVTD, the public transit agency for the Rogue Valley. RVTD staff stated that there has been little impact on public transportation since the change to the CCO model.
    - *TriMet* no longer serves as an NEMT broker in any capacity. The two CCOs in the tri-county area selected a private NEMT broker, Ride To Care. TriMet's representative stated that TriMet has not experienced noticeable impacts to ADA paratransit ridership or applications that could be traced to client shifting by the current NEMT broker. Ride To Care purchases a few LIFT rides, but the majority of purchases are for fixed-route passes and tickets.

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Pennsylvania: In-House Management with Coordinated Transportation and Regional Broker (For Profit) in Philadelphia County

Key Data

Key Data	
Demographic Features	
• State Population (2015)	12,779,559
• Urban Population (2010)	71%
• Rural Population (2010)	29%
• Population at or below poverty line (2015)	13%
NEMT Oversight	Department of Human Services, formerly the Department of Public Welfare
Medicaid & NEMT Enrollment Data	
• Medicaid & CHIP Enrollment (December 2013)	2,386,046
• Medicaid & CHIP Enrollment (December 2016)	2,918,260
• Percent Increase 2013–2016	22%
• Medicaid Enrollees that Used NEMT (2013)	7%
NEMT Model	(1) Regional Broker in Philadelphia County, (2) County-Based In-House Management in remaining counties
Operating Authority	NEMT Assurance under the State Medicaid Plan 1902(a)(70) State Plan Amendment
Medicaid Match	Medicaid Service (52%)
Expanded Medicaid under Affordable Care Act	Yes
Medicaid Enrollees in a Managed Care Program	70%
• NEMT under Managed Care	NEMT carved out of Managed Care
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	$23,394,254,112
• Estimate Annual NEMT Expenses (2014)	$148,600,000
• NEMT as % of Medicaid Expenses	<1%
• Estimate Annual NEMT Passenger Trips (2014)	11,468,394
• % of NEMT Trips on Public Transit (2014)	41%
• NEMT Expenses per Trip Statewide (2014)	$13

NEMT Description

In Pennsylvania, NEMT is called the Medical Assistance Transportation Program (MATP). MATP provides transportation to medical appointments for Medical Assistance (Medicaid) recipients. The state Medicaid agency, the Department of Human Services (PA-DHS), currently uses two approaches for delivery of MATP services:

- **Full-risk broker**. In the most densely populated county in the state, Philadelphia County, MATP is provided by a full-risk private broker with capitated payments from PA-DHS.
- **Coordinator for transportation services**. In the remaining 66 counties in the state, PA-DHS provides MATP funding through a combination of FFS and block grants to the county MATP coordinator in each county. The MATP coordinator is the county or, in a few cases, the public transportation authority. The county MATP coordinator then arranges transportation

for eligible Medicaid beneficiaries to approved medical services using fixed-route public transportation, mileage reimbursement, or local transportation providers for shared-ride transportation.

Each county is reimbursed for costs either directly or indirectly related to MATP transportation. Generally, each county has its own program, but some counties have pooled resources and formed multicounty organizations to serve their residents who are eligible for MATP.

Responsibilities of the county MATP coordinators are:

- Verifying individual eligibility for Medical Assistance and assessing transportation needs, including determination of the least expensive, most effective mode of transportation;
- Informing and educating Medical Assistance recipients about MATP services;
- Operating the MATP telephone line or call center;
- Authorizing transportation services, scheduling, and dispatching MATP trips;
- Recruiting, maintaining, and monitoring an adequate transportation provider network;
- Managing the MATP to ensure cost-effective, appropriate transportation services;
- Maximizing the cost effectiveness and quality of services through coordination with local programs and stakeholders; and
- Ensuring quality of services through a complaint tracking system.

The county of residence is responsible for providing the type of MATP transportation that is the least expensive while still meeting the individual's needs.

Counties currently use the following three modes to provide MATP transportation services:

- **Fixed-route public transportation**. Where public transit is available, county MATP coordinators provide tokens, passes, scrip, or reimbursement to eligible Medicaid beneficiaries to cover the fare for public transit services.
- **Mileage reimbursement**. Where appropriate, the county MATP may reimburse Medicaid beneficiaries who have access to private vehicles but not the means to pay for the cost of transportation. The reimbursement is at a specified rate per mile plus parking and tolls.
- **Demand responsive (paratransit)**. Where fixed-route public transit is not available or is not appropriate for the rider, counties provide shared-ride demand-response rides on vans, lift-equipped vans, and taxis.

Pennsylvania has not made substantial changes in MATP service delivery in recent years, except to encourage regional coordination of services. The case study for Pennsylvania includes three MATP examples: the full-risk private broker in Philadelphia County (Philadelphia); the Allegheny County Department of Human Services (Allegheny County DHS) using the ADA paratransit provider (ACCESS) for the Port of Authority of Allegheny County (Pittsburgh); and the regional shared-ride coordinator in the south-central counties of York, Adams, Northumberland, and Cumberland.

Before the case study examples, the following section describes human services transportation in Pennsylvania.

Human Services Transportation in Pennsylvania

Human services transportation refers to a range of transportation services designed to meet the needs of individuals who have difficulties providing their own transportation due to age, disability, or income, sometimes referred to as transportation-disadvantaged populations. Many federal, state, and local public agencies, nonprofit organizations, and private entities provide or fund transportation services that are specifically for people who face mobility challenges, including

seniors, individuals with disabilities, and people with lower incomes who cannot afford private transportation. Often, these individuals live in rural communities with limited or no public transportation, further restricting options for mobility.

The Pennsylvania Department of Transportation (PennDOT) Shared-Ride Program for Senior Citizens and Rural Transportation for Persons with Disabilities Program are examples of human services transportation for the public. PennDOT makes fare subsidies available for eligible individuals, and many human services agencies purchase service from the coordinated system. The Commonwealth of Pennsylvania began funding shared-ride transportation in 1980. Shared-ride transportation is available in all 67 counties in Pennsylvania and is locally managed and operated.

The PA-DHS MATP program is an example of a human services transportation program for Medicaid beneficiaries who do not have transportation to necessary medical services. Other human services transportation programs are the Department of Aging support for local Area Agencies on Aging to meet the transportation needs of senior citizens; PennDOT funds Welfare to Work transportation; and PA-DHS provides funding through county mental health offices to support shared-ride transportation for mental health and developmental disabilities programs.

Human Services Transportation Coordination Study

In 2007, the Pennsylvania General Assembly passed Act 44 directing PennDOT to evaluate human services transportation coordination. PennDOT included the Department of Public Welfare (later the Department of Human Services), the Department of Aging, and the Office of the Budget in the evaluation. The secretaries of the four agencies presented the *Human Service Transportation Coordination Study: Summary Report* to the governor and members of the General Assembly in July 2009.

The study documented that human services transportation serves critical needs by providing access to medical care, jobs, and important social services. However, the study found that shared-ride human services transportation was threatened with escalating costs and increasing demands for more service.

Findings: Human Service Transportation Coordination Study. The *Human Service Transportation Coordination Study* identified the following findings about human service transportation in Pennsylvania:

- Local human service transportation is unique in every county;
- Each state agency independently communicates with local transportation providers, develops policies, manages services, and sets requirements for each program;
- Human services programs and transportation service challenges require a high degree of skills in business management, transportation delivery, and transportation analysis for effective administration;
- Transportation service should be easy to use; however, the unique attributes of each county's human service transportation and the complexities of the various programs may make it difficult for local human service agencies and consumers to understand; and
- Regional service coordination offers the greatest opportunity for increased service quality and improved efficiencies with cost savings.

Recommendations: Human Service Transportation Coordination Study. The state agencies involved in the *Human Service Transportation Coordination Study* identified four recommendations related to program management and service delivery:

1. **Coordinated approach**. The Commonwealth should move toward a coordinated approach to human service transportation management.

2. **Regional pilot**. In partnership with local government, the Commonwealth should pilot a regional approach to human service management and service delivery.
3. **Customer input**. The Commonwealth and local government should conduct listening sessions with customers on the design of the coordinated program.
4. **Program measurement**. In partnership with local government, the Commonwealth should establish performance criteria, standards, and targets to measure efficiency, productivity, and effectiveness of human service transportation.

Act 89 Transportation Funding

On November 25, 2013, Act 89 was signed into law, providing $2.3 billion per year to support transportation infrastructure and services, including ports and waterways, freight and passenger rail, aviation, transit, and bicycle and pedestrian projects, as well as local roads and bridges, public transportation, and turnpike expansion projects.

Act 89 authorizes PennDOT to develop and implement pilot projects to explore different service delivery and payment options for shared-ride human services transportation as recommended by the *Human Service Transportation Coordination Study*. Overall, Act 89 supports coordination of human services transportation, including MATP.

Lottery Funding Applied to MATP

Established in 1971, the Pennsylvania Lottery funds programs and services benefiting older Pennsylvanians. Lottery funds have long been used to support public transit for persons 65 years of age and older. Lottery funds pay for 85 percent of shared-ride trip fares and 100 percent of fixed-route bus fares for seniors. Registered senior citizens pay the remaining 15 percent of the general public fare for shared-ride transportation.

The Commonwealth legislation was written such that lottery funds would be used after any other mutually eligible funding such as MATP funding for eligible medical trips. An audit by CMS prompted the Commonwealth to revise this practice in 2014. CMS stated that under federal statute and Medicaid regulations, Medicaid is the payer of last resort. Therefore, MATP should be charged only for trip costs that are not subsidized by other programs or covered under other available funding. If lottery funds are available for 85 percent of the shared-ride trip fare for an eligible Medicaid beneficiary who is also 65 years of age or older to travel to an approved medical service, then MATP should pay 15 percent of the cost of the trip.

Effective July 1, 2014, MATP pays the approved percentage of the co-payment amount (15 percent) for Medicaid beneficiaries who are eligible to use the PennDOT Shared Ride Program for Senior Citizens to travel to an approved medical appointment. Pennsylvania lottery funds pay for the first 85 percent of the cost of the trip, or a maximum of $42.50 if the cost of the trip is over $50.

Case Study Examples in Pennsylvania

The case study for Pennsylvania focuses on three MATP examples: the full-risk private broker in Philadelphia County (Philadelphia); Allegheny County DHS contracting MATP to the ADA paratransit provider (ACCESS) for the Port of Authority of Allegheny County (Pittsburgh); and regional coordination in the south-central Pennsylvania counties of York, Adams, Northumberland, and Cumberland.

Philadelphia County

Philadelphia County is the most urbanized county in the state, and the one county where MATP is administered through a for-profit broker with capitated payment. The first broker in

the county goes back to 1983 when Wheels, Inc., a nonprofit transportation provider, served as the MATP broker for Philadelphia County. At that time, Wheels was already coordinating paratransit services for the Southeastern Pennsylvania Transportation Authority, Philadelphia's public transit agency. Wheels, Inc. was eventually replaced by a private broker.

Philadelphia County is densely populated and fixed-route public transit (bus, trolleybus, streetcar, heavy rail, and commuter rail) is widely available. Today, while the number of MATP trips provided by the Philadelphia broker roughly equals the number provided in the rest of the state, the brokerage accounts for just over 30 percent of annual MATP expenditures, reflecting the cost effectiveness of fixed-route public transportation to transport Medicaid beneficiaries to required medical appointments. In FY 2013, over 74 percent of MATP trips in Philadelphia County were on public transit.

Allegheny County

The city of Pittsburgh is in Allegheny County, the second most populous county in Pennsylvania. The local Medical Assistance agency is the Allegheny County DHS. The paratransit provider for MATP trips in Allegheny County is ACCESS Transportation Systems (ACCESS), the ADA paratransit provider for the Port Authority of Allegheny County, the public transit agency for Pittsburgh and Allegheny County. ACCESS subcontracts to six different transportation providers throughout the county to provide MATP trips. As the shared-ride coordinator, ACCESS is able to coordinate MATP with human services transportation programs.

Allegheny County DHS determines the most appropriate mode of travel for MATP riders. The agency partners with Traveler's Aid, a United Way nonprofit, to distribute transit fare instruments and manage mileage reimbursement for MATP riders. In 2015, 57 percent of MATP trips were on fixed-route transit and just over 21 percent of MATP trips were made on demand-response paratransit vehicles. The remaining MATP trips were paid by mileage reimbursement. This combination of low utilization of paratransit and high utilization of fixed-route transit for MATP has helped Allegheny County maintain one of the lowest costs per passenger trip for MATP in the state ($9.73 per passenger trip in fiscal 2015).

ACCESS uses a detailed cost allocation model to allocate costs equitably between sponsors. The cost allocation model helps sponsors to understand the costs of a trip and what factors influence that cost. ACCESS performs a quarterly analysis of a statistically valid sample of trips. The analysis includes factors that influence cost, such as average trip lengths, ride time and dead time, percent of wheelchair boardings, and percent of no-shows. The analysis of trips is then applied to the full costs of providing service, including labor and overhead, capital costs and materials, fuel, insurance, licensing, hiring costs, vehicle maintenance, and administrative costs.

The cost allocation model used by ACCESS provides an explanation for the costs of services as well as transparency about the way money is spent. The cost allocation model calculates an average cost per passenger trip for the system, an average cost per passenger trip that is specific to a sponsor, and the marginal cost per passenger trip. ACCESS also uses the cost allocation model to demonstrate how sponsors can adopt operating policies that can lower cost. For example, operating policies that increase productivity (riders per hour) will lower the cost per passenger trip.

Regional Coordination in Central Pennsylvania

The 2009 *Human Service Transportation Coordination Study* recommended increased coordination of human services transportation, in part through the introduction of regional coordination pilots. In 2011, the governor's Transportation Funding Advisory Commission (Commission) called for PennDOT to study the formation of regional transit agencies. The

counties in south-central Pennsylvania asked to examine the potential benefits of an integrated regional transportation authority providing both fixed-route and shared-ride services. Act 89 further supported the establishment of regional transit operations by providing incentives for local municipalities to pursue such regionalization.

The call for increased regional coordination led to the merging of the transit authorities in York and Adams Counties to form the York Adams Transportation Authority (YATA) in 2011. The transit authority does business as rabbittransit. The regional authority continues to expand.

- Soon after YATA was formed in 2011, nearby Northumberland County withdrew from involvement in human services transportation programs including MATP. PennDOT and PA-DHS contracted with YATA to be the shared-ride coordinator for MATP and other human services transportation programs in Northumberland County.
- Cumberland County Commissioners appointed YATA as the shared-ride coordinator in July 2015. To strengthen mobility services in the region, Cumberland County joined YATA, which prompted a new name. YATA became the Central Pennsylvania Transportation Authority (CPTA) in December 2015.
- In 2016, Columbia, Franklin, Union, Snyder, Montour, and Perry Counties appointed CPTA as the shared-ride coordinator.

With a multicounty service area, CPTA is representative of a regional approach to human services transportation management and service delivery. With the coordinated approach, CPTA is better equipped to fulfill trips across county lines, and can provide additional mobility services for the region.

Cost efficiencies are realized by eliminating duplicative administrative costs for county-specific programs. The coordination of multiple operations has created a centralized call center and mobility planning office in York, which are fully coordinated to assist riders from the counties in the CPTA service area. This includes assessing appropriate modes for passengers, offering trip planning assistance, and general mobility case management.

Effects of NEMT as Human Services Transportation

In the case study research, assessments of NEMT as human services transportation were obtained from interviews with a variety of key stakeholders in Pennsylvania, including representatives of PA-DHS, PennDOT, county-based transportation providers, and mobility managers. Efforts to meet with the NEMT broker in Philadelphia County were not successful.

Access to Medicaid Services

Customer served. The percentage of Medicaid enrollees in Pennsylvania who rely on MATP for transportation to medical services has grown significantly:

- 1999—2.8 percent
- 2003—4.3 percent
- 2009—6.8 percent
- 2013—7.2 percent

PA-DHS reported 11.5 million MATP trips in 2013. This is more NEMT trips than any other state, indicating MATP is effectively providing access to Medicaid services.

Funding. Effective July 1, 2014, MATP pays the approved percentage of the co-payment amount (15 percent) for Medicaid beneficiaries who are eligible to use the PennDOT Shared Ride Program for Senior Citizens to travel to an approved medical appointment. Pennsylvania lottery funds pay for the first 85 percent of the cost of the trip.

Customer and health care provider satisfaction. The most recent documentation of customer satisfaction was reported by the Pennsylvania Department of Public Welfare (now PA-DHS) in 2010. The department conducted a survey of 5 percent of MATP users July 2008 through June 2009 in each of 66 of the 67 Pennsylvania counties. The department did not include Philadelphia County in the consumer survey. Shared-ride services were the most used mode of transportation among survey respondents (44 percent). According to the department's report on the survey, overall results indicate that MATP was delivering high-quality services at that time, resulting in high levels of user satisfaction. Over 86 percent of users rated their overall MATP experience as excellent or good.

In the case study research, discussions with health care providers and patient advocates revealed that these stakeholders want MATP to be held to higher standards of performance for on-time performance, wait times, maximum travel times, and missed trips. Transportation providers want to be able to work with health care providers on logistics, timing appointments when cost-effective shared-ride transportation can be made available. Yet many health care providers and patient advocates feel that rides need to be provided when medical appointments are available; not scheduled to benefit transportation cost effectiveness. This is the important difference of perspective for transportation as a complementary medical service rather than as a mode of access to a destination. Health care providers are interested in how transportation for medical services can make a significant difference in lowering the cost of health care rather than lowering the cost of transportation (that is a small percent of the total cost of health care).

Coordination with Human Services Transportation

Pennsylvania has made a considerable effort to coordinate human services transportation, in particular for Medicaid beneficiaries. In 66 of 67 counties in Pennsylvania, the county MATP coordinator arranges transportation for eligible Medicaid beneficiaries to approved medical services using the coordinated transportation system. In Philadelphia County, MATP is administered through a private, for-profit broker.

As discussed above, shared-ride coordinators seek opportunities to provide cost-effective transportation through more productive service (more passenger trips per hour). Coordinating MATP service with other human services transportation improves overall productivity and lower cost per passenger trip.

Some transportation providers expressed concerns when PA-DHS introduced one-hour maximum pick-up and drop-off windows for all MATP trips, regardless of distance or destination. Some transportation providers in rural areas find it challenging to guarantee 1-hour windows without providing more expensive single-passenger rides on accessible vans. However, PA-DHS believes that without a reasonable guaranteed window, some passengers might not make the trip at all, increasing the likelihood of negative health outcomes and potentially creating larger health care costs later.

For example, in Allegheny County, ACCESS is able to coordinate MATP with human services transportation programs. As described above, ACCESS subcontracts to six different transportation providers throughout the county to provide MATP trips. The cost allocation model used by ACCESS provides the transparency that contributes to successful outcomes for coordination of human services transportation and MATP.

Coordination with Public Transportation

The county MATP coordinator arranges transportation for eligible Medicaid beneficiaries to approved medical services using fixed-route public transportation if available, mileage reimbursement, or local transportation providers for shared-ride transportation. The county

MATP coordinator or a local transportation provider may be the public transportation agency for the county. For example, CPTA (rabbittransit) is the shared-ride coordinator for a multi-county region in south-central Pennsylvania.

As reported by PA-DHS, approximately 7.2 percent of all Medicaid enrollees in 2013 used MATP to make 11.5 million trips. PA-DHS estimates that 41 percent of MATP trips are on public transportation. Reported expenditures for NEMT were $148.6 million in 2013, or $12.96 per passenger trip, one-third the average cost of NEMT per passenger trip reported by other states.

One reason for the lower cost per passenger trip is the use of public transportation. A fare on fixed-route transit is the lowest cost transportation for a MATP passenger trip. In the two most populous counties in Pennsylvania, a significant percent of MATP passenger trips is made on public transit. In Philadelphia County, the broker reported over 74 percent of MATP trips were on public transit in fiscal 2013. In Allegheny County (Pittsburgh), the MATP coordinator, Allegheny County DHS reported 57 percent of MATP trips were on fixed-route transit in 2015.

Summary of the Pennsylvania Case Study

In Pennsylvania, NEMT is called MATP. MATP provides transportation to medical appointments for eligible Medicaid beneficiaries. The Department of Human Services currently contracts for coordination of MATP services through agreements with 66 counties and one full-risk broker with capitated payment in Philadelphia County.

Pennsylvania has not made substantial changes in MATP service delivery in recent years, except to encourage regional coordination of services. The case study for Pennsylvania focused on three MATP examples: the full-risk private broker in Philadelphia County (Philadelphia); the Allegheny County DHS using the ADA paratransit provider for the Port of Authority of Allegheny County (Pittsburgh); and CPTA.

Following is a summary of effects:

- **Access to Medicaid services:**
  - As reported by PA-DHS, approximately 7.2 percent of Medicaid enrollees in 2013 used MATP to make 11.5 million trips. This is the most NEMT trips of any state, including states with more population and more Medicaid enrollees.
  - Reported expenditures for NEMT were $148.6 million in 2013, or $12.96 per passenger trip, which is one-third the average cost of NEMT per passenger trip reported by other states.
  - One reason for the lower cost per passenger trip is the use of public transportation. PA-DHS estimates that 41 percent of MATP trips are on public transportation statewide.
- **Coordination with human services transportation:**
  - The Pennsylvania Lottery supports public transit for persons 65 years of age and older. Lottery funds pay for 85 percent of the shared-ride trip fare for individuals eligible to use the PennDOT Shared Ride Program for Senior Citizens under federal statute and Medicaid regulations. Medicaid is the payer of last resort for MATP trips. When a Medicaid beneficiary who is also a senior citizen is approved for a MATP trip on a shared ride, lottery funds pay for the first 85 percent of the cost of the trip. MATP pays the co-payment amount (15 percent).
  - In 66 of 67 counties in Pennsylvania, the county coordinator of human services transportation arranges transportation for eligible Medicaid beneficiaries to approved medical services using the coordinated transportation system.
  - Each federal, state, or local agency that funds human services transportation independently communicates with local transportation providers, develops policies, manages services, and sets requirements for each program. The result is that local human services transportation is unique to every county.

  - Transportation service should be easy to use; however, the unique attributes of each county's human services transportation and the complexities of the various programs may make it difficult for local human services agencies and consumers to understand.
  - In case study research, discussions with health care providers and patient advocates revealed that these stakeholders want MATP to be held to higher standards of performance (than other shared-ride human services transportation programs) for on-time performance, wait times, maximum travel times, and missed trips.
- **Coordination with public transportation:**
  - Philadelphia County is the most urbanized county in the state, and the one county where MATP is administered through a for-profit broker with capitated payment. While the number of MATP trips provided by the broker roughly equals the number provided in the rest of the state, the brokerage accounts for just over 30 percent of annual MATP expenditures, reflecting the cost effectiveness of fixed-route public transportation to transport Medicaid beneficiaries to required medical appointments. In FY 2013, over 74 percent of MATP trips in Philadelphia County were on public transit.
  - ACCESS in Allegheny County uses a cost allocation model that provides transparency for the cost of services and the way money is spent. ACCESS also uses the cost allocation model to demonstrate how operating policies can lower (or increase) costs.
  - With a multicounty service area, CPTA represents a regional approach to human services transportation management and service delivery. With the coordinated approach, CPTA is better equipped to fulfill trips across county lines and can provide additional mobility services for the region. Cost efficiencies are realized by eliminating duplicative administrative costs for county-specific programs.

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Texas: Change to Regional Brokers (For Profit and Not for Profit) and In-House Management (One Region)

Key Data

Key Data	
Demographic Features	
• State Population (2015)	26,538,614
• Urban Population (2010)	75%
• Rural Population (2010)	25%
• Population at or below poverty line (2015)	16%
NEMT Oversight	Health and Human Services Commission, Medical Transportation Program
Medicaid & NEMT Enrollment Data	
• Medicaid & CHIP Enrollment (December 2013)	4,441,605
• Medicaid & CHIP Enrollment (December 2016)	4,768,961
• Percent Increase 2013–2016	7.4%
• Medicaid Enrollees that Used NEMT (2013)	N/A
NEMT Model	Regional Brokers and In-House Management (1 region)
Operating Authority	1902(a)(70) State Plan Amendment Section 1915(b) Freedom of Choice Waiver
Medicaid Match	Federal Medical Assistance (56.2%)
Expanded Medicaid under Affordable Care Act	No
Medicaid Enrollees in a Managed Care Program	88%
• NEMT under Managed Care	NEMT carved out of Managed Care
NEMT Expenses & Activity Data	
• Annual Medicaid Expenses (2015)	$35,802,825,013
• Estimate Annual NEMT Expenses (2015)	$260,679,919
• NEMT as % of Medicaid Expenses	0.7%
• Estimate Annual NEMT Passenger Trips (2014)	9,290,567
• % of NEMT Trips on Public Transit (2014)	0.3%
• NEMT Expenses per Trip Statewide (2014)	Est $28

NEMT Description

The Health and Human Services Commission (HHSC) is responsible for the planning and delivery of health and human services programs in Texas. HHSC provides direct administration of some programs, including the Medical Transportation Program.

Through the Medical Transportation Program, HHSC is responsible for arranging NEMT services for Medicaid-eligible beneficiaries in Texas. HHSC changed NEMT from contracts with transportation service providers to regional brokers in 2012 and 2014 as summarized below:

- **Fee for service**. Prior to 2012–2014, HHSC provided demand-response NEMT through FFS contracts with transportation providers in 24 transportation service areas. HHSC authorized

and arranged other transportation services (e.g., call center operations, mileage reimbursement to individuals, payments for meals and lodging, and airline travel).

- **Full-risk brokers (FRBs)**. In 2012, HHSC implemented FRBs in two service delivery areas (SDAs): Dallas/Fort Worth (SDA 1) and Houston (SDA 2). HHSC pays the two FRBs a capitated payment to provide transportation and related services such as call center operations; contracted demand-response transportation; tickets for mass transit; individual mileage reimbursement; meals and lodging; advanced funds; and out-of-state travel and commercial airline transportation services.
- **Managed transportation organizations (MTOs)**. Effective September 1, 2014 (beginning state FY 2015), HHSC implemented regional brokers in 11 regions not served by the two existing FRBs, changing from an FFS model for NEMT to a system of regional brokers with capitated payment. The regional brokers are called MTOs. The MTOs are responsible for providing transportation and related services similar to the FRBs in the two SDAs. Capitated rates are adjusted annually for MTOs and FRBs to reflect actual broker experience.

The next section will provide the background and context for the change from NEMT as an FFS to regional brokers in Texas.

Brief History for NEMT in Texas

The following provides a brief history of key events for NEMT in Texas during the four decades 1974 through 2014:

1974 NEMT added as a benefit in the state Medicaid plan administered by the Department of Human Services.

1991 HHSC created to oversee the Texas health and human services programs.

1993 Texas Medicaid transferred to the Texas Department of Health (TDH).

The *Frew et al. v. McKinney et al.* (Frew) lawsuit was filed against the commissioners of HHSC and TDH. The Frew lawsuit was filed as a class action lawsuit for children eligible for Medicaid. The lawsuit sought to enhance the availability of health care services, effectively inform beneficiaries that services are available, and eliminate barriers that have the effect of preventing access to services, such as inadequate NEMT.

1995 The parties resolved the Frew litigation by entering into an agreed consent decree, which the court approved in 1996. The decree sets out numerous state obligations relating to Medicaid services (including NEMT) for children less than 21 years of age.

2003 The 78th Texas Legislature approved House Bill 2292 and House Bill 3588 that transferred NEMT from TDH to HHSC. The legislative direction also required HHSC to contract medical transportation services to the Texas Department of Transportation (TxDOT). Oversight of NEMT was assigned to HHSC.

2006 TxDOT restructured service delivery for NEMT effective June 2006. Formerly, TDH had 52 contracts and a complex rate structure (300+ rates). TxDOT used a competitive process to award 15 contracts for 24 transportation service areas providers (TSAPs). The TSAPs operated under FFS contracts. TxDOT simplified the rate structure to two rates per service area (an in-county rate and an out-of-county rate).

2007 Parties to the Frew lawsuit agreed to 11 corrective action orders to bring the state into compliance with the consent decree and increase access to Medicaid services.

The 80th Texas Legislature approved Senate Bill 10 that transferred the operation of NEMT from TxDOT back to HHSC beginning May 1, 2008. The TxDOT contracts with TSAPs were assigned to HHSC.

2009 The 81st Texas Legislature included Rider 55 to the Appropriations Act to implement a regionalized FRB using a pre-payment methodology (capitation) to reimburse the broker or brokers. To implement this change, the legislature authorized HHSC to secure approval from CMS for a state plan amendment as provided for in the Social Security Act, Section 1902(a)(70).

2012 HHSC authorized FRBs in two SDAs (Dallas/Fort Worth and Houston).

2013 The 83rd Texas Legislature approved Senate Bill 8 to authorize the MTO model for NEMT.

2014 HHSC implemented the new NEMT model for MTO in 11 regions in addition to the two SDA brokers, changing from the TSAP FFS model to the MTO capitated rate system.

2015 HHSC terminated the contract with one regional broker and reinstated FFS in that region.

Significance of the Frew Lawsuit

On September 1, 1993, the Frew lawsuit was filed against the commissioners of HHSC and TDH in their official capacities.

The allegation of the Frew lawsuit was that medical and dental preventive checkups were not provided in accordance with the recognized early and periodic screening, diagnostic and treatment (EPSDT) benefits for children under age 21 who are enrolled in Medicaid (known as Texas Health Steps). Other allegations include the following:

- Texas does not effectively inform children enrolled in Medicaid about the benefits of the EPSDT program.
- Texas does not provide adequate case management services.
- The Medical Transportation Program (NEMT) fails to meet the needs of children enrolled in Medicaid.
- EPSDT program access is denied or limited because of an inadequate supply of providers.

The suit was brought to enhance the availability of health care services, effectively inform Medicaid beneficiaries that services are available, and eliminate barriers that have the effect of preventing access to service, such as inadequate transportation. The contention was that many children who are eligible for Medicaid do not receive needed services simply because they have no way to get to medical appointments. NEMT is meant to address this need. Services to children eligible for Medicaid represent approximately 40 percent of NEMT call center volume.

The Frew case was filed as a class action suit. In 1994, the U.S. District Court certified the class. The parties negotiated a settlement agreement, reaching agreement in 1995. The parties resolved the Frew litigation by entering into an agreed consent decree, which the court approved in 1996. The decree sets out numerous state obligations relating to Texas Health Steps. The decree also provides that the federal district court will monitor compliance with the orders by HHSC and the Department of State Health Services (formerly TDH) and that the federal district court will enforce the orders if necessary.

In 2007, the parties agreed to 11 corrective action orders to bring the state into compliance with the consent decree and increase access to Texas Health Steps services. The corrective action orders touch upon many program areas and generally require the state to take actions intended to assure access to or measure access to Medicaid services for children. The Texas Medicaid program must consider these obligations in policy and program decisions for Medicaid services

available for persons from birth through 20 years of age. These obligations include, among others, the requirement to meet stricter call center standards for NEMT.

A number of the corrective actions continue. The performance standards in the NEMT contracts with the FRBs and MTOs reflect these corrective actions. Many of the performance standards address the call center function. The court continues to monitor the agencies' compliance with the orders. The consent decree does not have a specific end date, although the corrective action orders are intended to create potential endpoints as the agencies obligations are met.

Transportation Service Area Providers (2006–2014)

Under the TSAP model, each TSAP provided the transportation service directly and by subcontract. Fifteen different TSAPs served the 24 transportation service areas. Of the 15 TSAPs, 10 were rural or urban public transit districts, three were for-profit transportation companies, and two were nonprofit human services agencies that provided transportation services. HHSC authorized and arranged other services (e.g., call center operations, individual transportation reimbursement, meals and lodging, and airline travel).

Full-Risk Broker (2012)

The two FRBs in Dallas/Fort Worth (SDA 1) and Houston (SDA 2) receive a capitation payment to provide all transportation services (call center operations, demand-response transportation, individual transportation reimbursement, meals and lodging, and airline travel) to NEMT clients in the specified geographic areas.

Both FRBs are private for-profit transportation companies that operate regional or statewide brokerages in other states. The brokers do not operate transportation services directly but instead contract with transportation service providers that may be private companies, nonprofit agencies, or public transportation districts.

Managed Transportation Organization (2014)

The Texas Legislature approved Senate Bill 8 (2013) requiring HHSC to provide NEMT on a regional basis through MTOs under a capitated rate system. The bill further requires HHSC to procure MTOs through a competitive bidding process for each managed transportation region as determined by HHSC. The bill was consistent with CMS guidance implementing NEMT brokers under the Deficit Reduction Act of 2005.

The purpose of the change from TSAPs to MTOs was to improve transportation service delivery to eligible Medicaid beneficiaries, contain program cost, and reduce the incidence of fraud, waste, and abuse. The legislation authorized HHSC to delay providing medical transportation program services through the MTO model in regions of the state operating as FRBs (SDA 1 and SDA 2).

Effective September 1, 2014, HHSC implemented the MTO service delivery model in 11 regions in addition to the two SDAs, changing NEMT from an FFS model by TSAPs to a capitated rate system by MTOs. The MTOs must meet the following program requirements:

- Operate under a capitated rate system,
- Assume financial responsibility under a full-risk model,
- Operate a call center,
- Use fixed routes when available and appropriate,
- Agree to provide data as determined necessary by HHSC, and

- Attempt to contract with providers that are considered significant traditional providers, meet the minimum quality and efficiency measures determined by HHSC, and agree to accept the prevailing contract rate of the MTO (HHSC sets the contract rate).

Five MTO regional brokers were authorized to operate in 10 of 11 regions. (See discussion in the next section about the MTO in the 11th region.) The brokers included four private for-profit transportation companies and one regional human services agency (not for profit).

Two MTO regional brokers are also the FRB brokers in Dallas/Fort Worth and Houston.

Effective September 1, 2017, the private for-profit broker responsible for Regions 1 and 10 was terminated by HHSC. One of the other for-profit brokers (that already operated in SDA 1 and three MTO regions) assumed responsibility for Regions 1 and 10. This leaves three private for-profit brokers and one non-for-profit broker active in Texas.

The not-for-profit MTO broker owns a fleet of vehicles to provide self-referred services under a Section 1915(b) Freedom-of-Choice Waiver. Three for-profit MTO brokers do not operate vehicles directly. The brokers contract with nonprofit or private transportation providers. Brokers contract with public transit districts in some but not all regions.

Return to FFS in One Region

HHSC contracted with a public transit district to serve as the MTO for Region 4 (Texoma area north of Dallas/Fort Worth) effective September 1, 2014. HHSC terminated the agreement with the transit district in November 2015 for failure to maintain adequate financial records and client encounter data. HHSC now arranges and schedules NEMT in Region 4 and contracts with transportation providers on an FFS basis.

Effects of NEMT as Regional Brokers

The case study research for Texas addresses the impacts of the change in delivery of NEMT from an FFS model to regional brokers.

The case study information is based on a review of the HHSC request for proposals for MTOs and interviews with stakeholders from the HHSC Medical Transportation Program, TxDOT Public Transportation Division, MTO brokers, public transit districts that operated FFS as TSAPs, and public transit districts that currently subcontract to MTOs and FRBs. The purpose of the interviews was to hear different perspectives on the impacts of the change in how NEMT is operated in Texas.

Access to Medicaid Services

HHSC identified the following objectives for regional brokers in the MTO request for proposals:

- Reduce the cost of medical transportation by using a capitation payment methodology;
- Increase program efficiencies through the establishment of a regional network of transportation providers;
- Increase efficiencies through data analytics collected and reported by providers and analyzed by HHSC;
- Eliminate potential for fraud, waste, and abuse; and
- Comply with the obligations of the Frew lawsuit.

Effective the beginning of state FY 2015 (September 1, 2014), HHSC named a broker in each of 11 MTO regions (in addition to the existing FRBs in two regions) to provide NEMT to eligible Medicaid beneficiaries that have no other means of transportation. As stated above, HHSC

terminated the agreement with the broker in Region 4 in November 2015. HHSC now manages NEMT in Region 4 in house on an FFS basis.

Benefits. The HHSC Medical Transportation Program representatives said the change to regional brokers has benefited the program in the following ways:

- **Reduced the cost of NEMT**. An objective for the change to regional brokers was to reduce the cost of medical transportation by using a capitated payment. HHSC employs a private actuarial service to set rates each year under the full-risk capitated arrangement. Rates are set for adults and children in urban and rural counties for each region. All transportation services are included in the rate analysis. For example, demand-response transportation, mileage reimbursement, fixed-route transit tickets, out-of-state travel, and commercial airline transportation services are included in the rate analysis.

  Table A-13 documents the actuary's rate setting for FY 2015, 2016, and 2017. The data in Table A-13 identify the actuary's projected costs for capitated payment, not actual costs. In the table, capitated payment is represented by per member per month (PMPM).

  In Table A-13, an adjustment in the rates per person per month for children in Region 10 (South Texas) was documented to reflect the parental accompaniment rule. Effective February 1, 2014, the parental accompaniment rule was fully enforced; MTO Region 10 was the only region impacted by this policy change. In order to adjust for the cost impact of fully enforcing the parent accompaniment rule in FY 2015, the rates PMPM for children were reduced by 60 percent in MTO Region 10.

  The data in Table A-13 show the following trends for NEMT changes from 2015 to 2017:
  - 5.4 percent fewer projected Medicaid person months in FY 2017 as compared to FY 2015,
  - 7 percent lower projected weighted average rate per person per month in FY 2017 as compared to FY 2015 (adjusted for Region 10); and
  - 12.1 percent lower projected total cost for capitated payments in FY 2017 as compared to FY 2015 (adjusted for Region 10).
- **Established minimum standards for vehicles and drivers**. The regional brokers are contractually responsible to ensure that eligible Medicaid beneficiaries have safe access to transportation services. HHSC established minimum requirements for brokers to certify vehicle

Table A-13. Texas trends for NEMT after implementation of MTO regional brokers.

State FY	Medicaid Member Months	Weighted* Average PMPM	Total Projected Cost	Weighted Average PMPM Adjusted for Region 10**	Total Projected Cost Adjusted for Region 10**
2015	50,893,018	$4.154	$211,412,482	*$3.818*	*$194,295,584*
2016	48,219,398	$3.604	$173,776,679	$3.604	$173,776,679
Change	-2,673,620	-$0.550	-$37,635,803	-$0.214	-$20,518,905
% Change	-5.3%	-13.2%	-17.8%	-5.6%	-10.6%
2017	48,128,282	$3.550	$170,874,224	$3.550	$170,874,223
Change	-91,116	-$0.054	-$2,902,455	-$0.054	-$2,902,456
% Change	-0.2%	-1.5%	-1.7%	-1.5%	-1.7%
2015 to 2017					
Change	-2,764,736	-$0.604	-$40,538,258	-$0.268	-$23,421,361
% Change	-5.4%	-14.5%	-19.2%	-7.0%	-12.1%

All data exclude Region 4. HHSC manages NEMT in Region 4 as FFS.
** Weighted for PMPM for adults and PMPM for children by region.*
*** In order to adjust for the cost impact of the parental accompaniment rule, the rates PMPM for children are reduced by 60% in MTO Region 10 for FY 2015.*
Source: HHSC Medical Transportation Program.

condition and driver qualifications and training for each NEMT demand-response transportation provider. These requirements mean that brokered transportation services are required to meet at least a minimum standard of safety that is comparable for all public, nonprofit, and private transportation providers.

- **Increased oversight through data analytics**. HHSC requires each broker to collect and report, by transportation provider, encounter data for each NEMT client and each NEMT trip. The data are analyzed by HHSC to verify compliance with the broker agreements and to ensure performance according to financial and service quality requirements, including compliance with the obligations of the Frew lawsuit. The HHSC agreements with MTO brokers call for liquidated damages if an MTO or transportation provider does not provide quality performance consistent with the service standards.

While the implementation of regional brokers has not eliminated the potential for fraud, waste, and abuse, HHSC Medical Transportation Program representatives said the state agency's oversight is more rigorous in the review of encounter data to identify evidence of fraud or waste.

Challenges. From the perspective of HHSC, there are continuing challenges in delivering NEMT in Texas:

- **Broker performance**. HHSC terminated the MTO broker in Region 4 for failure to maintain adequate financial records and client encounter data. The circumstances were a disappointment to many stakeholders because the broker was the one public transit district named as an MTO by HHSC. HHSC also reassigned Region 8 from one MTO broker to another (existing) MTO broker.

  In September 2017, the private for-profit broker responsible for Regions 1 and 10 was terminated by HHSC. One of the other for-profit brokers assumed responsibility for Regions 1 and 10.

  Some of the brokers are new to the MTO model and had significant issues submitting encounter data and financial information to HHSC (at least) the first year of the MTO agreements. In the opinion of the actuary, the data for the MTOs were not reliable enough to use in rate setting for FY 2016. For this reason, the actuary relied solely on FFS data for the period September 1, 2013, through August 31, 2014 (FY 2014), in order to set rates for FY 2016.
- **Higher per-trip costs for demand-response transportation**. For FY 2015, the actuary assumed that the MTOs would pay less than FFS for the same services, especially for demand-response transportation. The actuary assumed a 10 percent discount factor for all MTO regions. Based on actual operating data, the actuary found some MTOs reimbursed demand-response transportation providers a higher payment per trip than under FFS. For rate setting purposes in FY 2017, the cost per trip for demand-response transportation was capped at 120 percent of FFS for the base period (2014) claims.
- **Limited transportation providers in rural areas**. Rural areas of Texas do not have access to a large number of subcontractors. The MTO in Regions 3 and 6 was forced to suspend a private subcontractor due to compliance issues. A replacement subcontractor was selected but at a higher reimbursement rate. This is expected to increase cost for demand-response services by 15 percent in those regions.

Coordination with Human Services Transportation

In 2003, Texas policy makers perceived a lack of coordination between providers of human services transportation and public transportation, leading to inefficient practices and an underserved population in need of transportation.

In order to address these concerns, the 78th Texas Legislature enacted House Bill 3588 in 2003 requiring each of 24 regions in Texas to adopt a plan identifying opportunities to coordinate

human services transportation and public transportation. House Bill 3588 created Chapter 461 of the Texas Transportation Code, titled Statewide Coordination of Public Transportation.

The purpose of Chapter 461 is to encourage coordination of human services transportation and public transportation by requiring regionally coordinated transportation plans in each of the 24 regions of the state. The regional plans were originally developed in 2006 and are updated every five to six years (2011 and 2017). The TxDOT Public Transportation Division is responsible for administering statewide coordination, and TxDOT has identified a lead entity in each region to work with other stakeholders to prepare and update the regionally coordinated transportation plans.

Lead entities responsible for preparing the regional plans are encouraged to involve MTO brokers and NEMT transportation providers as stakeholders in the process. HHSC does not require or encourage MTO brokers to coordinate with other human services transportation service providers and public transportation agencies.

In a review of the 2017 regional plans, the MTO broker in four of 24 planning regions participated on stakeholder committees. The lack of participation by MTO brokers and NEMT transportation providers in regionally coordinated transportation planning reduces the effectiveness of the process and the outcomes.

In Region 2 (Far West Texas), the MTO is a human services transportation agency and is actively involved in coordinated transportation planning. The same agency can offer Medicaid beneficiaries transportation for other trip purposes, using funding resources rather than Medicaid.

One purpose of coordination for transportation services is to benefit individuals who need transportation for multiple trip purposes. With the exception of the MTO in Region 2, any Medicaid beneficiary in Texas must schedule NEMT trips through the regional broker and separately schedule transportation for any other trip purpose with a different transportation provider.

Coordination with Public Transportation

Texas has three categories of public transportation systems:

- **Transit authorities and municipal transit departments**. Texas has six metropolitan (regional) transit authorities, two municipal transit departments, and one county transit authority. Each transit authority operates fixed-route transit and ADA paratransit. In Dallas and Houston, the transit authorities operate bus and light rail fixed routes.
- **Urban transit districts**. An urban transit district is a local governmental body or political subdivision of the state that operates a public transportation system in an urbanized area. In 2016, Texas had 29 urban transit districts.
- **Rural transit districts**. A rural transit district is a political subdivision of the state that provides and coordinates rural public transportation in its territory. In 2016, Texas had 37 rural transit districts.

Before the change to regional brokers, HHSC provided NEMT through 15 TSAPs based on an FFS. Of the 15 TSAPs, 10 were public transit districts; three were private, for-profit companies; and two were human services agencies. Eight rural transit districts and two urban transit districts operated as TSAPs. Other public transit districts subcontracted to TSAPs.

Effective state FY 2015, HHSC implemented the MTO service delivery model in 10 regions (originally 11 regions) in addition to the FRBs in two regions. Five brokers operate in the 12 regions. Four of the brokers are private, for-profit companies, and one broker is a human services agency that operates transportation services in Region 2. Pursuant to state law, MTOs

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may own, operate, and maintain a fleet of vehicles or contract with an entity that owns, operates, and maintains a fleet of vehicles. Two MTO brokers own and operate a fleet of vehicles and are approved to provide transportation services under a Section 1915(b) waiver for self-referral. Three MTO brokers do not operate vehicles directly and subcontract all NEMT service.

Rural Transit District Report Fewer NEMT Passengers and Revenue. All of the brokers contract with at least one public transit district and other not-for-profit or for-profit transportation providers. The brokers that operate in more than one region do not necessarily contract with a public transit agency in each region. Rural transit districts reported NEMT ridership and revenues have dropped since implementation of MTOs. Twenty of 37 rural transit districts reported NEMT data at least one year, 2014–2016, to the TxDOT Public Transportation Division. As shown in Table A-14, rural transit districts reported 41 percent fewer NEMT passengers and 41 percent less NEMT revenue in FY 2016 as compared to FY 2014 before the change to MTOs. Data for urban transit districts could not be verified for accuracy and so are not included in the table.

NEMT revenues from Medicaid are eligible as a source of local match for federal transit grants. A loss of NEMT revenues also reduces this source of funds for a rural transit district to match federal Section 5311 funds or other federal transit grants.

Challenges for Coordination of NEMT and Public Transportation. Stakeholders representing transportation authorities and public transit districts identified the following additional challenges for coordination of NEMT and public transportation after the change to regional brokers:

- **Brokers may not be using fixed-route transit to full advantage.** HHSC requires MTOs and FRBs to use fixed routes when available and appropriate for the NEMT client. Texas transit authorities and urban transit districts are supportive of NEMT trips on fixed-route transit. Public transit agencies can accommodate NEMT trips on fixed-route transit at no increase in cost because seats are available to additional passengers on a scheduled service. A fare on fixed-route transit is the lowest cost to the broker for an NEMT trip.

  However, when asked for information, five transit authorities did not report any significant sale of fare media to NEMT brokers for fixed route, although brokers may have made small purchases of fare media. One metropolitan transit authority reported sale of fare media to the NEMT broker for 100 to 200 trips per month on fixed-route bus or rail.
- **Demand for ADA paratransit increasing but cannot be directly attributed to the NEMT change to regional brokers.** Researchers asked transit authorities in nine larger urban areas if the change to the FRB in the Dallas/Fort Worth and Houston regions or the change to the

Table A-14. Texas Rural Transit District change in NEMT passengers and revenue after implementation of regional brokers.

State FY	Rural Transit District NEMT Passengers	Rural Transit District NEMT Revenue
2014	446,554	$20,685,168
2015	284,860	$13,180,590
Change	-161,694	-$7,504,578
% Change	-36.2%	-36.3%
2016	262,222	$12,128,753
Change	-22,638	-$1,051,837
% Change	-7.9%	-8.0%
2014–2016		
Change	-184,332	-$8,556,415
% Change	-41.3%	-41.4%

Source: TxDOT Public Transportation Division, PTN-128.

MTO model resulted in an increase in trips on complementary ADA paratransit. The transit authorities reported that demand for paratransit increased over the time reviewed. However, none of the transit authorities could directly track an increase in ADA paratransit applicants or an increase in paratransit trips directly to the change to regional brokers for NEMT.

- **Coordination of NEMT and public transportation is not encouraged or incentivized**. HHSC does not require, incentivize, or encourage brokers to contract with public transit districts for demand-response NEMT trips. The broker's incentive under a capitated rate model is to use a qualified, lower cost transportation provider when possible. The public transit district is not always the lower cost provider.
- **Fewer shared rides mean higher cost per passenger trip**. Some urban and rural public transit districts that provide NEMT reported fewer shared rides, making each NEMT trip more expensive to deliver.
- **Higher costs in rural areas**. MTOs operating in rural areas of Texas do not have access to a large number of subcontractors. The rural transit districts may be one of a limited number of possible subcontractors for the broker. Rural transit districts report rates for NEMT trips tend to be higher in these areas due to the trip distance (origin to destination) and less opportunity for shared rides.
- **Performance standards may require dedicated NEMT service**. The HHSC contract with each MTO includes performance standards to ensure timely service for NEMT clients:
  - Ensure that clients arrive to health care facilities at least 15 minutes but no more than one hour prior to the scheduled appointment,
  - Pick up the client from an appointment within one hour from time of notification, and
  - Ensure the client does not remain in the vehicle for one hour longer than the average travel time for direct transportation of that client.

  For rural transit districts, the performance standard for maximum travel time for an NEMT passenger often means scheduling a vehicle and driver for just one NEMT passenger.

Summary of the Texas Case Study

Prior to 2012–2014, HHSC provided demand-response NEMT through FFS contracts with transportation providers in 24 transportation service areas. Fifteen transportation providers served the 24 transportation service areas. Of the 15 service providers, 10 were rural or urban public transit districts, three were for-profit transportation companies, and two were nonprofit human services agencies that provided transportation services. HHSC implemented FRBs with capitated payment in two SDAs in Dallas/Fort Worth and Houston in 2012. Effective 2014, HHSC implemented MTOs in 10 regions (originally 11 regions), changing from an FFS model to a system of regional brokers with capitated payment. The purpose of the change was to improve transportation service delivery to eligible NEMT clients, contain program cost, and reduce the incidence of fraud, waste, and abuse. The broker in one region was terminated, and HHSC assumed responsibility for in-house management in that one region.

Following is a summary of effects:

- **Access to Medicaid services:**
  - From the perspective of the state Medicaid agency, the change to regional brokers lowered the capitated payments for NEMT after 2014 and reduced the potential for fraud, waste, and abuse. Contracts with brokers include performance standards and minimum requirements for vehicle condition and driver qualifications.
  - Performance standards for NEMT may require transportation providers to operate single-passenger trips, reducing shared rides and increasing cost.
- **Coordination with human services transportation:**
  - Lead entities develop regionally coordinated transportation plans; however, most NEMT regional brokers are not actively involved in the efforts to coordinate transportation services.

  - NEMT clients do not have the ability to arrange transportation for multiple trip purposes with one call, one click.
- **Coordination with public transportation:**
  - Rural transit districts reported data show that NEMT ridership and revenues have decreased 41 percent from 2014 to 2016 after the change to regional brokers. Data for urban transit districts could not be verified for accuracy.
  - Fewer passengers and fewer shared rides led to higher cost per passenger trip for public transportation and NEMT, especially in rural areas.
  - A loss of NEMT revenues also reduces this source of funds for a rural transit district to match federal transit grants.

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Summary: What Are the Effects of the Different Models for Providing NEMT?

The purpose of this appendix is to use case study research to document the effects of the different models for providing NEMT on access to Medicaid services, on coordination with other human services transportation, and on public transportation. The previous sections have discussed the experience of seven states that use different models for NEMT.

The following three tables summarize the effects of the different models for providing NEMT as identified in the case studies:

- Table A-15 summarizes the effects of different NEMT models on access to Medicaid services for Medicaid beneficiaries.
- Table A-16 summarizes the effects of different NEMT models on coordination with human services transportation and options for general mobility.
- Table A-17 summarizes the effects of different NEMT models on coordination with public transportation.

Table A-15. Effects on access to medicaid services.

State Case Study and Models for NEMT	Effects on Access to Medicaid Services
Florida Change to managed care with carved-in NEMT	• The change to managed care with carved-in NEMT has enabled private brokers to increase NEMT coverage across multiple regions. • From the perspective of the state Medicaid agency, the change to managed care has curtailed the increase in the costs of Medicaid.
Massachusetts Coordinated transportation with RTAs as regional brokers	• The use of RTAs to broker coordinated human service transportation has produced positive results by containing costs per passenger trip and ensuring service quality. • Massachusetts reports a low cost per passenger trip for NEMT.
New Jersey Change to statewide broker	• From the perspective of the state Medicaid agency, the statewide broker has enhanced cost control and reduced the risk of fraud. • The state Medicaid agency reports access to health care services has improved since the change to the statewide broker. • New Jersey reports a higher cost per passenger trip as compared to other states.
North Carolina In-house management (county-based) with community transportation	• Each county DSS may contract with the local community transportation provider for NEMT on an FFS basis. • The state Medicaid agency solicited proposals from NEMT brokers in 2012. The proposals were rejected because the existing service model (community transportation FFS) was less expensive. • Subject to approval from CMS, the state has decided to change the Medicaid program to managed care with carved-in NEMT (2019).
Oregon Change to managed care (coordinated care) with carved-in NEMT	• Managed care is delivered through CCOs. • The goals for coordinated care are the Triple Aim: better health, better care, and lower costs. • The CCOs have included NEMT into fully integrated care, and most reduced avoidable emergency room visits. • From the perspective of the state Medicaid agency, the change to coordinated care with carved-in NEMT contributed to the Triple Aim.
Pennsylvania In-house management (county-based) with coordinated transportation and Regional broker (one county)	• Coordinated transportation service delivers more NEMT trips than any state with comparable population. • The cost per passenger trip for NEMT is lower than other states. • Medicaid is the payer of last resort. The statewide lottery pays 85 percent of the cost of a shared-ride trip for NEMT for seniors. • Customers and advocates want NEMT to be held to higher standards of performance than other shared-ride human services transportation programs for on-time performance, wait times, maximum travel times, and missed trips.
Texas Change to regional brokers	• From the perspective of the state Medicaid agency, the change to regional brokers lowered the capitated payments for NEMT and reduced the potential for fraud, waste, and abuse with increased oversight. • Performance standards for NEMT (on-time performance, wait times, and maximum travel times) may require transportation providers to operate single-passenger trips, reducing shared rides and increasing cost.

Table A-16. Effects on coordination with human services transportation.

State Case Study and Models for NEMT	Effects on Coordination with Human Services Transportation
Florida Change to managed care with carved-in NEMT	• CTD reports a decline in coordination of NEMT trips with other transportation services since the change to managed care. • The CTCs report higher per passenger trip costs with fewer NEMT shared rides. • The CTCs in rural counties report there are not consistent operating standards for different NEMT brokers, different MCOs, and different funding programs. • NEMT clients no longer have the ability to arrange transportation for multiple trip purposes with one call, one click.
Massachusetts Coordinated transportation with RTAs as regional brokers	• The state Medicaid agency sets consistent service standards and monitors service quality for all coordinated transportation services. • Coordination is promoted through well-regarded mobility managers. • NEMT clients can arrange transportation for multiple trip purposes with one call, one click.
New Jersey Change to statewide broker	• There has been a decline in the degree to which NEMT trips are coordinated with other transportation services since the change to a statewide NEMT broker. • Fewer NEMT trips are on county-based transportation services. The broker contracts with 6 of the 21 county community providers. • NEMT clients no longer have the ability to arrange transportation for multiple trip purposes with one call, one click.
North Carolina In-house management (county-based) with community transportation	• Community transportation increases operating efficiencies for shared rides on demand-response transportation services. • Coordinating NEMT trips with community transportation achieve increased productivity (passengers per hour) estimated at 5 percent. • NEMT clients can arrange transportation for multiple trip purposes with one call, one click.
Oregon Change to managed care (coordinated care) with carved-in NEMT	• For those CCOs that continue to work with the regional community broker, coordination with human services transportation continues. • Transportation coordination is more difficult if the regional community broker is no longer the NEMT broker for all CCOs in a region. • In some regions, the regional community broker is no longer involved in NEMT in any way, limiting transportation coordination.
Pennsylvania In-house management (county-based) with coordinated transportation and regional broker (one county)	• Human services transportation is unique in each county, and the complexities of the various programs may be difficult for local human services agencies and users to understand. • NEMT clients can arrange transportation for multiple trip purposes with one call, one click in most counties.
Texas Change to regional brokers	• Lead entities develop regionally coordinated transportation plans; however, most NEMT regional brokers are not actively involved. • NEMT clients cannot arrange transportation for multiple trip purposes with one call, one click.

Table A-17. Effects on coordination with public transportation.

State Case Study and Models for NEMT	Effects on Coordination with Public Transportation
Florida Change to managed care with carved-in NEMT	• The loss of NEMT revenue may reduce a source of match for federal transit funds for public transit, particularly in rural counties. • JTA documented the increase in trips on ADA paratransit during the demonstration pilot program for managed care with carved-in NEMT. The public transportation authority did not recover the increased cost from the MCO or the MCO broker.
Massachusetts Coordinated transportation with RTAs as regional brokers	• RTAs serve as the brokers for NEMT and coordinate transportation services. • Regional brokers are successful in serving an increased number of NEMT trips while also containing NEMT costs per trip.
New Jersey Change to statewide broker	• The broker purchases tickets and monthly passes for NEMT clients who can use public transportation in urban areas. In urban areas, public transportation represents 23.5 percent of NEMT trips. • In rural areas, not every public transportation provider has a meaningful participation in the NEMT program. In rural areas, public transportation represents about 2.4 percent of NEMT trips. • The loss of NEMT revenue reduces a source of local match for federal transit funds for public transportation in rural areas.
North Carolina In-house management (county-based) with community transportation	• Community transportation increases operating efficiencies for shared rides on demand-response transportation services. • Most community transportation systems that are public entities are the public transit agency in the counties served. • The matching funds earned by public transit agencies by providing NEMT are used for local share for federal transit grants.
Oregon Change to managed care (coordinated care) with carved-in NEMT	• For those CCOs that continue to work with the regional community broker, public transportation serves a role in providing NEMT trips. • In regions where the community broker is no longer the NEMT broker for all CCOs in a region, public transportation may or may not serve a role in NEMT. • In the Tri-County/Portland area, the public transit authority was the regional community broker but is no longer involved in NEMT in any capacity after the change to a COO.
Pennsylvania In-house management (county-based) with coordinated transportation and regional broker (one county)	• NEMT coordinated with public transportation reduces the cost per passenger trip. A fare on fixed-route public transportation is the lowest cost transportation for an NEMT trip. • Forty-one percent of NEMT trips stateside are on public transportation. Over 74 percent of NEMT trips in Philadelphia are on public transit.
Texas Change to regional brokers	• Rural transit districts reported NEMT ridership and revenues decreased after the change to regional brokers. • The loss of NEMT revenue reduces a source of local match for federal transit funds for public transportation in rural areas. • Brokers may not be using fixed-route transit to full advantage.

Abbreviations and acronyms used without definitions in TRB publications:

A4A	Airlines for America
AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI–NA	Airports Council International–North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAST	Fixing America's Surface Transportation Act (2015)
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HMCRP	Hazardous Materials Cooperative Research Program
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
MAP-21	Moving Ahead for Progress in the 21st Century Act (2012)
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
PHMSA	Pipeline and Hazardous Materials Safety Administration
RITA	Research and Innovative Technology Administration
SAE	Society of Automotive Engineers
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TDC	Transit Development Corporation
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S.DOT	United States Department of Transportation

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