

VIEWPOINT

INNOVATIONS IN HEALTH CARE DELIVERY

Nonemergency Medical Transportation Delivering Care in the Era of Lyft and Uber

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Reforms under the Affordable Care Act have reduced barriers to health care access by expanding insurance coverage to millions of individuals living in the United States. With primary barriers to access removed, secondary barriers, particularly related to transportation, have become increasingly important. In 2005, it was estimated that 3.6 million individuals failed to receive non-emergency medical care due to transportation barriers.¹ These patients tended to be older, poorer, and ethnic or racial minorities.

Patients with the highest burden of chronic disease typically have the greatest transportation barriers. Delays in treatment can cause chronic diseases to destabilize and progress, resulting in suboptimal outcomes and excessive use of resources.^{2,3} As a result, many payers ranging from the Centers for Medicare & Medicaid Services to state Medicaid programs to large commercial payers offer free or subsidized non-emergency medical transportation to beneficiaries. Non-emergency medical transportation services are

approach 60 minutes and drivers frequently do not show.⁴ Suboptimal service causes some patients to forgo treatment, the very outcome non-emergency medical transportation benefits were designed to prevent. In an analysis of 182 536 patients receiving dialysis, those who relied on car services were at an increased risk of missing hemodialysis treatments (odds ratio, 1.21; 95% CI, 1.16-1.25).³ There is a compelling need to provide reliable and efficient transportation services to the most vulnerable patients.

Digital transportation network companies, such as Lyft and Uber, have revolutionized transportation services. Compared with taxis and livery services, digital transportation network companies offer improvements across dimensions ranging from cost to user experience.⁶ Several organizations have recently announced efforts to bring new transportation technologies to health care. In January, Lyft launched Concierge, a web-based product that allows organizations to request rides for customers through the Lyft platform. In April, Uber announced collaboration with a new company, Circulation, to fulfill third-party, health care-related ride requests.

To pilot Concierge, Lyft has partnered with National MedTrans, a non-emergency medical transportation benefit manager. As part of the initial rollout, National MedTrans is offering the service to Medicaid enrollees in New York, New York, and to Medicare Advantage beneficiaries in California. The California pilot program involves CareMore, a network model health maintenance organization that operates Medicare Advantage plans.

Most CareMore plans provide patients with non-emergency medical transportation benefits for preventive and chronic care services. Members arrange non-emergency medical transportation in advance (typically at least 24 hours but less if needed) by calling a dedicated telephone number. Previously, CareMore personnel would verify the request and the beneficiary's benefits and then relay the request to a non-emergency medical transportation organization responsible for dispatching livery cars or vans. Under the pilot program, requests are transferred via a secure platform to National MedTrans, which uses Concierge to dispatch a Lyft driver to the specified location at the requested time.

Early results from the pilot program are promising. Based on data from May 2016 to June 2016 involving 479 non-emergency medical transportation rides, average wait times have decreased by 30.0% (12.52 minutes to

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provided by personnel who are not medically skilled and can include options spanning from wheelchair vans to car services.

The non-emergency medical transportation benefits are most commonly available to populations with risk factors for both chronic disease and poor access to transportation. Federal regulations mandate that state Medicaid programs provide non-emergency medical transportation for qualifying beneficiaries, and in 2016 commercial Medicare Advantage plans offered non-emergency medical transportation benefits to 69.5% of all beneficiaries.^{4,5} The federal government spends an estimated \$2.7 billion on non-emergency medical transportation annually, which is an amount expected to increase with expanded Medicaid enrollment.⁴

Many payers have embraced non-emergency medical transportation benefits because it makes sense to enable patients to receive necessary care. But current approaches to non-emergency medical transportation have numerous challenges. A recent Government Accountability Office report pointed to rising costs, program integrity, and vendor oversight as problems for federal payers. Patients also are not well served by the status quo—wait times routinely

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8.77 minutes) and average per-ride costs have been reduced by 32.4% (\$31.54 to \$21.32). Composite patient measures yielded a satisfaction rate of 80.8%. Together, these outcomes underscore both the substantial opportunity to improve patient experience and lower costs, as well as the prospect for continued iteration and improvement. For example, some beneficiaries express confusion that Lyft vehicles are not branded with CareMore or other recognizable medical logos or that they are unsure exactly which type of car to look out for. As efforts such as Concierge and Circulation mature, larger, longer-term, controlled studies will be needed to accurately gauge the effect of these programs on access, costs, and experience.

Notwithstanding the encouraging results from the pilot program, there are several unanswered questions and potential challenges surrounding the use of new technologies for nonemergency medical transportation. Decreasing barriers to access may increase the use of medical services, which, in the current era of cost sensitivity, could have unintended consequences. Putting aside the fact that getting patients to necessary treatment is imperative regardless of cost, there is reason to believe that the overall effect on use of care will be minor. Connecting patients with multiple chronic conditions to the care they need may actually reduce costs. A previous report from the National Academy of Sciences found that nonemergency medical transportation was cost-effective for most chronic conditions, and even saves costs for conditions such as congestive heart failure and diabetes.¹

The same cluster of socioeconomic and demographic factors that create transportation barriers may also correlate with limited smartphone penetration—making digital transportation network companies difficult to access for vulnerable populations. Concierge is designed so that third parties can input information for users, obviating the need for a smartphone. Among population groups in whom smartphone penetration is higher, such as some Medicaid populations, beneficiaries may prefer to request rides directly. Relatedly, transportation network company penetration is clustered in urban centers, providing coverage to a large segment of the population, but leaving access sparse in rural areas. This points

to the use of digital transportation network companies as a complement to traditional nonemergency medical transportation approaches but not as an outright replacement.

Traditional nonemergency medical transportation drivers do not have any medical training, but over time may develop experience transporting ill patients with special needs. Older, sicker patients may prefer a slower ride, or a helping hand in and out of the car, which are activities that are at odds with the financial incentives for transportation network company drivers. As these programs expand, it will be important to rigorously monitor patient experience and to provide this information to transportation network companies. CareMore is leveraging Lyft's driver communications programs to send notes and reminders to drivers before pick up about providing patient-centric service. Uber recently launched a new product, uberASSIST, in which drivers are specifically trained to assist seniors and those with disabilities.

Digital transportation network companies have been apprehensive to enter the nonemergency medical transportation business because of concerns ranging from credentialing to information sharing to medical liability. For this reason, existing nonemergency medical transportation brokers, such as National MedTrans, are serving as conduits between the medical and transportation services worlds. With added experience, comfort, and infrastructure, direct collaborations are likely to develop.

Digital transportation network companies have the potential to disrupt medical transportation, but the implications of this transformation extend beyond transportation. Observers have repeatedly highlighted the potential for new, disruptive technologies in health care, and have called for an "Uber for health care."⁶ But many of the challenges standing in the way of effective and efficient health care (eg, excellent service, streamlined logistics) are not unique to the health care industry. Instead of waiting for the next big health care app, substantial advances could be made by integrating technologies that have already solved discrete problems shared by other fields. Lofty ambitions are important, but they can sometimes obscure viable solutions.

ARTICLE INFORMATION

Conflict of Interest Disclosures: The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Mr Powers reported being a delivery innovation fellow at CareMore Health System, which is a subsidiary of Anthem Inc. Mr Rinefort reported being the director of product and market development at CareMore Health System. Dr Jain reported being the president and CEO at CareMore Health System.

Disclaimer: The views expressed in this article represent those of the authors and not necessarily the views or policies of their respective affiliated institutions.

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