

The Challenge of Organ Donation: Disparity by Race/Ethnicity in New Jersey

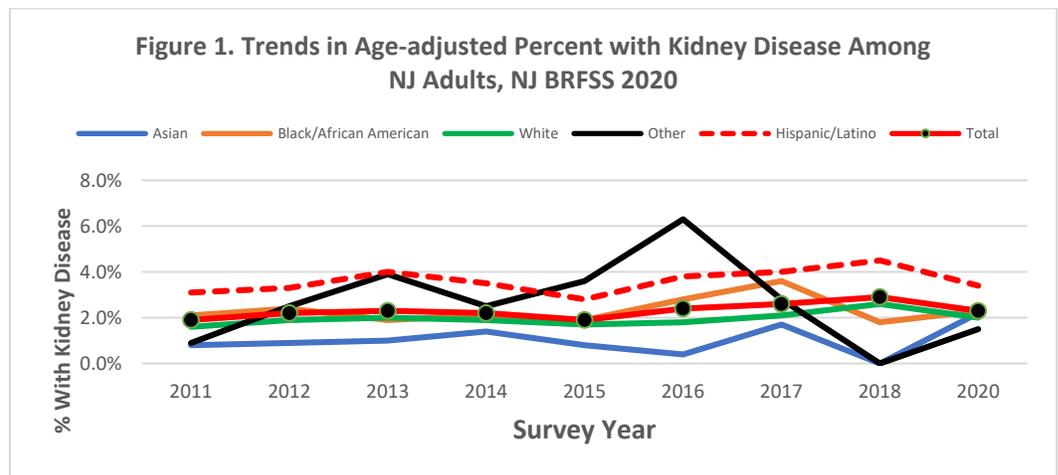
Many lives are saved because of organs donated by living and deceased organ donors. Even more lives would have been saved if all patients on the national waiting list received a donated organ. Unfortunately, 63 percent of those waiting for this life-saving gift will not receive a donation.

It is widely believed that variations in organ donation by geographic region and race/ethnicity are partly due to attitudes and religious affiliations as well as perceptions of fairness in allocation of organs. Some may also doubt the potential health outcomes of organ transplantation. In this paper, the Center for Health Analytics, Research & Transformation (CHART) examines the extent of organ donations, trends over time and variations by race/ethnicity – as well as trends and disparities in organ transplantation and waiting times by race/ethnicity – using data from the Bureau of the Health and Human Services Administration’s (HRSA) Organ Donation and Transplantation database.

Background

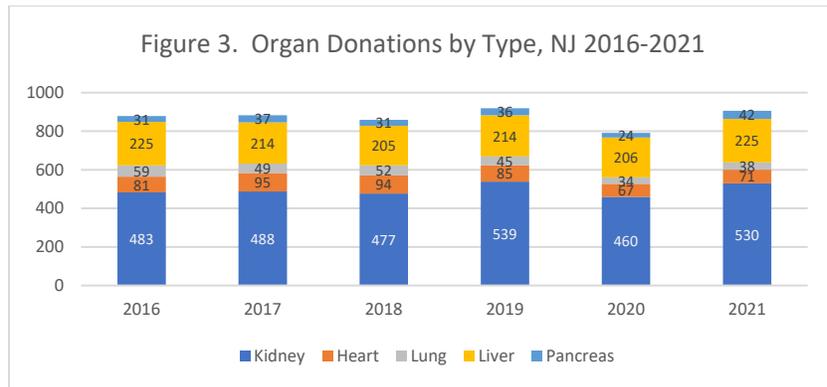
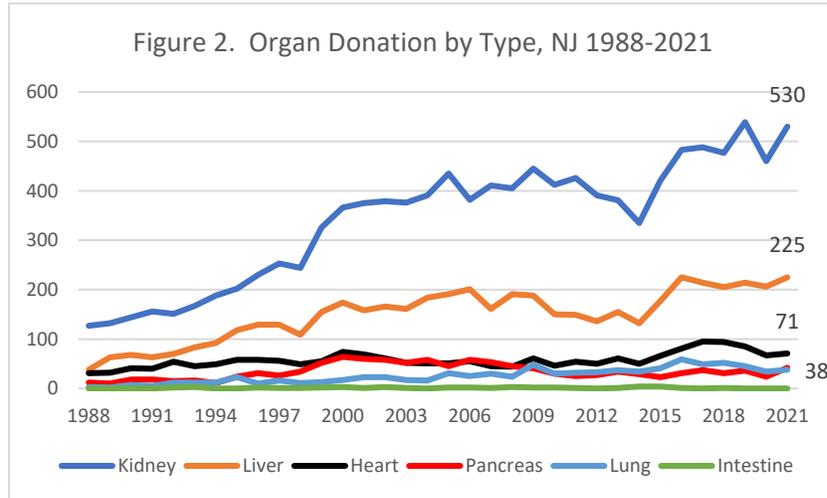
There were 20,403 organ donors in the United States in 2021. Because each donor can provide more than one organ, these donors gave 19,186 kidneys, 10,109 livers, 3,900 hearts, 1,319 pancreas, 2,631 lungs, 97 intestines [1], and other organs for transplantation. Among the 41,355 transplants in the United States in 2021, 1,155 were performed on New Jersey residents. Consistent with national data, kidneys are the most commonly donated – and in demand – organ. There were 732 kidney, 213 liver, 97 heart, and 84 lung transplants among New Jersey residents in 2021. In the same year, New Jersey residents accounted for 530 kidney, 225 liver, 71 heart, 42 pancreas, and 38 lung donations.

According to the Behavioral Risk Factor Surveillance System (BRFSS), 2.6 percent (or over 180,000) of 18 years or older adults in New Jersey had kidney disease in 2020. From 2011 through 2020, kidney disease among Hispanics has been consistently higher compared to other racial/ethnic groups, while Asians had the lowest prevalence of kidney disease (Figure 2). Overall, the age-adjusted proportion of kidney disease among adults has slowly ticked up in the past decade, potentially increasing the demand for kidney transplants and hence kidney donors.



Donations

Figure 2 shows trends in organ donations between 1988 and 2021 by organ type in New Jersey. Kidney donations were the most common type of donations (530 in 2021), followed by liver (225), heart (71), pancreas (42), and lung donations (38). Though still not matching demand, organ donations appear to have been slowly increasing. Figure 3 takes a closer look at trends in the number of donations from 2016 to 2021, spanning pre-pandemic years and the continued COVID response beginning in 2020. Clearly, 2020 saw a drop in donations for all organs compared with pre-pandemic years. In somewhat encouraging news, there was a modest rebound in donations for certain organs in 2021.

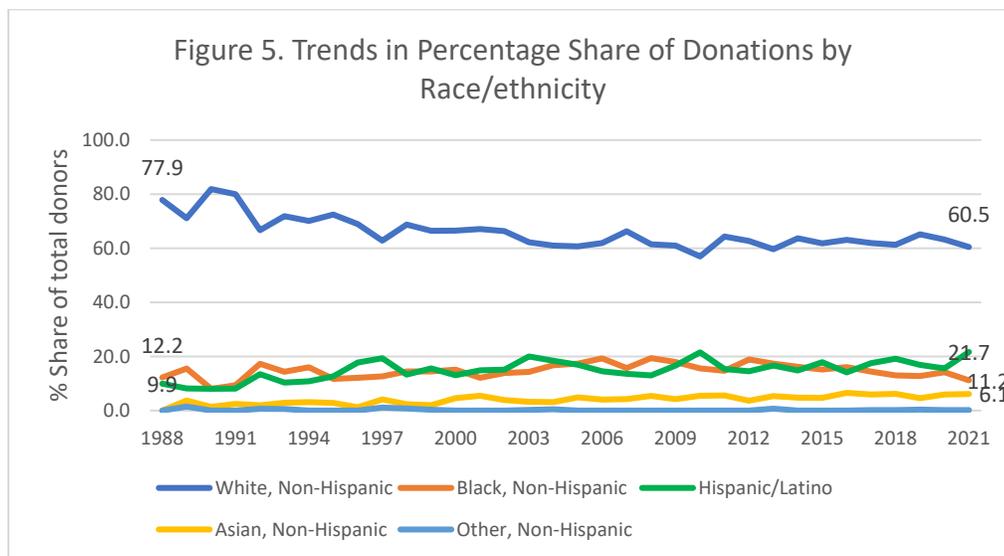
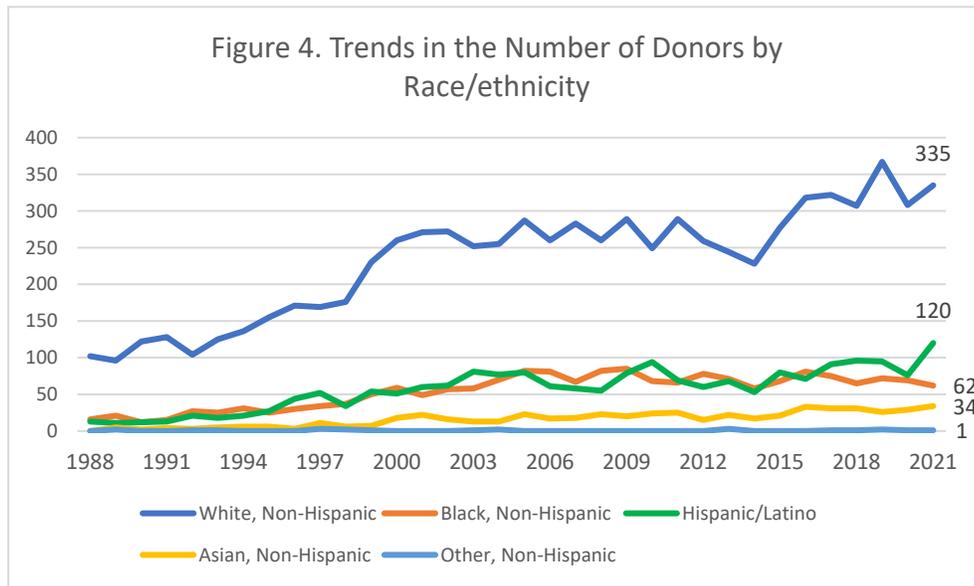


Organ Donations by Race/Ethnicity

In New Jersey, the largest number of donations were among White residents from 1988 through 2021. The difference in the number of donations by Hispanics and Blacks remained very close during the same period (Figure 4). As White residents represent a larger share of the total population in New Jersey, it is unsurprising that they also represent a larger share of donors.

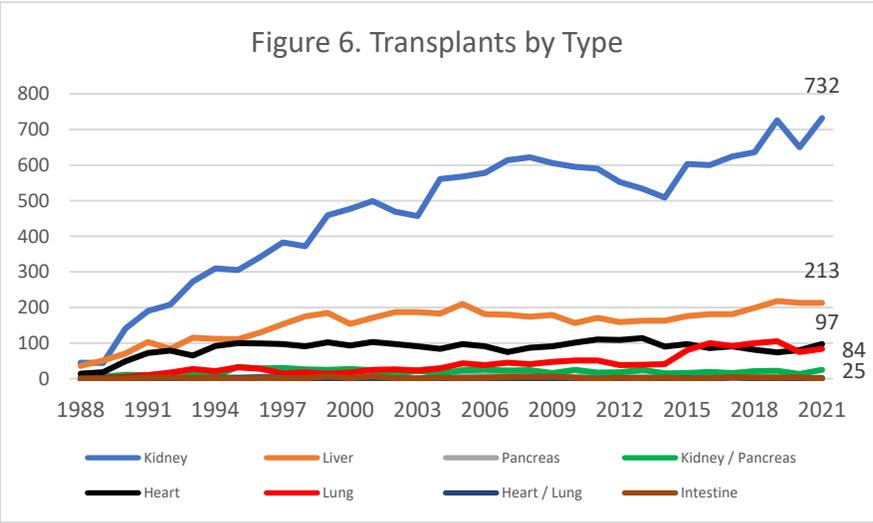
Donations from Whites accounted for approximately 77.9 percent of all donations in 1988, decreasing to 60.5 percent in 2021; however, the percentage of donations from Hispanics increased from 9.9 percent to 21.7 percent. The share of Black donations increased from 12.2 percent in 1988 to 19.4 percent in 2008, falling to 11.2 percent in 2021. Asians accounted for under 1 percent of donations in 1988 before increasing to approximately 6 percent in 2021 (Figure 5). While donation by race/ethnicity has been fairly consistent with the overall racial/ethnic breakdown of the New Jersey population over time, there was a clear reversal in organ

donation practices by Black and White individuals in recent years.



Organ Transplantation Difference by Race/Ethnicity

When looking at organ transplants among New Jersey recipients, kidney transplants were the most common type of transplants in 2021 (732) followed by liver transplants (213). In addition, there were 97 heart transplants that same year. Much like the trend in donations, the number of transplantations has been increasing over the last two decades (Figure 6).



The largest number of transplants was among Whites. Blacks were the second highest recipients of organ transplants followed by Hispanics. The percentage of transplants among Whites declined from 74.5 percent in 1988 to 47.9 percent in 2021. However, transplants among Blacks increased from 18.2 percent to 23.2 percent, 6.1 percent to 19.1 percent among Hispanics, and 1 percent to 9.6 percent among Asians during the same period (Figure 8). These trends may be in part due to improved health status among Whites relative to other racial/ethnic groups (e.g., Whites have higher life expectancy due to various factors related to Social Determinates of Health). Non-whites may also have gained improved access to organ transplantation.

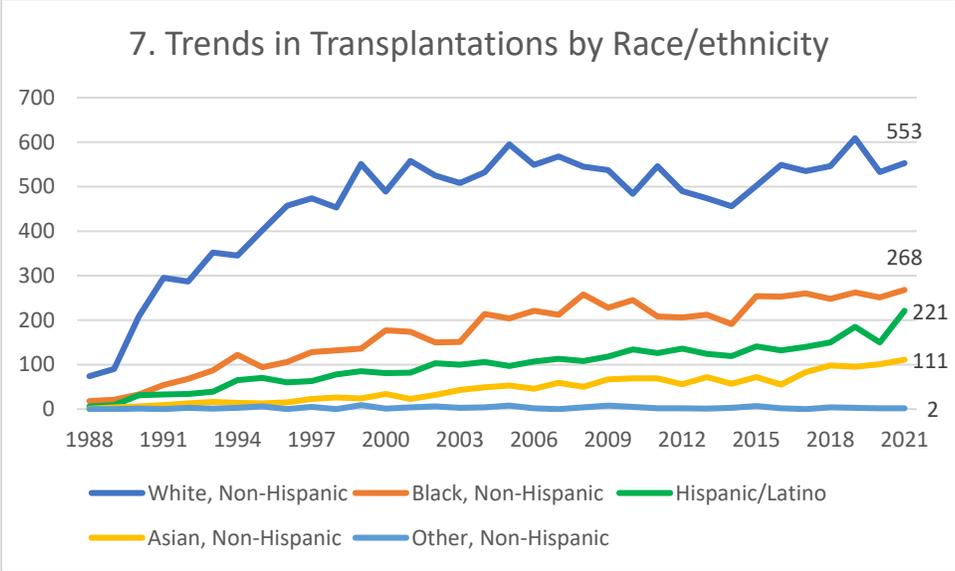
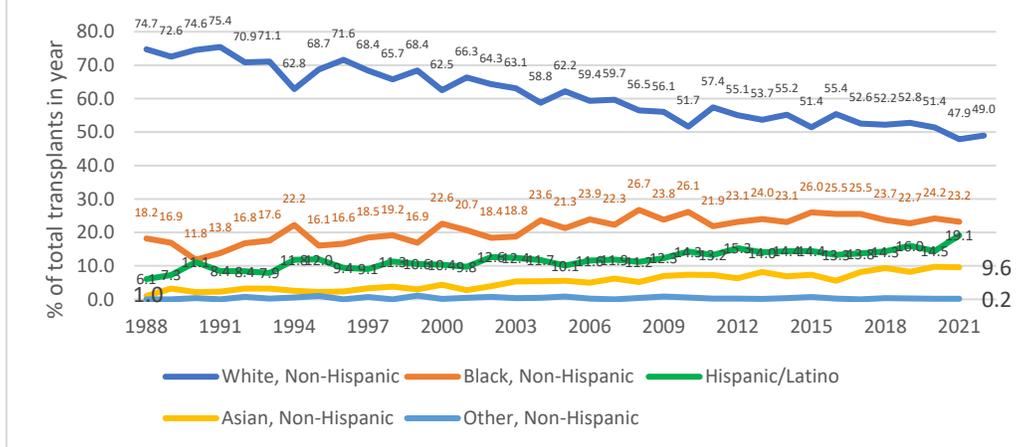


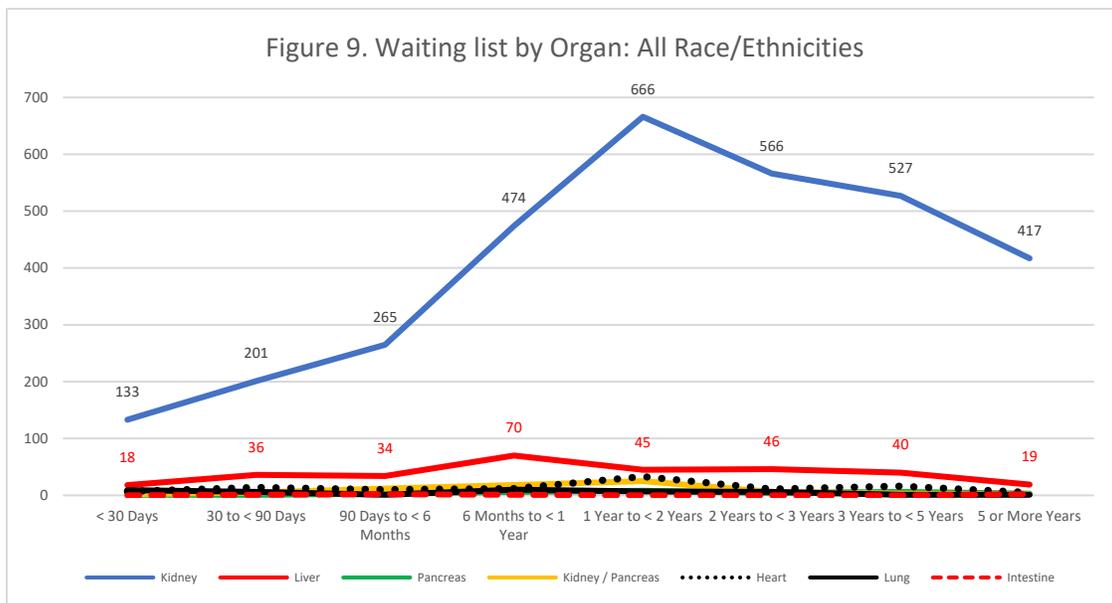
Figure 8. Trends in Percentage Share of Transplantations by Race/ethnicity

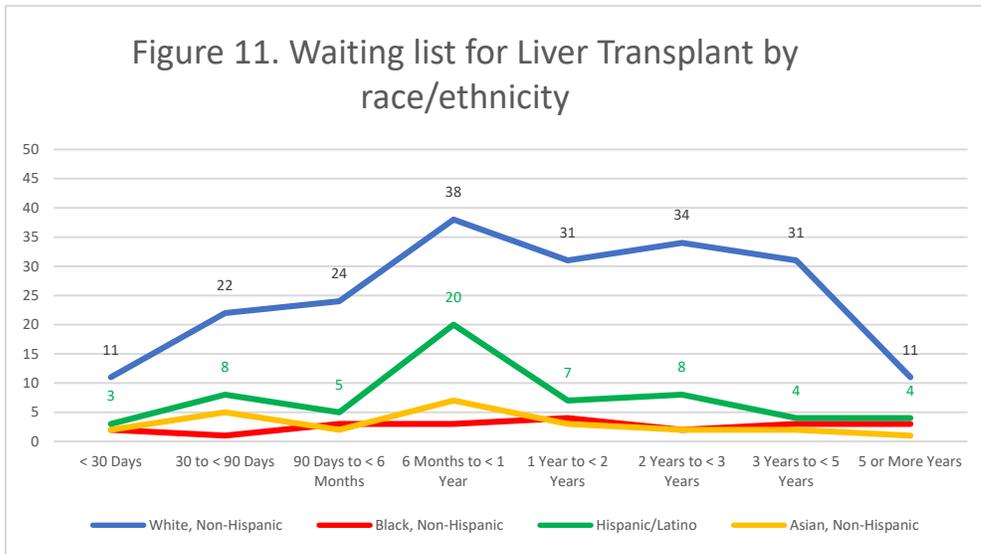
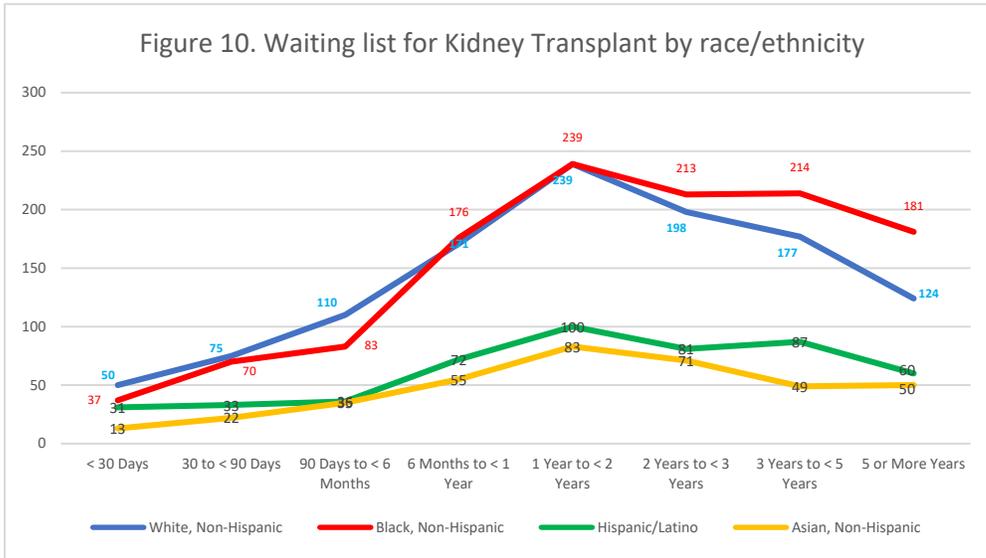


Wait List for Organ Transplantation in New Jersey

Figure 9 presents the number of New Jerseyans on the waiting list for an organ transplant by the top seven organs. Among those on the wait list for a kidney transplant, the majority have been on the list for a year or more (Figure 9). After a year or two, some of those in need of a kidney transplant may have died or have become ineligible due to worsening health. Despite making up a smaller portion of New Jersey’s total population, the number of Black residents who are on a waiting list for a kidney transplant is similar to that of Whites (Figure 10). However, the majority of those on a waiting list for a liver transplant were White (Figure 11).

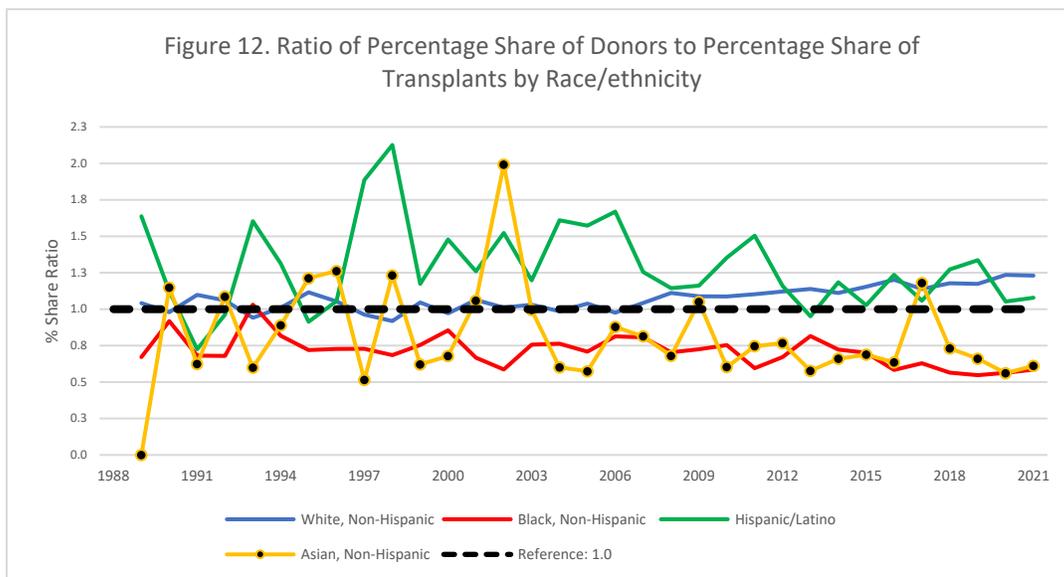
Figure 9. Waiting list by Organ: All Race/Ethnicities





Discussion

The absolute number of both organ donations and organ transplants in New Jersey has increased over time for all racial/ethnic groups. However, after 2006, the data suggests that Whites donated a higher proportion of organs than they received transplants (Figure 12). Hispanics consistently donated more than their share of transplants while Blacks consistently donated less than their share of transplants (Figure 12).



Recommendations

This paper describes important differences in organ donation practices and organ transplant needs by race/ethnicity. Furthermore, without significant improvements in the overall health of residents, or substantial improvements in medical technology, the current rate of donations is expected to add to the waiting list of individuals awaiting an organ transplant in New Jersey (3,817 in 2021). The upward trend in the percentage of adults with kidney disease in the state makes this observation even more concerning. This study clearly suggests that there is a need for more organ donations in the state by all racial/ethnic groups to meet the demand for transplants.

The 2019 National Survey of Organ Donation Attitudes and Practices – conducted by the U.S. Department of Health and Human Services – found that women, those over the age of 50, Whites and Native Americans, and those with higher levels of education were more likely to believe in the benefits of donating organs. According to the survey, respondents also had “concerns” for donors while others questioned the “fairness” of organ donations.

Educating the public about the positive health outcomes of organ donation, and transparency around the allocation of both organ donations and transplants, may help to modify attitudes and beliefs that act against organ donation.

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