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Does Ride-Sharing Substitute for Ambulances?

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Despite its crucial, lifesaving role in emergency medical services, transportation by ambulance has grown more and more expensive for patients. One ride can easily cost more than a thousand dollars. Insurance often pays for only a portion of this fee, or even refuses to reimburse the patient if it considers transport by ambulance not medically necessary. Even if insurance were to fully cover the cost, many Americans have health insurance plans with high deductibles and so would be left to pay the entire bill.

Unnecessary ambulance use (when the patient could have taken a less expensive means of transportation without a reduction in health outcome) is partially due to lack of alternatives. Recently, though, alternatives have become available. Many individuals have started to seek cheaper transport from ride-sharing services such as Lyft and Uber. In addition, while ambulances prioritize patient safety and typically insist on transporting a person to the nearest hospital, ride-sharing cars allow the patient to pick which hospital to go to. This is important because

farther facilities can have differing results for the same condition. Also, the closest hospital may not be in network for the patient, and therefore directing a ride-sharing vehicle to a farther hospital would lower the hospital bill itself as well.

Uber, initially a limo-hailing service, expanded into the ride-sharing industry with UberX in 2012. By May 2017, Uber had facilitated 5 billion rides in 76 countries and more than 450 cities. We take advantage of this staggered entry to analyze how Uber has reduced ambulance use. Combining dates of UberX entry into different markets scraped from Uber's website and ambulance rates from the National Emergency Medical Services Information System, we calculate how the introduction of UberX reduced ambulance volume.

There is at least a 7 percent decrease in the ambulance rate from the time of UberX entry into a city. Given that this decrease happened so soon after the UberX introduction, ambulance companies likely did not adjust the size of their fleets, so UberX entry likely also led to a reduction in the time spent waiting for an ambulance for the remaining

volume. Because a reduction of a few minutes can drastically improve the odds of survival for many serious conditions, that decrease could have caused a substantial reduction in loss of life.

Although there is some evidence that UberX entry reduces alcohol-related car accidents, other studies have found no effect. Given this mixed literature and substantial anecdotal evidence of individuals using ride-sharing services to go to the hospital, we believe that our results are primarily from substitution away from ambulances.

That substitution to a less expensive alternative would free both household and insurer to use their funds more efficiently. City governments have also noticed their residents making this shift, and they have discussed how to incorporate low-tech ride-sharing services into their EMS frameworks.

One can imagine a futuristic 911 service (with video feed as well as audio) that would determine the severity and urgency of the caller's emergency and then dispatch the appropriate vehicle.

Overall, our results suggest that UberX entry into a city had a positive effect on patient finances and on unnecessary ambulance use.

NOTE:

This research brief is based on Leon S. Moskatel and David J. G. Slusky, "Did UberX Reduce Ambulance Volume?," University of Kansas Working Papers Series in Theoretical and Applied Economics no. 201708, October 2017, <https://econpapers.repec.org/paper/kanwpaper/201708.htm>.