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Office of Evaluation and Inspections

DATA SNAPSHOT

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Psychosocial Characteristics and Their Association With Kidney Transplant Programs Waitlist Rates

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Psychosocial Characteristics And Their Association With Kidney Transplant Program Waitlist Rates

Why OIG Did This Review

- Donated kidneys are scarce—only 15 percent of patients on the waitlist receive one.¹ Transplant programs are responsible for determining which patients are suitable candidates for transplantation.²
- Medicare-certified transplant programs must use medical and psychosocial patient selection criteria to access to the waitlist. However, [CMS](#) does not define patient selection criteria and instead allows each program to develop its own criteria, which include medical and psychosocial criteria, and can cover aspects of a patient’s life such as substance use and compliance with treatment.
- This data snapshot offers data regarding psychosocial patient selection criteria used by kidney transplant programs in 2023. It also presents data from our analysis of a random sample of patients evaluated at these programs, using these criteria, and their wait list outcomes.

What OIG Found

On the basis of our analysis of psychosocial patient selection criteria from kidney transplant programs and a random sample of patients evaluated at these programs:

The most common psychosocial patient selection criteria relate to five topics: (1) substance use, (2) compliance with and adherence to medical treatment, (3) mental health, (4) ability to pay for transplant-related costs, and (5) social and family support.

Half of all patients evaluated for a kidney transplant in 2023 were not added to the waitlist.

- Of the 52 percent of patients not added to the waitlist, half failed to meet at least one psychosocial criterion.
- Compliance with or adherence to medical treatment is the most common psychosocial criterion that patients did not meet.

Patients under age 65 and those with private insurance were most likely to be added to the waitlist for kidney transplant.

- Fifty-two percent of adult patients under age 65, and 37 percent of patients 65 and older were added to the waitlist.
- Sixty percent of privately insured patients were added to the waitlist, and 54 percent of Medicaid patients and 41 percent for Medicare patients were added to the waitlist.
- Among Medicare patients, patients enrolled in Medicare fee-for-service were added to the waitlist at a higher rate (47 percent) than patients enrolled in Medicare Advantage (32 percent).

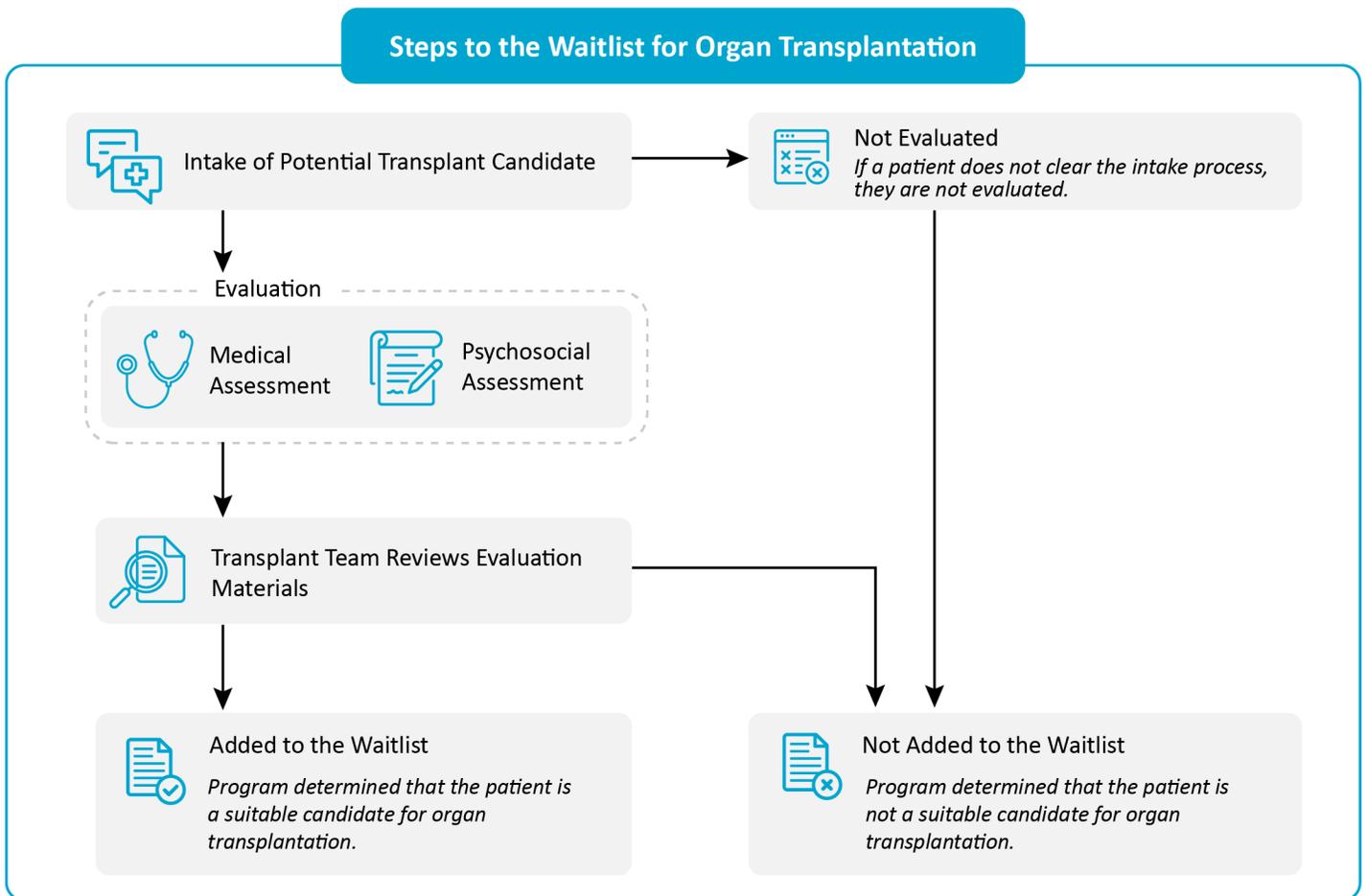
Evaluation Process and Patient Selection Criteria

A patient on the national waitlist for a kidney transplant may spend years waiting for one,^{3, 4} but the path to transplantation begins long before with a referral to a transplant program. Transplant program staff evaluate each patient to determine if they are a suitable candidate for transplantation. Transplant programs add patients whom they deem suitable candidates to the waitlist.

CMS requires that each Medicare-certified transplant program have written patient selection criteria, and that the program use the patient selection criteria to evaluate every patient's suitability for transplantation to ensure fair and nondiscriminatory distribution of organs. Patient selection criteria include both medical criteria and psychosocial criteria (see page 2 for examples of each). Programs set their own criteria, and these criteria can vary from one program to another.

In general, the evaluation begins with an intake process to assess the patient's insurance coverage for transplantation and post-transplant care, or the patient's ability to otherwise pay. Programs may assist patients who lack coverage or are uninsured with seeking financial resources.

In general, patients are only scheduled for an evaluation if they clear the intake process. The evaluation includes a medical assessment and a psychosocial assessment.



A medical assessment is performed to determine whether the patient meets the program’s medical criteria and does not have any conditions that would make a kidney transplant procedure unsafe or inappropriate (hereinafter referred to as contraindications; see below for examples). A psychosocial assessment is performed to determine whether the patient meets the program’s psychosocial patient selection criteria, which are generally written as requirements for selection. For example, that a patient has insurance coverage, stable housing, social support, among other factors. Transplant programs may also include psychosocial contraindications in their patient selection criteria, such as substance use or noncompliance with treatment (see below for examples).

Patient Selection Criteria



Psychosocial criteria are generally written as requirements for selection. Occasionally, psychosocial criteria are written in terms of contraindications to transplantation.

For example, psychosocial criteria may require that patients have or acquire any of the following:

- Adequate social support for evaluation, transplantation, and post-transplant care
- Insurance coverage and/or ability to pay for the transplant procedure and for immunosuppressant drugs that are required post-transplantation
- Compliance with, and/or adherence to, medical treatment, including history of compliance with dialysis
- Stable housing

Examples of psychosocial contraindications to kidney transplantation include:

- Current substance use
- Inadequate insurance and/or financial resources
- Noncompliance with medical treatment
- Inability to consent for evaluation and surgery



Medical criteria are typically written in terms of contraindications to transplantation. Less often, medical criteria are written in terms of requirements for selection. If medical contraindications are present, the patient may not be a suitable candidate.

Examples of medical contraindications to kidney transplantation include:

- Active infection
- Current cancer diagnosis
- Cardiac, pulmonary, or vascular disease
- Obesity

Medical criteria may require that patients have or acquire any of the following:

- End stage renal disease either receiving or with anticipation of dialysis
- Life expectancy of two years or greater
- Approaching or having low estimated glomerular filtration rate (eGFR)
- Adequate vascular function

Note: This graphic is based on OIG analysis of written patient selection criteria from Medicare-certified, adult kidney transplant programs.

After the evaluation is complete, the transplant team reviews the results of the medical and psychosocial assessments to determine whether the patient meets the criteria. The transplant team then either adds the patient to the waitlist or does not add the patient to the waitlist. In either case, programs must document in each patient’s medical record their rationale for adding or not adding a patient to the waitlist and inform the patient of their evaluation outcome. This data snapshot focuses on psychosocial patient selection criteria.

The most common psychosocial patient selection criteria relate to five topics



171 of 177 (97%) of transplant programs have **substance use** patient selection criteria. These include criteria that relate to tobacco, drug, marijuana, and alcohol use.



162 of 177 (92%) of transplant programs have **compliance and adherence** patient selection criteria. These include criteria that relate to taking prescribed medications and attending scheduled appointments.



140 of 177 (79%) of transplant programs have **mental health** patient selection criteria. These include criteria that relate to patients' psychiatric health and its impact on compliance and adherence.



137 of 177 (77%) of transplant programs have patients' **ability to pay** patient selection criteria. These include criteria that require patients to have adequate insurance, alternate financing, or both to cover expenses related to transplantation.



128 of 177 (72%) of transplant programs have **social and family support** patient selection criteria. These include criteria that require patients to have family or friends to assist them in the post-transplantation period. Support is vital in the post-transplantation period as patients need assistance with activities of daily living and frequent medical appointments, blood work, and in some cases, dialysis.

Transplant programs' psychosocial patient selection criteria also include other various criteria



88 of 177 (50%) of transplant programs have patient selection criteria for **age**. The most common upper age limit in the patient selection criteria is between 71 and 80. Programs may consider age in combination with comorbidities (28 or 16%), or, if the patient is above a certain age, the program may require a living donor (16 or 9%) or simply consider a patient on a case-by-case-basis if they are above a certain age (11 or 6%).



35 of 177 (20%) of transplant programs have **housing** patient selection criteria. Programs may require that patients have stable housing (19 or 11%), not be incarcerated (13 or 7%), not be unhoused, and/or not be living in nursing homes (6 or 3%).



35 of 177 (20%) of transplant programs have **health literacy** patient selection criteria. These mostly require the patient's understanding and ability to give informed consent.



29 of 177 (16%) of transplant programs have **transportation** patient selection criteria. Patients must have access to reliable transportation to appointments.

Half of all patients evaluated for a kidney transplant in 2023 were not added to the waitlist

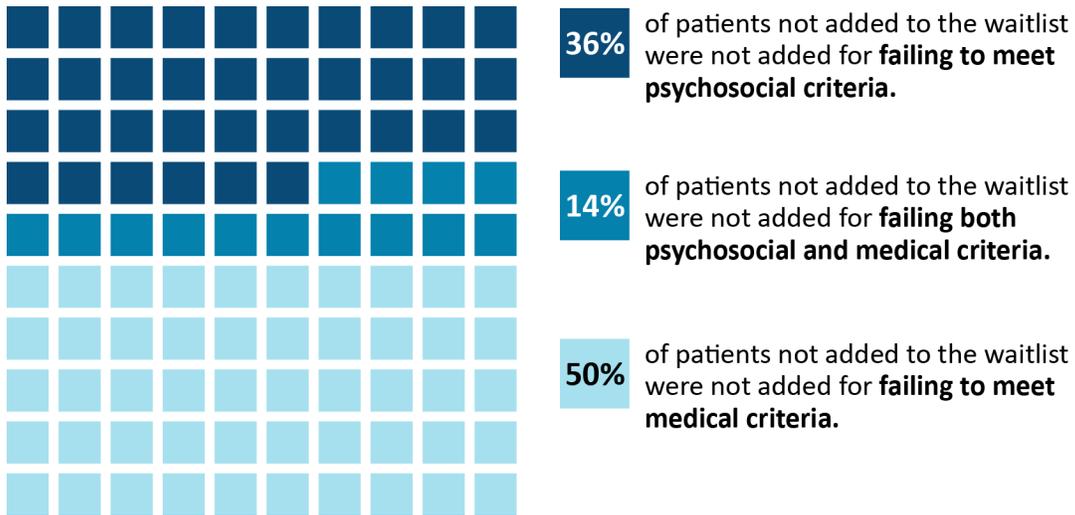


Note: This graphic is based on OIG analysis of data for a random sample of patients evaluated at Medicare-certified, adult kidney transplant programs in 2023.

This analysis is based on our analysis of a sample of 553 patients from the universe of 79,439 patients evaluated for a kidney transplant in 2023. After medical and psychosocial assessment, slightly less than half of the patients were added to the waitlist. Some patients are “screened out” during the intake process, prior to the formal evaluation, for reasons such as lack of insurance or financial resources. Determining the number of patients who were screened out was beyond the scope of this evaluation.

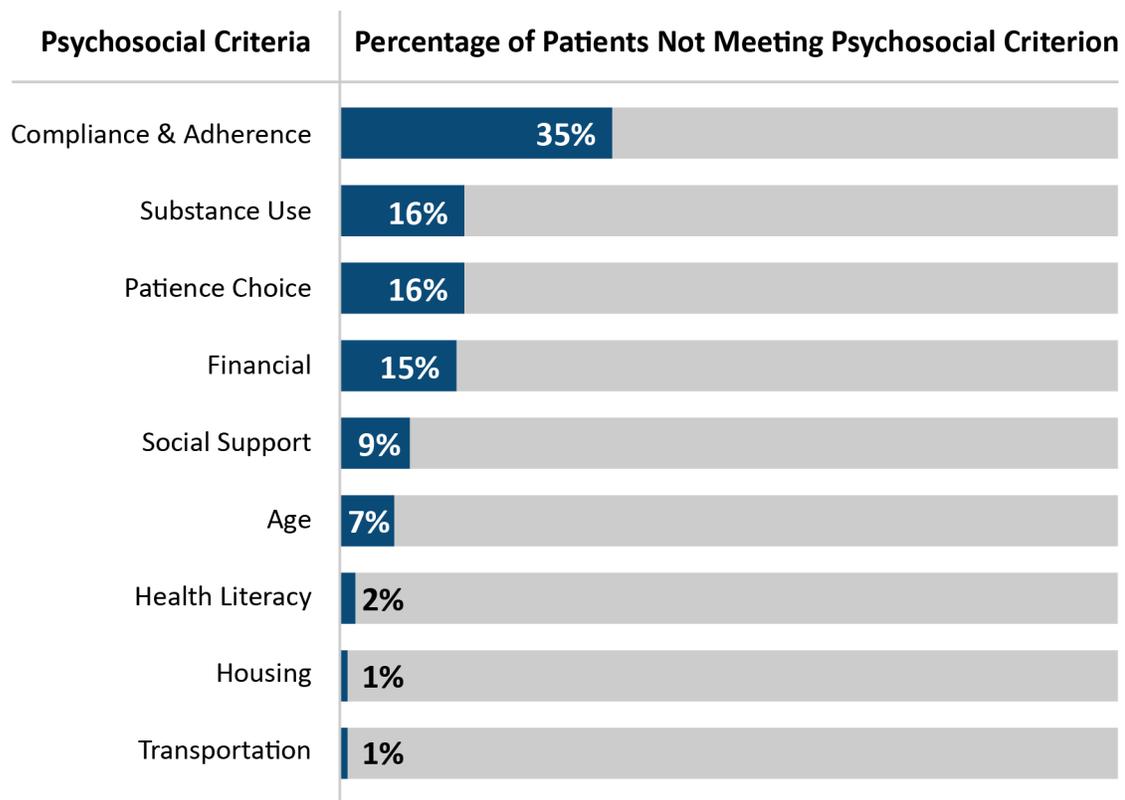
Of the 52 percent of patients not added to the waitlist, half failed to meet at least one psychosocial criterion

Of patients not added to the waitlist, a third of patients were not added solely for failing to meet psychosocial criteria. For these patients, the transplant programs did not cite failing to meet medical criteria as a reason for not adding these patients to the waitlist.



Compliance with or adherence to medical treatment is the most common psychosocial criterion that patients did not meet

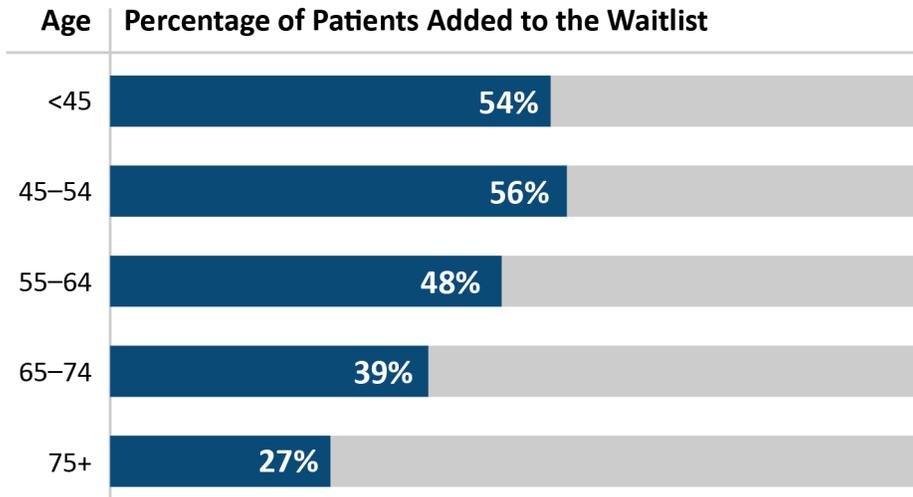
Among the patients who were not added to the waitlist, with at least one psychosocial criterion cited among the reasons, the most common psychosocial criterion cited was a failure to comply with, or adhere to, medical treatment (see graphic below depicting the percentage of patients not added to the waitlist by the psychosocial reason cited by the transplant program). To assess compliance and adherence, programs consider a patient’s history of compliance with and/or adherence to medical treatment, such as dialysis, as well as their participation in the transplant evaluation. The next most common psychosocial criteria cited include substance use, patient choice to not proceed with being added to the waitlist, and ability to pay.



Note: These percentages represent projections to the total population of patients who completed an evaluation for kidney transplantation in CY 2023. The total of these percentages is greater than 100 because there can be more than one reason that a patient is not added to the waitlist.

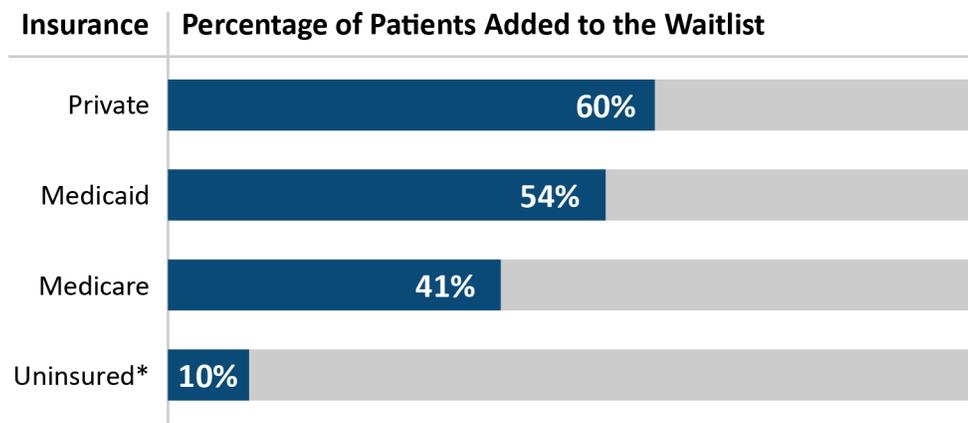
Waitlist Rates by Age

Programs added to the waitlist patients in age groups under 65 years old at a significantly higher rate (52 percent) than patients in age groups 65 years and older (37 percent). Waitlist rates were not significantly different among patients in the two youngest categories that we analyzed (adults under 45 years, and 45-54).



Waitlist Rates by Type of Insurance

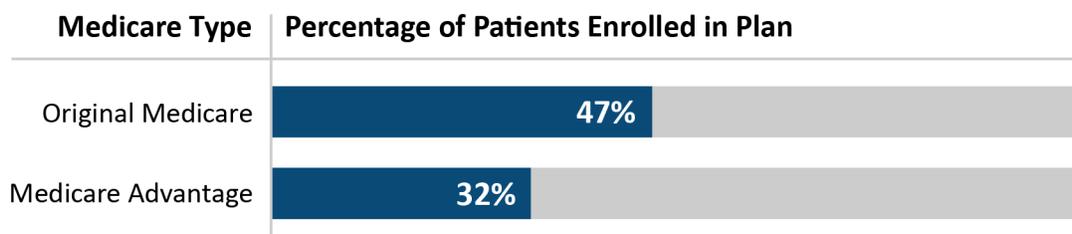
Although the majority of patients evaluated for kidney transplantation were enrolled in Medicare, they were added to the waitlist at a significantly lower rate than patients enrolled in private insurance or Medicaid.



*This estimated waitlist rate is based on the 10 uninsured patients in our sample who completed evaluations. For additional details including a 95-percent confidence interval, see Appendices A and B.

Waitlist Rates by Type of Medicare

Programs added to the waitlist patients enrolled in original (fee-for-service) Medicare at a significantly higher rate than they added patients enrolled in Medicare Advantage plans.



Methodology

We collected written patient selection criteria from 177 of 192 Medicare-certified, adult, kidney transplant programs. We did not collect patient selection criteria from 15 of the 192 programs for various reasons, including that some programs had closed or did not respond to our request for information. We then used NVivo software to analyze the patient selection criteria for similarities, differences, and patterns in criteria among programs.

To determine waitlisting rates and reasons that patients are not waitlisted, we collected lists of all adult patients who completed an evaluation for kidney transplantation in Fiscal Year 2023 at 177 of 192 Medicare-participating transplant programs. These patient lists established our study's patient population, which includes 79,439 patient records. Patients can be evaluated at more than one transplant program, and even though it appears to be rare among these records, there is a possibility that a patient in our sample appears more than once. However, our unit of sampling is unique patient-and-transplant program combinations. We refer to these more simply as "patients" through the report.

From the population of patients established from the patient records, we selected a simple random sample of 600 patients. Next, for the patients in our sample, we collected demographic information and waitlist status (added to the waitlist or not added). Additionally, for all the patients in our sample who were not added to the waitlist, we collected documentation of the patient selection criteria that are cited as reasons why. After preliminary analysis, we excluded 47 patients from the sample for various reasons, including that patients did not complete the evaluation or did so outside of our study timeframe, and that the data submitted from transplant programs was incomplete or included errors. Ultimately, we analyzed these data for the 553 patients in our sample to determine the most cited reasons why patients were not added to the waitlist (See Appendix A for sample demographics.) We then used Fisher's exact tests to determine if there were non-random associations between patient characteristics and whether a patient was added to the waitlist. (See Appendix B for point estimates and confidence intervals on reasons patients were not added to the waitlist and Appendix C for statistical test results where there was a statistically significant association between patient characteristic and waitlist status.)

It is important to note that not all patients are evaluated and that not all patients who begin an evaluation complete it. This report includes information regarding the population of patients who completed an evaluation. Analysis of patients who are not evaluated or do not complete an evaluation is beyond the scope of this study.

We conducted this study in accordance with the Quality Standards for Inspection and Evaluation issued by the Council of the Inspectors General on Integrity and Efficiency in 2020.

Sources

¹ Organ Procurement and Transplantation Network (OPTN) and Scientific Registry of Transplant Recipients (SRTR), [OPTN/SRTR 2023 Annual Data Report: Kidney](#), U.S. Department of Health and Human Services, Health Resources and Services Administration, 2025. Accessed on Dec. 16, 2025.

² 42 CFR § 482.90.

³ American Kidney Fund, [Kidney Donation and Transplant: Transplant Waiting List](#), 2025. Accessed on Dec. 16, 2025.

⁴ Darren Stewart, Tatenda Mupfudze, and David Klassen et al., "[Does anybody really know what \(the kidney median waiting\) time is?](#)" *American Journal of Transplantation*, vol. 23, no. 2 (Feb. 2023), pp. 223-231. Accessed on Dec. 16, 2025.

Appendix A: Study Sample Demographics and Waitlist Rates

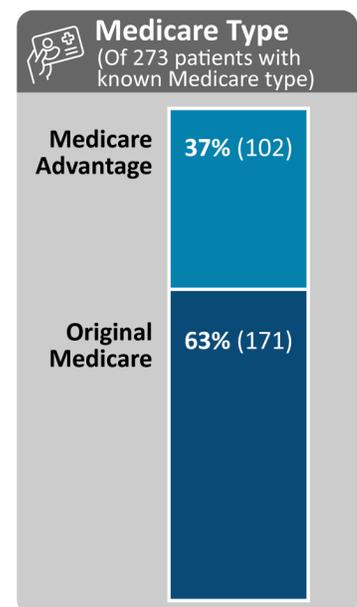
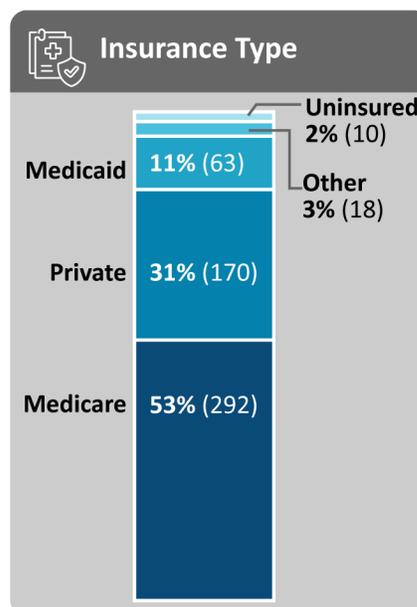
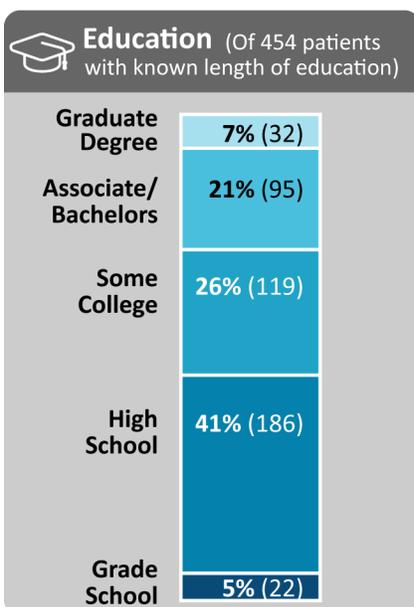
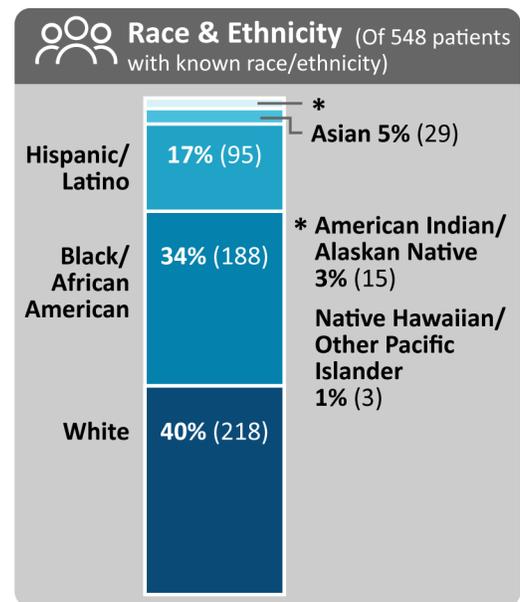
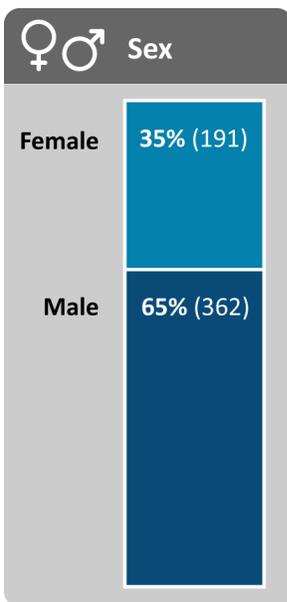
Transplant Programs

Of the 192 Medicare-certified, adult, kidney transplant programs, we collected patient selection criteria and patient data from 177.

Study Sample Demographics

These graphics depict the 553 patients in our sample. Because we selected a simple random sample, the corresponding estimated percentages for the population are equal to the sample percentages. See Appendices B and C for population estimates, 95-percent confidence intervals, and Fisher's exact test results.

Note: The total of percentages for age categories is greater than 100 percent because of rounding.



Appendix B: Point Estimates and Confidence Intervals for Patients Not Added to the Waitlist

The tables below provide point estimates and confidence intervals with their respective upper and lower bounds. These confidence intervals will contain the true population value with a likelihood of 95 percent.

Patients not waitlisted by patient selection criteria, 2023

Description	Point Estimate	95-percent Confidence Interval
Patients with documentation for why they were not waitlisted for kidney transplantation (n=282)		
Psychosocial only (n=102)	36.2	30.6-42.1
Psychosocial and medical (n=40)	14.2	10.3-18.8
Medical only (n=140)	49.6	43.7-55.6

Patients not waitlisted by psychosocial patient selection criteria, 2023

Description	Point Estimate	95-percent Confidence Interval
Patients with documentation for why they were not waitlisted for psychosocial patient selection criteria for kidney transplantation (n=142)		
Compliance (n=49)	34.5	26.7-42.9
Substance use (n=23)	16.2	10.6-23.3
Patient choice (n=23)	16.2	10.6-23.3
Financial (n=22)	15.5	10.0-22.5
Social support (n=13)	9.2	5.0-15.1

Appendix C: Point Estimates, Confidence Intervals, and p-values for Patients Added to the Waitlist by Selected Characteristics

The tables below provide point estimates and confidence intervals with their respective upper and lower bounds. These confidence intervals will contain the true population value with a likelihood of 95 percent. The tables also include the p-values from Fisher’s exact tests to identify if there were non-random associations between the patient selection criteria and waitlist status. For example, if the p-value is less than 0.05, the observed results are statistically significant. Among all patient characteristics, insurance type, Medicare type, and age had statistically significant associations with waitlist status.

Patients waitlisted by insurance type, 2023

Description	Point Estimate	95-percent Confidence Interval (p-value)
Patients who were waitlisted for kidney transplantation by insurance type		
Private (n=102 of 170)	60.0	52.2-67.4
Medicaid (n=34 of 63)	54.0	40.9-66.6
Medicare (n=119 of 292)	40.8	35.1-46.6
Uninsured (n=1 of 10)	10.0	0.3-44.5
		(p<0.001)

Patients waitlisted by Medicare type, 2023

Description	Point Estimate	95-percent Confidence Interval (p-value)
Patients with Medicare insurance data who were waitlisted for kidney transplantation		
Fee-for-service (n=80 of 171)	46.8	39.1-54.6
Medicare Advantage (n=33 of 102)	32.4	23.4-42.3
		(p=0.0223)

Note: This comparison excluded 19 patients in our sample for whom we could not determine Medicare type.

Appendix C: Point Estimates, Confidence Intervals, and p-values for Patients Added to the Waitlist by Selected Characteristics

Patients waitlisted by age, 2023

Description	Point Estimate	95-percent Confidence Interval (p-value)
Patients who were waitlisted for kidney transplantation		
<45 years (n=60 of 111)	54.1	44.3-63.6
45-54 years (n=64 of 114)	56.1	46.5-65.4
55-64 years (n=88 of 182)	48.4	40.9-55.9
65-74 years (n=47 of 120)	39.2	30.4-48.5
>75 years (n=7 of 26)	26.9	11.6-47.8
(p = 0.0109)		

Patients waitlisted by age, 2023

Description	Point Estimate	95-percent Confidence Interval (p-value)
Patients who were waitlisted for kidney transplantation		
<65 years (n=212 of 407)	52.1	47.1-57.0
>65 years (n=54 of 146)	37.0	29.2-45.4
(p = 0.0020)		

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