

# New York City's Organ Vehicle

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It is no secret that organ donations in the U.S. do not meet the needs of the public; there are generally 100,000 people waiting for donor organs at any given time.<sup>1</sup> This remains true despite both the efforts to make registering as an organ donor easier and the widespread publicity of the multiple lives a single organ donor can save. By all accounts, the main way this shortage can be alleviated, and the thousands of people in the U.S. who are waiting for life-saving transplants can be provided for, is through a dramatic increase in organ donors. For example, Spain and Norway, international leaders in the proportion of organ donors in the population, have seen their waiting lists remain consistent or even shrink.<sup>2</sup> Spain's high rate of organ donors is in large part due to their "opt out" program, where individuals are organ donors unless they specifically request not to be, and there are bills to adopt just such a policy in states in the U.S. (note that the National Organ Transplant Act of 1984 gives states the prerogative to determine their own organ donor policies<sup>3</sup>).

However, even with a dramatic increase in organ donors, there would remain another key challenge: 95 percent of deaths happen outside of a hospital,<sup>4</sup> and there is only a 20-30 minute window after death in which organs can be saved.<sup>5</sup> Consequently, current policy is that only those who die in hospitals are eligible to be organ donors. Thus even if organ donor rates rose prodigiously, a large share of life-saving organs would not be preserved in time.

But New York City has proposed a unique plan to address this challenge: an "organ preservation vehicle." The sole responsibility of the vehicle would be to monitor police and ambulance radio frequencies to identify individuals who are declared dead but have no chance of reaching a hospital in time for their organs to be preserved. Then, when such an

individual is found, the vehicle would rush him or her to the hospital. In this manner, a greater proportion of donor organs could be saved, at least in situations where an ambulance or police officer arrived shortly after an individual died. This would provide a much-needed increase in efficiency for life-saving transplants.

Just as it seems every organ donation policy has, the organ preservation vehicle has created controversy. First and perhaps most alarming is the myth that individuals will be prematurely declared dead on scene in order for the organ preservation team to take that person's organs. This is just a variation of the myth<sup>6</sup> that permeates all organ donation:

that doctors do not work as hard to save the lives of organ donors. Nevertheless the organizers of the organ preservation vehicle project have addressed the issue by requiring the preservation team to remain out of sight of the paramedics and police until an individual has been declared dead. Consequently, those on the scene would not be certain that the organ preservation vehicle would arrive even if they were to declare an individual dead. The second major challenge to the organ preservation vehicle is that it could impede effective investigations



by the police. When the cause of death is unclear and unusual, the police are required to turn the body over to a medical examiner to investigate the cause of death. At that point, only the medical examiner can release the body and allow its organs to be preserved. However, with such a short window of time, critics of the organ preservation vehicle are concerned that police officers will have to make the decisions usually under the jurisdiction of the medical examiner.

Despite these concerns, the police and medical examiner's

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According to [organdonor.gov](http://organdonor.gov), 77 people receive organ transplants each day. However, 19 people also die each day, waiting to receive a donated organ. To learn more about how to become an organ and tissue donor, visit: <http://organdonor.gov/donor/index.htm>.

offices in New York City have agreed to a pilot program of 4-6 months to evaluate and tweak the organ preservation vehicle program if necessary. Given that no new issues arise, the program is expected to expand and perhaps be adopted by other regions. While progress on an opt-out organ donor policy remains piecemeal and roughshod, progress is being made on the second major challenge of organ donation, which is to conserve the organs of the 95 percent of donors who die outside hospitals.

#### References

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## NEWS AND VIEWS

### Donate Your Organs... From Your iPhone?

A little known app developer named Raymond Cheung developed an Apple application which allows people to sign up to become organ, tissue and eye donors in just 5 minutes. The application, *DonateLives*, can be downloaded free of charge. You then choose your state of residence (states have differing laws concerning organ donation). Once you chose your state, you enter a bit of personal information and then click submit. *DonateLives* allows you to choose to donate organs, tissue and eyes and even has an option to donate for research purposes. These are options not available at most state Departments of Motor Vehicles and thus such specifics are often not found on a driver's license. preferences and generosity

## RESEARCH HIGHLIGHT

### Varied Rate of Transfusion During Bypass Surgery Found in US Hospitals

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A study published in the *Journal of the American Medical Association*, found a wide variability in the frequency of blood transfusions during Coronary Artery Bypass Graft Surgery (CABG) Surgery in hospitals. Researchers used previously collected data from the Society of Thoracic Surgeons Adult Cardiac Surgery Database to analyze the number of patients who received plasma, platelet or allogeneic red blood cells through transfusion. The study found wide discrepancies among hospitals in the US, that remain largely unexplained.

Hospitals that had one CABG surgery per month were included in the trial. Of these 798 sites 102,470 patient reports were examined over 2008. A smaller database, only including hospitals that performed more than 100 surgeries a year found that transfusion rates for plasma differed between hospitals by 0 to 97%, red blood cells 7.8 to 92.8% and 0.4 to 90.4% for platelets.

After controlling for case variability researchers found a significant differences in rates that varied by hospital characteristic. Teaching hospitals and hospitals with a fewer cases of CABG surgery were more likely to have higher rates of transfusion. Rates also differed by geographic region. However multiple modeled analysis concluded that these three factors only factor for 11.1 % difference between rates, while case mix accounted for 20.1%

While the STS has put out numerous regulations on methods of transfusion this study demonstrates that a large range of variability in following these protocols still exists. Further research might shine light on the still unexplained variability that exists between these hospitals.

**Reference:** *JAMA*. 2010;304(14):1568-1575. doi:10.1001/jama.2010.1406

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