

OPTN Kidney Transplantation

Descriptive Data Request

Eliminate Use of DSA and Region from Kidney Allocation 3 Month Post-Implementation Monitoring Report

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Contents

Executive Summary	2
Waiting List	2
Transplants	2
Utilization and Efficiency	2
Medical Urgency	3
Released Organs	3
Donors Recovered in Alaska	3
Background	3
Strategic Plan Goal	3
Committee Request	3
Data and Methods	6
Data Sources	6
Cohort	6
Methods	6
Note on the COVID-19 Pandemic	6
Results	7
Waiting List	7
Transplants	26
Utilization and Efficiency of Allocation	49
Medical Urgency	58
Released Organs	58
Donors Recovered in Alaska	58
Conclusion	59
Appendix	60

Executive Summary

This report presents data describing the US organ transplantation system before and after the removal of Donation Service Area (DSA) and OPTN region from deceased donor kidney allocation. The analyses include data on waiting list registrations, transplant recipients, and deceased donors submitted to the OPTN between January 15, 2021 and May 14, 2021. Data are current as of June 11, 2021 and are subject to change based on future submission or correction.

Waiting List

Waiting list volume remained stable after policy implementation (**Figure 1** and **Table 1**), both overall and by registration status.

The overall transplant rate increased from 20 to 22 transplants per 100 patient years (**Figure 15** and **Table 15**). Increases in transplant rates were seen for the following subpopulations, which align with the KPSAM analysis used to inform the development of this policy:

- Registrations age 0-18 years (**Figure 16** and **Table 16**)
- Female registrations (**Figure 17** and **Table 17**)
- Black and Hispanic registrations (**Figure 18** and **Table 18**)
- CPRA 80-97% registrations (**Figure 19** and **Table 19**).

Transplants

The total number of deceased donor kidney transplants increased from 2918 to 3402 after policy implementation (**Figure 20** and **Table 20**). Increase in transplant volume was observed for:

- All age groups (**Figure 22** and **Table 22**)
- Most ethnicities (**Figure 23** and **Table 23**)
- All blood types (**Figure 27** and **Table 27**)
- All CPRA values (**Figure 28** and **Table 28**)
- All diagnoses (**Figure 30** and **Table 30**)

Median time on dialysis at transplant increased from 4.1 to 4.5 years after the policy change (**Figure 26** and **Table 26**), as predicted by the KPSAM. This increase does not imply patients need to accrue more time on dialysis in order to receive at transplant, rather more patients with higher dialysis times are getting transplanted under the new system as kidneys are distributed more broadly.

As predicted by the KPSAM, median distance from the donor hospital to the transplant center increased from 71 to 122 NM after policy implementation (**Figure 36** and **Table 36**), and more transplants occurred at centers outside the recovering OPO's DSA (**Figure 35** and **Table 35**). The proportion of transplants occurring within 250 NM of the donor hospital increased from 80% to 85% after the change, also in line with the KPSAM analysis. Changes in transplant volume varied across OPTN region (**Figure 37** and **Table 37**).

Utilization and Efficiency

The number of deceased kidney donors recovered increased from 2033 to 2297 after policy implementation (**Figure 43** and **Table 40**). There was a slight decrease in the number and proportion of donors recovered with KDPI 86-100% (**Figure 45** and **Table 42**). The overall discard rate decreased from 24% to 21% (**Figure 48** and **Table 45**), with the largest decrease observed for KDPI 86-100% kidneys (68% to 60%).

Kidney transplant volumes and the non-local acceptance rate increased by almost 20% (**Table 47**), suggesting that the OPTN Kidney Transplantation Committee's decision to remove the non-local indicator from the KPSAM acceptance model was justified based on anticipated, and now realized, behavior.

Medical Urgency

There were 13 registrations placed in medical urgency status after the policy change. Of those, 3 received a deceased donor transplant and 10 remain on the waiting list.

Released Organs

There were 587 import matches run prior to policy implementation and 85 released organ matches run post-policy (**Table 51**). The pre-policy discard rate for donors with import match runs was 28% pre-policy, and the discard rate for donors with a released organ match run was 20% post-policy (**Table 52**).

Donors Recovered in Alaska

Pre-policy, 4 donors had 8 kidneys recovered in Alaska, of which 6 were transplanted. Post-policy, one donor in Alaska had both kidneys recovered and transplanted (**Table 53**).

Background

The OPTN implemented several policy changes on March 15, 2021 in order to remove DSA and region from kidney allocation. The primary policy replaced DSA and region with a 250 nautical mile (NM) fixed circle and added proximity points to a candidate's total allocation score. It also added increased priority for prior living donor and pediatric candidates within 250 NM of the donor hospital.

Three supplemental policies went into effect the same day. The first change provided a rationally determined and consistently applied definition for medical urgency. This definition, and the associated classification, ensures candidates who have exhausted dialysis access, as well as candidates with imminent failure of access to dialysis, can receive the appropriate priority in allocation in an expedient manner.

The second policy change replaced the donor hospital with Seattle-Tacoma (Sea-Tac) International Airport as the center of the 250 NM circle used in the allocation of kidneys recovered in Alaska. This policy change aimed to maximize the utilization of deceased donor organs procured in the state of Alaska and avoid unnecessary delays in placement.

The final policy change sought to provide consistency with the Board-approved changes to remove DSA and region from kidney and pancreas allocation policies. These changes were intended to promote efficiency and organ utilization by providing options for the host OPO when the kidney, pancreas, or kidney-pancreas is released by the originally accepting transplant program. Specific procedure is dependent on the organ in need of reallocation.

Strategic Plan Goal

Increase equity in access to transplant.

Committee Request

These policies will be formally evaluated approximately 3 months, 6 months, 1 year, and 2 years post-implementation. The following metrics, and any subsequently requested by the Committee, will be evaluated as data become available. Appropriate lags will be applied, per typical UNOS conventions, to account for time delay in institutions reporting data to UNet and compared to an appropriate pre-policy cohort to assess performance before and after implementation of this policy. To assess the policy's impact on pediatric populations as well as the geographic variation in pediatric populations, when feasible, metrics will be stratified by pediatric age groupings, DSA and OPTN Region.

Any metrics not presented in this report will be examined in a subsequent analysis.

Waiting List

1. Total kidney registrations on the waiting list (snapshot by month)
2. Kidney registrations added to the list, overall and by age, gender, ethnicity, cPRA, blood type, diagnosis, time on dialysis, and insurance status at time of listing
3. % of candidates in active status
4. % of candidates multi-listed
5. Waiting list mortality per 100 patient years, overall and by candidate age, gender, ethnicity, cPRA, blood type, diagnosis, EPTS score, and time on dialysis.
6. Deceased donor transplants per 100 patient years by recipient age, ethnicity, time on dialysis, ABO, cPRA, HLA-ABDR mismatch level, diagnosis, EPTS score, and DSA.

Transplant

1. Donor, recipient and transplant characteristics: number and percent of transplants by recipient age, ethnicity, waiting time (days on the waiting list), time on dialysis, ABO, cPRA, HLA-ABDR mismatch level, diagnosis, EPTS score, KDPI, DCD, inside/outside fixed circle, and cold ischemic time (CIT).
 - Distribution of kidney travel distance (NM), overall and by inside/outside fixed circle
 - Distribution of KDPI by inside/outside fixed circle and pediatric age group (pediatric recipients only)
 - Distribution of KDPI by inside/outside fixed circle and cPRA
 - Distribution of KDPI by inside/outside fixed circle and prior living donor status
 - Distribution of KDPI by inside/outside fixed circle and CIT
2. Change in access by location: N and % of transplants by
 - Share type (local/regional/national)
 - OPTN region
 - Donation Service Area (DSA)
 - Transplant center
 - State
3. Variance in deceased donor transplant rate across DSA
4. Rates of receiving kidney offers per 100 patient years by recipient age, time on dialysis, ethnicity, ABO, cPRA, HLA-ABDR mismatch level, diagnosis, and EPTS score.
5. Rates of delayed graft function (DGF)
6. Number and percent of multi-organ kidney transplants by type (KP, SLK, HR-KI, other), overall and by KDPI

Utilization and Efficiency of Allocation

1. Number kidney donors recovered for transplantation, overall and by KDPI
2. Number and percent of kidneys recovered but not utilized (discarded), overall and by KDPI
3. Number and percent of kidneys discarded by discard reason
4. Number and percent kidneys with a final acceptance
5. Offer acceptance per 100 patient years by recipient age, ethnicity, waiting time (days on the waiting list), time on dialysis, ABO, cPRA, diagnosis, EPTS score, DCD, and inside/outside fixed circle among organs with a final acceptance.
6. Distribution of sequence number of final acceptor
7. Distribution of time between electronic offer and cross-clamp
8. Number and percent by cPRA, of kidney offers refused due to a positive cross-match
9. Number of candidates transplanted with medically urgent classification, overall and sorted by KDPI

Outcomes

Post-transplant graft and patient survival rates, overall and stratified by recipient age, gender, ethnicity, cPRA, blood type, diagnosis, time on dialysis, HLA-ABDR mismatch, EPTS score, KDPI, and CIT. These data will be presented in a future report, once sufficient data have accrued.

Medical Urgency

Overall and by OPTN Region:

1. Number and percentage of candidates on the waiting list who received medically urgent allocation priority, overall and by candidate characteristics including:
 - Calculated panel reactive antibody score (%)
 - Expected post-transplant survival score (%)
 - Age group
 - Primary vs. repeat transplant
 - Time on dialysis
2. Distribution of time in medical urgency classification before WL removal (minimum, 25th percentile, mean, standard deviation, median, 75th percentile, maximum)
3. Waiting list outcomes for candidates placed in medical urgency status including:
 - Number and percentage of waiting list removals by removal reason
 - Median time to transplant calculated using the competing risks extension of Kaplan Meier survival
 - Number and percentage of deceased donor kidney transplants by kidney donor profile index sequence (0-20%, 21-34%, 35-85%, 86-100%)
4. National unadjusted post-transplant graft and patient survival for medically urgent transplant recipients (compared to non-medically urgent transplants)
5. National delayed graft function rates for medically urgent transplant recipients (compared to non-medically urgent transplants)

Donors Recovered in Alaska

1. N and % of kidney and pancreas donors recovered in Alaska
2. N and % of kidneys and pancreata recovered in Alaska
3. N and % of kidney and pancreas transplants performed from donors recovered in Alaska
4. N and % of kidneys and pancreata transplanted inside/outside fixed circle of Sea-Tac.
5. Distribution of kidney and pancreas travel distance (NM) for transplants performed from donors recovered in Alaska

Released Organs

For Kidney, Kidney-Pancreas, and Pancreas Donors/Organs:

1. Overall and by OPTN Region (and KDPI if KI or KP)
 - N/% of organs with a final acceptance
 - N/% of organs for which an acceptance came from an import match run
 - N/% of kidneys for which an acceptance came from a released match run (KI only)
2. For accepted organs (overall and stratified by OPTN region, donor KDPI, and accepting patient cPRA)
 - Transplanted with the accepting candidate
 - Transplanted with a different candidate at the accepting center
 - Transplanted at a different center
 - Discarded

Data and Methods

Data Sources

This analysis is based on OPTN data as of June 11, 2021. Candidate information were submitted through Waitlist and on the Transplant Candidate Registration (TCR). Recipient and transplant data were submitted on the Transplant Recipient Registration (TRR). Donor data were submitted in DonorNet and on the Deceased Donor Registration (DDR). Match run data were submitted in DonorNet. Data are subject to change based on future submission or correction.

OPTN Policy 18.1 defines the following data submission requirements for transplant centers and OPOs:

- Submission of the TCR within 30 days of listing
- Submission of the TRR within 60 days of waiting list removal
- Submission of the DDR within 30 days organ disposition submission
- Potential transplant recipient offers within 30 days of the match run date

Because some additions, transplants, and donor recoveries after policy implementation were still within this submission window at the time of this analysis, there are substantial missing data for some of the fields submitted on the forms listed above.

Cohort

All kidney alone registrations added to the waiting list, ever waiting, or transplanted between January 15, 2021 and May 14, 2021 were included in this analysis, as were all deceased kidney donors recovered during this time. These dates were chosen to ensure policy eras were of uniform length.

Policy eras were defined as:

- Pre-Policy: January 15, 2021 to March 14, 2021
- Post-Policy: March 15, 2021 to May 14, 2021

Methods

Transplant rates were defined as the number of waiting list removals due to deceased donor kidney transplant divided by the total amount of time on the waiting list (active and inactive) for registrations ever waiting during the study period. These results are presented as transplants per 100 patient years.

Discard rate was defined as the number of deceased donor kidneys recovered for the purpose of transplant, but not transplanted, divided by the total number of kidneys recovered for transplant.

Utilization rate was defined as the number of kidneys transplanted divided by the total number of available kidneys. All donors were assumed to have two transplantable kidneys.

To determine the disposition of kidneys with a final acceptance, we identified the first kidney or kidney-pancreas acceptance for each donor's left and right kidney (sometimes accepted together). The first acceptance was constrained to match runs submitted during the cohort. These acceptances were then cross-referenced against the reported transplants from the donor ID. Each accepted kidney was then classified as being transplanted with the accepting patient, a different patient at the accepting center, a patient at a different center, discarded, or not recovered.

Note on the COVID-19 Pandemic

The World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2020 and a national state of emergency was declared in the U.S. on March 13, 2020. All of the data cited in this report were reported to the OPTN after the declaration of this national emergency. Given the impact that has been seen on the U.S. (see data trends at unos.org/covid), the true impact of this policy change is very challenging to determine.

Results

Waiting List

Figure 1 and **Table 1** show the number of registrations waiting for a kidney on the last day of each month from January 31, 2021 to April 30, 2021. Waiting list volume changed very little after policy implementation.

Figure 1: Kidney Registrations Waiting on the Last Day of Each Month, January 31, 2021 - April 30, 2021

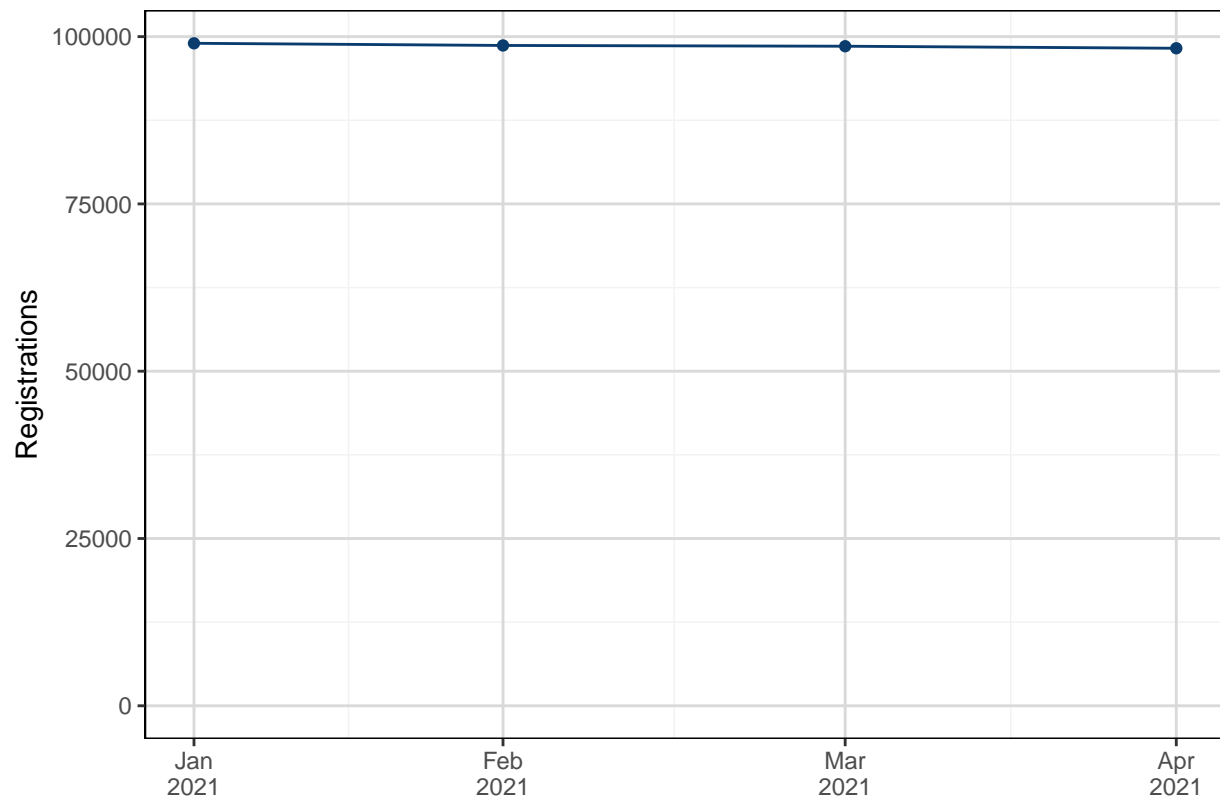


Table 1: Kidney Registrations Waiting on the Last Day of Each Month, January 31, 2021 - April 30, 2021

Date	Registrations
January 2021	99003
February 2021	98679
March 2021	98563
April 2021	98261

Figure 2 and **Table 2** show the registrations waiting for a kidney on the last day of each month from January 31, 2021 to April 30, 2021 by status. Roughly 58% of registrations were in active status both before and after policy implementation.

Figure 2: Kidney Registrations Waiting on the Last Day of Each Month by Status, January 31, 2021 - April 30, 2021

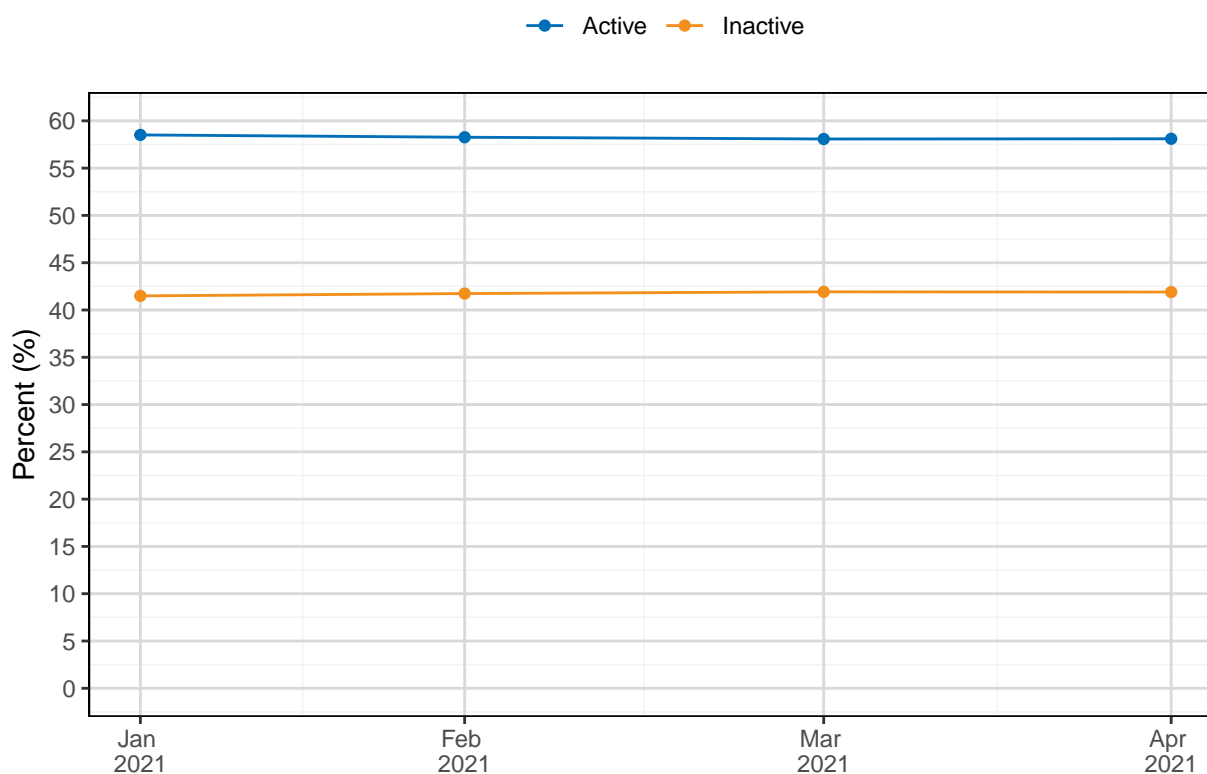


Table 2: Kidney Registrations Waiting on the Last Day of Each Month by Status, January 31, 2021 - April 30, 2021

Date	Active		Inactive		Total	
	N	%	N	%	N	%
January 2021	57927	58.51	41076	41.49	99003	100.00
February 2021	57494	58.26	41185	41.74	98679	100.00
March 2021	57246	58.08	41317	41.92	98563	100.00
April 2021	57092	58.10	41169	41.90	98261	100.00

Figure 3 and **Table 3** show the percentage of candidates waiting for a kidney on the last day of each month from January 31, 2021 to April 30, 2021 registered at more than one transplant hospital. Roughly 7% of registrations were multi-listed both before and after policy implementation.

Figure 3: Multi-Listed Kidney Candidates Waiting on the Last Day of Each Month, January 31, 2021 - April 30, 2021

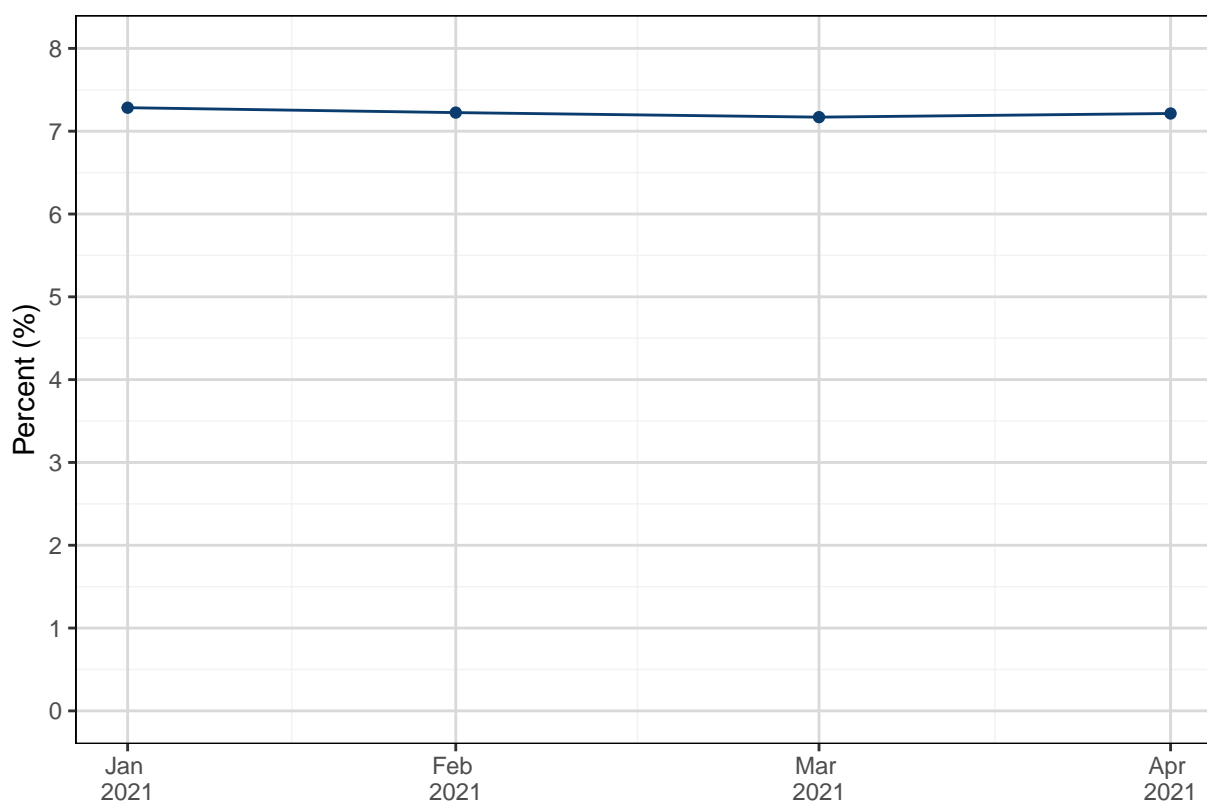


Table 3: Multi-Listed Kidney Candidates Waiting on the Last Day of Each Month, January 31, 2021 - April 30, 2021

Date	Multi-listing		Single Listing		Total	
	N	%	N	%	N	%
January 2021	6654	7.28	84699	92.72	91353	100.00
February 2021	6583	7.22	84536	92.78	91119	100.00
March 2021	6530	7.17	84546	92.83	91076	100.00
April 2021	6548	7.21	84221	92.79	90769	100.00

Figure 4 and **Table 4** show total kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era. There were 7039 registrations added to the waiting list pre-policy implementation, and another 8317 added post-policy.

Figure 4: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era

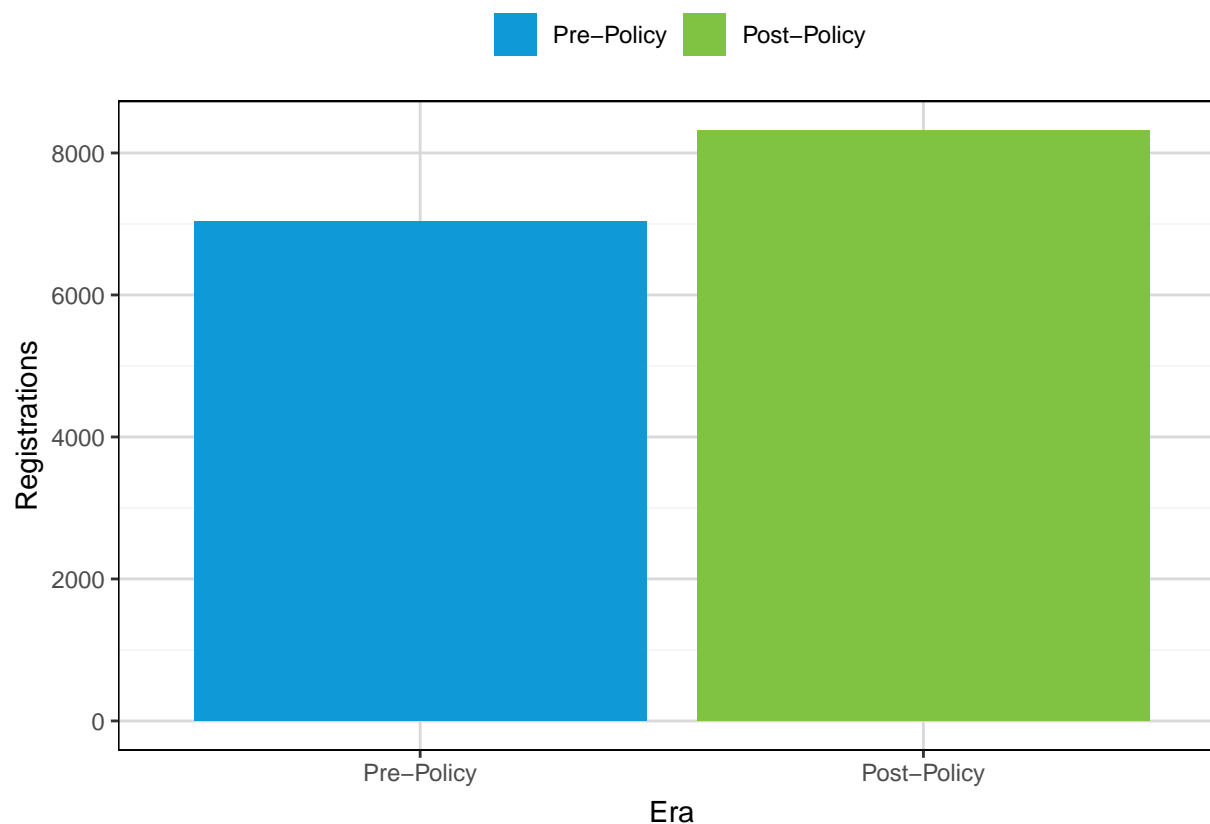
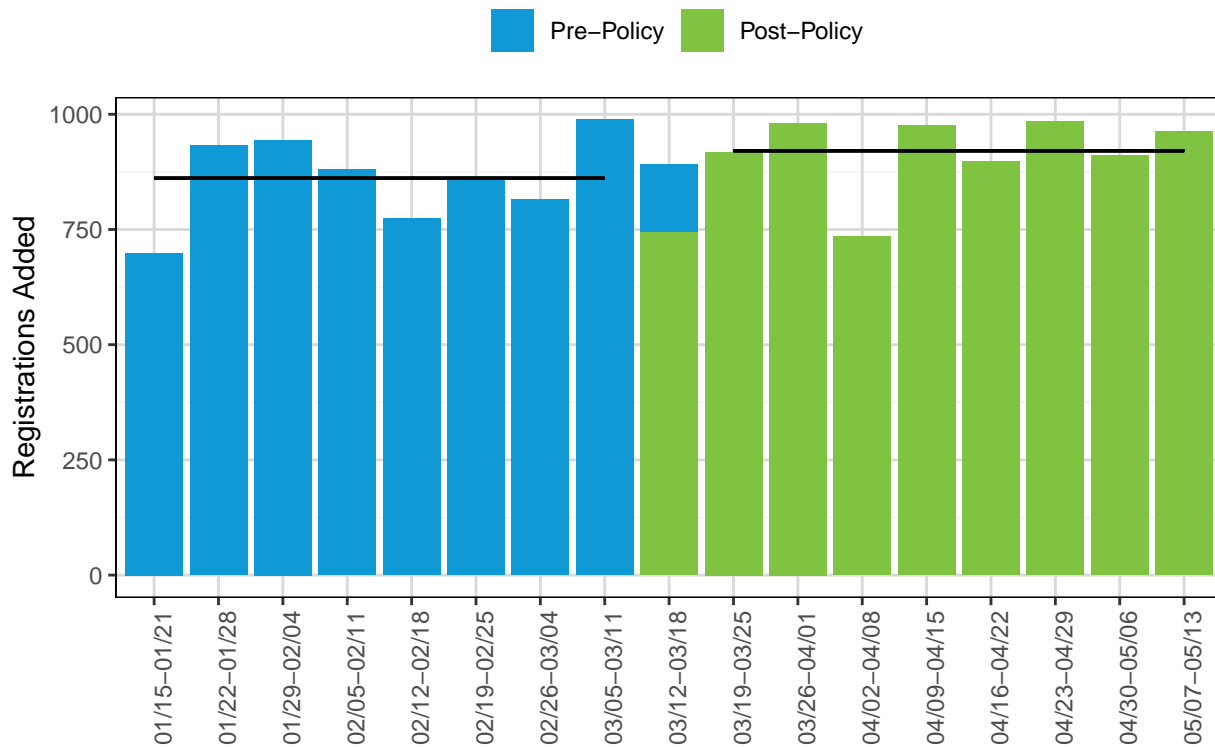


Table 4: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era

Era	Registrations
Pre-Policy	7038
Post-Policy	8317

Figure 5 and **Table 5** show weekly kidney registrations added from January 15, 2021 to May 13, 2021. The average number of registrations added per week was 861 pre-policy and 921 post-policy.

Figure 5: Weekly Kidney Registrations Added January 15, 2021-May 13, 2021 by Policy Era



Lines represent the average number of registrations per week.

Table 5: Weekly Kidney Registrations Added January 15, 2021-May 13, 2021

Weeks	Registrations Added
01/15-01/21	699
01/22-01/28	932
01/29-02/04	944
02/05-02/11	881
02/12-02/18	774
02/19-02/25	857
02/26-03/04	815
03/05-03/11	988
03/12-03/18	892
03/19-03/25	918
03/26-04/01	981
04/02-04/08	735
04/09-04/15	976
04/16-04/22	897
04/23-04/29	984
04/30-05/06	911
05/07-05/13	963

Figure 6 and **Table 6** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and age at listing. For adult candidates, the volume of waiting list additions increased for each age group, and the distribution of age at listing remained stable pre- to post-policy implementation. Candidates aged 50-64 years accounted for the majority of waiting list additions overall both pre- and post-policy at 38.48% and 39.51% respectively.

The volume of pediatric additions aged 0-5 years increased after policy implementation from 51 to 75 registrations. Pediatric additions for candidates aged 6-11 and 12-17 years decreased after the policy change.

Figure 6: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Age at Listing

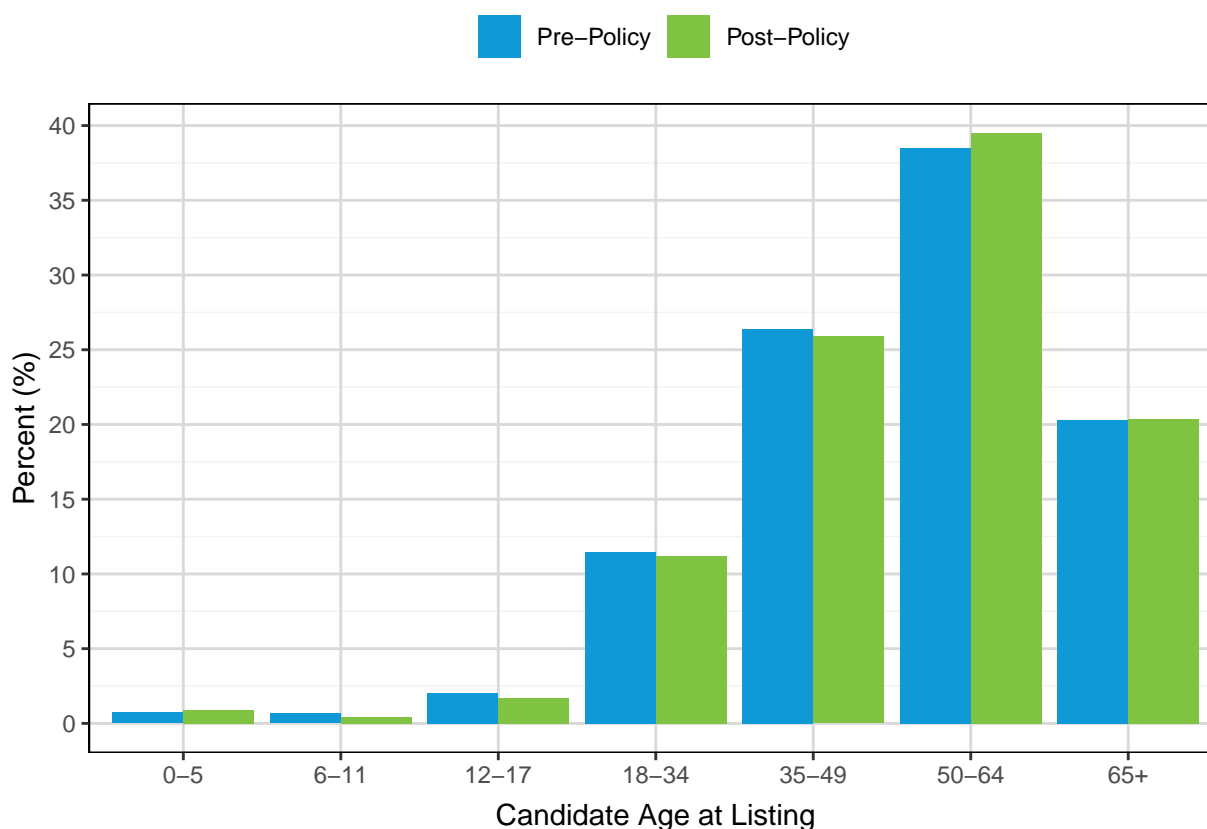


Table 6: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Age at Listing

Age at Listing	Pre-Policy		Post-Policy	
	N	%	N	%
0-5	51	0.72	75	0.90
6-11	47	0.67	36	0.43
12-17	143	2.03	140	1.68
18-34	806	11.45	932	11.21
35-49	1856	26.37	2153	25.89
50-64	2708	38.48	3286	39.51
65+	1427	20.28	1695	20.38
Total	7038	100.00	8317	100.00

Figure 7 and **Table 7** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and gender. Male candidates accounted for the majority of additions both pre- and post-policy at roughly 62%.

Figure 7: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Gender

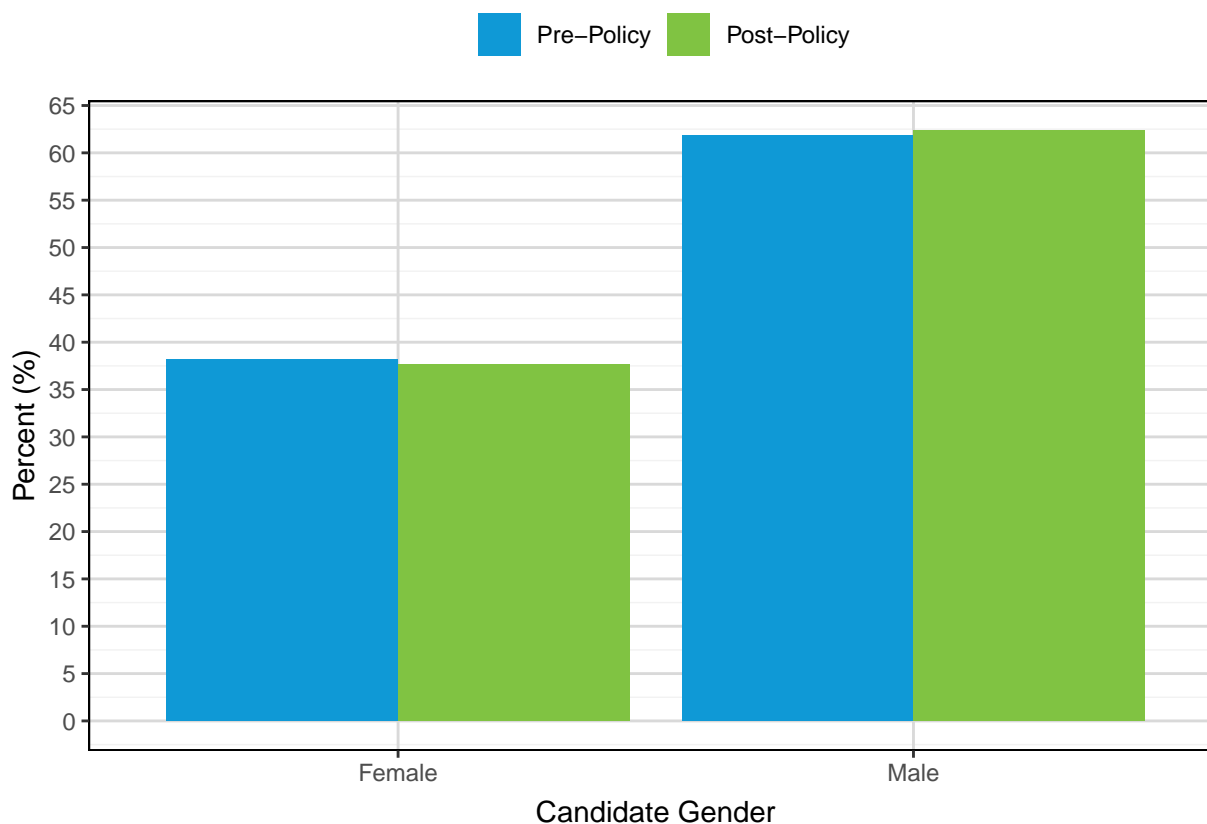


Table 7: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Gender

Gender	Pre-Policy		Post-Policy	
	N	%	N	%
Female	2684	38.14	3130	37.63
Male	4354	61.86	5187	62.37
Total	7038	100.00	8317	100.00

Figure 8 and **Table 8** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and ethnicity. The number of additions increased for all ethnicities post-policy. The proportion of additions for Hispanic and Asian candidates after the policy change increased, from 16.65% to 19.19% and 7% to 7.62% respectively. The proportion of waiting list additions of other race/ethnicities decreased after implementation.

Figure 8: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Ethnicity

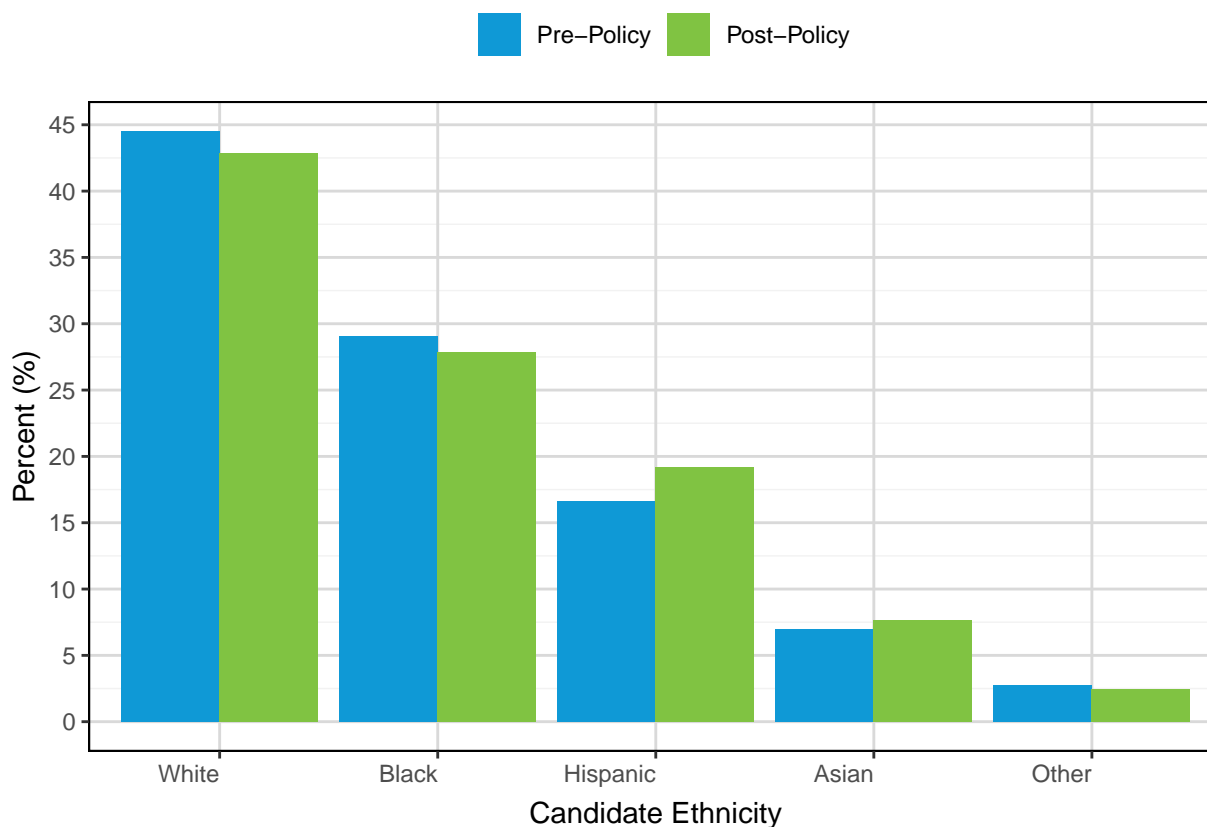


Table 8: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Ethnicity

Ethnicity	Pre-Policy		Post-Policy	
	N	%	N	%
White	3133	44.52	3566	42.88
Black	2045	29.06	2319	27.88
Asian	493	7.00	634	7.62
Hispanic	1172	16.65	1596	19.19
Other	195	2.77	202	2.43
Total	7038	100.00	8317	100.00

Figure 9 and **Table 9** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and blood type. The proportion of blood type AB additions increased from 3.62% to 4.18% after the policy change. The proportion of A additions decreased from 32.44% to 31.66%, though the number of additions increased from 2283 to 2633.

Figure 9: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Blood Type

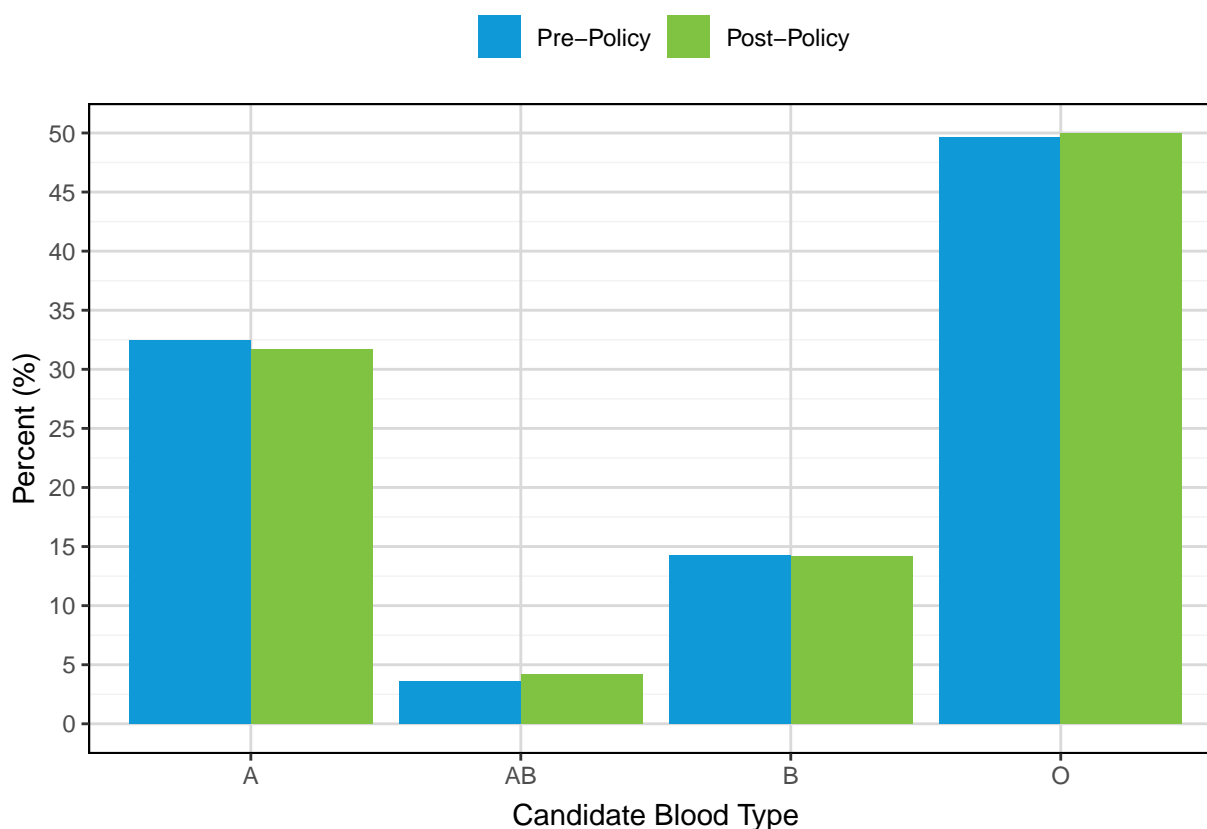


Table 9: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Blood Type

Blood Type	Pre-Policy		Post-Policy	
	N	%	N	%
A	2283	32.44	2633	31.66
AB	255	3.62	348	4.18
B	1005	14.28	1180	14.19
O	3495	49.66	4156	49.97
Total	7038	100.00	8317	100.00

Figure 10 and **Table 10** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and CPRA at listing. The distribution of CPRA at listing did not change after policy implementation, with roughly 71% of additions having CPRA 0%. The number of additions increased post-policy across all CPRA categories.

Figure 10: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and CPRA at Listing

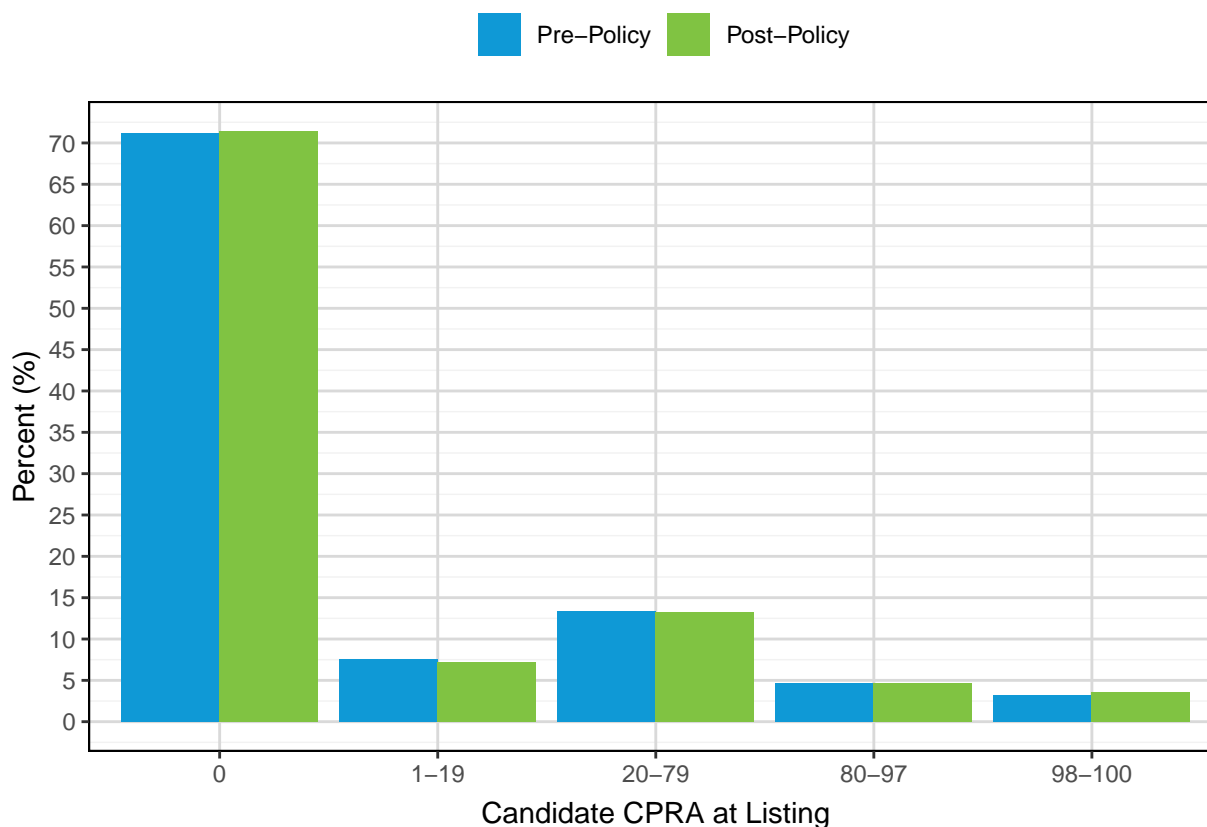


Table 10: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and CPRA at Listing

CPRA	Pre-Policy		Post-Policy	
	N	%	N	%
0	5011	71.20	5940	71.42
1-19	536	7.62	594	7.14
20-79	940	13.36	1098	13.20
80-97	326	4.63	386	4.64
98-100	225	3.20	299	3.60
Total	7038	100.00	8317	100.00

Figure 11 and **Table 11** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and primary diagnosis at listing. Prior to policy implementation the majority of candidates listed were diagnosed with diabetes at listing, but this decreased after the change (31.44% to 29.6%). The proportion of candidates listed with a diagnosis other than diabetes, glomerular disease, hypertensive nephrosclerosis, or polycystic kidney disease increased from 31.2% to 33.55% post-policy. There was an increase in the number of additions for all diagnosis groups.

Figure 11: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Diagnosis at Listing

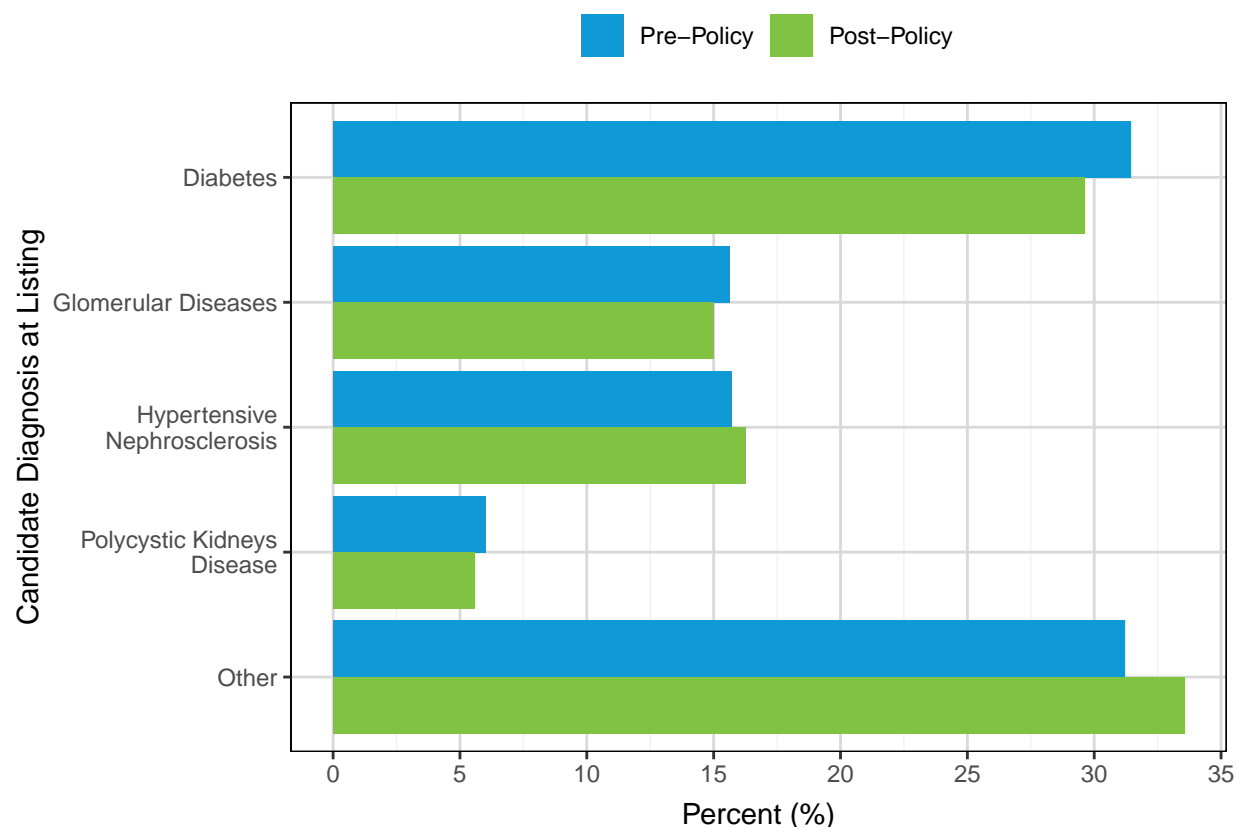


Table 11: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Diagnosis at Listing

Diagnosis	Pre-Policy		Post-Policy	
	N	%	N	%
Diabetes	2213	31.44	2462	29.60
Glomerular Diseases	1099	15.62	1248	15.01
Hypertensive Nephrosclerosis	1106	15.71	1353	16.27
Polycystic Kidneys Disease	424	6.02	464	5.58
Other	2196	31.20	2790	33.55
Total	7038	100.00	8317	100.00

Figure 12 and **Table 12** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and dialysis status at listing as reported to the OPTN. Close to two thirds of candidates were on dialysis at listing both pre- and post-policy.

Figure 12: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Dialysis Status at Listing

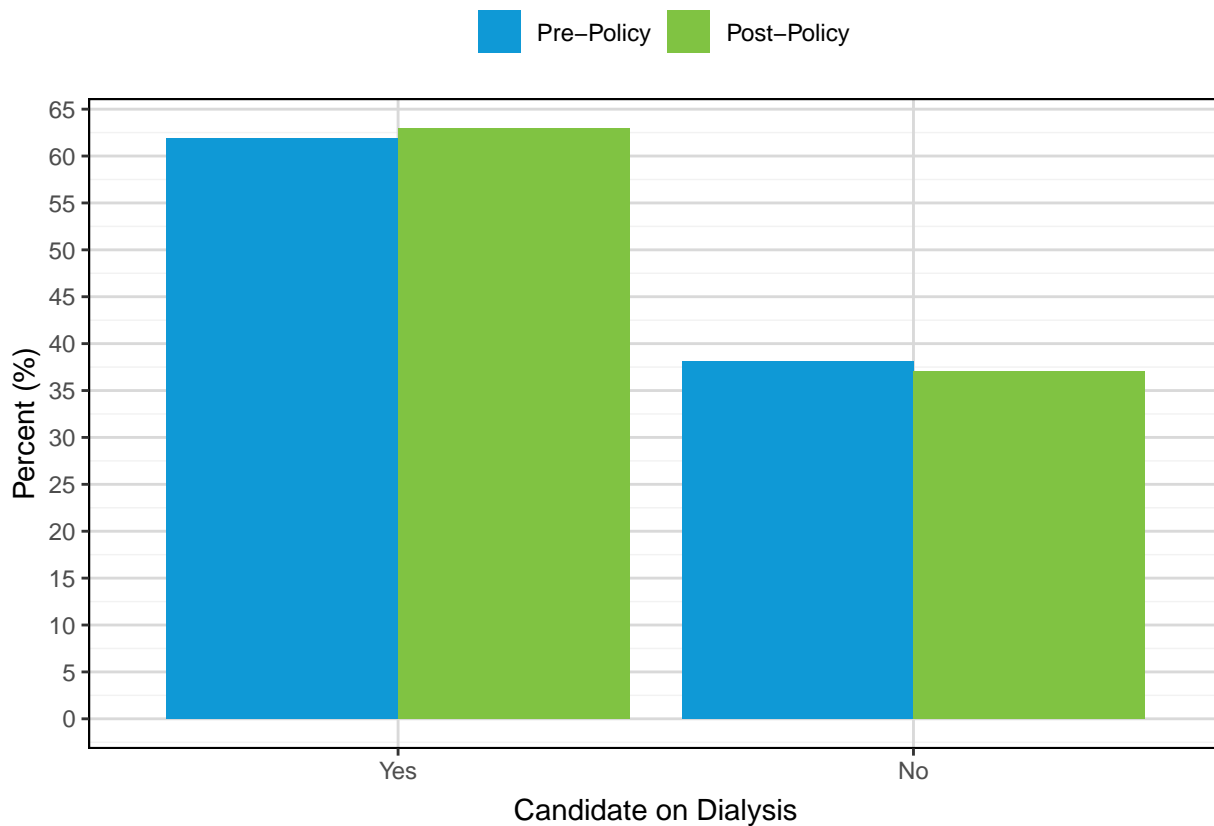


Table 12: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Dialysis Status at Listing

Dialysis	Pre-Policy		Post-Policy	
	N	%	N	%
Yes	4358	61.92	5236	62.96
No	2680	38.08	3081	37.04
Total	7038	100.00	8317	100.00

Figure 13 and **Table 13** show the distribution of time on dialysis at listing as reported to the OPTN for kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era. Outliers are not shown in the figure. Median dialysis time was roughly one and a half years both pre- and post-policy.

Figure 13: Distribution of Time on Dialysis at Listing for Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era

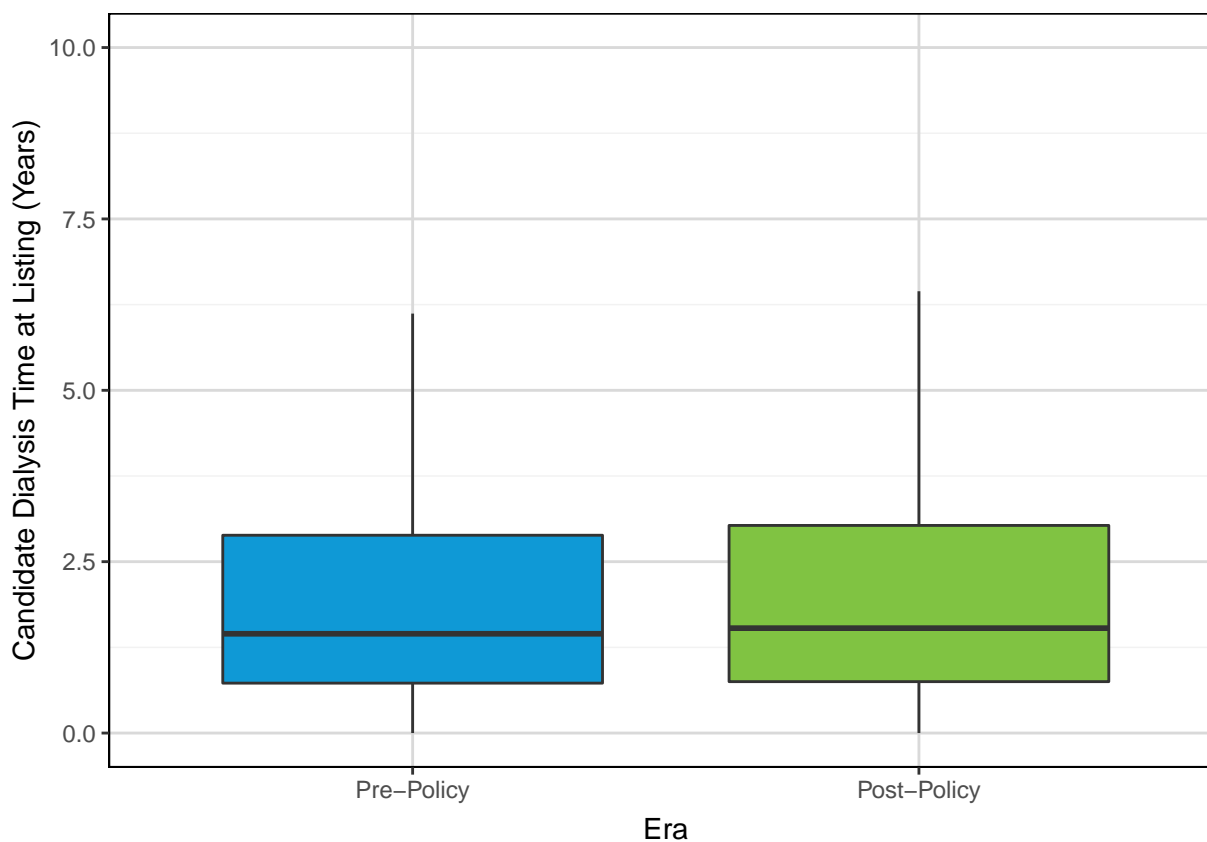


Table 13: Distribution of Time on Dialysis at Listing for Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era

Era	N	Min	25th %-tile	Med	Mean	75th %-tile	Max
Pre-Policy	4358	0	0.7446954	1.486653	2.392817	3.073237	26.39288
Post-Policy	5236	0	0.7693361	1.582478	2.570860	3.294319	28.33676

Figure 14 and **Table 14** show kidney registrations added to the waiting list from January 15, 2021 to May 14, 2021 by policy era and insurance status at listing. The majority of candidates listed both pre- and post-policy were using public insurance. The proportion of registrations added with unknown insurance increased from 0.64% to 3.01% after policy implementation, though this is likely due to outstanding TCR forms at the time this analysis was completed.

Figure 14: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Insurance Status at Listing

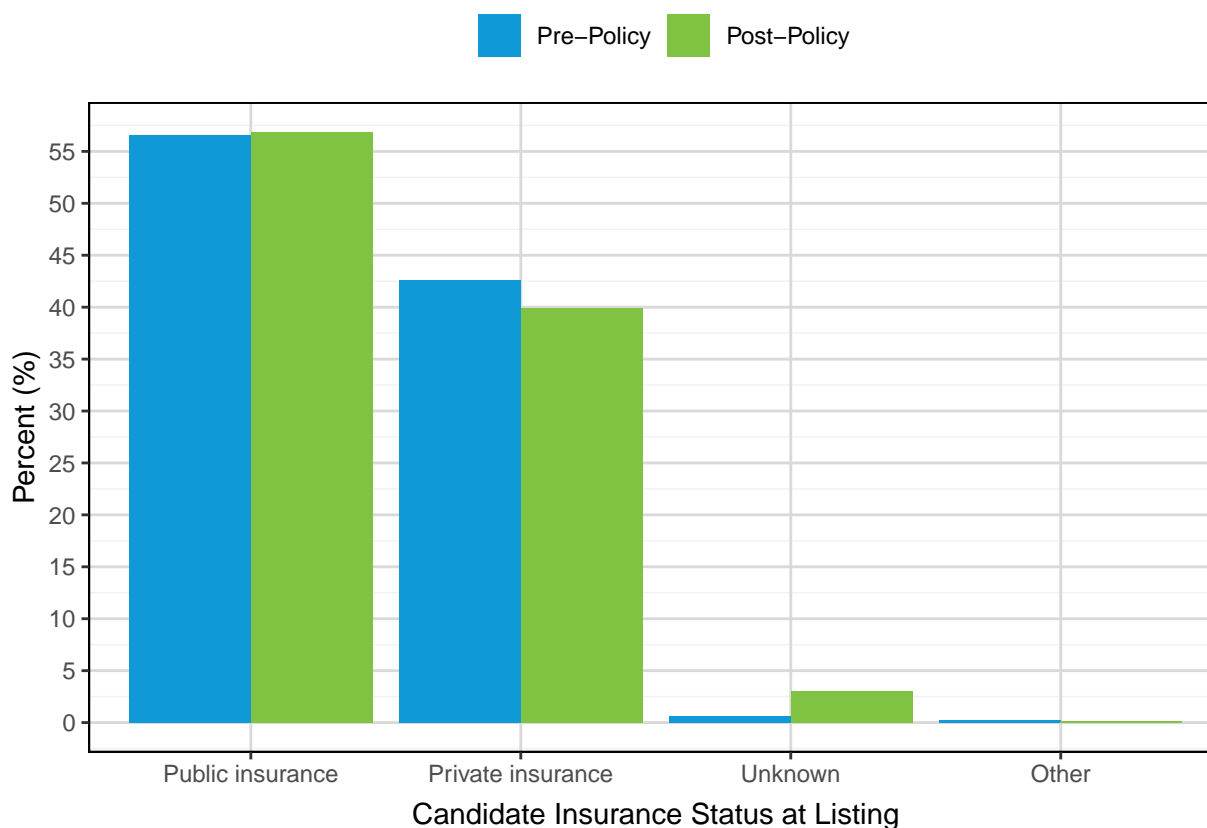


Table 14: Kidney Registrations Added January 15, 2021 - May 14, 2021 by Policy Era and Insurance Status at Listing

Insurance at Listing	Pre-Policy		Post-Policy	
	N	%	N	%
Public insurance	3979	56.54	4729	56.86
Private insurance	2999	42.61	3323	39.95
Unknown	45	0.64	250	3.01
Other	15	0.21	15	0.18
Total	7038	100.00	8317	100.00

Figure 15 and **Table 15** show deceased donor transplants per 100 patient years for kidney registrations ever waiting between January 15, 2021 and May 14, 2021 by policy era. The overall deceased donor kidney transplant rate increased from 19.84 to 22.42 transplants per 100 patient years.

Figure 15: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era

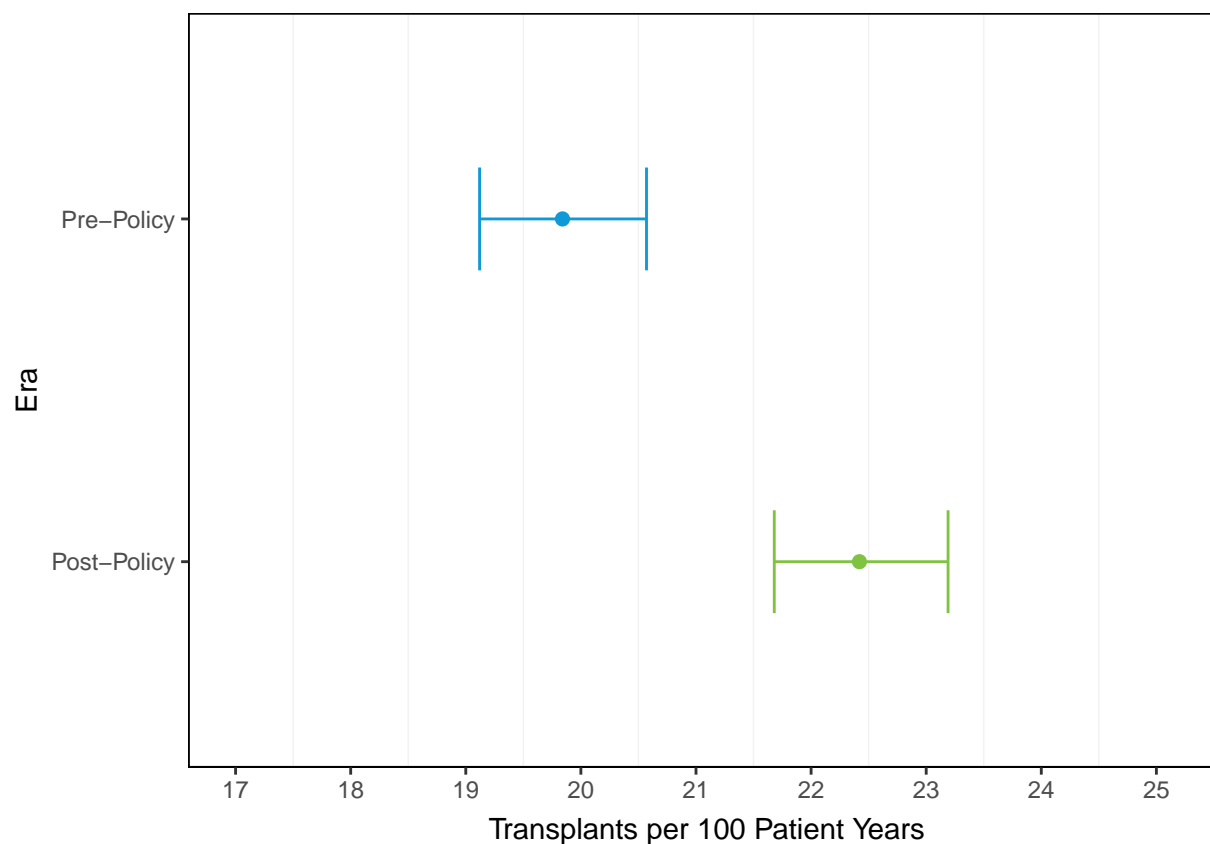


Table 15: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era

Era	Registrations	Transplants	Transplants per 100 Patient Years	95% CI
Pre-Policy	96350	2908	19.84	(19.12, 20.57)
Post-Policy	97109	3396	22.42	(21.68, 23.19)

Figure 16 and **Table 16** show deceased donor transplants per 100 patient years for kidney registrations ever waiting between January 15, 2021 and May 14, 2021 by policy era and age at listing. The deceased donor kidney transplant rate for registrations aged 0 to 17 years at listing increased from 35.95 to 55.23 transplants per 100 patient years. An increase was also observed for registrations 18 to 34 and 50 to 64 years, shifting from 21.17 to 26.21 and 16.83 to 19.8 transplants per 100 patient years respectively. There was no change in transplant rate for registrations aged 35 to 49 or 65+ years.

Figure 16: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and Age at Listing

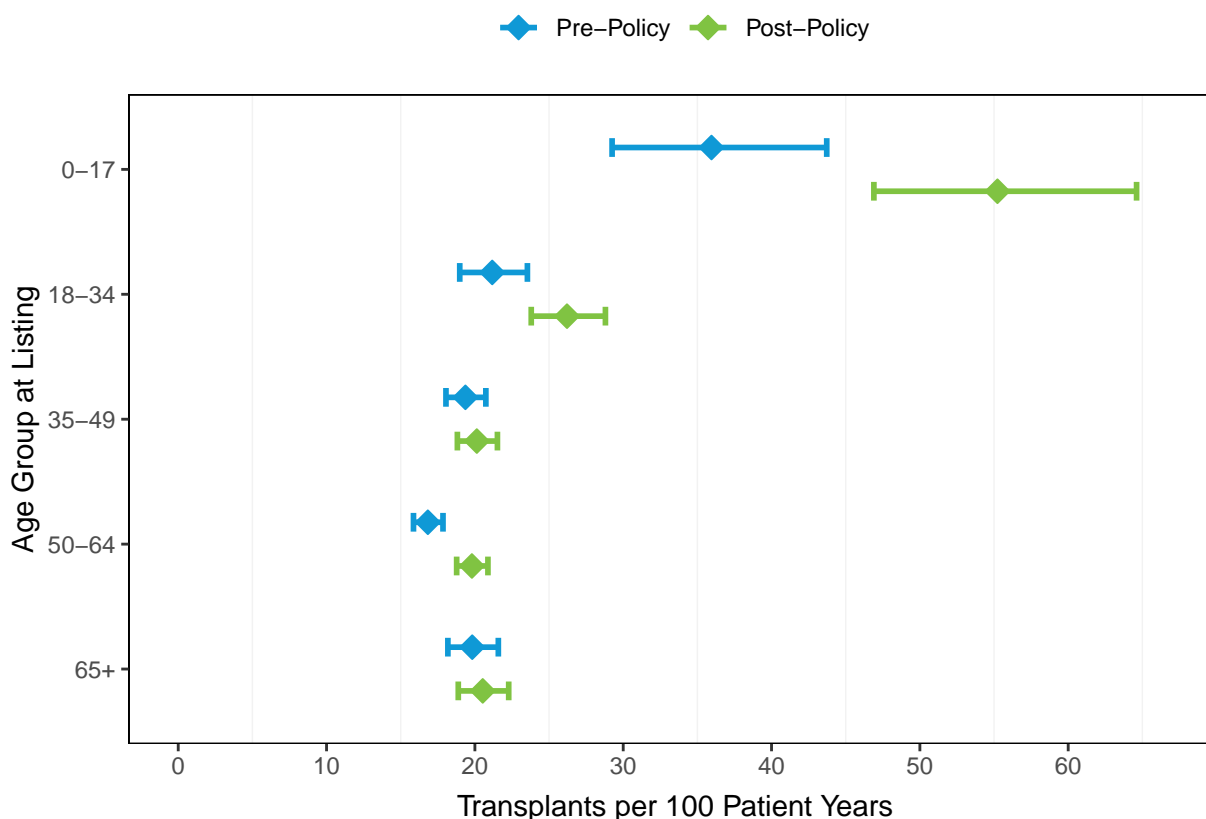


Table 16: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and Age at Listing

Age at Listing	Era	Registrations	Transplants	Transplants per 100 Patient Years	95% CI
0-17	Pre-Policy	1878	100	35.95	(29.25, 43.72)
	Post-Policy	1911	156	55.23	(46.9, 64.61)
18-34	Pre-Policy	10608	340	21.17	(18.98, 23.54)
	Post-Policy	10671	432	26.21	(23.8, 28.8)
35-49	Pre-Policy	27523	810	19.36	(18.05, 20.74)
	Post-Policy	27721	870	20.13	(18.82, 21.52)
50-64	Pre-Policy	43817	1122	16.83	(15.86, 17.85)
	Post-Policy	44061	1364	19.80	(18.77, 20.88)
65+	Pre-Policy	17972	536	19.82	(18.18, 21.58)
	Post-Policy	18163	574	20.53	(18.88, 22.28)

Figure 17 and **Table 17** show deceased donor transplants per 100 patient years for kidney registrations ever waiting between January 15, 2021 and May 14, 2021 by policy era and gender. The transplant rate for female registrations increased from 19.72 to 23.64 transplants per 100 patient years. The rate for male registrations did not change.

Figure 17: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and Gender

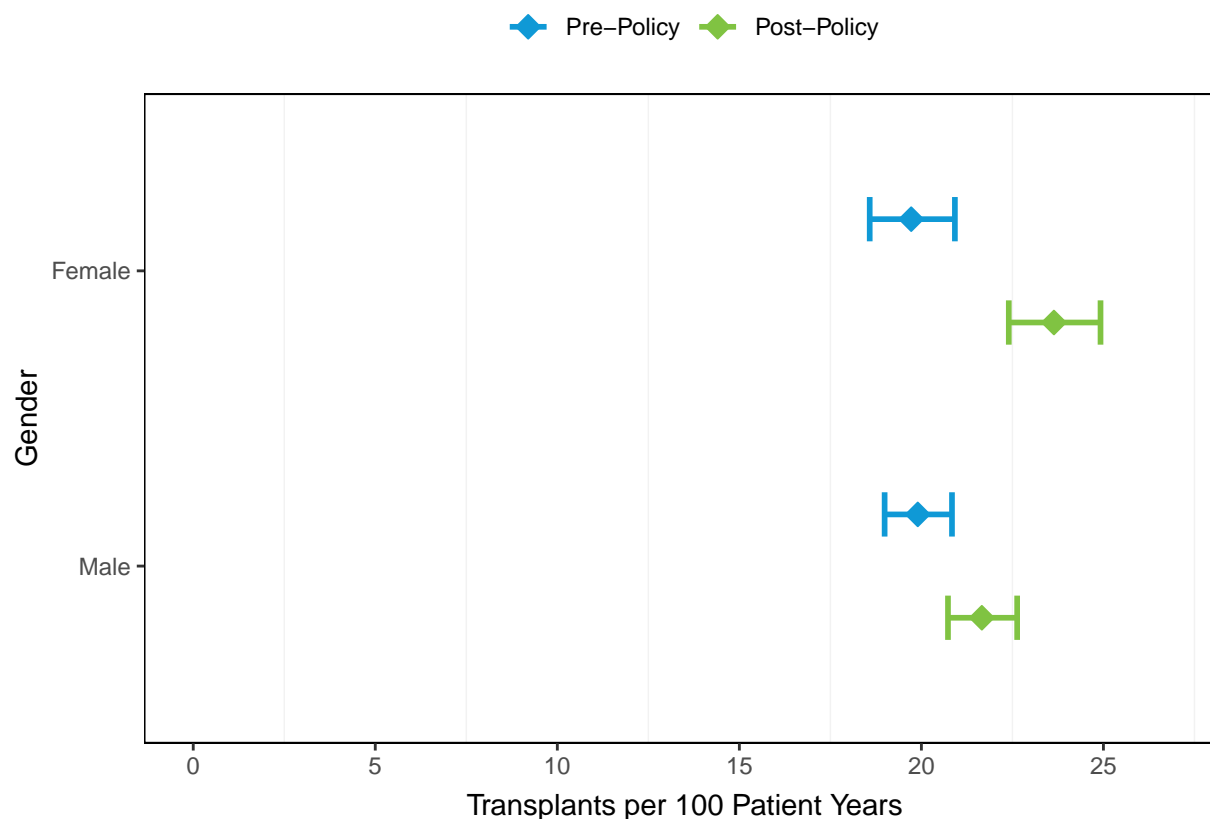


Table 17: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and Gender

Gender	Era	Registrations	Transplants	Transplants per 100 Patient Years	95% CI
Female	Pre-Policy	36911	1109	19.72	(18.58, 20.92)
	Post-Policy	37215	1373	23.64	(22.4, 24.92)
Male	Pre-Policy	59464	1799	19.90	(18.99, 20.84)
	Post-Policy	59920	2023	21.66	(20.73, 22.63)

Figure 18 and **Table 18** show deceased donor transplants per 100 patient years for kidney registrations ever waiting between January 15, 2021 and May 14, 2021 by policy era and ethnicity. The transplant rate for Black and Hispanic registrations increased from 21.20 to 24.12 and 17.31 to 22.62 transplants per 100 patient years respectively. There was no change in transplant rate for registrations of other ethnicities.

Figure 18: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and Ethnicity

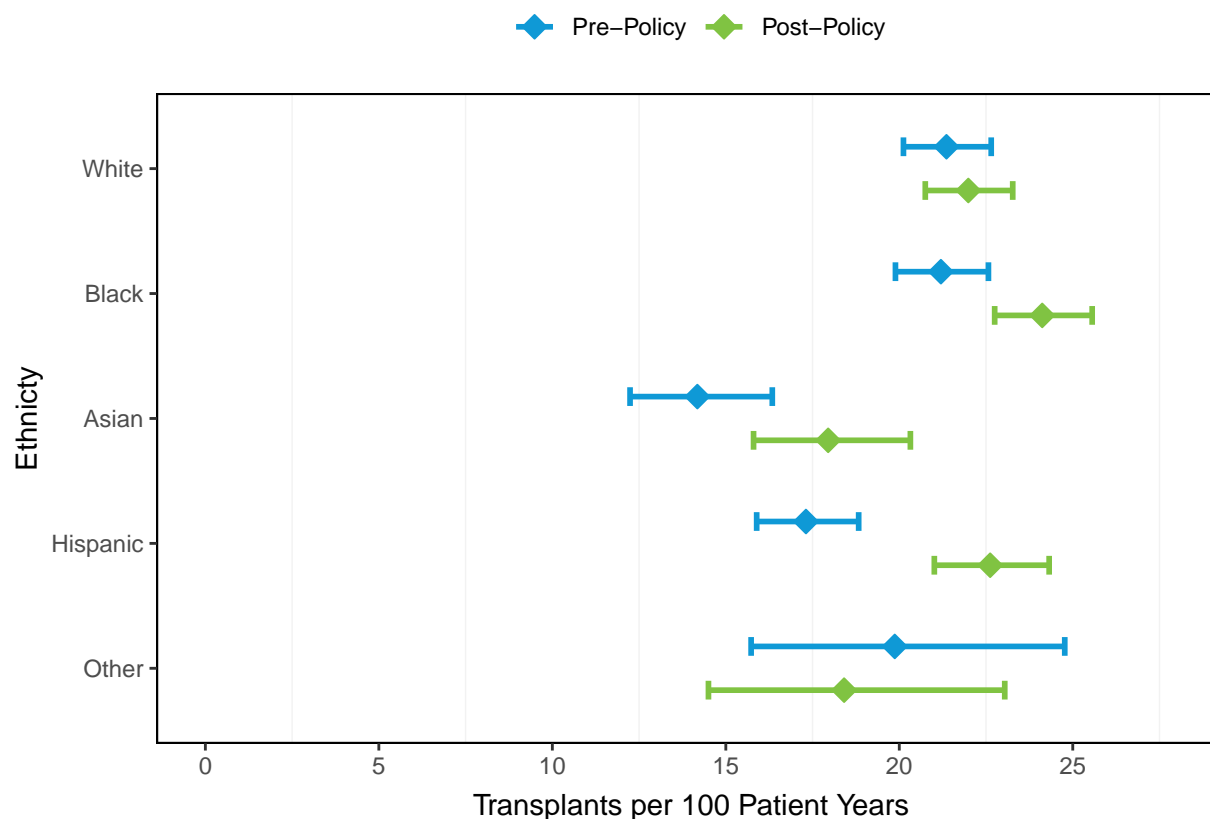


Table 18: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and Ethnicity

Ethnicity	Era	Registrations	Transplants	Transplants per 100 Patient Years	95% CI
White	Pre-Policy	34681	1113	21.36	(20.12, 22.65)
	Post-Policy	35076	1188	21.99	(20.75, 23.27)
Black	Pre-Policy	30254	981	21.20	(19.89, 22.57)
	Post-Policy	30408	1151	24.12	(22.75, 25.56)
Asian	Pre-Policy	8735	191	14.18	(12.24, 16.34)
	Post-Policy	8829	251	17.95	(15.8, 20.32)
Hispanic	Pre-Policy	20515	544	17.31	(15.89, 18.83)
	Post-Policy	20636	730	22.62	(21.01, 24.32)
Other	Pre-Policy	2625	79	19.87	(15.73, 24.77)
	Post-Policy	2635	76	18.41	(14.5, 23.04)

Figure 19 and **Table 19** show deceased donor transplants per 100 patient years for kidney registrations ever waiting between January 15, 2021 and May 14, 2021 by policy era and CPRA at listing. Transplant rates across CPRA remained unchanged with the exception of registrations with CPRA 80-97%. Rates for that group increased from 21.98 to 39.48 transplants per 100 patient years.

Figure 19: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and CPRA at Listing

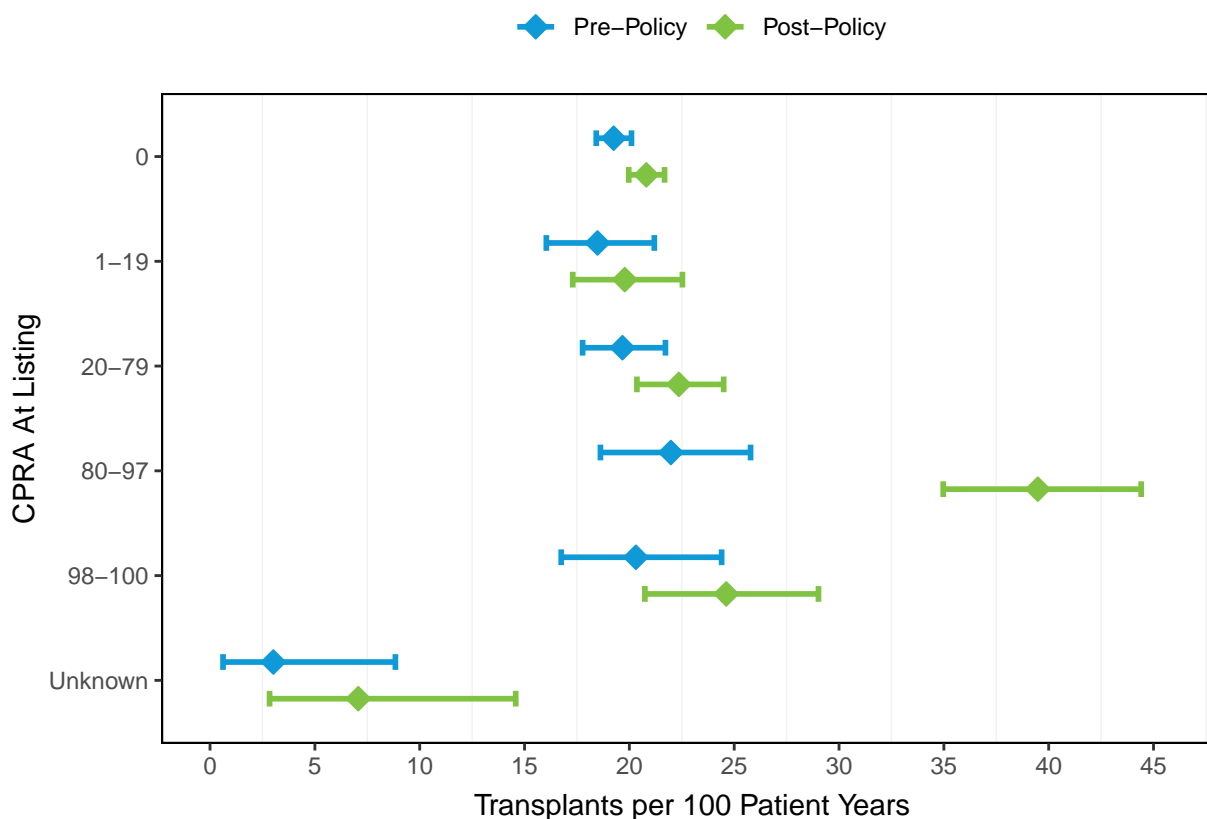


Table 19: Transplants per 100 Patients Years for Kidney Registrations Ever Waiting January 15, 2021 - May 14, 2021 by Policy Era and CPRA at Listing

CPRA	Era	Registrations	Transplants	Transplants per 100 Patient Years	95% CI
0	Pre-Policy	69795	2043	19.25	(18.42, 20.1)
	Post-Policy	70352	2282	20.81	(19.97, 21.68)
1-19	Pre-Policy	7371	206	18.48	(16.04, 21.19)
	Post-Policy	7412	228	19.78	(17.3, 22.53)
20-79	Pre-Policy	13118	391	19.67	(17.77, 21.72)
	Post-Policy	13242	460	22.36	(20.36, 24.5)
80-97	Pre-Policy	4542	151	21.98	(18.62, 25.78)
	Post-Policy	4559	277	39.48	(34.97, 44.41)
98-100	Pre-Policy	3690	114	20.31	(16.75, 24.4)
	Post-Policy	3704	142	24.62	(20.74, 29.02)
Unknown	Pre-Policy	625	3	3.02	(0.62, 8.84)
	Post-Policy	603	7	7.07	(2.84, 14.58)

Transplants

Figure 20 and **Table 20** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era. There were 2918 transplants performed pre-policy, and 3402 performed post-policy.

Figure 20: Deceased Donor Kidney Transplants January 15, 2021 - May 14, 2021 by Policy Era

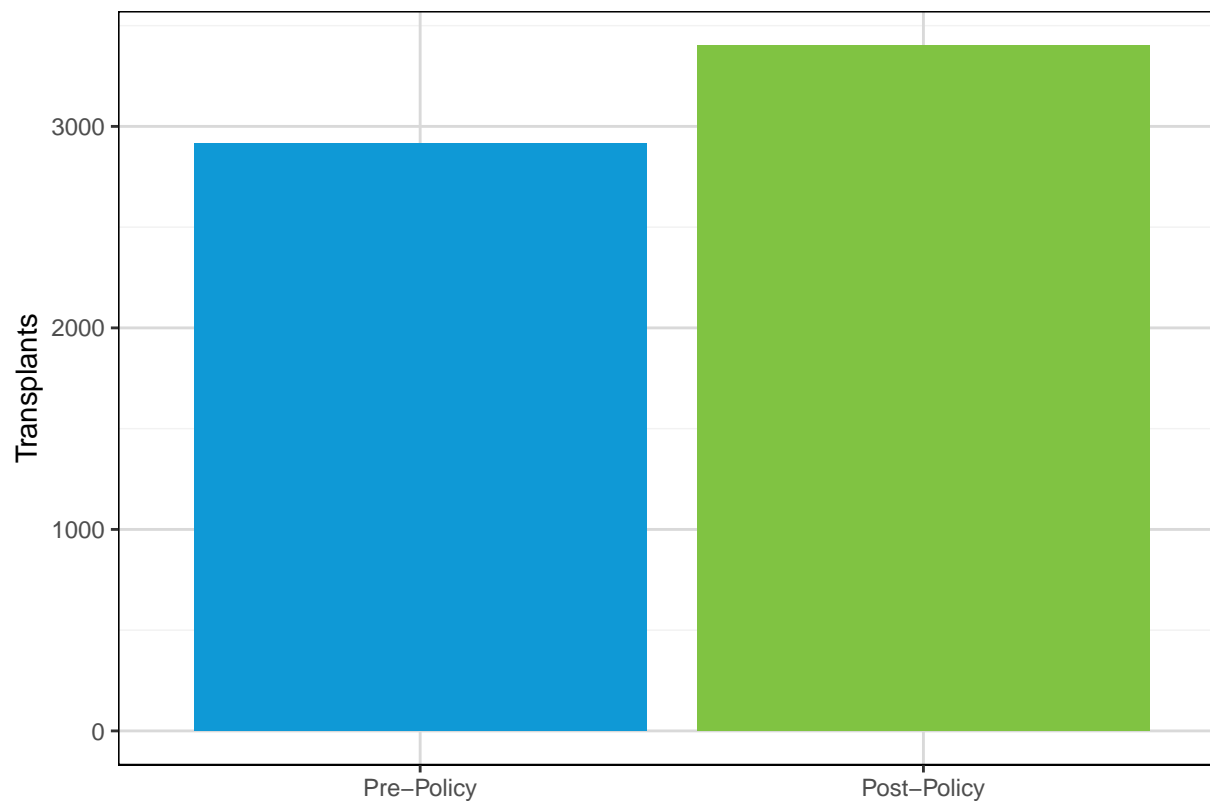
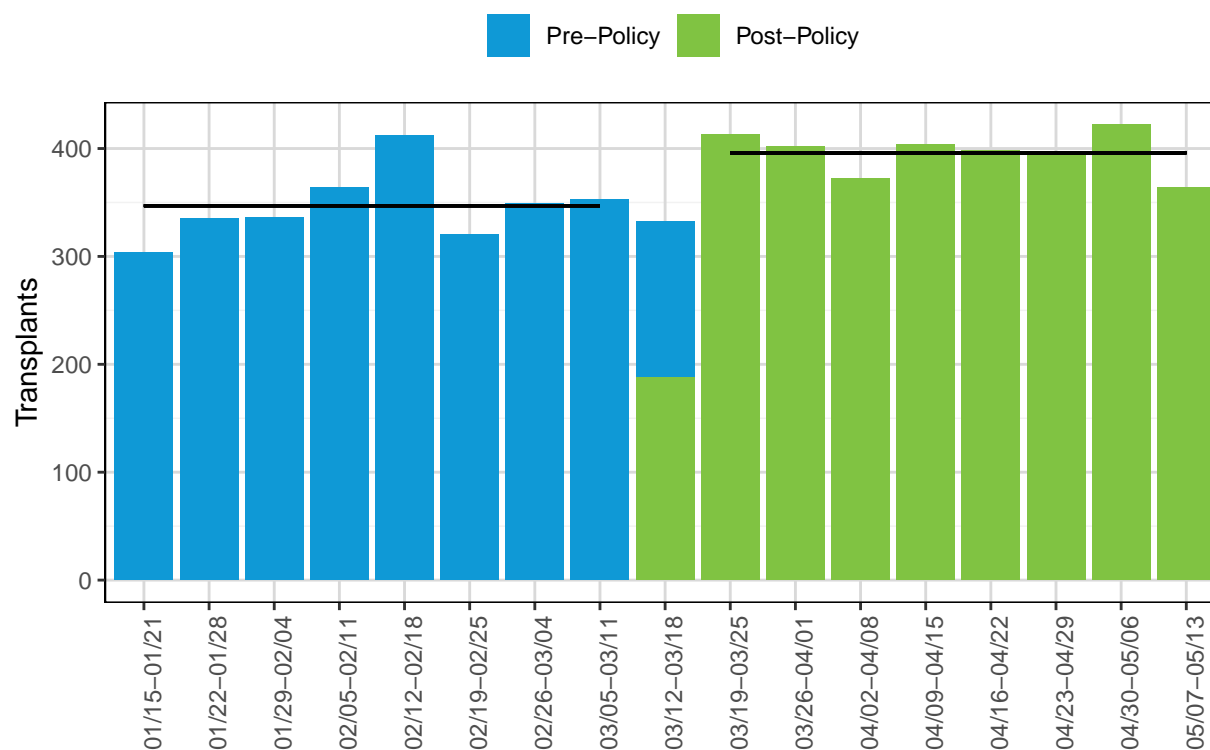


Table 20: Deceased Donor Kidney Transplants January 15, 2021 - May 14, 2021 by Policy Era

Era	Transplants
Pre-Policy	2918
Post-Policy	3402

Figure 21 and **Table 21** show weekly deceased donor kidney transplants from January 15, 2021 to May 13, 2021. The average number of transplants per week was 347 pre-policy and 396 post-policy.

Figure 21: Weekly Deceased Donor Kidney Transplants January 15, 2021-May 13, 2021 by Policy Era



Lines represent the average number of transplants per week.

Table 21: Weekly Deceased Donor Kidney Transplants January 15, 2021-May 13, 2021

Week	Transplants
01/15-01/21	304
01/22-01/28	335
01/29-02/04	336
02/05-02/11	364
02/12-02/18	412
02/19-02/25	320
02/26-03/04	349
03/05-03/11	353
03/12-03/18	333
03/19-03/25	413
03/26-04/01	402
04/02-04/08	372
04/09-04/15	404
04/16-04/22	398
04/23-04/29	397
04/30-05/06	422
05/07-05/13	364

Figure 22 and **Table 22** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and recipient age at transplant. The number of transplants to all age groups increased after policy implementation. There were slight changes in the distribution of age at transplant pre- versus post-policy. The proportion of transplants to recipients aged 35 to 49 years decreased from 25.19% to 23.28%, and the proportion of transplants to recipients aged 50 to 64 years increased from 38.04% to 39.95%. The proportion of transplants to recipients aged 0 to 17 years increased from 3.06% to 3.7%.

Figure 22: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Recipient Age at Transplant

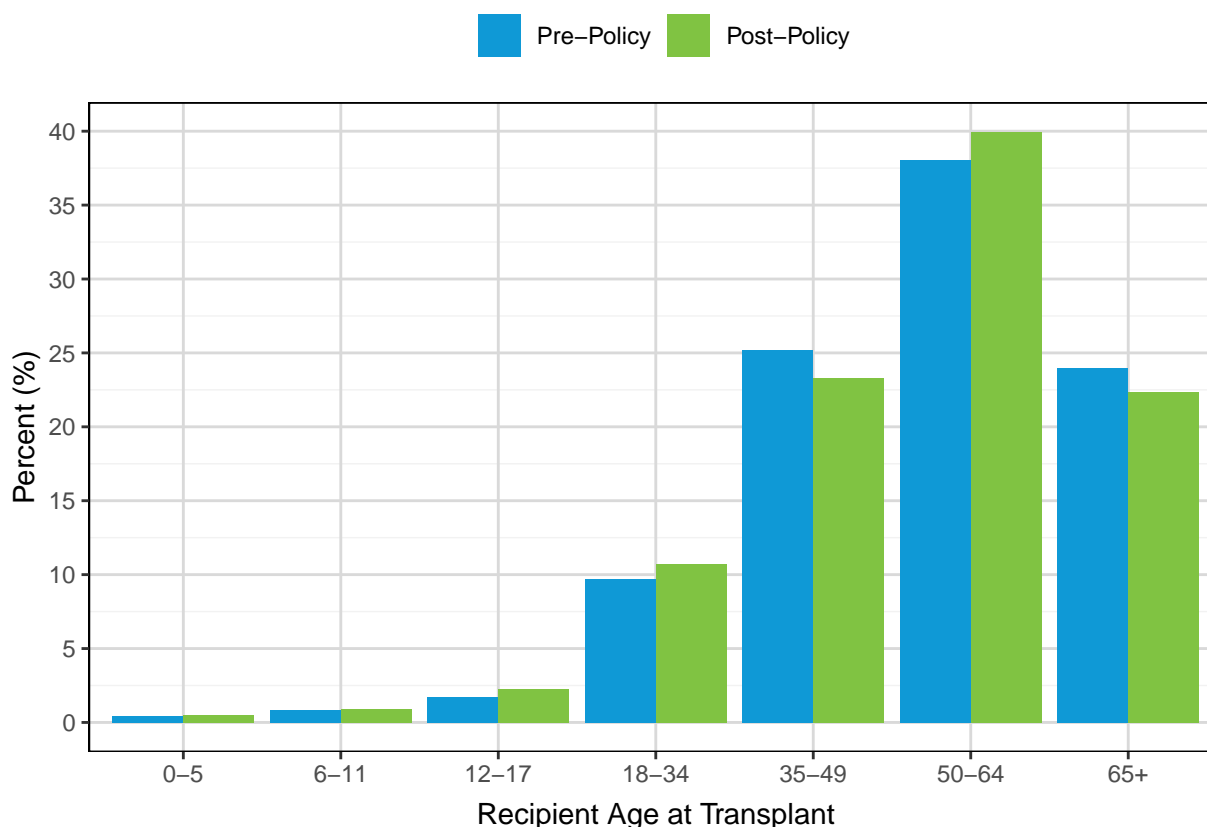


Table 22: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Recipient Age at Transplant

Age at Transplant	Pre-Policy		Post-Policy	
	N	%	N	%
0-5	13	0.45	18	0.53
6-11	25	0.86	32	0.94
12-17	51	1.75	76	2.23
18-34	284	9.73	364	10.70
35-49	735	25.19	792	23.28
50-64	1110	38.04	1359	39.95
65+	700	23.99	761	22.37
Total	2918	100.00	3402	100.00

Figure 23 and **Table 23** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and recipient ethnicity. There was an increase in transplants observed for all ethnicities after implementation, and the largest increase was seen for Hispanic recipients (546 to 731 transplants after implementation).

Figure 23: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Recipient Ethnicity

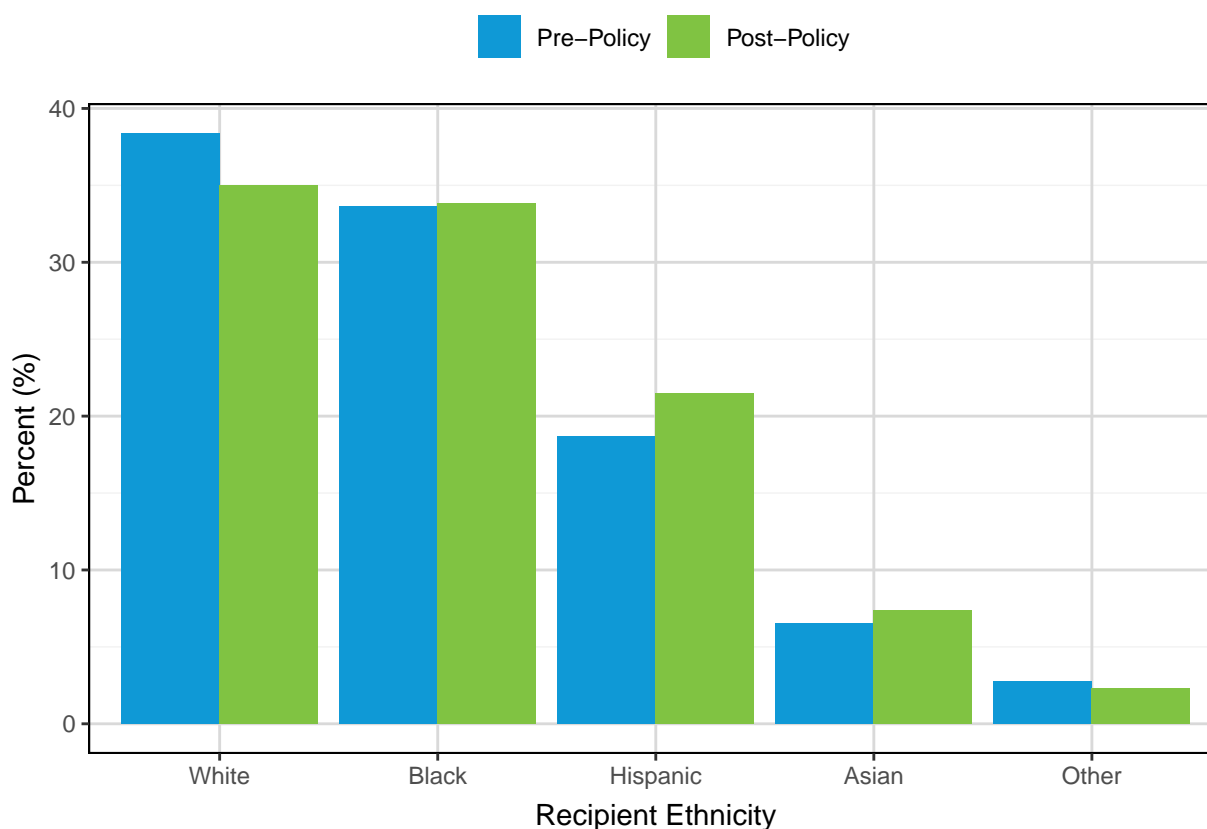


Table 23: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Recipient Ethnicity

Ethnicity	Pre-Policy		Post-Policy	
	N	%	N	%
White	1120	38.38	1190	34.98
Black	981	33.62	1152	33.86
Hispanic	546	18.71	731	21.49
Asian	191	6.55	251	7.38
Other	80	2.74	78	2.29
Total	2918	100.00	3402	100.00

Figure 24 and **Table 24** show the distribution of time on the waiting list in years for deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era. Median waiting time decreased from 1.31 to 1.24 years after policy implementation.

Figure 24: Distribution of Time on the Waiting List for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

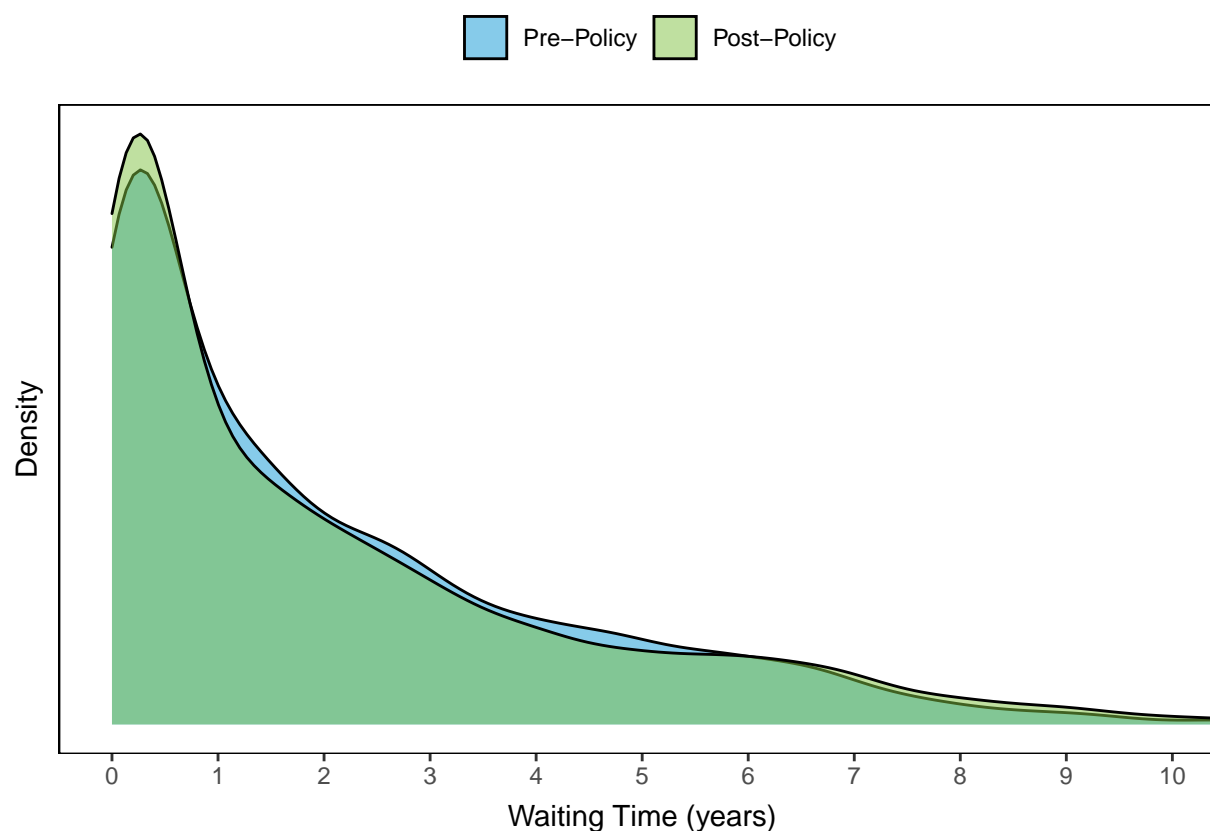


Table 24: Distribution of Waiting Time for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

Era	Total	Missing	Min	25th %-tile	Median	Mean	75th %-tile	Max
Pre-Policy	2918	0	0	0.28	1.31	2.11	3.22	34.21
Post-Policy	3402	0	0	0.25	1.24	2.14	3.22	16.90

Figure 25 and **Table 25** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and dialysis status at the time of transplant as reported to the OPTN. Roughly 82% of transplant recipients were on dialysis both pre- and post-policy implementation.

Figure 25: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Dialysis Status at Transplant

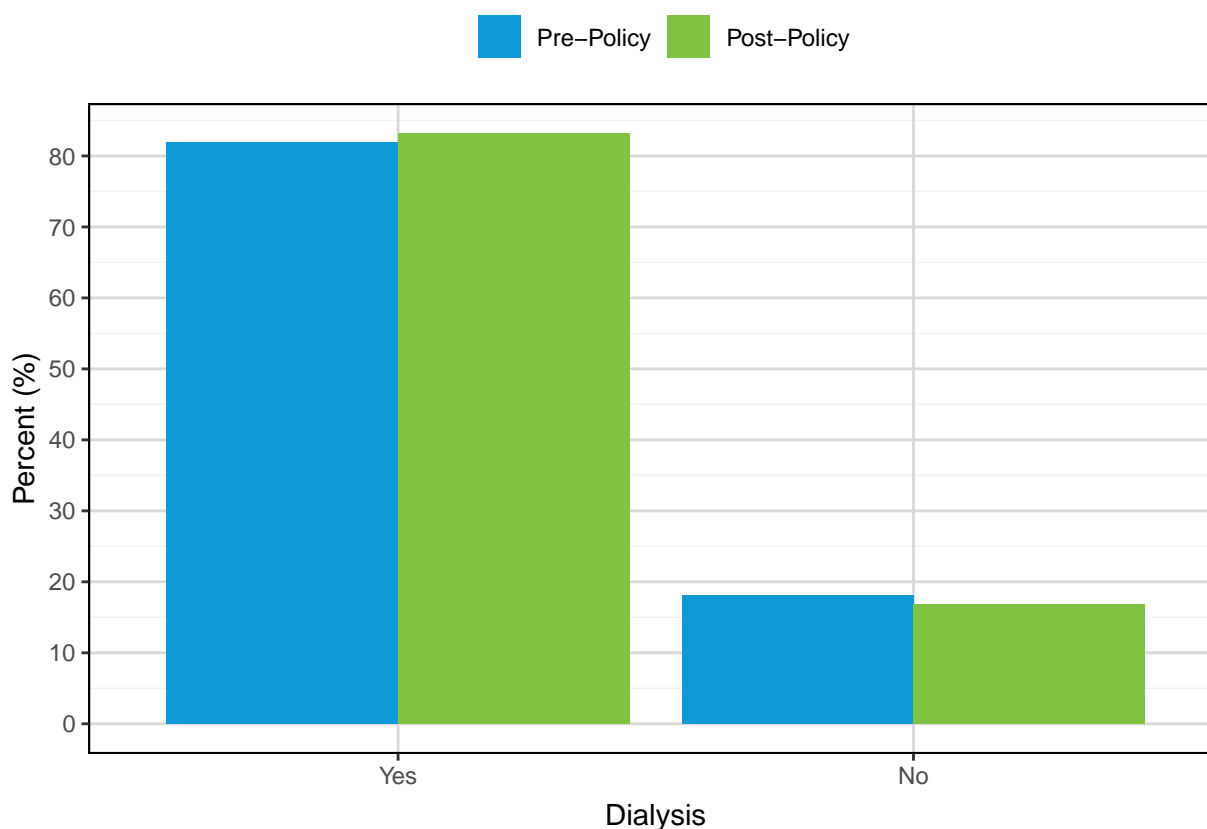


Table 25: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Dialysis Status at Transplant

Dialysis	Pre-Policy		Post-Policy	
	N	%	N	%
Yes	2391	81.94	2830	83.19
No	527	18.06	572	16.81
Total	2918	100.00	3402	100.00

Figure 26 and **Table 26** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and time on dialysis at transplant as reported to the OPTN. Median dialysis time at transplant increased from 4.1 to 4.52 years after the policy change. This increase does not imply patients need to accrue more time on dialysis in order to receive at transplant, rather patients with higher dialysis times are getting transplanted under the new system as kidneys are distributed more broadly.

Figure 26: Distribution of Time on Dialysis at Transplant for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

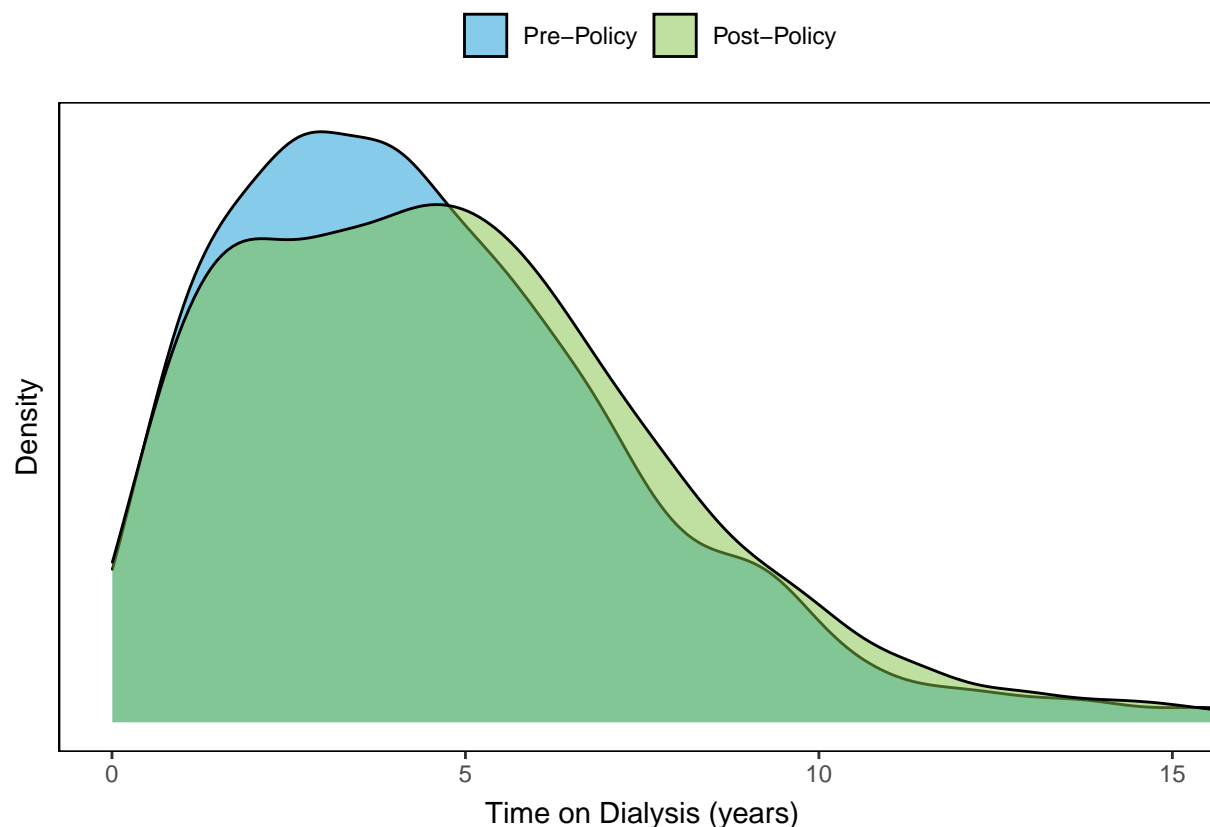


Table 26: Distribution of Time on Dialysis at Transplant for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

Era	Total	Min	25th Percentile	Median	Mean	75th Percentile	Max
Pre-Policy	2391	0.02	2.38	4.10	4.64	6.24	39.63
Post-Policy	2830	0.01	2.47	4.52	4.96	6.73	31.38

Figure 27 and **Table 27** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and recipient blood type. The majority of recipients were type O both before and after the policy change. The proportion of transplants to type B recipients increased from 13.16% to 15.2% after implementation.

Figure 27: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Recipient Blood Type

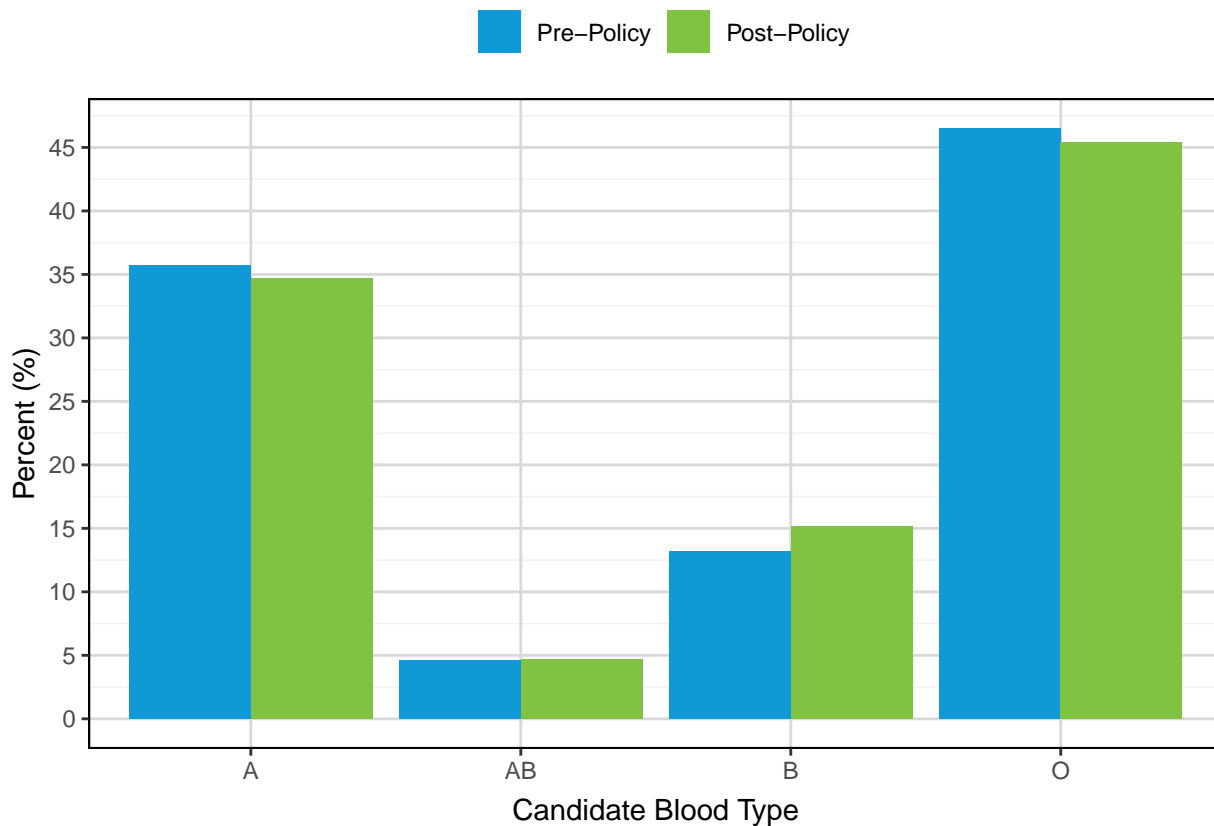


Table 27: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Recipient Blood Type

Blood Type	Pre-Policy		Post-Policy	
	N	%	N	%
A	1042	35.71	1180	34.69
AB	135	4.63	160	4.70
B	384	13.16	517	15.20
O	1357	46.50	1545	45.41
Total	2918	100.00	3402	100.00

Figure 28 and **Table 28** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and CPRA at transplant. The proportion recipients with CPRA 0% and CPRA 20-79% decreased from 60.32% to 57.58% and 17.75% to 15.49% respectively with this change. The proportion of recipients with CPRA 80-97% increased from 6.24% to 11.38% after policy implementation.

Figure 28: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and CPRA at Transplant

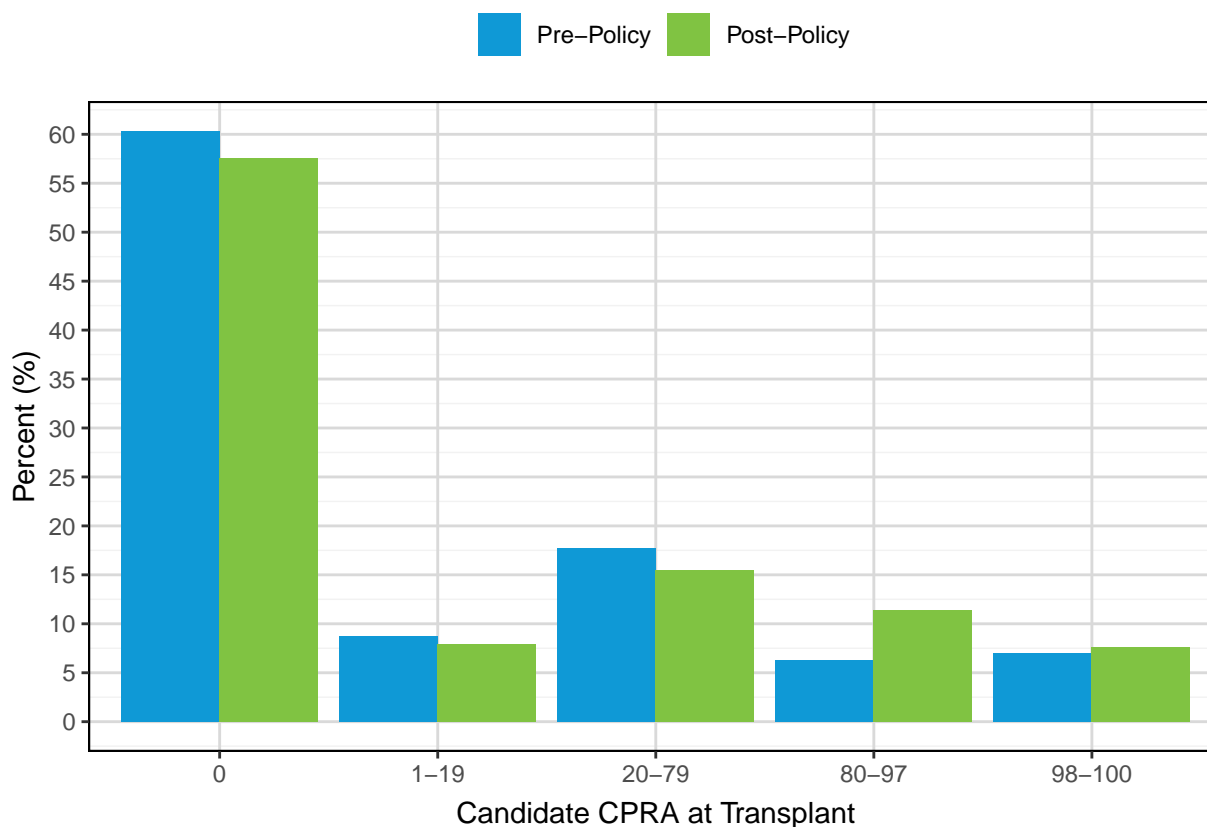


Table 28: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and CPRA at Transplant

CPRA %	Pre-Policy		Post-Policy	
	N	%	N	%
0	1760	60.32	1959	57.58
1-19	254	8.70	271	7.97
20-79	518	17.75	527	15.49
80-97	182	6.24	387	11.38
98-100	204	6.99	258	7.58
Total	2918	100.00	3402	100.00

Figure 29 and **Table 29** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and level of HLA mismatch. The proportion of 0 ABDR mismatch transplants remained stable after policy implementation, going from 4.93% to 4.33%. Little change was observed in the distribution of HLA mismatch level pre- to post-policy.

Figure 29: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and HLA Mismatch

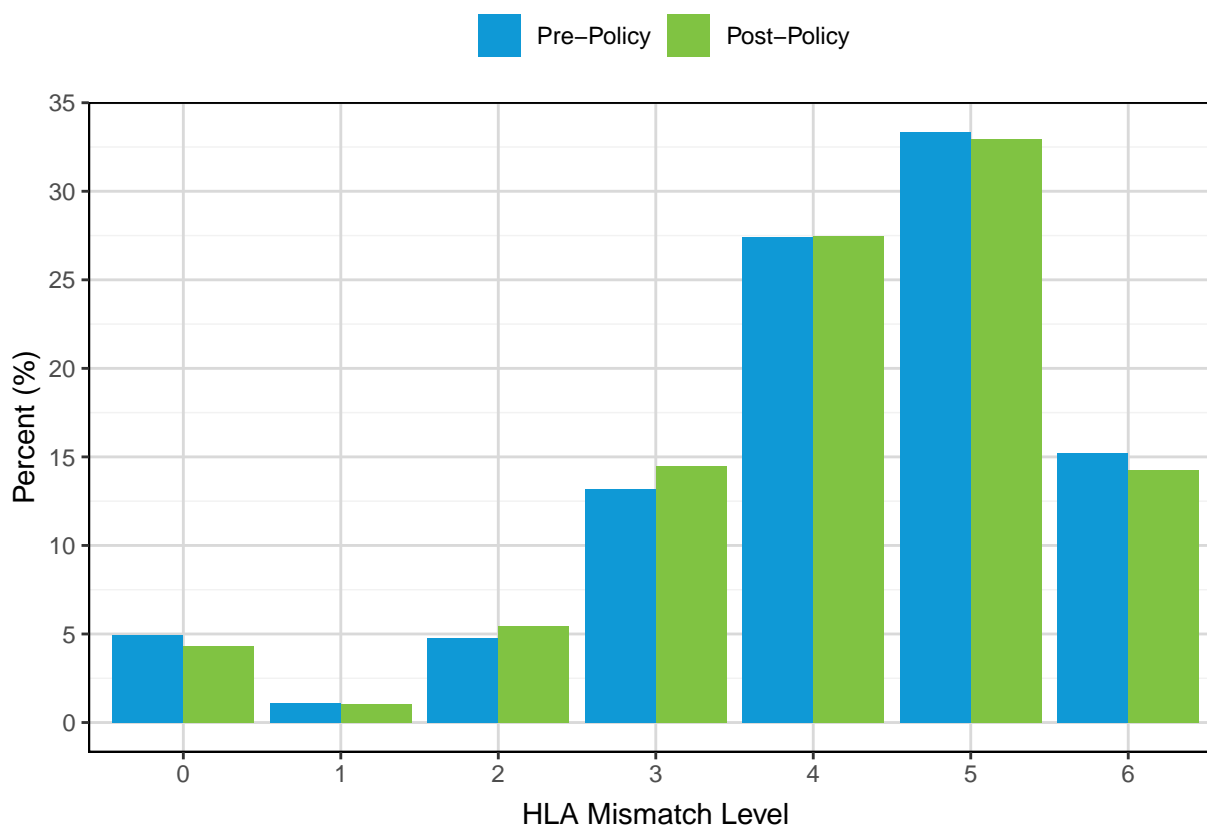


Table 29: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and HLA Mismatch

HLA Mismatch Level	Pre-Policy		Post-Policy	
	N	%	N	%
0	136	4.93	138	4.33
1	31	1.12	34	1.07
2	132	4.79	174	5.46
3	363	13.17	461	14.47
4	756	27.43	876	27.50
5	919	33.35	1049	32.93
6	419	15.20	454	14.25
Total	2756	100.00	3186	100.00

Figure 30 and **Table 30** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and primary diagnosis at transplant. Transplants with missing diagnoses were supplemented with diagnosis at listing.

The proportion of transplants to recipients diagnosed with diabetes and glomerular disease decreased from 30.23% to 28.37% and 18.16 to 17.20% respectively, though the number of transplants to recipients with either diagnosis increased. The proportion of transplants to recipients with a diagnosis other than diabetes, glomerular disease, hypertensive nephrosclerosis, or polycystic kidney disease increased from 24.16% to 26.01% after the policy change.

Figure 30: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Diagnosis at Transplant

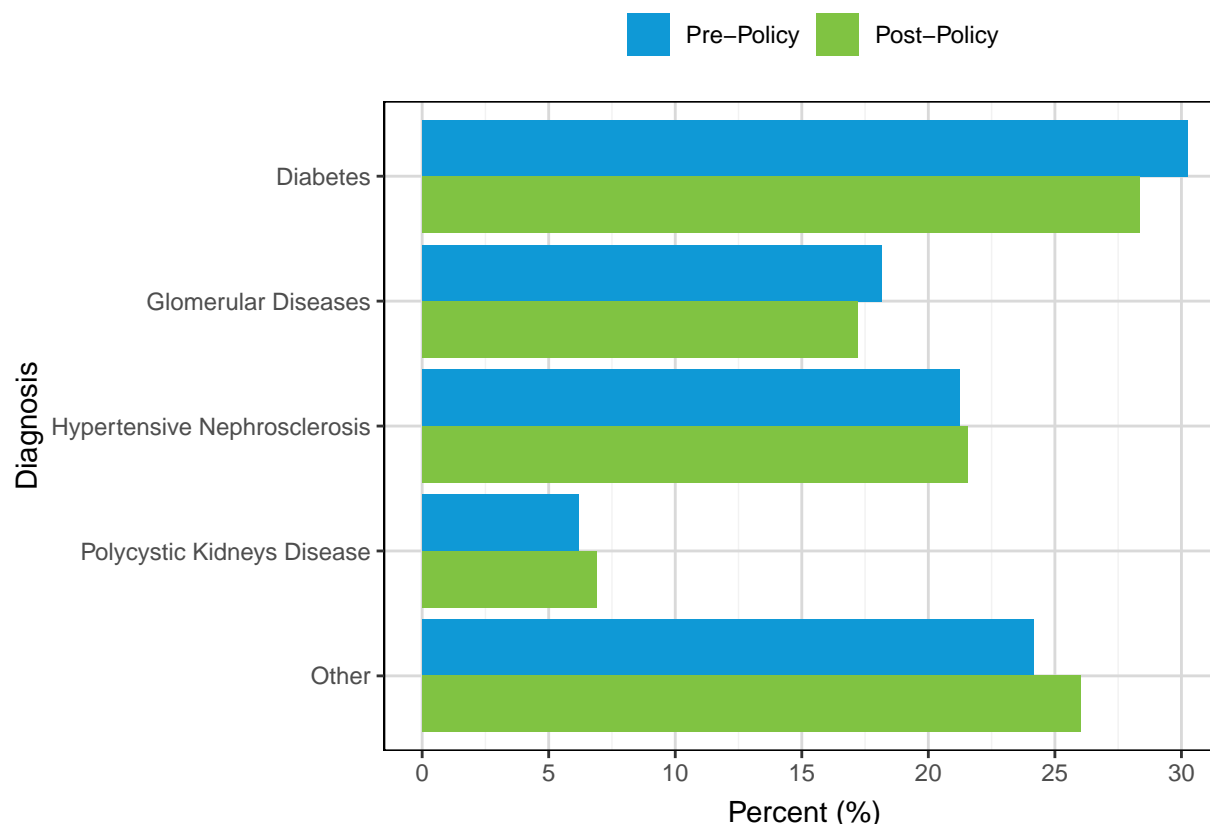


Table 30: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Diagnosis at Transplant

Diagnosis	Pre-Policy		Post-Policy	
	N	%	N	%
Diabetes	882	30.23	965	28.37
Glomerular Diseases	530	18.16	585	17.20
Hypertensive Nephrosclerosis	620	21.25	733	21.55
Polycystic Kidneys Disease	181	6.20	234	6.88
Other	705	24.16	885	26.01
Total	2918	100.00	3402	100.00

Figure 31 and **Table 31** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and EPTS at transplant. There was little change in the distribution of EPTS at transplant after the policy was implemented.

Figure 31: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and EPTS at Transplant

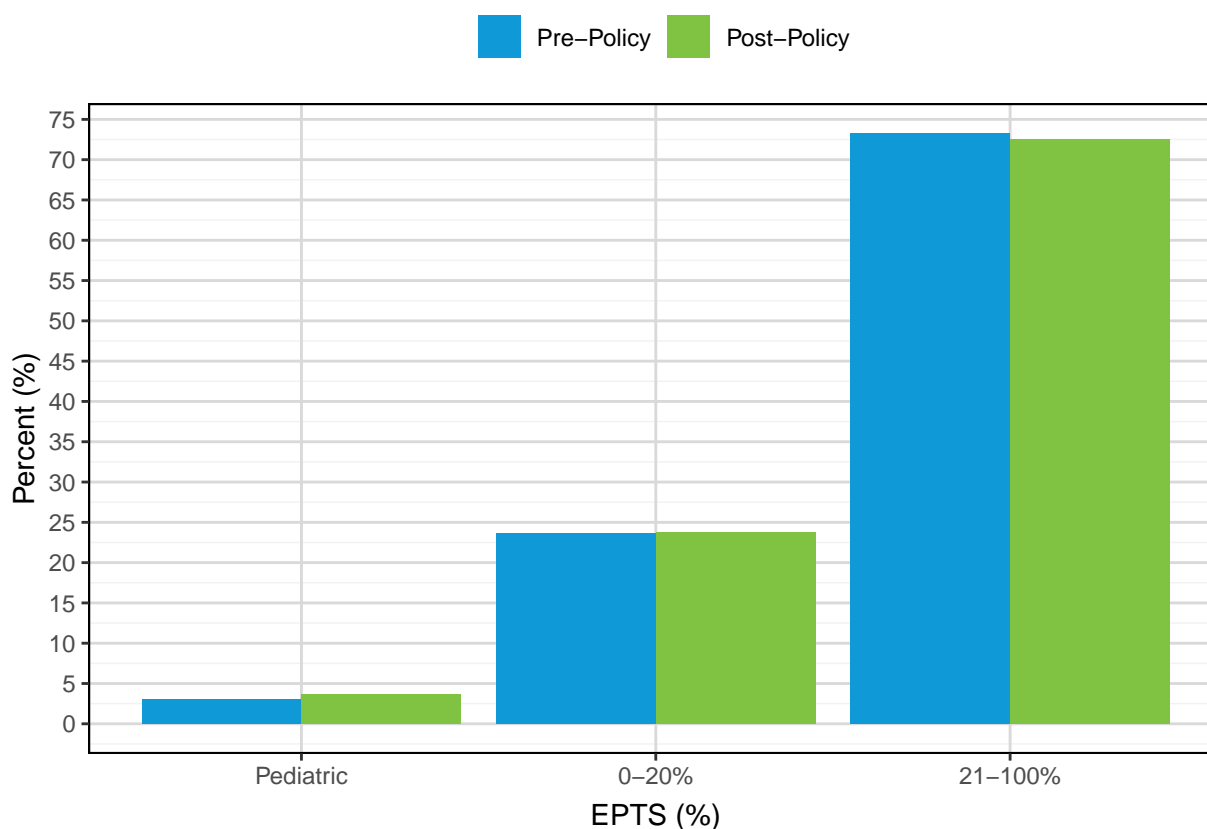


Table 31: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and EPTS at Transplant

EPTS	Pre-Policy		Post-Policy	
	N	%	N	%
Pediatric	89	3.05	126	3.70
0-20%	691	23.68	810	23.81
21-100%	2138	73.27	2466	72.49
Total	2918	100.00	3402	100.00

Figure 32 and **Table 32** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and KDPI. There was little change in the distribution of KDPI after the policy was implemented.

Figure 32: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and KDPI

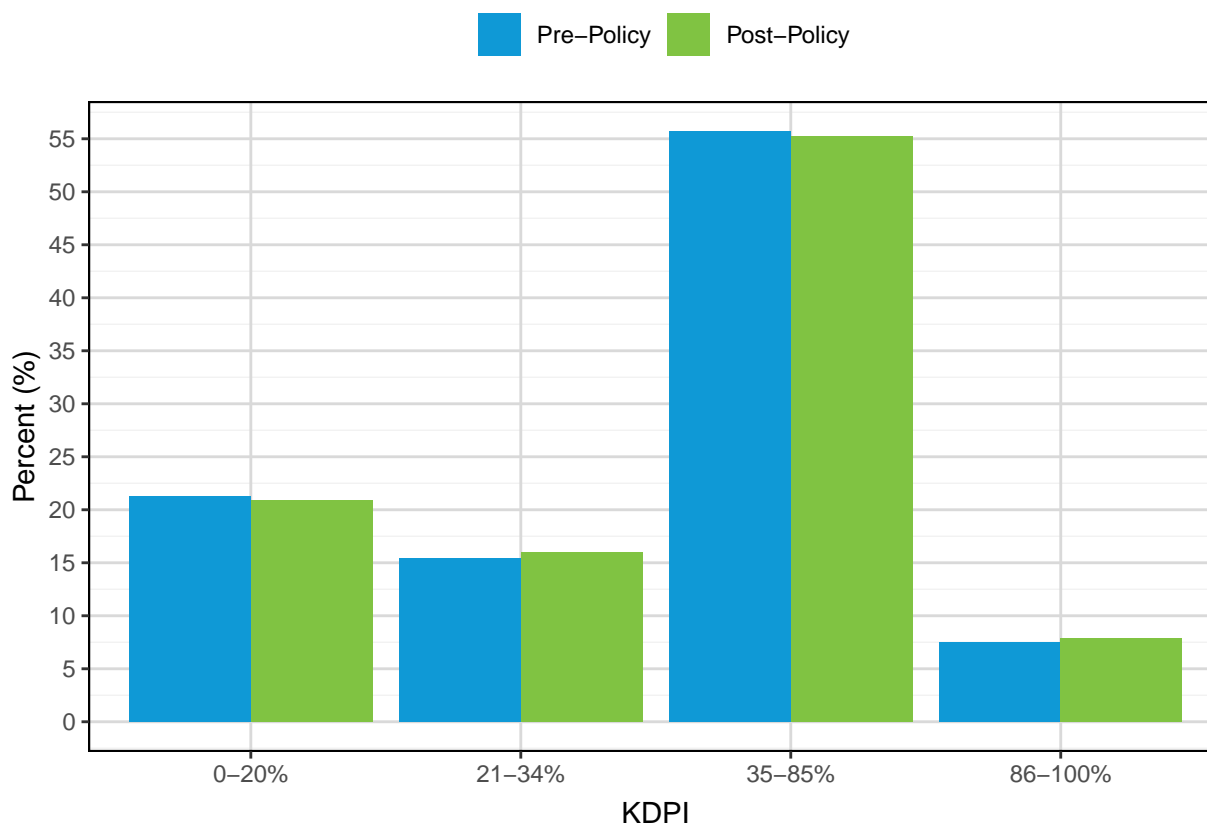


Table 32: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and KDPI

KDPI	Pre-Policy		Post-Policy	
	N	%	N	%
0-20%	621	21.29	712	20.94
21-34%	451	15.46	543	15.97
35-85%	1625	55.71	1878	55.24
86-100%	220	7.54	267	7.85
Total	2917	100.00	3400	100.00

Figure 33 and **Table 33** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and donor DCD status. Roughly 30% of transplants used kidneys recovered from DCD donors both pre- and post-policy.

Figure 33: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and DCD Status

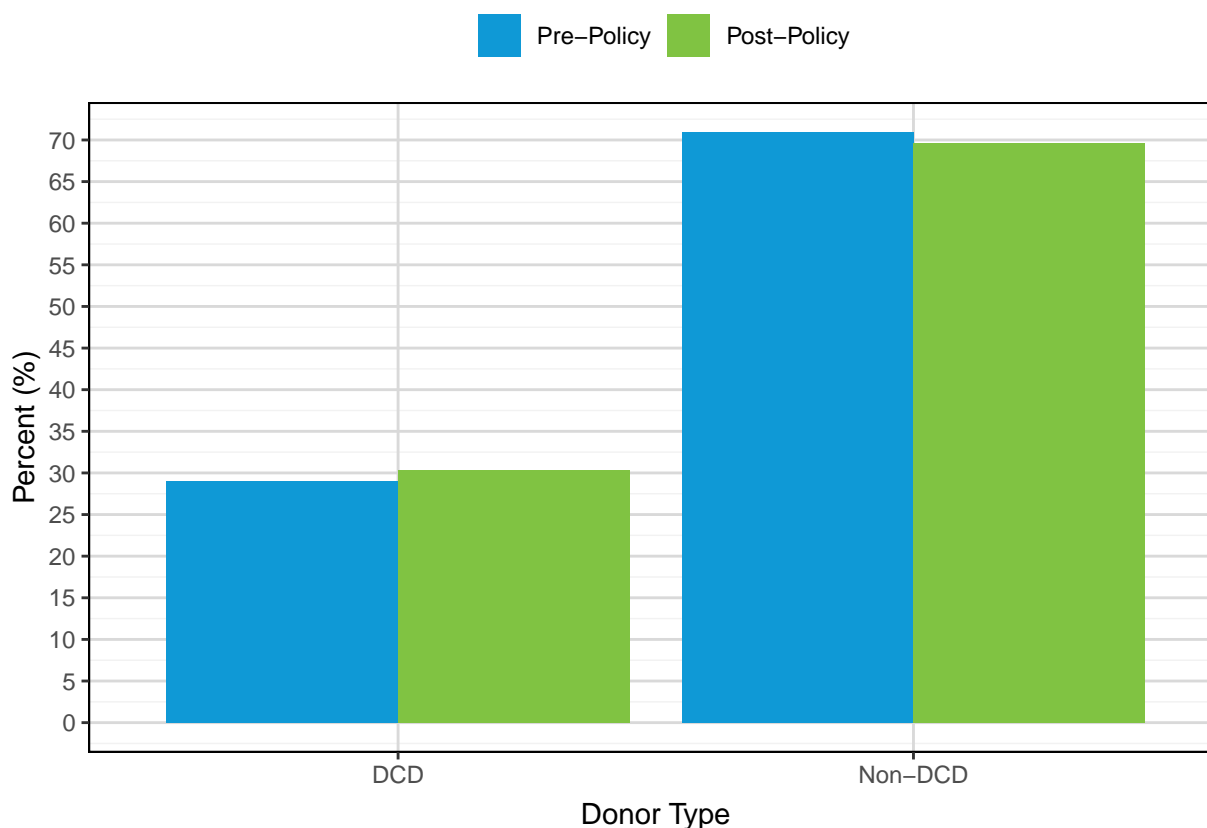


Table 33: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and DCD Status

DCD Donor	Pre-Policy		Post-Policy	
	N	%	N	%
DCD	848	29.06	1032	30.34
Non-DCD	2070	70.94	2370	69.66
Total	2918	100.00	3402	100.00

Figure 34 and **Table 34** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and distance from donor hospital. The proportion of transplants within 250 NM of the donor hospital increased from 80.19% to 85.1% after policy implementation.

Figure 34: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Distance from Donor Hospital

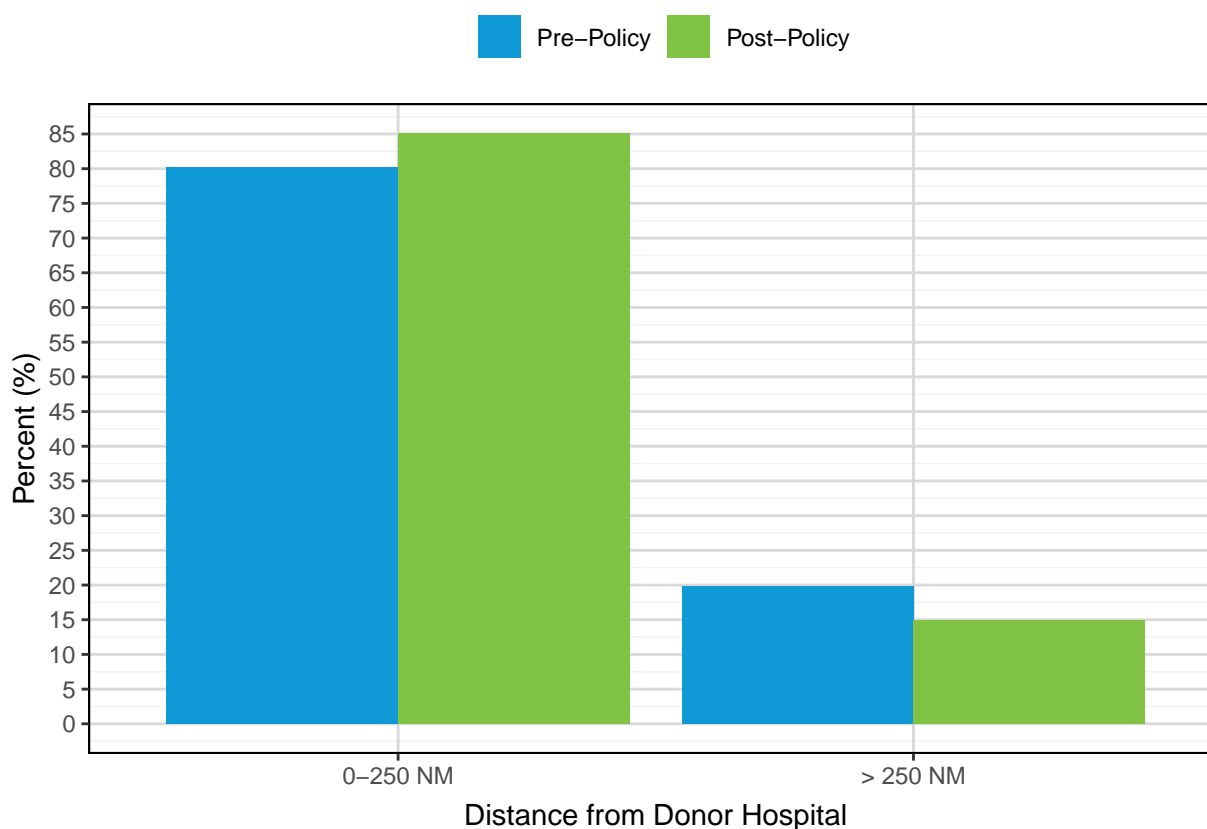


Table 34: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Distance from Donor Hospital

DCD Donor	Pre-Policy		Post-Policy	
	N	%	N	%
0-250 NM	2340	80.19	2895	85.10
> 250 NM	578	19.81	507	14.90
Total	2918	100.00	3402	100.00

Figure 35 and **Table 35** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and share type. The proportion of transplants using organs procured in the same DSA as the transplant hospital decreased from 70.6% to 39.07% after the policy change. The proportion of regional and national shares increased from 15.28% to 29.01% and 14.12% to 31.92% respectively.

Figure 35: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Share Type

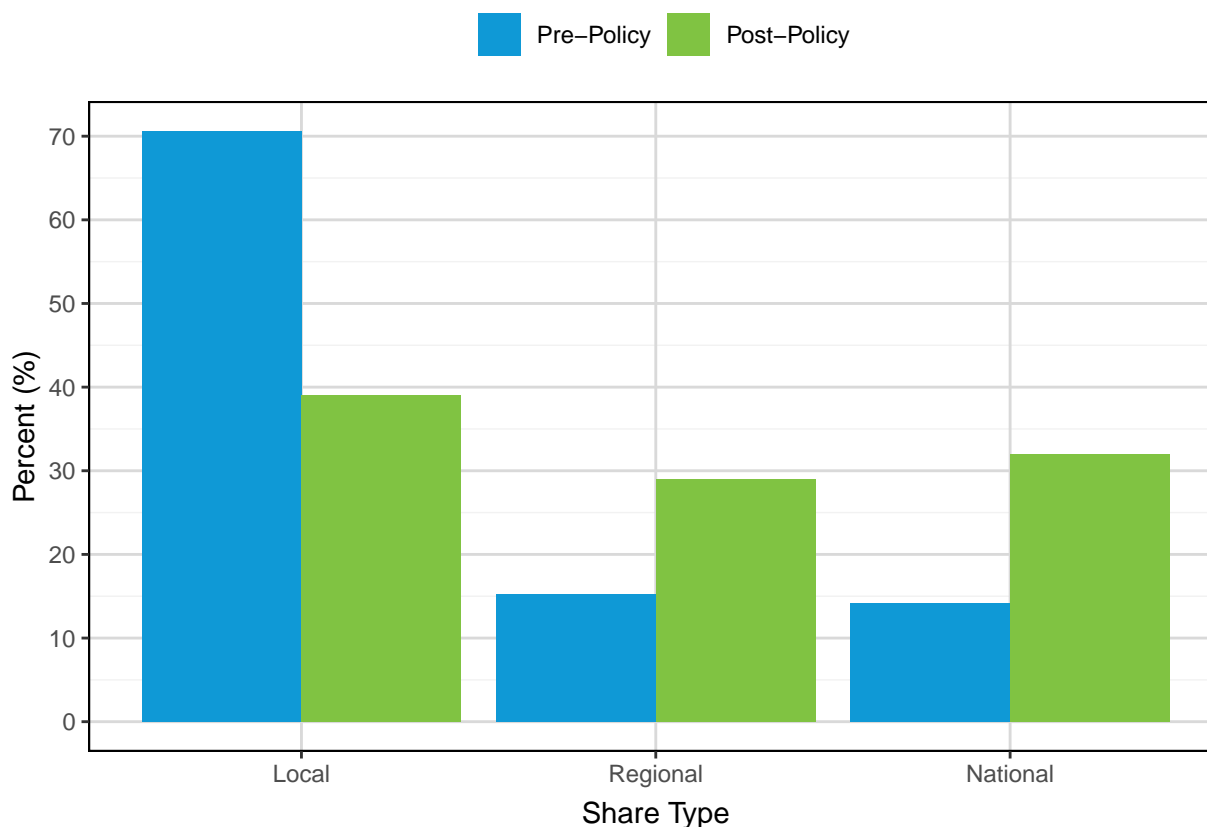


Table 35: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Share Type

Share Type	Pre-Policy		Post-Policy	
	N	%	N	%
Local	2060	70.60	1329	39.07
Regional	446	15.28	987	29.01
National	412	14.12	1086	31.92
Total	2918	100.00	3402	100.00

Figure 36 and **Table 36** show the distribution of distance in NM from donor hospital for deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era. Median distance from donor hospital increased from 71 NM to 122 NM after policy implementation.

Figure 36: Distribution of Distance from Donor Hospital for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

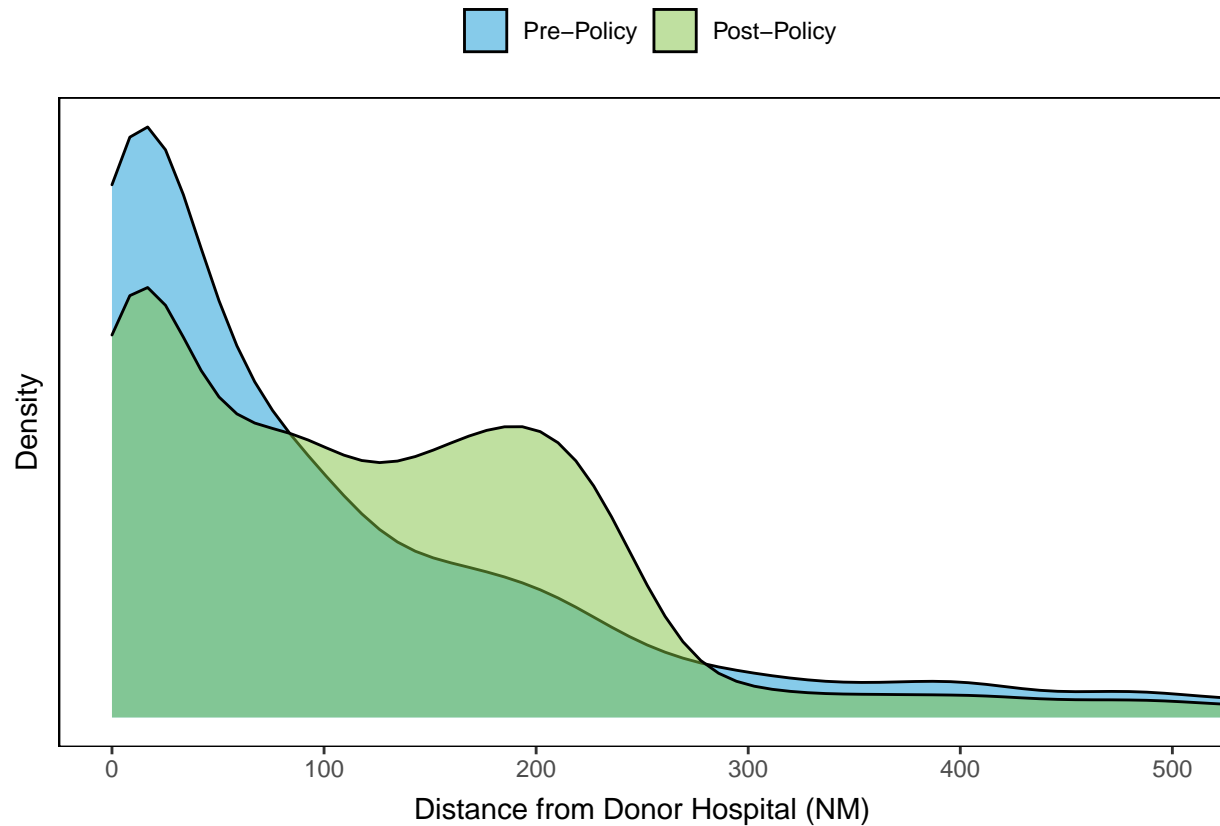


Table 36: Distribution of Distance from Donor Hospital for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

Era	Total	Missing	Min	25th %-tile	Median	Mean	75th %-tile	Max
Pre-Policy	2918	0	0	12	71	199	204	4299
Post-Policy	3402	0	0	31	122	206	211	4206

Figure 37 and **Table 37** show deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and OPTN region. Regions 3, 4, 5, 6, 7, 8, and 9 saw an increase in transplants. Regions 1, 2, 10, and 11 saw a decrease in transplants.

Figure 37: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and OPTN Region

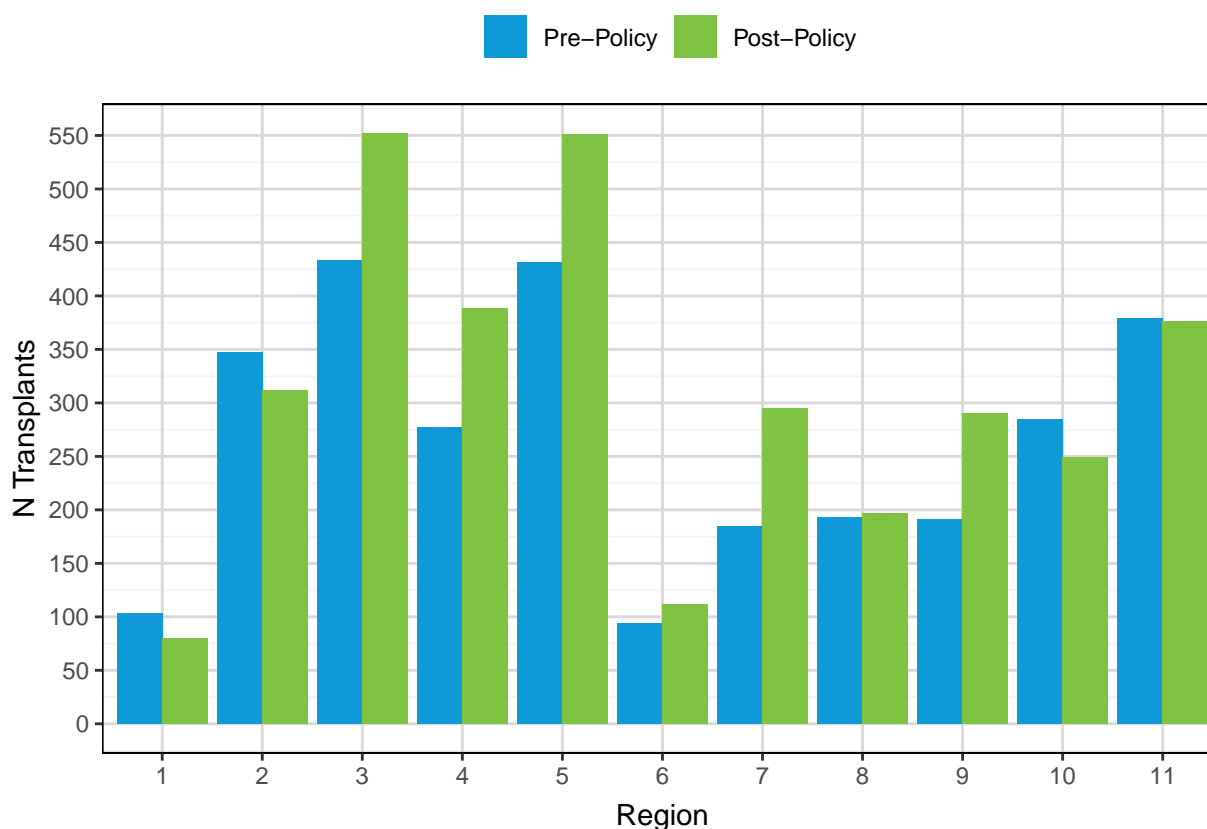


Table 37: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and OPTN Region

Region	Pre-Policy		Post-Policy	
	N	%	N	%
1	103	3.53	80	2.35
2	347	11.89	312	9.17
3	433	14.84	552	16.23
4	277	9.49	388	11.41
5	431	14.77	551	16.20
6	94	3.22	112	3.29
7	185	6.34	295	8.67
8	193	6.61	197	5.79
9	191	6.55	290	8.52
10	285	9.77	249	7.32
11	379	12.99	376	11.05
Total	2918	100.00	3402	100.00

Figure 38 shows deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and DSA. The number of transplants increased in 36 DSAs after policy implementation, and the number of transplants decreased in 20 DSAs. One DSA saw no change in transplant volume. A table showing transplants by policy era and DSA is provided in the **Appendix**.

Figure 38: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and DSA

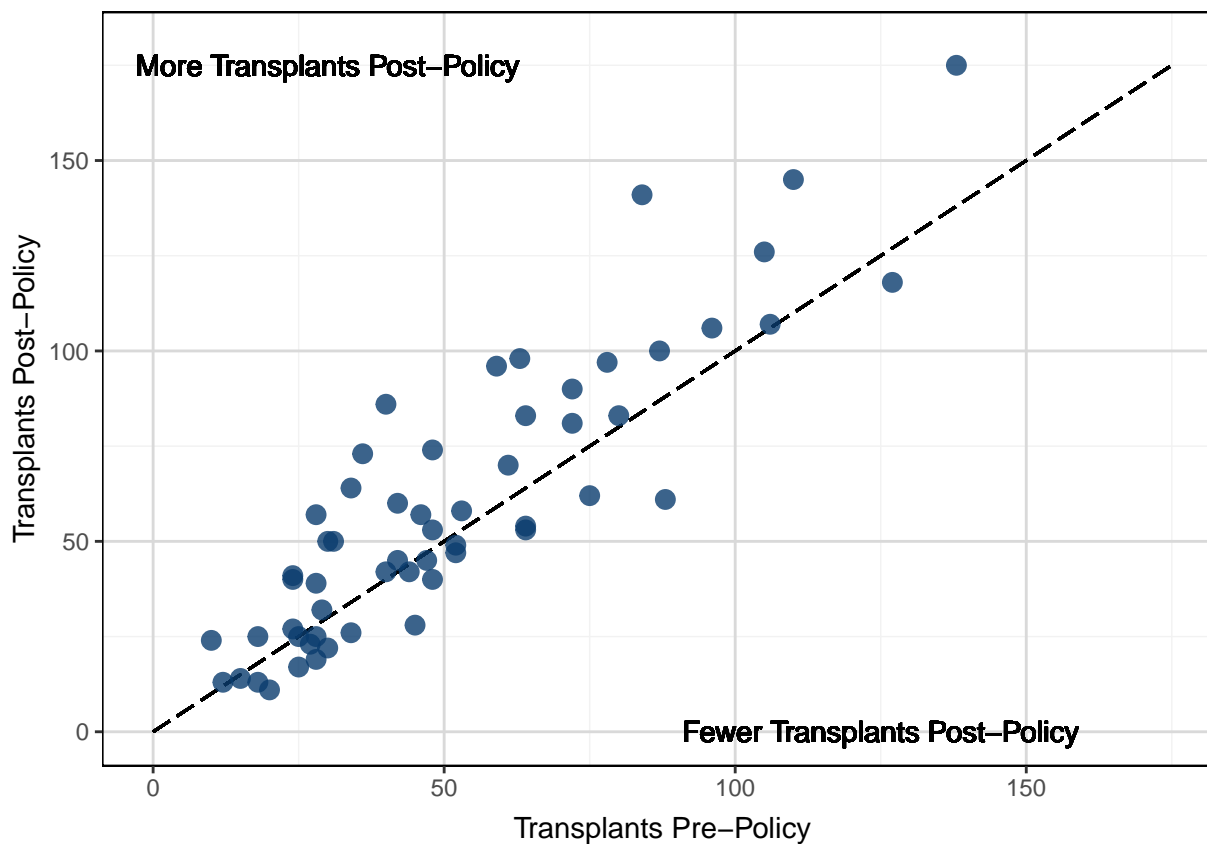


Figure 39 shows deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and transplant center. The number of transplants increased at 120 centers after policy implementation, and the number of transplants decreased at 88 centers. A table showing transplants by policy era and transplant center is provided in the **Appendix**.

Figure 39: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Transplant Center

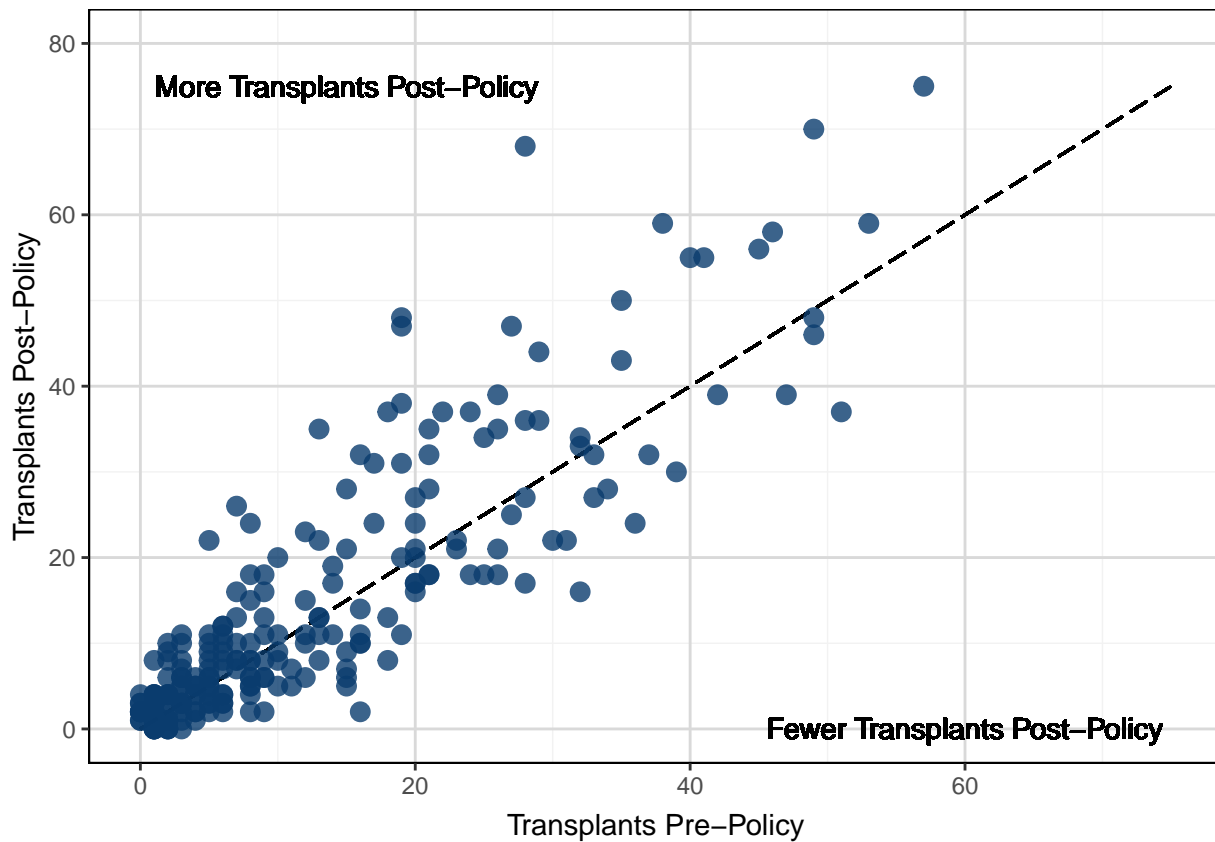


Figure 40 shows deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era and state including the District of Columbia and Puerto Rico. The number of transplants increased in 25 states after policy implementation, and the number of transplants decreased in 22 states. Vermont saw no change in transplant volume. There are no active transplant programs in Alaska, Idaho, Montana, or Wyoming. A table showing transplants by policy era and state is provided in the **Appendix**.

Figure 40: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and State

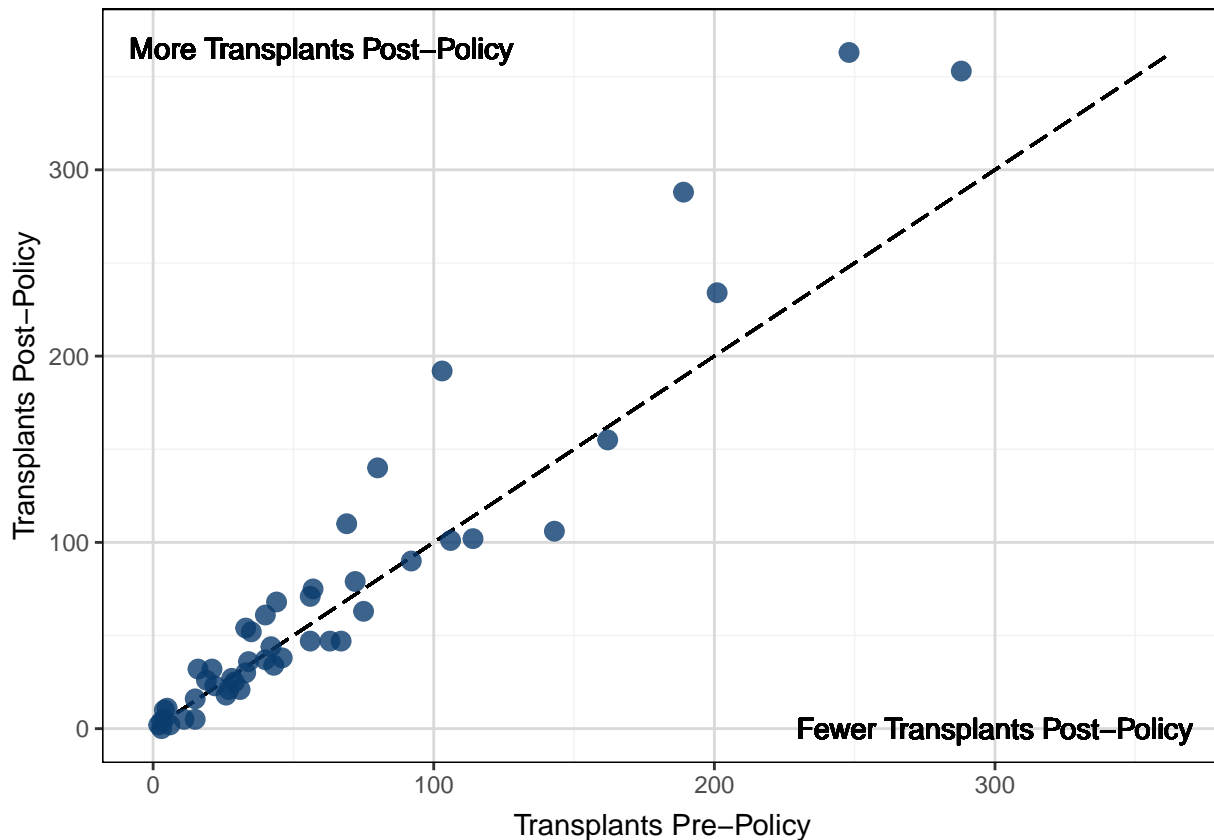
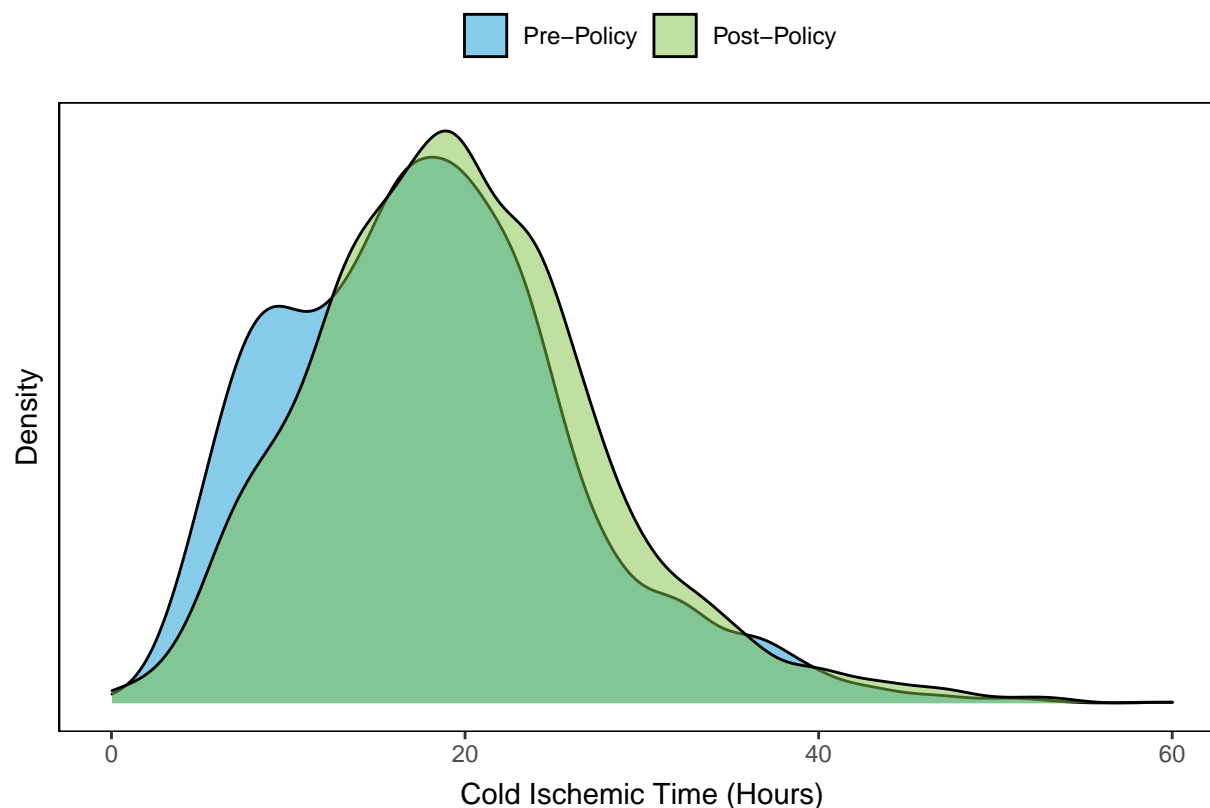


Figure 41 and **Table 38** show the distribution of cold ischemic time in hours for deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era. Median cold ischemic time increased from 17.5 to 19.07 hours after policy implementation, though 23.7% of transplants were missing cold ischemic time post-policy likely due to outstanding TRRs at the time of analysis. Missing values were excluded.

Figure 41: Distribution of Cold Ischemic Time for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era



Cold ischemic time was missing for 4% of transplants pre-policy and 24% of transplants post-policy.

Table 38: Distribution of Cold Ischemic Time for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

Era	Total	Missing	Min	25th %-tile	Median	Mean	75th %-tile	Max
Pre-Policy	2918	123	0.15	11.75	17.50	17.93	22.73	58.75
Post-Policy	3402	809	0.03	13.97	19.07	19.59	24.35	60.01

Figure 42 and **Table 39** show rate of delayed graft function for deceased donor kidney transplants from January 15, 2021 to May 14, 2021 by policy era. The number and proportion of transplants with delayed graft function decreased after policy implementation. The proportion of transplants missing delayed graft function was 23.34% post-policy, likely due to outstanding TRRs at the time of analysis.

Figure 42: Rate of Delayed Graft Function for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

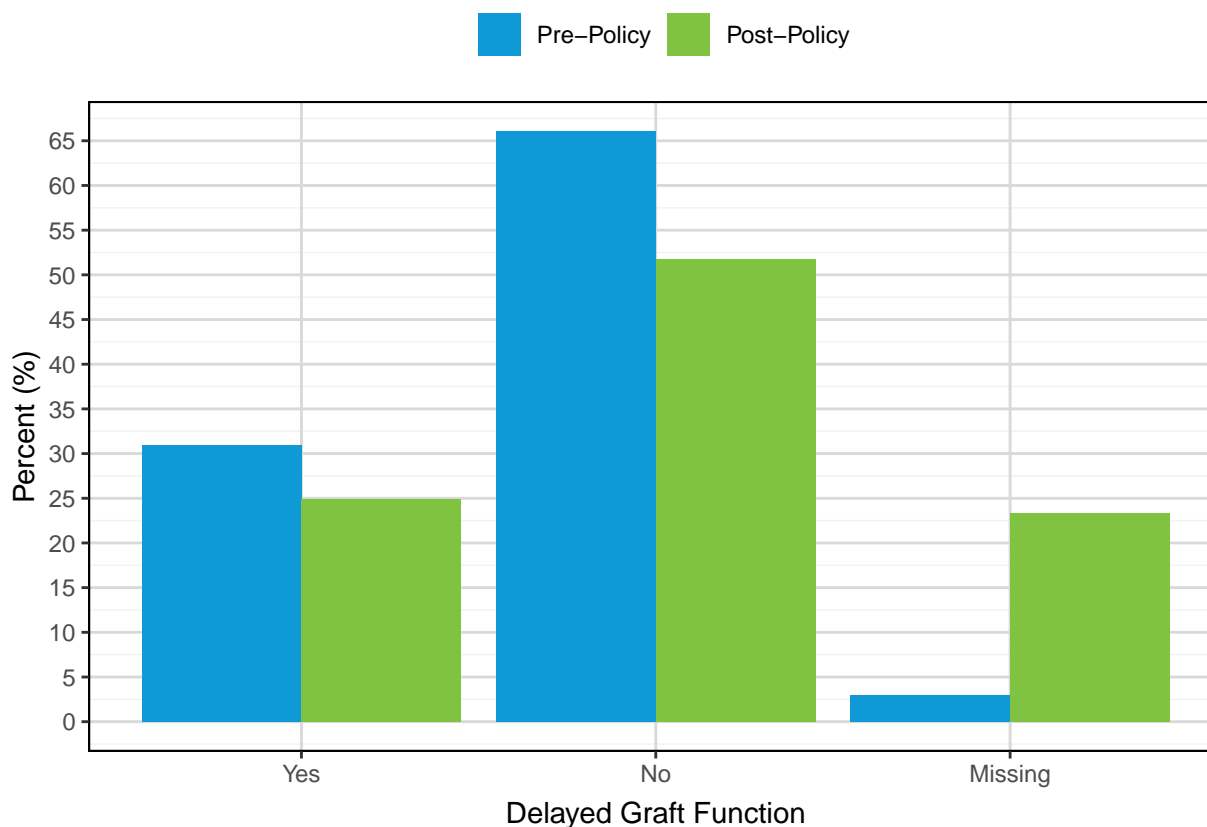


Table 39: Rate of Delayed Graft Function for Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era

Delayed Graft Function	Pre-Policy		Post-Policy	
	N	%	N	%
Yes	902	30.91	848	24.93
No	1928	66.07	1760	51.73
Missing	88	3.02	794	23.34
Total	2918	100.00	3402	100.00

Utilization and Efficiency of Allocation

Figure 43 and **Table 40** show total kidneys donors recovered from January 15, 2021 to May 14, 2021 by policy era. There were 2033 kidney donors recovered pre-policy, and another 2297 recovered post-policy.

Figure 43: Kidney Donors Recovered January 15, 2021 - May 14, 2021 by Policy Era

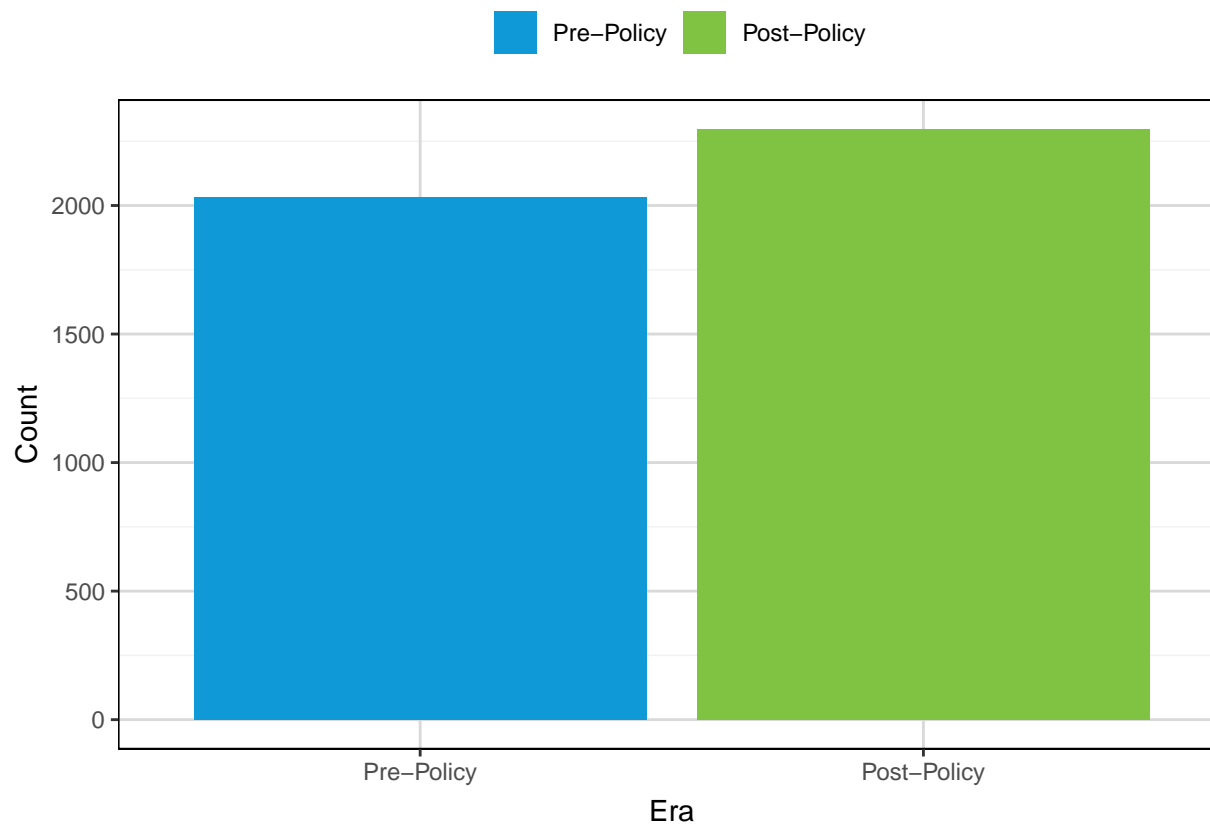
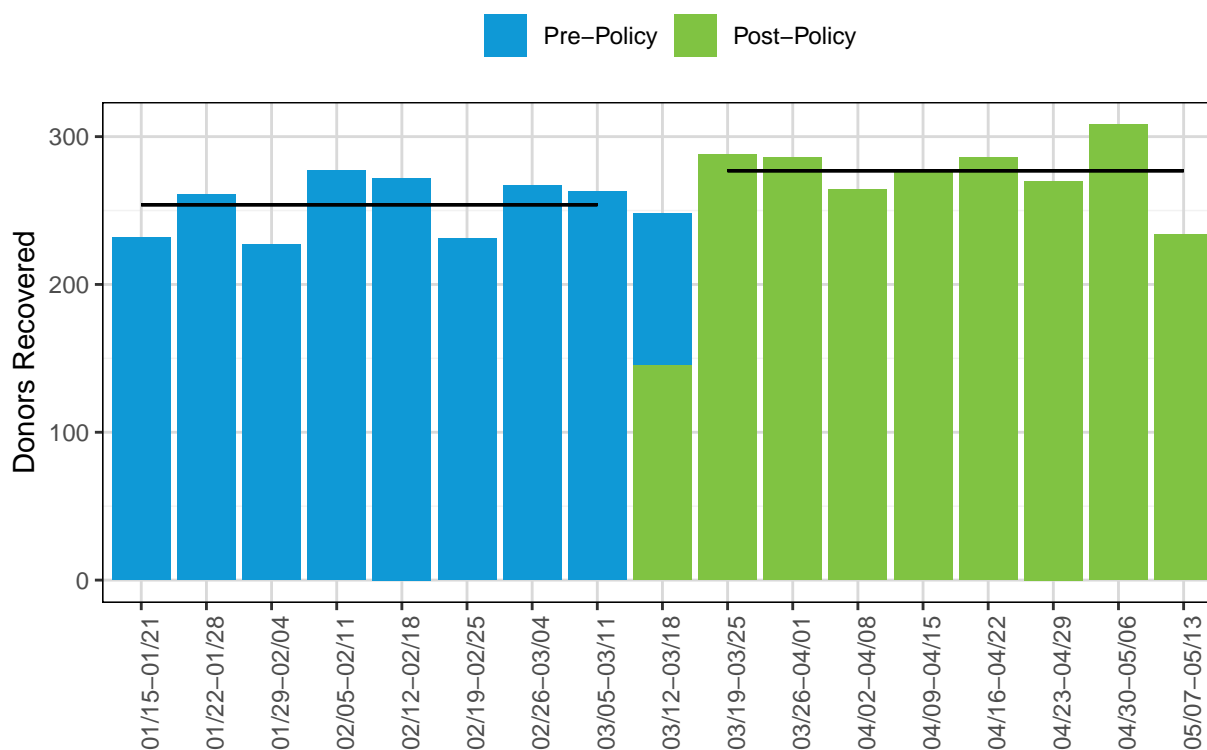


Table 40: Kidney Donors Recovered January 15, 2021 - May 14, 2021 by Policy Era

Era	Kidney Donors Recovered
Pre-Policy	2033
Post-Policy	2297

Figure 44 and **Table 41** show weekly deceased kidney donors recovered from January 15, 2021 to May 13, 2021. The average number of kidney donors recovered per week was 254 pre-policy and 277 post-policy.

Figure 44: Weekly Deceased Kidney Donors Recovered January 15, 2021-May 13, 2021 by Policy Era



Lines represent the average number of donors per week.

Table 41: Weekly Deceased Kidney Donors Recovered January 15, 2021-May 13, 2021

Weeks	Donors Recovered
01/15-01/21	232
01/22-01/28	261
01/29-02/04	227
02/05-02/11	277
02/12-02/18	272
02/19-02/25	231
02/26-03/04	267
03/05-03/11	263
03/12-03/18	248
03/19-03/25	288
03/26-04/01	286
04/02-04/08	264
04/09-04/15	278
04/16-04/22	286
04/23-04/29	270
04/30-05/06	308
05/07-05/13	234

Figure 45 and **Table 42** show deceased Kidney donors recovered from January 15, 2021 to May 14, 2021 by KDPI and policy era. The number of donors with KDPI 0-85% increased after policy implementation, while the number of KDPI 86-100% donors decreased. There was a slight decrease in the proportion of kidney donors with KDPI 86-100% after policy implementation, from 17.90% to 15.45%.

Figure 45: Deceased Kidney Donors Recovered January 15, 2021 - May 14, 2021 by KDPI and Policy Era

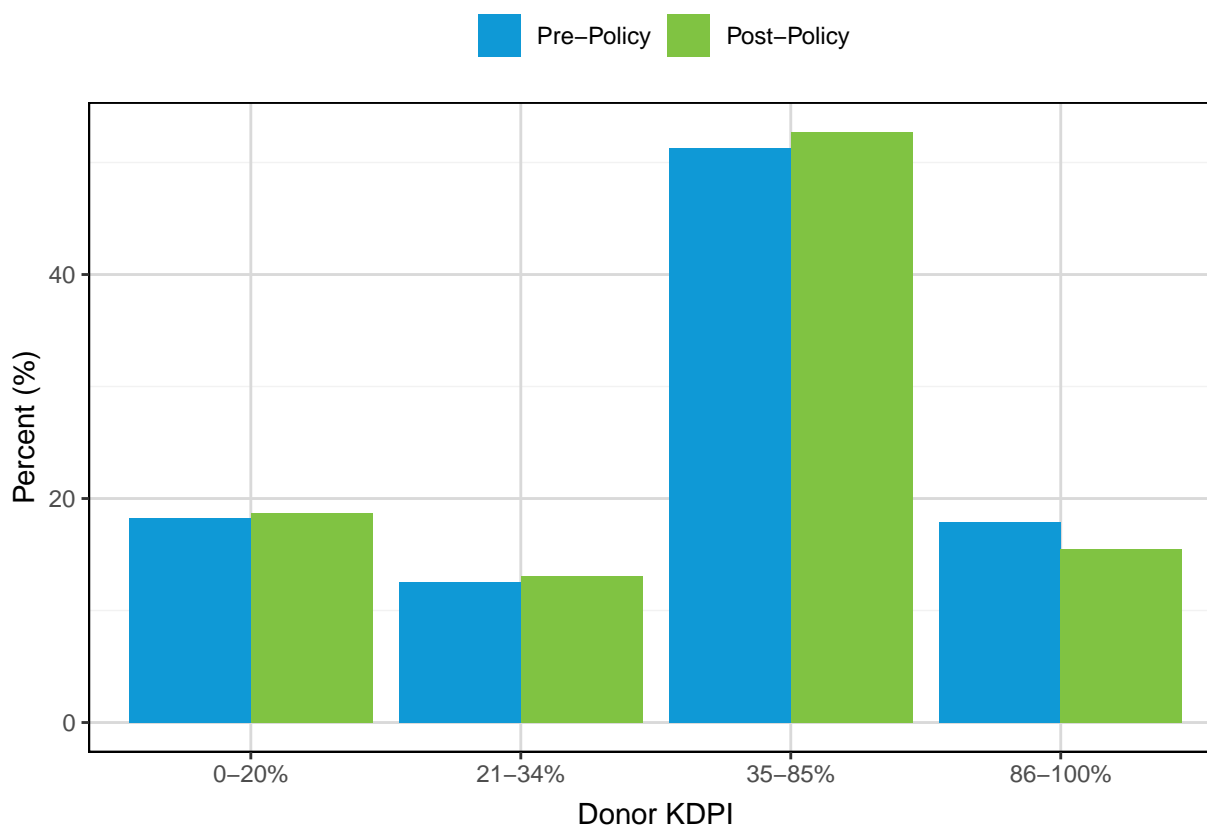


Table 42: Deceased Kidney Donors Recovered January 15, 2021 - May 14, 2021 by KDPI and Policy Era

KDPI	Pre-Policy		Post-Policy	
	N	%	N	%
0-20%	371	18.25	430	18.72
21-34%	255	12.54	301	13.10
35-85%	1043	51.30	1211	52.72
86-100%	364	17.90	355	15.45
Total	2033	100.00	2297	100.00

Figure 46 and **Table 43** show deceased Kidney donors recovered from January 15, 2021 to May 14, 2021 by DCD status and policy era. There was a slight increase in the proportion of DCD donors recovered post-implementation from 30.35% to 31.26%, a total increase of 101 donors.

Figure 46: Deceased Kidney Donors Recovered January 15, 2021 - May 14, 2021 by DCD Status and Policy Era

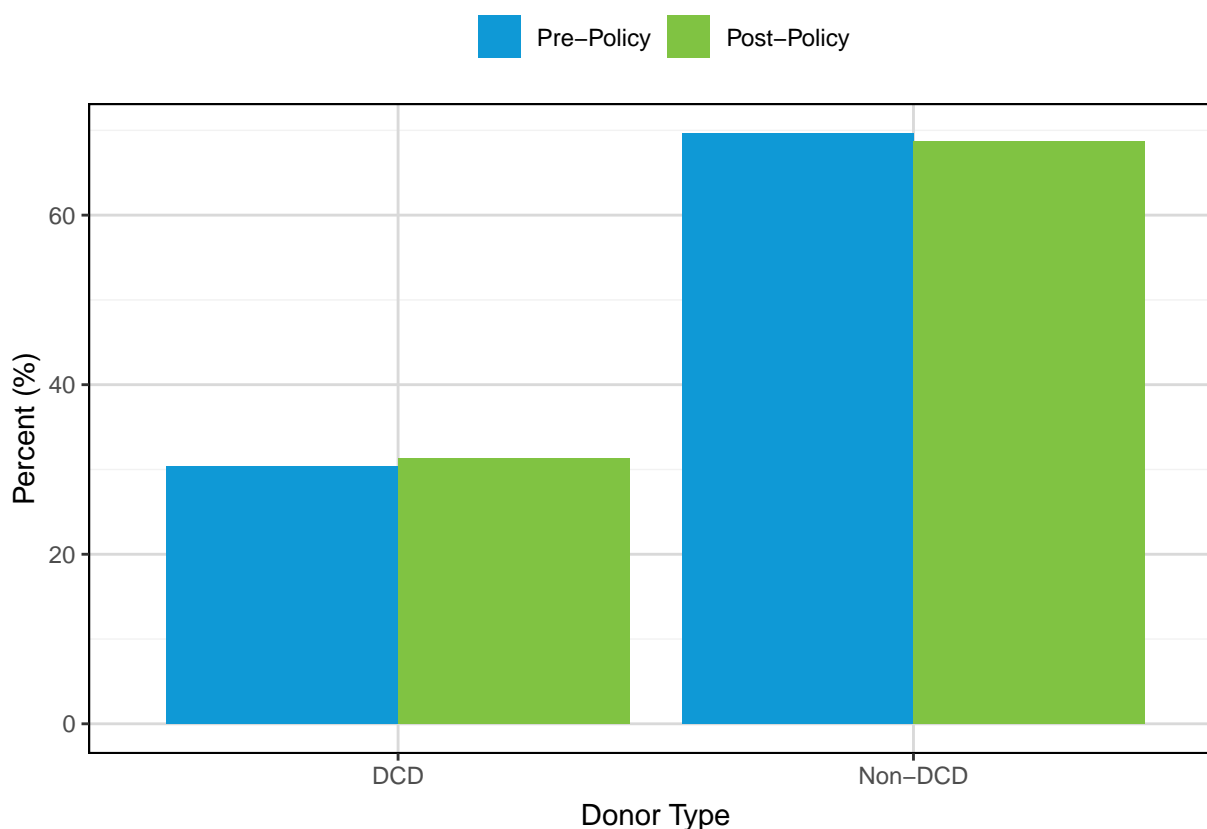


Table 43: Deceased Kidney Donors Recovered January 15, 2021 - May 14, 2021 by DCD Status and Policy Era

Donor Type	Pre-Policy		Post-Policy	
	N	%	N	%
DCD	617	30.35	718	31.26
Non-DCD	1416	69.65	1579	68.74
Total	2033	100.00	2297	100.00

Figure 47 and **Table 44** show deceased kidney donors recovered from January 15, 2021 to May 14, 2021 by age and policy era. The total number of donors increased in all age groups after policy implementation. The proportion of donors aged 35 to 49 years increased from 28.43% to 30.56% after the policy change. The proportion of donors aged 50 to 64 years decreased from 33.01% to 30.52%.

Figure 47: Deceased Kidney Donors Recovered January 15, 2021 - May 14, 2021 by Donor Age and Policy Era

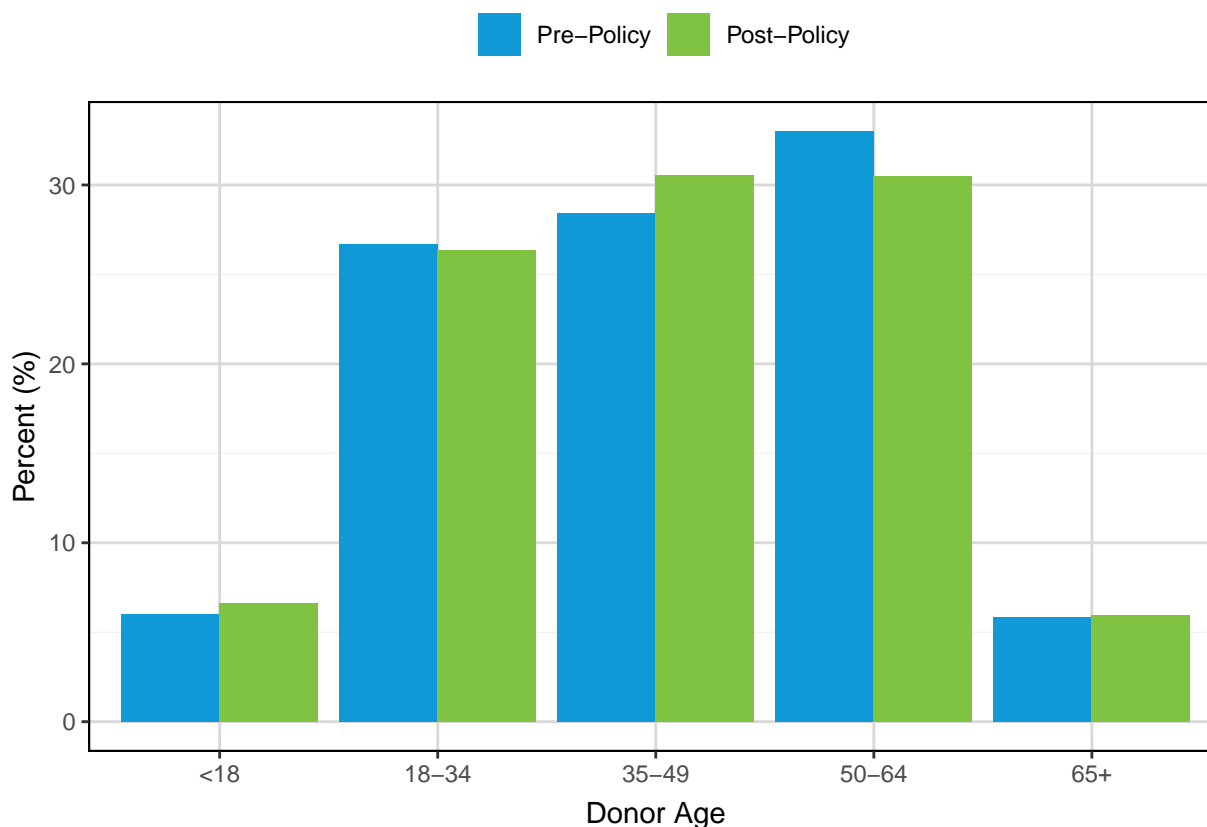


Table 44: Deceased Kidney Donors Recovered January 15, 2021 - May 14, 2021 by Donor Age and Policy Era

Donor Age	Pre-Policy		Post-Policy	
	N	%	N	%
<18	122	6.00	152	6.62
18-34	543	26.71	605	26.34
35-49	578	28.43	702	30.56
50-64	671	33.01	701	30.52
65+	119	5.85	137	5.96
Total	2033	100.00	2297	100.00

Figure 48 and **Table 45** show discard rates for deceased donor kidney recovered from January 15, 2021 to May 14, 2021 by KDPI and policy era. Overall the kidney discard rate dropped from 23.77% to 20.74% post-policy, with the biggest change seen for KDPI 86-100% kidneys (67.91% to 59.97%).

Figure 48: Discard Rates for Deceased Donor Kidneys Recovered January 15, 2021 - May 14, 2021 by KDPI and Policy Era

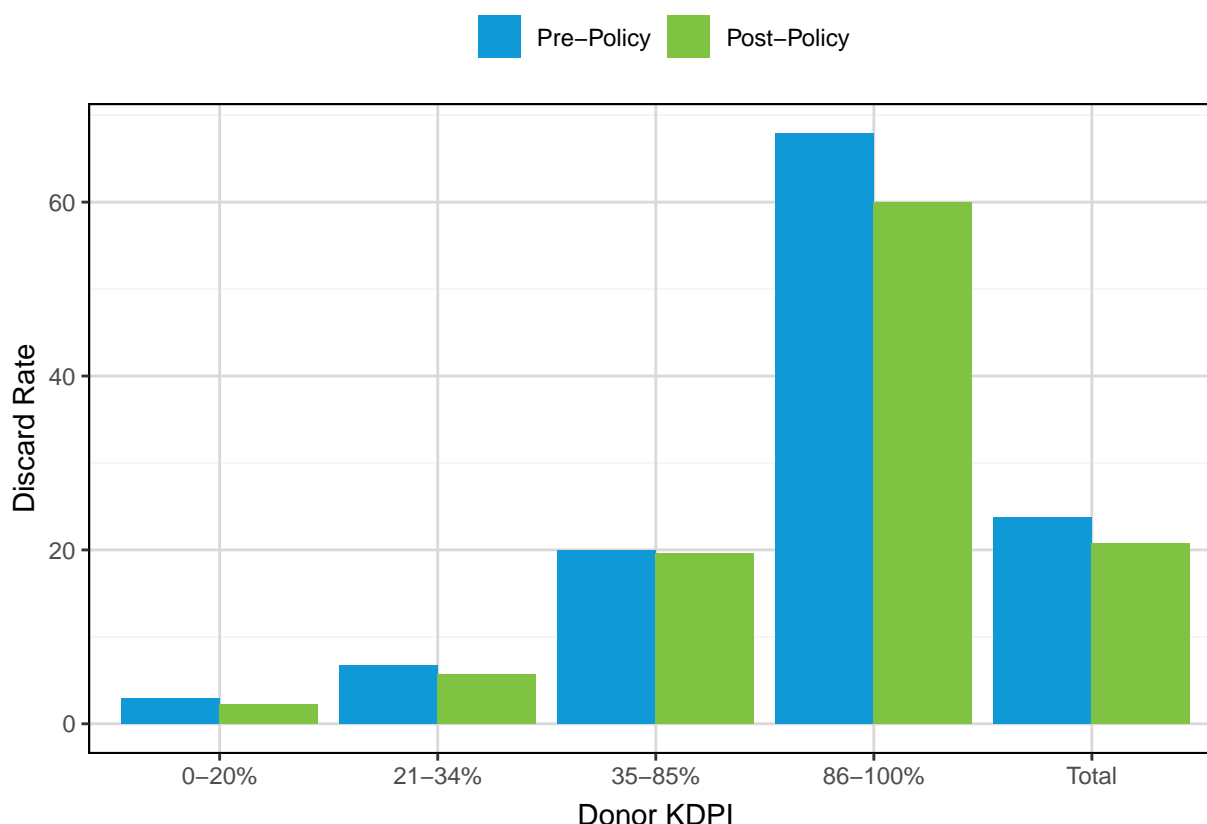


Table 45: Discard Rates for Deceased Donor Kidneys Recovered January 15, 2021 - May 14, 2021 by KDPI and Policy Era

KDPI	Pre-Policy			Post-Policy		
	Kidneys Recovered	Kidneys Not TXed	Discard Rate	Kidneys Recovered	Kidneys Not TXed	Discard Rate
0-20%	740	22	2.97	854	19	2.22
21-34%	508	34	6.69	600	34	5.67
35-85%	2080	416	20.00	2412	473	19.61
86-100%	723	491	67.91	702	421	59.97
Total	4051	963	23.77	4568	947	20.73

Table 46 shows deceased donor kidneys recovered but not transplanted from January 15, 2021 to May 14, 2021 by discard reason and policy era. The most common reason for discard both pre- and post-policy implementation was “No recipient located - list exhausted,” increasing from 54.41% to 57.13%. There were 17 kidneys with missing discard reason post-policy, likely due to outstanding DDRs at the time of this analysis.

Table 46: Deceased Donor Kidneys Recovered but Not Transplanted January 15, 2021 - May 14, 2021 by Discard Reason and Policy Era

Discard Reason	Pre-Policy		Post-Policy	
	N	%	N	%
Anatomical abnormalities	43	4.47	21	2.22
Biopsy findings	173	17.96	171	18.06
Diseased organ	15	1.56	12	1.27
Donor Medical history	13	1.35	3	0.32
Donor social history	2	0.21	0	0.00
Infection	2	0.21	0	0.00
No recipient located - list exhausted	524	54.41	541	57.13
Organ not as described	0	0.00	4	0.42
Organ trauma	3	0.31	7	0.74
Other, specify	114	11.84	103	10.88
Poor organ function	46	4.78	42	4.44
Positive Hepatitis	0	0.00	2	0.21
Positive HIV	0	0.00	2	0.21
Recipient determined to be unsuitable for TX in OR	1	0.10	0	0.00
Too old on ice	14	1.45	6	0.63
Too old on pump	0	0.00	2	0.21
Ureteral damage	3	0.31	7	0.74
Vascular damage	5	0.52	4	0.42
Warm ischemic time too long	5	0.52	3	0.32
Missing	0	0.00	17	1.80
Total	963	100.00	947	100.00

Table 47 shows kidney acceptance rates among matches with at least one acceptance from January 15, 2021 to May 14, 2021 by policy era and offer type. Acceptance of local offers dropped from 2.24% to 1.46% after policy implementation. Acceptance of non-local offers increased from 0.53% to 0.63%. The non-local acceptance rate increased by almost 20%, suggesting that the OPTN Kidney Transplantation Committee's decision to remove the non-local indicator from the KPSAM acceptance model was justified based on anticipated, and now realized, behavior.

Table 47: Kidney Acceptance Rates Among Matches with at Least one Acceptance January 15, 2021 - May 14, 2021 by Policy Era and Offer Type

Offer Type	Acceptance Rate		Relative Risk
	Pre-Policy	Post-Policy	
Local	2.24%	1.46%	0.65
Non-Local	0.53%	0.63%	1.19

Table 48 shows the disposition of kidneys with a final acceptance from January 15, 2021 to May 14, 2021 by policy era and OPTN region. The majority of kidneys with an acceptance were transplanted to the same patient that accepted the organ both pre- and post-policy across all regions. Pre-policy, this proportion ranged from 67.8% in Region 11 to 86.7% in Region 1. Post-policy, this proportion ranged from 72.2% in Region 11 to 84.6% in Region 6.

Table 48: Disposition of Kidneys with a Final Acceptance January 15, 2021 - May 14, 2021 by Policy Era and OPTN Region

Era	Region	N	Accepting Patient	Accepting Center	Different Center	Discard	Non-Recovery
Pre-Policy	1	105	91 (86.7%)	7 (6.7%)	4 (3.8%)	3 (2.9%)	0 (0.0%)
	2	377	321 (85.1%)	21 (5.6%)	11 (2.9%)	24 (6.4%)	0 (0.0%)
	3	460	345 (75.0%)	50 (10.9%)	21 (4.6%)	44 (9.6%)	0 (0.0%)
	4	269	219 (81.4%)	19 (7.1%)	22 (8.2%)	9 (3.3%)	0 (0.0%)
	5	422	350 (82.9%)	41 (9.7%)	18 (4.3%)	12 (2.8%)	1 (0.2%)
	6	132	108 (81.8%)	12 (9.1%)	5 (3.8%)	7 (5.3%)	0 (0.0%)
	7	192	164 (85.4%)	5 (2.6%)	10 (5.2%)	13 (6.8%)	0 (0.0%)
	8	235	189 (80.4%)	25 (10.6%)	5 (2.1%)	14 (6.0%)	2 (0.9%)
	9	127	109 (85.8%)	8 (6.3%)	8 (6.3%)	1 (0.8%)	1 (0.8%)
	10	313	243 (77.6%)	41 (13.1%)	9 (2.9%)	20 (6.4%)	0 (0.0%)
	11	416	282 (67.8%)	57 (13.7%)	34 (8.2%)	35 (8.4%)	8 (1.9%)
	Total	3048	2421 (79.4%)	286 (9.4%)	147 (4.8%)	182 (6.0%)	12 (0.4%)
Post-Policy	1	104	79 (76.0%)	8 (7.7%)	16 (15.4%)	1 (1.0%)	0 (0.0%)
	2	386	316 (81.9%)	23 (6.0%)	24 (6.2%)	23 (6.0%)	0 (0.0%)
	3	555	454 (81.8%)	33 (5.9%)	28 (5.0%)	40 (7.2%)	0 (0.0%)
	4	381	307 (80.6%)	31 (8.1%)	27 (7.1%)	16 (4.2%)	0 (0.0%)
	5	531	439 (82.7%)	42 (7.9%)	21 (4.0%)	29 (5.5%)	0 (0.0%)
	6	143	121 (84.6%)	9 (6.3%)	8 (5.6%)	5 (3.5%)	0 (0.0%)
	7	253	206 (81.4%)	18 (7.1%)	14 (5.5%)	15 (5.9%)	0 (0.0%)
	8	251	207 (82.5%)	25 (10.0%)	10 (4.0%)	9 (3.6%)	0 (0.0%)
	9	134	99 (73.9%)	10 (7.5%)	19 (14.2%)	6 (4.5%)	0 (0.0%)
	10	281	211 (75.1%)	31 (11.0%)	20 (7.1%)	17 (6.0%)	2 (0.7%)
	11	410	296 (72.2%)	38 (9.3%)	39 (9.5%)	32 (7.8%)	5 (1.2%)
	Total	3429	2735 (79.8%)	268 (7.8%)	226 (6.6%)	193 (5.6%)	7 (0.2%)

Table 49 shows the disposition of kidneys with a final acceptance from January 15, 2021 to May 14, 2021 by policy era and KDPI. The proportion of kidneys transplanted to same patient accepting the organ was highest for KDPI 0-20% kidneys (~88% pre- and post-policy) and lowest for KDPI 86-100% kidneys (57.4% pre-policy and 65.7% post-policy).

Table 49: Disposition of Kidneys with a Final Acceptance January 15, 2021 - May 14, 2021 by Policy Era and KDPI

Era	KDPI	N	Accepting Patient	Accepting Center	Different Center	Discard	Non-Recovery
Pre-Policy	0-20%	562	498 (88.6%)	34 (6.0%)	25 (4.4%)	5 (0.9%)	0 (0.0%)
	21-34%	446	367 (82.3%)	34 (7.6%)	25 (5.6%)	17 (3.8%)	3 (0.7%)
	35-85%	1756	1393 (79.3%)	167 (9.5%)	86 (4.9%)	107 (6.1%)	3 (0.2%)
	86-100%	284	163 (57.4%)	51 (18.0%)	11 (3.9%)	53 (18.7%)	6 (2.1%)
	Total	3048	2421 (79.4%)	286 (9.4%)	147 (4.8%)	182 (6.0%)	12 (0.4%)
Post-Policy	0-20%	621	546 (87.9%)	26 (4.2%)	37 (6.0%)	9 (1.4%)	3 (0.5%)
	21-34%	479	403 (84.1%)	31 (6.5%)	31 (6.5%)	14 (2.9%)	0 (0.0%)
	35-85%	1988	1562 (78.6%)	173 (8.7%)	139 (7.0%)	113 (5.7%)	1 (0.1%)
	86-100%	341	224 (65.7%)	38 (11.1%)	19 (5.6%)	57 (16.7%)	3 (0.9%)
	Total	3429	2735 (79.8%)	268 (7.8%)	226 (6.6%)	193 (5.6%)	7 (0.2%)

Table 50 shows the disposition of kidneys with a final acceptance from January 15, 2021 to May 14, 2021 by policy era and CPRA of the accepting patient. The proportion of kidneys transplanted to the same patient accepting the organ was lowest for CPRA 80-97% patients both pre- and post-policy (72.7% and 75.9%).

Table 50: Disposition of Kidneys with a Final Acceptance January 15, 2021 - May 14, 2021 by Policy Era and Accepting Patient CPRA

Era	CPRA	N	Accepting Patient	Accepting Center	Different Center	Discard	Non-Recovery
Pre-Policy	0	1690	1356 (80.2%)	168 (9.9%)	54 (3.2%)	105 (6.2%)	7 (0.4%)
	1-19	332	265 (79.8%)	34 (10.2%)	19 (5.7%)	13 (3.9%)	1 (0.3%)
	20-79	538	441 (82.0%)	40 (7.4%)	22 (4.1%)	33 (6.1%)	2 (0.4%)
	80-97	220	160 (72.7%)	22 (10.0%)	19 (8.6%)	18 (8.2%)	1 (0.5%)
	98-100	258	195 (75.6%)	22 (8.5%)	33 (12.8%)	8 (3.1%)	0 (0.0%)
	Unknown	10	4 (40.0%)	0 (0.0%)	0 (0.0%)	5 (50.0%)	1 (10.0%)
	Total	3048	2421 (79.4%)	286 (9.4%)	147 (4.8%)	182 (6.0%)	12 (0.4%)
Post-Policy	0	1737	1414 (81.4%)	115 (6.6%)	96 (5.5%)	111 (6.4%)	1 (0.1%)
	1-19	349	278 (79.7%)	34 (9.7%)	20 (5.7%)	15 (4.3%)	2 (0.6%)
	20-79	549	423 (77.0%)	50 (9.1%)	41 (7.5%)	35 (6.4%)	0 (0.0%)
	80-97	469	356 (75.9%)	48 (10.2%)	42 (9.0%)	22 (4.7%)	1 (0.2%)
	98-100	311	253 (81.4%)	21 (6.8%)	26 (8.4%)	8 (2.6%)	3 (1.0%)
	Unknown	14	11 (78.6%)	0 (0.0%)	1 (7.1%)	2 (14.3%)	0 (0.0%)
	Total	3429	2735 (79.8%)	268 (7.8%)	226 (6.6%)	193 (5.6%)	7 (0.2%)

Medical Urgency

Transplant centers were able to place registrations in medical urgency status on March 8, 2021 in advance of the policy change. Through May 14, 2021, 13 registrations received medical urgency status and 3 received a deceased donor transplant. The remaining registrations were still waiting in medical urgency status as of June 11, 2021.

Released Organs

Table 51 shows kidney match runs from January 15, 2021 to May 14, 2021 by policy era and type. The majority of kidney matches were not import or released organ match runs.

There were 587 import matches run pre-policy. The policy change eliminated the import match run, however 6 import match runs occurred post-policy, all on or around the date of implementation. OPOs were only able to run released organ matches after implementation. There were 85 released kidney matches run post-policy.

Table 51: Kidney Match Runs January 15, 2021 - May 14, 2021 by Policy Era and Type

Era	Total	Standard	Import	Released
Pre-Policy	4647	4060	587	0
Post-Policy	4447	4356	6	85

Table 52 shows deceased donor kidney utilization from January 15, 2021 to May 14, 2021 by policy era and match run type. The discard rate for standard match runs decreased from 23.5% to 20.7% after policy implementation. The discard rate for import matches pre-policy was 27.7%, and the discard rate for released organ matches post-policy was 19.5%.

Table 52: Deceased Donor Kidney Utilization from January 15, 2021 - May 14, 2021 by Policy Era Match Run Type

Era	Match Type	N Donors	N Matches	Utilization Rate	Discard Rate
Pre-Policy	Standard	2412	4060	64.4%	23.5%
	Import	478	587	69.5%	27.7%
	Released	-	-	-	-
Post-Policy	Standard	2625	4356	67.7%	20.7%
	Import	6	6	66.7%	33.3%
	Released	81	85	79.0%	19.5%

Donors Recovered in Alaska

Table 53 shows kidneys recovered and transplanted for deceased donors recovered in Alaska from January 15, 2021 to May 14, 2021 by policy era. Pre-policy, 4 donors had 8 kidneys recovered in Alaska, of which 6 were transplanted. Post-policy, one donor in Alaska had both kidneys recovered and transplanted.

Table 53: Kidneys Recovered and Transplanted for Deceased Donors Recovered in Alaska January 15, 2021 - May 14, 2021 by Policy Era

	Pre-Policy	Post-Policy
Kidney Donors Recovered	4	1
Kidneys Recovered	8	2
Kidneys Transplanted	6	2

Table 54 shows the distribution of distance from the donor hospital in NM for deceased donor kidney transplants utilizing donors recovered in Alaska from January 15, 2021 to May 14, 2021 by policy era. The median distance from the donor hospital increased from 1317 NM to 1479 NM after the policy change.

Table 54: Distribution of Distance from Donor Hospital for Deceased Donor Kidney Transplants Utilizing Donors Recovered in Alaska January 15, 2021 - May 14, 2021 by Policy Era

Era	N	Min	25th %-tile	Med	75th %-tile	Max
Pre-Policy	6	1315	1315	1317	2676	2676
Post-Policy	2	1242	1242	1479	1716	1716

Conclusion

Increases in waiting list additions, transplants, and donors recovered were observed after the removal of DSA and OPTN region from kidney allocation, though may not be attributable to the change in OPTN policy. Most observed changes, based on early data, show alignment with the KPSAM modeling used to inform the development of this policy. The OPTN Kidney Committee will continue to monitor this policy as data are submitted.

Appendix

Table 55: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and DSA

DSA	Pre-Policy		Post-Policy	
	N	%	N	%
ALOB	34	1.17	64	1.88
AROR	24	0.82	27	0.79
AZOB	63	2.16	98	2.88
CADN	96	3.29	106	3.12
CAGS	31	1.06	50	1.47
CAOP	110	3.77	145	4.26
CASD	28	0.96	19	0.56
CORS	53	1.82	58	1.70
DCTC	42	1.44	45	1.32
FLFH	64	2.19	54	1.59
FLMP	42	1.44	60	1.76
FLUF	36	1.23	73	2.15
FLWC	64	2.19	83	2.44
GALL	80	2.74	83	2.44
HIOP	12	0.41	13	0.38
IAOP	28	0.96	25	0.73
ILIP	84	2.88	141	4.14
INOP	88	3.02	61	1.79
KYDA	48	1.64	53	1.56
LAOP	46	1.58	57	1.68
MAOB	106	3.63	107	3.15
MDPC	29	0.99	32	0.94
MIOP	78	2.67	97	2.85
MNOP	47	1.61	45	1.32
MOMA	52	1.78	49	1.44
MSOP	27	0.93	23	0.68
MWOB	59	2.02	96	2.82
NCCM	30	1.03	50	1.47
NCNC	61	2.09	70	2.06
NEOR	18	0.62	25	0.73
NJTO	64	2.19	53	1.56
NMOP	25	0.86	25	0.73
NVLV	34	1.17	26	0.76
NYAP	25	0.86	17	0.50
NYFL	10	0.34	24	0.71
NYRT	72	2.47	81	2.38
NYWN	15	0.51	14	0.41
OHLB	45	1.54	28	0.82
OHLC	44	1.51	42	1.23
OHLP	28	0.96	39	1.15
OHOV	30	1.03	22	0.65
OKOP	48	1.64	74	2.18
ORUO	40	1.37	42	1.23
PADV	138	4.73	175	5.14
PATF	75	2.57	62	1.82
PRLL	20	0.69	11	0.32

(continued)

DSA	N	%	N	%
SCOP	52	1.78	47	1.38
TNDS	127	4.35	118	3.47
TNMS	18	0.62	13	0.38
TXGC	87	2.98	100	2.94
TXSA	40	1.37	86	2.53
TXSB	105	3.60	126	3.70
UTOP	28	0.96	57	1.68
VATB	48	1.64	40	1.18
WALC	72	2.47	90	2.65
WIDN	24	0.82	40	1.18
WIUW	24	0.82	41	1.21
Total	2918	100.00	3402	100.00

Table 56: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and Transplant Center

Transplant Center	Pre-Policy		Post-Policy	
	N	%	N	%
ALCH-TX1	1	0.03	2	0.06
ALUA-TX1	38	1.30	59	1.73
ALVA-TX1	1	0.03	0	0.00
ARCH-TX1	1	0.03	4	0.12
ARUA-TX1	33	1.13	32	0.94
AZCH-TX1	1	0.03	4	0.12
AZGS-TX1	9	0.31	8	0.24
AZMC-TX1	49	1.68	70	2.06
AZSJ-TX1	2	0.07	10	0.29
AZUA-TX1	8	0.27	18	0.53
CACH-TX1	1	0.03	0	0.00
CACL-TX1	5	0.17	3	0.09
CACS-TX1	26	0.89	35	1.03
CAGH-TX1	8	0.27	6	0.18
CAIM-TX1	7	0.24	16	0.47
CALA-TX1	3	0.10	5	0.15
CALL-TX1	15	0.51	28	0.82
CAMB-TX1	0	0.00	1	0.03
CAPC-TX1	4	0.14	2	0.06
CAPM-TX1	31	1.06	22	0.65
CARC-TX1	0	0.00	2	0.06
CASD-TX1	19	0.65	11	0.32
CASF-TX1	41	1.41	55	1.62
CASH-TX1	3	0.10	6	0.18
CASJ-TX1	1	0.03	8	0.24
CASM-TX1	40	1.37	55	1.62
CASU-TX1	13	0.45	22	0.65
CAUC-TX1	46	1.58	58	1.70
CAUH-TX1	25	0.86	18	0.53
COCH-TX1	2	0.07	0	0.00
COPM-TX1	1	0.03	4	0.12
COSL-TX1	4	0.14	4	0.12
COUC-TX1	39	1.34	30	0.88
CTHH-TX1	10	0.34	8	0.24
CTYN-TX1	12	0.41	15	0.44
DCCH-TX1	1	0.03	1	0.03
DCGU-TX1	34	1.17	28	0.82
DCGW-TX1	8	0.27	5	0.15
DCWR-TX1	3	0.10	8	0.24
DECC-TX1	6	0.21	2	0.06
FLBC-TX1	1	0.03	3	0.09
FLCC-TX1	25	0.86	34	1.00
FLFH-TX1	21	0.72	18	0.53
FLHM-TX1	5	0.17	3	0.09
FLJM-TX1	53	1.82	59	1.73
FLLM-TX1	2	0.07	1	0.03
FLMR-TX1	5	0.17	8	0.24

(continued)

Transplant Center	N	%	N	%
FLSH-TX1	2	0.07	4	0.12
FLSL-TX1	24	0.82	37	1.09
FLTG-TX1	49	1.68	48	1.41
FLUF-TX1	14	0.48	19	0.56
GAEH-TX1	1	0.03	4	0.12
GAEM-TX1	45	1.54	56	1.65
GAMC-TX1	6	0.21	12	0.35
GAPH-TX1	28	0.96	68	2.00
HIQM-TX1	5	0.17	11	0.32
IAIM-TX1	11	0.38	7	0.21
IAIV-TX1	14	0.48	11	0.32
IAVA-TX1	6	0.21	3	0.09
ILCH-TX1	0	0.00	4	0.12
ILCM-TX1	2	0.07	8	0.24
ILLU-TX1	19	0.65	38	1.12
ILMM-TX1	3	0.10	3	0.09
ILNM-TX1	21	0.72	35	1.03
ILPL-TX1	8	0.27	15	0.44
ILSF-TX1	3	0.10	5	0.15
ILUC-TX1	13	0.45	35	1.03
ILUI-TX1	29	0.99	44	1.29
ILVA-TX1	5	0.17	5	0.15
INIM-TX1	51	1.75	37	1.09
INSV-TX1	16	0.55	10	0.29
KSUK-TX1	28	0.96	27	0.79
KYJH-TX1	10	0.34	11	0.32
KYKC-TX1	0	0.00	2	0.06
KYUK-TX1	9	0.31	13	0.38
LACH-TX1	1	0.03	2	0.06
LAOF-TX1	17	0.58	24	0.71
LATU-TX1	18	0.62	8	0.24
LAWK-TX1	6	0.21	10	0.29
MABI-TX1	7	0.24	8	0.24
MABS-TX1	8	0.27	2	0.06
MABU-TX1	9	0.31	6	0.18
MACH-TX1	5	0.17	2	0.06
MALC-TX1	4	0.14	5	0.15
MAMG-TX1	15	0.51	7	0.21
MANM-TX1	2	0.07	3	0.09
MAPB-TX1	8	0.27	8	0.24
MAUM-TX1	5	0.17	6	0.18
MDJH-TX1	26	0.89	39	1.15
MDUM-TX1	15	0.51	21	0.62
MEMC-TX1	4	0.14	5	0.15
MIBH-TX1	9	0.31	11	0.32
MICH-TX1	2	0.07	0	0.00
MIDV-TX1	1	0.03	1	0.03
MIHF-TX1	8	0.27	5	0.15
MIHH-TX1	4	0.14	2	0.06
MISJ-TX1	4	0.14	1	0.03
MISM-TX1	5	0.17	5	0.15

(continued)

Transplant Center	N	%	N	%
MIUM-TX1	23	0.79	22	0.65
MNAN-TX1	0	0.00	2	0.06
MNHC-TX1	3	0.10	3	0.09
MNMC-TX1	16	0.55	14	0.41
MNUM-TX1	21	0.72	18	0.53
MOBH-TX1	32	1.10	33	0.97
MOCG-TX1	1	0.03	3	0.09
MOCH-TX1	2	0.07	1	0.03
MOCM-TX1	0	0.00	2	0.06
MOLH-TX1	20	0.69	27	0.79
MORH-TX1	10	0.34	5	0.15
MOSL-TX1	7	0.24	8	0.24
MSUM-TX1	21	0.72	32	0.94
NCBG-TX1	32	1.10	34	1.00
NCCM-TX1	12	0.41	10	0.29
NCDU-TX1	36	1.23	24	0.71
NCEC-TX1	6	0.21	9	0.26
NCMH-TX1	20	0.69	24	0.71
NDMC-TX1	2	0.07	4	0.12
NDSL-TX1	2	0.07	6	0.18
NEUN-TX1	16	0.55	32	0.94
NHDH-TX1	3	0.10	0	0.00
NJHK-TX1	13	0.45	11	0.32
NJLL-TX1	6	0.21	7	0.21
NJRW-TX1	9	0.31	6	0.18
NJSB-TX1	47	1.61	39	1.15
NMAQ-TX1	10	0.34	9	0.26
NMPH-TX1	5	0.17	7	0.21
NVUM-TX1	26	0.89	18	0.53
NYAM-TX1	16	0.55	2	0.06
NYCC-TX1	1	0.03	1	0.03
NYCP-TX1	20	0.69	17	0.50
NYDS-TX1	1	0.03	2	0.06
NYEC-TX1	27	0.93	25	0.73
NYFL-TX1	8	0.27	24	0.71
NYMA-TX1	7	0.24	26	0.76
NYMS-TX1	19	0.65	48	1.41
NYNS-TX1	9	0.31	16	0.47
NYNY-TX1	17	0.58	31	0.91
NYSB-TX1	14	0.48	17	0.50
NYUC-TX1	35	1.20	50	1.47
NYUM-TX1	7	0.24	13	0.38
NYVA-TX1	2	0.07	4	0.12
NYWC-TX1	6	0.21	12	0.35
OHCC-TX1	37	1.27	32	0.94
OHCM-TX1	3	0.10	6	0.18
OHCO-TX1	28	0.96	17	0.50
OHOU-TX1	35	1.20	43	1.26
OHTC-TX1	7	0.24	10	0.29
OHUC-TX1	33	1.13	27	0.79
OHUH-TX1	19	0.65	20	0.59

(continued)

Transplant Center	N	%	N	%
OKBC-TX1	15	0.51	6	0.18
OKMD-TX1	6	0.21	11	0.32
OKSJ-TX1	8	0.27	8	0.24
ORGS-TX1	5	0.17	4	0.12
ORUO-TX1	20	0.69	20	0.59
ORVA-TX1	8	0.27	6	0.18
PAAE-TX1	5	0.17	9	0.26
PAAG-TX1	16	0.55	11	0.32
PACC-TX1	2	0.07	0	0.00
PACH-TX1	1	0.03	0	0.00
PACP-TX1	0	0.00	2	0.06
PAGM-TX1	8	0.27	4	0.12
PAHE-TX1	3	0.10	2	0.06
PAHH-TX1	6	0.21	3	0.09
PALH-TX1	2	0.07	1	0.03
PALV-TX1	16	0.55	10	0.29
PAPT-TX1	26	0.89	21	0.62
PARH-TX1	1	0.03	0	0.00
PASC-TX1	1	0.03	2	0.06
PATJ-TX1	15	0.51	9	0.26
PATU-TX1	5	0.17	6	0.18
PAUP-TX1	30	1.03	22	0.65
PAVA-TX1	6	0.21	4	0.12
PRSJ-TX1	15	0.51	5	0.15
RIRH-TX1	11	0.38	5	0.15
SCMU-TX1	57	1.95	75	2.20
SDMK-TX1	2	0.07	1	0.03
SDSV-TX1	1	0.03	3	0.09
TNEM-TX1	9	0.31	2	0.06
TNMH-TX1	18	0.62	37	1.09
TNST-TX1	32	1.10	16	0.47
TNUK-TX1	13	0.45	8	0.24
TNVU-TX1	42	1.44	39	1.15
TXAS-TX1	8	0.27	10	0.29
TXBC-TX1	19	0.65	47	1.38
TXCF-TX1	3	0.10	7	0.21
TXCM-TX1	2	0.07	4	0.12
TXDC-TX1	1	0.03	0	0.00
TXDM-TX1	3	0.10	10	0.29
TXDR-TX1	3	0.10	3	0.09
TXFW-TX1	4	0.14	6	0.18
TXHD-TX1	23	0.79	21	0.62
TXHH-TX1	7	0.24	7	0.21
TXHI-TX1	10	0.34	20	0.59
TXHS-TX1	29	0.99	36	1.06
TXJS-TX1	12	0.41	11	0.32
TXLP-TX1	6	0.21	8	0.24
TXMC-TX1	5	0.17	22	0.65
TXMH-TX1	20	0.69	17	0.50
TXPL-TX1	18	0.62	13	0.38
TXPM-TX1	1	0.03	3	0.09

(continued)

Transplant Center	N	%	N	%
TXSP-TX1	27	0.93	47	1.38
TXSW-TX1	20	0.69	21	0.62
TXTC-TX1	2	0.07	9	0.26
TXTX-TX1	22	0.75	37	1.09
TXUC-TX1	0	0.00	3	0.09
TXVA-TX1	3	0.10	1	0.03
UTLD-TX1	21	0.72	28	0.82
UTMC-TX1	12	0.41	23	0.68
UTPC-TX1	0	0.00	3	0.09
VACH-TX1	1	0.03	1	0.03
VAFH-TX1	9	0.31	18	0.53
VAHD-TX1	1	0.03	3	0.09
VAMC-TX1	49	1.68	46	1.35
VANG-TX1	12	0.41	6	0.18
VAUV-TX1	20	0.69	16	0.47
VTMC-TX1	2	0.07	2	0.06
WACH-TX1	6	0.21	4	0.12
WASH-TX1	5	0.17	10	0.29
WASM-TX1	13	0.45	13	0.38
WAUW-TX1	19	0.65	31	0.91
WAVM-TX1	13	0.45	13	0.38
WICH-TX1	0	0.00	1	0.03
WISE-TX1	3	0.10	11	0.32
WISL-TX1	4	0.14	4	0.12
WIUW-TX1	28	0.96	36	1.06
WVCA-TX1	24	0.82	18	0.53
WVWU-TX1	3	0.10	3	0.09
Total	2918	100.00	3402	100.00

Table 57: Deceased Donor Kidney Transplants from January 15, 2021 - May 14, 2021 by Policy Era and State

State	Pre-Policy		Post-Policy	
	N	%	N	%
Alabama	40	1.37	61	1.79
Arizona	69	2.36	110	3.23
Arkansas	34	1.17	36	1.06
California	288	9.87	353	10.38
Colorado	46	1.58	38	1.12
Connecticut	22	0.75	23	0.68
Delaware	6	0.21	2	0.06
Dist. Of Columbia	43	1.47	34	1.00
Florida	201	6.89	234	6.88
Georgia	80	2.74	140	4.12
Hawaii	5	0.17	11	0.32
Illinois	103	3.53	192	5.64
Indiana	67	2.30	47	1.38
Iowa	31	1.06	21	0.62
Kansas	28	0.96	27	0.79
Kentucky	19	0.65	26	0.76
Louisiana	42	1.44	44	1.29
Maine	4	0.14	5	0.15
Maryland	44	1.51	68	2.00
Massachusetts	63	2.16	47	1.38
Michigan	56	1.92	47	1.38
Minnesota	40	1.37	37	1.09
Mississippi	21	0.72	32	0.94
Missouri	72	2.47	79	2.32
Nebraska	16	0.55	32	0.94
Nevada	26	0.89	18	0.53
New Hampshire	3	0.10	0	0.00
New Jersey	75	2.57	63	1.85
New Mexico	15	0.51	16	0.47
New York	189	6.48	288	8.47
North Carolina	106	3.63	101	2.97
North Dakota	4	0.14	10	0.29
Ohio	162	5.55	155	4.56
Oklahoma	29	0.99	25	0.73
Oregon	33	1.13	30	0.88
Pennsylvania	143	4.90	106	3.12
Puerto Rico	15	0.51	5	0.15
Rhode Island	11	0.38	5	0.15
South Carolina	57	1.95	75	2.20
South Dakota	3	0.10	4	0.12
Tennessee	114	3.91	102	3.00
Texas	248	8.50	363	10.67
Utah	33	1.13	54	1.59
Vermont	2	0.07	2	0.06
Virginia	92	3.15	90	2.65
Washington	56	1.92	71	2.09
West Virginia	27	0.93	21	0.62
Wisconsin	35	1.20	52	1.53
Total	2918	100.00	3402	100.00