

# Positive Trends in Kidney Transplantation in the United States

By Uday Nori

In July 2019, President Trump signed an executive order to launch Advancing American Kidney Health. This event underscored the importance and the urgency of recognizing kidney disease as a national priority. One of the three goals of this order is to double the number of kidneys available for transplantation by 2030. Although this idea might appear to be impracticable at the outset, the data presented in this brief report suggest that the process is already well under way.

Since 2014, the majority of the kidney transplantation centers across the United States have reported record increases in the volume of kidney transplantations. Several reasons are thought to be responsible for this heartening trend, but the principal mover seems to be the increased use of deceased donor organs (Figure 1). These data are also supported by the decreasing number of patients on the waiting list since 2014.

It is the opinion of this author that the following advances have played a large role in the increased transplantation rates:

1. The new Kidney Allocation System implemented in December 2014 has significantly improved the number of African American patients receiving transplants. The other components of the Kidney Allocation System that improved access to transplantation are awarding additional points to patients with very high plasma renin activity, using high Kidney Donor Profile Index kidneys, and including the preregistra-

tion dialysis time in the candidates' waiting time.

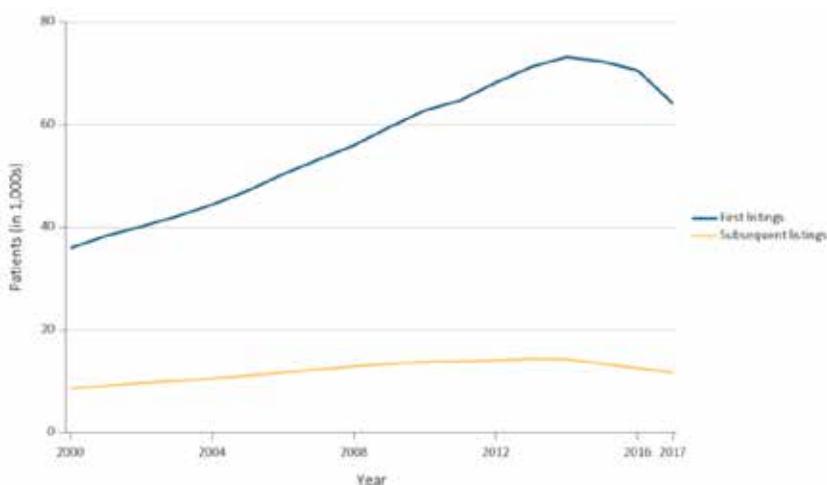
2. In 2013, the US Public Health Service published new guidelines for reducing the transmission of HIV, hepatitis B virus, and hepatitis C virus (HCV) through organ transplantation. This allowed transplantation centers to streamline the process of consenting and of providing posttransplantation surveillance in a systematic way. As can be seen in Figure 2, an increasing number of organs procured from these "increased-risk" donors have been successfully transplanted. The unfortunately high incidence of opiate overdose-related deaths in the United States, despite the attendant risk of infection transmission, fueled the use of organs with the help of these guidelines.
3. Transplantation of HCV-positive donor kidneys into HCV-negative recipients was previously thought to be unethical. The availability of direct-acting antiviral agents with high HCV cure rates has opened up the possibility of using those organs. After the 2017 publication of the first successful case series in the *New England Journal of Medicine*, several centers in the United States, including ours, have started performing these transplantations. Given the medicolegal implications of such practice, some centers have institutional review board-approved protocols and require informed consent from interested recipients. The success of this novel practice is substantial, with the likely number of such organs transplanted in 2019 in the several hundreds.



Among many new initiatives being brought into practice, the Organ Procurement and Transplantation Network is working on increasing organ use. More information can be found at <https://unos.org/news/improvement/10-things-unos-is-doing-to-increase-organ-utilization/>. ■

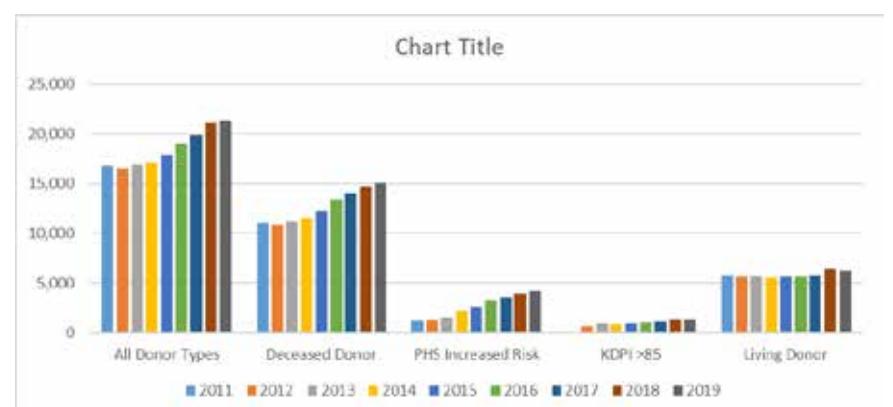
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**Figure 1. Deceased donor kidney transplantation waiting list trends**



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**Figure 2. Transplantation trends by year and category**



Abbreviations: KDPI, Kidney Donor Profile Index; PHS, US Public Health Service. Reprinted with permission from the Organ Procurement Transplantation Network (accessed on December 16, 2019).



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