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CHCS Center for Health Care Strategies, Inc.

Disruptive Innovation in Medicaid Non-Emergency Transportation

By Adam Ganuza[*] and Rachel Davis, Center for Health Care Strategies

IN BRIEF

The availability of reliable transportation is critical to health outcomes, particularly for low-income Americans with chronic health conditions. When lack of transportation impedes medical treatment, chronic conditions can be exacerbated and potentially lead to increased use of emergency medical services. Medicaid's non-emergency medical transportation (NEMT) benefit seeks to fill in transportation gaps and guarantee timely and medically appropriate transportation. NEMT benefits are available for individuals who lack reliable or affordable access to transportation, or who need accommodations for physical or mental disabilities.

This brief, a product of the *Complex Care Innovation Lab* made possible by Kaiser Permanente Community Benefit, outlines the current state of Medicaid NEMT services, its challenges, and opportunities for improvement. It explores alternative transportation models piloted by states and health plans across the country, including the use of transportation network companies, such as Uber and Lyft, to augment NEMT services.

For millions of Medicaid beneficiaries, lack of access to reliable and affordable transportation presents a serious barrier to receiving medical treatment and maintaining their health status. Missed or delayed medical appointments can lead to poorer health outcomes and increased emergency department (ED) use.[1] A 2012 study found that among Medicaid beneficiaries, a lack of reliable transportation is a major barrier to receiving health care services. For those with one or more ED visits, the study found that nearly 60 percent had difficulty accessing transportation.[2]

Medicaid's non-emergency medical transportation (NEMT) benefit seeks to address this issue by providing beneficiaries with transportation to and from medical appointments. Through this required benefit, states purchase hundreds of millions of rides from taxis, vans, ambulettes, and public transit every year. The U.S. Department of Health and Human Services (HHS) estimated that at least $1.3 billion in fiscal year 2012 was spent on NEMT, most of which was attributable to Medicaid (other payers include the departments of Agriculture, Education, other HHS programs such as Medicare, Housing and Urban Development, Transportation, and Veterans Affairs.)[3]

For state Medicaid programs, ensuring that NEMT services run smoothly is a significant logistical undertaking. Key challenges, including lack of responsiveness to schedule changes, difficulty in providing on-demand transportation, insufficient data collection and oversight, and complaints regarding customer service, have driven efforts across the country to improve NEMT options. This brief examines the current state of the NEMT Medicaid benefit, explores key challenges for states in administering NEMT benefits, and highlights opportunities for policymakers and health care stakeholders to address these challenges and improve transportation options.

[*] Adam Ganuza is a former National Urban Fellow at the Center for Health Care Strategies.

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NEMT Models

States have flexibility in implementing the NEMT benefit, so each state has created its own service structure. States typically use one or more of the following models (see exhibit 1):[4]

EXHIBIT 1: NEMT Service Models by State, 2015

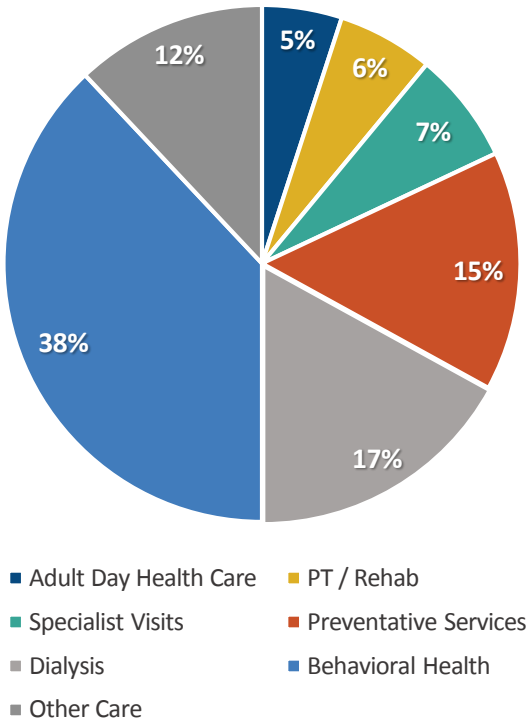
State	Service Model(s)	State	Service Model(s)	State	Service Model(s)
Alaska	$	Louisiana	$	Ohio	$
Alabama	$	Massachusetts	Public brokerage	Oklahoma	Private brokerage
Arizona	Managed care	Maine	Private brokerage, Nonprofit brokerage, Public brokerage	Oregon	$, Managed care
Arkansas	Private brokerage, Nonprofit brokerage, Public brokerage	Maryland	$, Private brokerage, Nonprofit brokerage, Public brokerage	Pennsylvania	$, Brokerage
California	Public transit	Michigan	$, Brokerage	Rhode Island	Public transit
Colorado	$, Brokerage	Minnesota	$	South Carolina	Private brokerage
Connecticut	Private brokerage	Mississippi	Private brokerage	South Dakota	Public transit
Delaware	Private brokerage	Missouri	Private brokerage	Tennessee	$, Brokerage
Florida	$, Managed care	Montana	Private brokerage	Texas	$, Brokerage
Georgia	Private brokerage, Nonprofit brokerage, Public brokerage	Nebraska	Private brokerage	Utah	Public brokerage
Hawaii	Private brokerage	Nevada	Private brokerage	Vermont	Public brokerage, Public transit
Idaho	Private brokerage	New Hampshire	$	Virginia	Private brokerage
Illinois	Private brokerage	New Jersey	Private brokerage	Washington	Public brokerage
Indiana	$	New Mexico	$, Managed care	West Virginia	Private brokerage
Iowa	Private brokerage	New York	$, Brokerage	Wisconsin	Private brokerage
Kansas	Private brokerage	North Carolina	$	Wyoming	$
Kentucky	Public brokerage	North Dakota	$, Brokerage		

KEY

- $ Fee-for-service
- Brokerage
- Public brokerage
- Public transit
- Managed care
- Private brokerage
- NP Nonprofit brokerage

Transportation Brokers. These organizations serve as logistical mediators between beneficiaries, providers, Medicaid plans, and transportation companies. Brokers receive requests from patients or providers for transportation, acquire the necessary pre-authorizations, and subcontract rides to their networks of transportation companies. Transportation brokers may provide wheelchair vans, taxis, stretcher cars, transit passes and tickets, and other modes of transportation. Under this model, brokers either receive capitated per member per month payments from state Medicaid programs, or operate on a fee-for-service basis. Most states use a brokerage program alone or in combination with other models. Brokers can be either public (run through a state agency) or private.[5] The largest broker in the nation is LogistiCare Solutions, which serves 32 state Medicaid programs; see exhibit 2 for rides by treatment type for 2015.[6] Currently, the majority of states operating under this model utilize private brokers. Only a handful of states currently operate public brokerages. Per CMS guidelines, in order to avoid a conflict of interest, public brokerages are required to be fully separated from the overseeing agency's budget, thus making it a more logistically and administratively complex system to operate.[7]

EXHIBIT 2: LogistiCare Medicaid NEMT Rides by Treatment Type, in 32 States



Managed Care Benefit. States may require their managed care plan partners to provide NEMT for eligible beneficiaries. Under this model, states usually provide managed care organizations (MCOs) a capitated per member payment to cover the benefit, and MCOs (in accordance with their state managed care contract guidelines) arrange for NEMT services, including through purchased services and contracts with taxis, public buses, and private vehicles.[8]

Fee for Service. States may also contract with independent transportation providers on a fee-for-service basis. These providers may include public transit systems, professional drivers (taxis, limousines, vans), and volunteer drivers (family, friends, state-approved volunteers, etc.) Reimbursement rates are set by the state.

Public Transit. In areas where public transit is pervasive and widely available, Medicaid agencies may rely heavily on that infrastructure to provide NEMT services. Under this model, beneficiaries are responsible for using public transit for their medical needs, and are subsequently reimbursed for their trips. If public transportation is not available, the state will work to secure additional transportation services for beneficiaries. Some states leverage their public transit infrastructures, and will only authorize NEMT services when it has been verified that a beneficiary is unable to use public transit.[9]

NEMT Challenges

Based on conversations with a variety of Medicaid and transportation stakeholders, it appears that NEMT services often adequately meet beneficiaries' needs for transportation to regularly scheduled or recurring appointments. However, they fall short in addressing time-sensitive needs. In addition, given the size and complexity of NEMT programs, states typically face a number of obstacles in administering the benefit. These challenges include customer service concerns, a limited capacity to respond to unplanned transportation needs, lack of strong quality assurance monitoring and reporting mechanisms to prevent fraud and abuse, and outdated approaches to providing and tracking services.

1. ***Customer Service:*** Beneficiaries eligible for NEMT commonly raise concerns related to customer service, particularly late arrivals or no-shows, which can result in individuals missing, arriving late to, or having to reschedule appointments. Per CMS guidelines, the NEMT program is required to offer beneficiaries "freedom of choice" to select their desired transportation provider. However, some states have received approval from CMS to claim their NEMT costs as administrative costs, rather than medical costs. In these states, this freedom of choice requirement is waived.[10] Based on interviews conducted for this brief, this lack of ability to choose a preferred provider — while perhaps a more cost-effective approach — can prove to be a challenge because it can impede the ability to build trusting relationships between beneficiaries and drivers. This may particularly be the case for individuals with behavioral health conditions or who have previously had poor experiences with the health care system.

2. ***Inadequate System Responsiveness:*** While NEMT programs generally work well for regularly scheduled and recurring services, such as weekly appointments to a dialysis center, these programs are often not able to accommodate time-sensitive transportation needs that arise without advance notice. Similarly, current state NEMT programs are typically not well equipped to respond to reasonable last-minute changes to patients' schedules or pick-up locations.

Where NEMT Inflexibility Causes Problems: Hospital Discharge

Problems securing transportation upon hospital discharge highlight a key challenge facing NEMT programs. Because hospitals cannot predict the exact time a patient will be discharged, NEMT brokers are unable to schedule vehicles to be at the hospital at exactly the right moment.

This creates a financial conundrum for both the NEMT service provider and the hospital: time spent waiting by an NEMT driver cannot be reimbursed, so NEMT companies focus on minimizing the time their vehicles spend without passengers on board. Meanwhile, the time that patients remain in the hospital after discharge represents a loss of revenue for the hospital.

This challenge is typically addressed in one of two ways: (1) hospitals may bypass the NEMT system and arrange for transportation on their own, usually at the time of discharge by ordering a taxi for the patient and absorbing that cost; or (2) NEMT rides can be "batched," meaning that an NEMT vehicle is sent to wait at the hospital until it has enough passengers aboard to make the trip profitable. However, this may mean that discharged patients wait for hours in the vehicle before leaving, which is obviously hard for patients and their families and can make it difficult for them to adequately plan for the discharge and any services that may be needed immediately afterwards.

Neither case is optimal for the patient, hospital, or NEMT provider, and both reflect the difficulty in adapting transportation services to meet real-time needs of beneficiaries.

3. ***Data Collection and Oversight:*** Data collection and oversight poses another challenge to state NEMT programs. In several states, contracted brokers must monitor their own compliance with contract requirements (e.g., on-time rates, no-show rates, etc.), and are expected to report deficiencies proactively to state officials. Since many states impose financial penalties on brokers that do not meet required performance measure targets, self-monitoring may create incentives for brokers to be less than fully transparent about their performance.

   Inadequate data collection processes also hinder transparency regarding the volume, extent, and quality of NEMT services. In New Jersey, for example, NEMT providers often use a paper-based system to record rides, noting only mileage and start and stop times that cannot be verified by external data sources. This has led to concerns that, in some states, brokers are not collecting sufficient data to adequately analyze their performance or adherence to Medicaid guidelines, and that data collected are of low quality.

4. ***Fraud and Abuse:*** As the NEMT system currently stands, and in part due to the lack of strong data collection and oversight protocols mentioned above, opportunities exist for both beneficiaries and providers to abuse the system, sometimes in collaboration. For example, in 2012, a Massachusetts man was convicted of paying staff at one of the state's regional transit authorities to divert NEMT rides to his personally owned transportation businesses.[11] On the beneficiary end, there have been instances of abuse as well, including a scheme where a patient colluded with the owner of a transportation service to sign off on rides that were never provided in return for kickbacks on the falsely paid claims.[12]

5. ***Structural Inefficiencies:*** Certain structural challenges for NEMT exist at the state level, including low reimbursement rates for transportation companies and administrative difficulties with transporting beneficiaries across county lines in states with county-based Medicaid plans. Other obstacles include a lack of adequate vendors in certain areas, especially rural communities, and finding providers with tribal authority in Indian Health Services areas. Additionally, states are responsible for managing NEMT contracts, and bureaucratic challenges can affect the NEMT process in a variety of ways, including adequately soliciting consumer feedback to inform regulatory or programmatic changes and issuing requests for proposals and selecting vendors in a timely fashion.

Opportunities for Improvement

Given the challenges faced by state NEMT programs, there are a number of opportunities for improvement. An increasing number of programs, health plans, and states are exploring on-demand transportation network companies (TNCs) such as Uber and Lyft to supplement NEMT services. At the same time, changes in the health care payment landscape are incentivizing innovative approaches for addressing social determinants of health, such as transportation. Many emerging opportunities to enhance NEMT are supported by advances in technology, which can streamline the provision and monitoring of services.

Alternative Transportation Models

Several states and health plans have begun looking at TNCs, or companies that share some similar features, as a way to enhance their NEMT program's responsiveness. For example, six states — Arizona, California, Colorado, Idaho, Michigan, and Texas — have signed NEMT contracts with Veyo, a TNC-like transportation broker that offers features such as independent drivers; an app and a web-based portal for requesting rides; and predictive analytics to provide transportation services to Medicaid beneficiaries. The features offered by Veyo reflect the types of technological advances that will likely be shaping the field in the future.

TNCs are the epitome of on-demand service, and could help NEMT programs address challenges related to transportation needs that cannot be scheduled in advance, e.g., hospital discharge. TNCs' response times are fast — a 2014 study found that in San Francisco during typical working hours, 93 percent of TNC customers waited less than 10 minutes for their ride to arrive, as compared to 35 percent of taxi customers.[15] The driver networks are increasingly robust in larger metropolitan areas. In February 2017, Logisticare announced a large-scale partnership with Lyft to augment the broker's NEMT services in 267 cities across 31 states.[16] This collaboration will provide the field with an opportunity for better understanding the value that TNCs provide for NEMT services.

Disruptive Innovation: A Look at Transportation Network Companies

Transportation network companies (TNCs) allow drivers to use their own vehicles to provide ride services to customers — the most ubiquitous examples are Uber and Lyft. TNCs use a mobile app enabling customers to order a car to pick them up at a specified location in real-time. Thus, TNCs rely heavily on smartphones, GPS tracking, online mapping systems, and virtual payment processes such as PayPal to provide their services. Through the online app, passengers can see where the driver is as they wait, and drivers can clearly document the beginning and end ride locations and the route taken to get there. Most TNCs also feature rating systems, in which customers are asked to assess the quality of their drivers, and drivers are asked to rate the quality of their passengers.

Critics of TNCs cite concerns such as lack of adequate driver screening, unfair treatment of drivers, and inadequate pay by the TNCs. A notable concern is the potential for insufficient terms of service to leave customers and drivers vulnerable to safety and personal liability risks. Regardless, it is clear that TNCs are disrupting the transportation industry: in New York City, the number of taxi rides declined by nine percent in 2016 from the previous year, while the number of Uber rides increased by 121 percent.[13] In the same vein, the cost of taxi medallions – the licensing for city cabs — has dropped to 20 percent of 2014 pricing.[14]

Additionally, as TNCs rely on mobile platforms, GPS software, and other analytical software for their operations, their capacity to collect and track data is more advanced than most transportation companies currently providing NEMT services. These features have the potential to address some of the conditions that have contributed to various fraud and abuse cases, and could serve as an important quality improvement tool for states and vendors.

Despite these potential advantages, TNCs present their own unique set of challenges, including that a different driver will show up for every ride, undermining the potential for beneficiaries and drivers to build the strong relationships that are key to engaging patients with complex needs. Another challenge is that many TNCs ask drivers to rate their customers as a way to alert fellow drivers of difficult or unpleasant customers. Given the complex medical and social needs of many Medicaid

beneficiaries, including behavioral health and substance use disorders, it is possible to imagine that beneficiaries might earn low ratings, which could reduce drivers' willingness to provide them with future services.

Additionally, the regulatory landscape of TNCs is still evolving and varies widely across state, county, and even municipal lines, which complicates their operations and may make them a less desirable NEMT partner for the time being. TNCs carry different levels of insurance protection in different markets, and the levels of liability insurance may be inadequate for states' NEMT purposes and requirements. Uber is currently facing more than 70 lawsuits from a variety of stakeholders, including cities, drivers, and passengers.[18] These lawsuits, filed on grounds ranging from price fixing to the lack of background checks for drivers, have made some states and brokers hesitant to incorporate these companies into current NEMT structures.

State-Level Reforms

Several states have started to tackle NEMT challenges through legislative approaches and managed care contracts. Colorado recently passed legislation creating a new type of license thus expanding the number and type of vendors that can provide NEMT services.[19] This new licensing is designed to address the lack of adequate transportation providers in the state's rural areas. The bill's sponsors demonstrated that the legislation would save the state money and increase transportation access, and as such, it passed with bipartisan support. Other states, including New Jersey (see *Advocating for State Policy Change: Camden Coalition of Health Care Providers* sidebar) and Arizona have used MCO contracts to strengthen NEMT services and oversight. In Arizona, MCOs are given the option to subcontract for NEMT services. If they do so, MCOs are held responsible for monitoring the NEMT providers' performance, and may be sanctioned if the performance does not meet state standards. Idaho and other states have contracted with (or have MCOs that have contracted with) Veyo, a broker that uses data, technology, and fleet-sharing similar to TNCs. These approaches signal a variety of emerging options for addressing the challenges in providing NEMT services.

TNC Pilot Program: National MedTrans Network and Lyft[17]

In June 2015, Lyft announced a pilot partnership with National MedTrans Network, a privately owned, national NEMT benefit manager serving primarily long-term managed care payers. As part of a pilot program in New York City, National MedTrans Network's call center operators can book a Lyft ride for clients using Concierge, a web-based dashboard designed by Lyft specifically for the pilot. To date, all of the patients who have been transported have been elderly and ambulatory, and many do not have a smartphone to book their own rides.

The pilot has yielded several promising results, including:

- **Cost efficiency**: Rides through Lyft are either comparable or less costly than conventional alternatives.
- **Improved response times**: Drivers in the pilot typically reach patients within three minutes, compared to 45 minutes under the traditional service system.
- **Improved data collection**: Information on pick-up and drop-off locations, as well as time stamps for both is readily available.
- **Improved patient satisfaction**.

The initial pilot proved to be so successful that National MedTrans Network has increased its scope in New York City, and has expanded its use of Lyft's services to its existing clients in California and Nevada, with additional states ramping up in 2017.

Spurring Innovation through Medicaid Expansion and Alternative Payment Models

Although the future of the Affordable Care Act is uncertain, both Medicaid expansion and the movement toward value-based alternative payment models have created incentives for states and payers to provide services in more innovative and efficient ways. NEMT is a prime target for this kind of disruption. San Francisco Health Plan in California, for example, has partnered with FlyWheel, an app-based TNC that employs taxicabs, rather than the private citizen driver model that Uber and Lyft use, to provide enrollees with transportation needs with services to and from medical and other appointments. The health plan selected Flywheel rather than Uber or Lyft because taxis have no rating systems or surge pricing, and because taxi drivers must undergo more extensive background checks than private citizen drivers. In addition, Flywheel can enable calls for wheelchair-accessible taxis when needed and if available. Early evidence points to high levels of enrollee and staff satisfaction and high rates of appointment attendance when Flywheel is used.[21]

Advocating for State Policy Change: Camden Coalition of Health Care Providers

To inform New Jersey's efforts in developing a new request for proposals for NEMT brokerage services, the Camden Coalition of Health Care Providers identified a number of shortcomings in the state's NEMT program. The issues included poor vehicle tracking and data collection; inadequate patient grievance resolution; long wait times for on-demand rides; and lack of communication between patients and transportation providers. In collaboration with community groups and Camden residents, the Camden Coalition used patient stories and data provided by the statewide transportation broker to help convince state policymakers to include new guidelines on technology use, communication, and process improvements in the state's brokerage contract. Community engagement and advocacy were critical to gaining traction with state officials, and a modified bid was released in January 2016 that included the recommended additions.[20] As of February 2017, the state is still in the process of selecting a vendor.

Notably, while some states have used Medicaid expansion as an opportunity to enhance their NEMT models, other expansion states, including Arkansas, Arizona, Indiana, and Iowa, have used Section 1115 waivers to either restrict NEMT coverage to non-expansion Medicaid populations or place limits on the benefit.[22] This variation in approaches presents an opportunity to examine how different NEMT models may influence beneficiaries' health and utilization patterns.

Leveraging Technology to Improve Service Delivery, Monitoring, and Transparency

State NEMT programs could benefit from requiring brokers, vendors, and/or health plans to use more technologically advanced data collection systems to improve program oversight and quality assurance. Requirements could include using technologies to improve efficiencies in activities ranging from route development, scheduling, providing automated ride reminders to beneficiaries, and determining the least expensive mode of transportation. Similarly, taking advantage of technologies such as GPS tracking could improve customer service by giving beneficiaries real-time information on the whereabouts of vehicles, and serve as a mechanism for tracking and reporting NEMT performance.

Investment and NEMT Reforms on the State Level

There are strong financial reasons for states to support Medicaid transportation programs, as investments in NEMT services can result in overall savings to the health care system. A 2008 Florida study looking at potential NEMT returns on investment estimated that if one percent of rides resulted in an avoided hospitalization (due to the fact that beneficiaries received necessary care, such as dialysis), then for every dollar the state invested, it would see a return of $11.08.[23]

Medicaid programs may want to consider increasing investments in their own NEMT information technology infrastructure as a way to strengthen existing programs' efficiency and oversight, and potentially decrease the state's exposure to federal audits. For example, Washington State chose to invest in a robust performance data collection system for its NEMT program after a federal audit in 2012 revealed several deficiencies. This investment has increased the state's ability to monitor the activities of NEMT brokers, allowing Washington to improve services for its beneficiaries, better understand usage patterns, and improve overall program efficiency.

Since the most frequent complaint regarding NEMT services is related to customer service, states may also want to strengthen the training requirements for NEMT drivers. Particularly if states or brokers intend to partner with TNCs, it will be important to provide drivers with adequate information and support to understand how to effectively work with individuals who have complex health and social needs.

Finally, states may also want to consider creating systems that allow beneficiaries to report issues with NEMT directly to the state Medicaid agency, rather than directly contacting the NEMT providers and brokers. A direct line of communication to the state agency for beneficiaries to report grievances would increase the transparency of the NEMT system and should result in greater accountability.

Looking Ahead

Transportation is a critical component of health care delivery and, with a small number of exceptions, is assured to all Medicaid beneficiaries.[24] While current state NEMT programs offer vital services for beneficiaries, there are challenges for meeting the needs of beneficiaries. There is clearly growing interest among payers, delivery systems, states, and ride-sharing companies to explore innovations such as partnering with Uber and Lyft, or adopting some of their technological features in order to enhance NEMT services. Similarly, efforts by states such as New Jersey to improve NEMT services through the contracting process point to policy approaches that may address challenges. Ultimately, NEMT reforms that target improved customer service, better data collection and oversight, and innovative service delivery models can improve health outcomes for beneficiaries while achieving potential cost savings.

ABOUT THE CENTER FOR HEALTH CARE STRATEGIES

The Center for Health Care Strategies (CHCS) is a nonprofit policy center dedicated to improving the health of low-income Americans. It works with state and federal agencies, health plans, providers, and consumer groups to develop innovative programs that better serve people with complex and high-cost health care needs. For more information, visit **www.chcs.org**.

This brief is a product of the ***Complex Care Innovation Lab,*** a national initiative made possible by Kaiser Permanente Community Benefit that brings together leading innovators in improving care for low-income individuals with complex medical and social needs. For more information, visit **www.chcs.org/innovation-lab/**.

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