Analysis Report

Data Request from the OPTN Kidney Transplantation Committee: Provide KPSAM simulation data on effect of removing DSA and region from kidney/pancreas/kidney-pancreas organ allocation policy

Prepared By
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Request made: September 10, 2018
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Analysis report to be submitted: December 7, 2018
Next committee meeting: December 10, 2018

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Executive Summary

SRTR used the updated kidney-pancreas simulated allocation model (KPSAM) to assess the simulated impact of five allocation frameworks based on nautical miles (nm) between candidate listing center and donor hospital. In interpreting the modeling results it is important to consider that KPSAM cannot model changes in program behaviors under new allocation policies. In particular, SRTR used a model for kidney offer acceptance based on offers in the current allocation system that includes reference to current geographic boundaries (e.g., “local” and “non-local”). These elements are to be eliminated in the new allocation schemes under consideration, and it is impossible to say with certainty how this will affect the probability of offer acceptance. It may be beneficial to re-fit an offer acceptance model without local/non-local offer designations; however other characteristics will likely still reflect, and even be surrogates for, local, regional, or national offers under the current system.

One aspect of the simulation results strongly affected by acceptance probability is the number of projected transplants. KPSAM uses a simple model of organ discard: if an organ is offered 200 times without an acceptance, it is marked as discarded. This approach is computationally efficient but does not identify most behavioral or clinical factors for which organs are discarded, and this means that KPSAM in general is not a good tool for predicting an overall number of transplants in any given policy scenario. Specifically in this analysis, lower overall acceptance probabilities related to the removal of the local/regional/national distribution system likely affect the number of transplants across all allocation proposals. However it is not possible to determine whether proposals are affected equally. SRTR will continue to investigate potential improvements to the modeling approach.

Main Findings

Kidney

Transplant counts and rates

Compared with the baseline simulation (i.e., current policy), the number of projected transplants and the transplant rates decline under all proposed frameworks, because KPSAM cannot account for changes in acceptance behavior under new allocation systems. Moreover, the acceptance model in KPSAM was fit on acceptances occurring within a local/regional/national framework, wherein there is a strong preference for local offers. Decreases in projected transplants and transplant rate are smaller under the 2-circle (2CR) proposals than under the 1-circle (1CR) proposals. Acceptance behavior will likely change in response to changes in organ availability at a center, and transplant counts and rates may not decline in reality. Previous experience with the SAMs suggests that they underpredict the number of transplants that would occur in reality if a given policy scenario were adopted, although they typically predict the direction of subgroup changes.1,2


**Waitlist mortality and posttransplant graft failure counts and rates**

Overall mortality rates were nearly identical across runs; slightly more waitlist deaths occurred under the proposed systems than at baseline, but because transplant is a competing risk for waitlist death, the decline in transplant is likely the driver of this increase in deaths. Given the above caveats regarding transplant counts and transplant rate, this may not occur in reality. Projected posttransplant graft failure was on-average slightly higher under all the proposed systems.

**Median distance traveled**

Median distance (in nm) between recipient and donor tended to increase under all proposed systems. The increase was highest for the 1-CR proposals. However, the variance in distance among transplants was lowest in the 1-CR proposals, meaning that disparity in distance was reduced. This is intuitive when organs are shared more broadly. Furthermore, the distributions became less skewed, again pointing to a reduction in disparity. At baseline, the median distance was 108 miles, while the mean was 344. This large difference between mean and median at baseline, evidence of a high degree of variability in transplant distance, was reduced in all the simulations of the proposed systems (Table 4).

**Kidney-Pancreas and Pancreas**

**Transplant counts and rates**

Kidney-Pancreas: Compared with the baseline simulation (i.e., current policy), the number of projected transplants and the transplant rates increase under all proposed frameworks. In contrast to the acceptance model for kidney, the acceptance models for kidney-pancreas and pancreas use no local designations. This may explain why transplants under the proposed systems increased, in contrast to kidney transplants. Nonetheless, acceptance behavior will likely change in response to changes in organ availability at a center, and transplant counts and rates may not mirror those predicted by KPSAM.

Pancreas: Compared with the baseline simulation (i.e. current policy), the number of projected transplants and the transplant rates decrease under all proposed frameworks. Acceptance behavior will likely change in response to changes in organ availability at a center, and that transplant counts and rates may not mirror those predicted by KPSAM.

**Waitlist mortality and posttransplant graft failure counts and rates**

For both kidney-pancreas and pancreas candidates, overall mortality rates and counts were nearly identical across runs. The trend for projected posttransplant graft failure was inconsistent across runs. For kidney-pancreas, it was lowest in the 2CR-150 model and highest in the 1CR-no points model; for pancreas, it was lowest in the 2CR-150 model and highest in the 1CR-steep points model. For both organs, however, the minimum and maximum ranges were wide enough to overlap for all runs.
Median distance traveled

Median distance (in nm) between recipient and donor increased under all proposed systems, with the largest change in the 1-CR models. At baseline, pancreata traveled much farther than kidney-pancreata combinations. Therefore, the increases from baseline were more pronounced for kidney-pancreata.

Data Request

Using the most recently available KPSAM version and data, model the kidney, pancreas, and kidney-pancreas distribution systems outlined in the KI2018_01 Analysis Plan as Allocation Framework 1 and Allocation Framework 2.

Simulation 2CR_150 will use the distances of 150 nm and 300 nm in place of local and regional designations. Simulation 2CR_250 will use the distances of 250 nm and 500 nm in place of local and regional designations.

Simulations 1CR_nopts, 1CR_shallow, and 1CR_steep will use the distance of 500 nm in place of the local designation, and regional sharing will be eliminated. Instead, organs will be shared nationally when beyond the 500 nm border.

Additionally, Simulations 1CR_shallow and 1CR_steep will include proximity points awarded for distance between candidate center and donor hospital zip code centroids. Proximity points within the 500nm circle will be assigned linearly, starting at X points for 0nm and tapering to 0 points at 500nm. National proximity points will be assigned linearly, starting at Y points for 501nm and tapering to 0 points at 2500nm. No proximity points will be assigned for candidates at centers > 2500nm from the donor hospital. In Simulation 2CR_shallow, or the “shallow slopes” simulation, X and Y are equal to 1 and 2, respectively. In Simulation 2CR_steep, or the “steep slopes” simulation, X and Y are equal to 2 and 4, respectively.

Simulation BL will be a baseline run using the current allocation system(s), shown for comparative purposes.

Study population

KPSAM input files were updated to include transplant candidates listed on the kidney, kidney-pancreas, or pancreas transplant waiting lists between January 1, 2017, and December 31, 2017, and donors whose kidneys or pancreata were recovered for transplant in the same time period.

Updates to KPSAM

The unacceptable antigen equivalences and antigen splits used by KPSAM have been updated to match current (September 2018) OPTN policy. In addition, all predictive models used by KPSAM have been updated to incorporate newer data and methodology, including but not limited to the acceptance models and posttransplant outcomes models.
Metrics assessed

As noted in the OPTN data request, SRTR assessed the following outcome metrics for the simulations.
* Count (%) of transplants
* Transplant rates
* Count (%) of waitlist deaths
* Waitlist mortality rates
* Posttransplant graft survival rates
* Posttransplant patient survival rates
* Organ travel distance distribution (NM): average, median, Q1, Q3, 5th, 95th percentile

Relevant metrics will be displayed in maps by DSA and tables provided in an appendix for DSA-level results:
* Change in count of transplants
* Transplant rates
* Change in count of waitlist deaths
* Waitlist mortality rates

Metrics by organ above should also be assessed by the following subgroup populations (including a comparison of percentage of waiting list vs. percentage of transplants where applicable):
* KDPI: 0%-20%, 21%-34%, 35%-85%, 86%-100% (transplant only)
* Donor type: DCD vs. not DCD (transplant only)
* EPTS: 0%-20% vs. 21%-100%
* Candidate/recipient age: 0-5, 6-10, 11-17, 18-34, 35-49, 50-64, >= 65 years
* Candidate/recipient race/ethnicity: white, African American, Hispanic, Asian, other/unknown
* Candidate/recipient blood type (ABO): A, B, AB, O
* Candidate/recipient sex: male vs. female
* Candidate/recipient sensitization: 0-HLA mismatch: 0 vs. non-0
  + DR mismatch level: 0, 1, 2
* Candidate/recipient time on dialysis: pre-emptive transplant, 0-< 1, 1-< 3, 3-< 5, 5-< 10, >= 10 years
* Candidate/recipient diagnosis: diabetes, hypertension, GN, cystic kidney disease, other
* SES-related:
  + Candidate/recipient insurance status: public vs. private
  + Median income by recipient zip code at listing/transplant distribution: using the ACS zip code level publically available dataset + Urbanicity: urban vs. rural, based on RUCA codes (individually, and grouped by metropolitan vs. micropolitan + small town + rural) * Geography:
    + Percentage local (DSA), regional, national
    + By OPTN Region: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
    + By DSA

Analytic approach

Each of the six requested changes to the allocation system was run with 10 iterations (repetitions) in KPSAM, to provide some measure of variability. Because the same donors and candidates are used
in each of the simulations, and they are the actual donors and candidates from 2017 rather than independent samples from a larger population, statistical tests for comparison have no validity. Instead, the average and range of results (minimum - maximum) for the 10 iterations are provided.

**Results**

Results for the simulated scenarios are reported primarily in the form of plots, with each plot displaying the values for a given metric across the six scenarios simulated. In viewing these results, it is important to compare the new scenarios with the current allocation policy scenario to identify changes in outcome metrics due to the proposed policy changes. Each scenario was simulated 10 times, and the plot displays the range of results across the 10 simulations as a vertical line extending from the minimum value to the maximum value found for that metric and scenario. A point along that line marks the mean value of the metric across the 10 iterations.

**Overview Data Tables**

*Table 1 Overview of Main Metrics for Kidney*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Transplant Rate per Patient-Year</th>
<th>Transplant Count (N)</th>
<th>Waitlist Mortality Rate per Patient-Year</th>
<th>Waitlist Mortality Count (N)</th>
<th>Graft Failure Rate per Patient-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>0.122</td>
<td>13473</td>
<td>0.048</td>
<td>5262</td>
<td>0.116</td>
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<tr>
<td></td>
<td>(0.121,0.123)</td>
<td>(13373,13536)</td>
<td>(0.047,0.048)</td>
<td>(5247,5279)</td>
<td>(0.109,0.124)</td>
</tr>
<tr>
<td>1CR_nopts</td>
<td>0.105</td>
<td>11727</td>
<td>0.048</td>
<td>5308</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>(0.105,0.106)</td>
<td>(11665,11839)</td>
<td>(0.048,0.048)</td>
<td>(5299,5320)</td>
<td>(0.115,0.124)</td>
</tr>
<tr>
<td>1CR_shallow</td>
<td>0.106</td>
<td>11739</td>
<td>0.048</td>
<td>5312</td>
<td>0.119</td>
</tr>
<tr>
<td></td>
<td>(0.105,0.106)</td>
<td>(11669,11823)</td>
<td>(0.048,0.048)</td>
<td>(5300,5326)</td>
<td>(0.113,0.128)</td>
</tr>
<tr>
<td>1CR_steep</td>
<td>0.106</td>
<td>11767</td>
<td>0.048</td>
<td>5305</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>(0.105,0.106)</td>
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<td>(5298,5317)</td>
<td>(0.113,0.131)</td>
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<td>2CR_150</td>
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<td>(12319,12486)</td>
<td>(0.047,0.048)</td>
<td>(5263,5312)</td>
<td>(0.108,0.129)</td>
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<td>2CR_250</td>
<td>0.108</td>
<td>11981</td>
<td>0.048</td>
<td>5300</td>
<td>0.119</td>
</tr>
<tr>
<td></td>
<td>(0.107,0.109)</td>
<td>(11894,12084)</td>
<td>(0.048,0.048)</td>
<td>(5292,5309)</td>
<td>(0.113,0.126)</td>
</tr>
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</table>

*Table 2 Overview of Main Metrics for Kidney-Pancreas*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Transplant Rate per Patient-Year</th>
<th>Transplant Count (N)</th>
<th>Waitlist Mortality Rate per Patient-Year</th>
<th>Waitlist Mortality Count (N)</th>
<th>Graft Failure Rate per Patient-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>0.503</td>
<td>944</td>
<td>0.053</td>
<td>99 (95,103)</td>
<td>0.223</td>
</tr>
<tr>
<td></td>
<td>(0.49,0.515)</td>
<td>(923,961)</td>
<td>(0.05,0.055)</td>
<td>(95,103)</td>
<td>(0.195,0.266)</td>
</tr>
<tr>
<td>1CR_nopts</td>
<td>0.599</td>
<td>1081</td>
<td>0.053</td>
<td>96 (92,99)</td>
<td>0.228</td>
</tr>
<tr>
<td></td>
<td>(0.589,0.608)</td>
<td>(1074,1089)</td>
<td>(0.051,0.055)</td>
<td>(92,99)</td>
<td>(0.203,0.284)</td>
</tr>
<tr>
<td>1CR_shallow</td>
<td>0.599</td>
<td>1081</td>
<td>0.053</td>
<td>95 (91,98)</td>
<td>0.228</td>
</tr>
<tr>
<td></td>
<td>(0.587,0.605)</td>
<td>(1071,1089)</td>
<td>(0.051,0.054)</td>
<td>(91,98)</td>
<td>(0.198,0.272)</td>
</tr>
</tbody>
</table>
** Graft Failure is modeled as the earlier failure of either the kidney or pancreas allograft. Note that predictive models for posttransplant pancreas graft failure were built on data that do not yet incorporate the new pancreas graft failure definition implemented in 2018.

### Table 3 Overview of Main Metrics for Pancreas

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Transplant Rate per Patient-Year (N)</th>
<th>Transplant Count (N)</th>
<th>Waitlist Mortality Rate per Patient-Year</th>
<th>Waitlist Mortality Count (N)</th>
<th>Graft Failure Rate per Patient-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>0.295 (0.278,0.308)</td>
<td>210 (200,218)</td>
<td>0.019 (0.017,0.021)</td>
<td>13 (12,15)</td>
<td>0.306 (0.241,0.398)</td>
</tr>
<tr>
<td>1CR_nopts</td>
<td>0.195 (0.185,0.2)</td>
<td>146 (138,150)</td>
<td>0.018 (0.017,0.02)</td>
<td>14 (13,15)</td>
<td>0.355 (0.225,0.579)</td>
</tr>
<tr>
<td>1CR_shallow</td>
<td>0.195 (0.185,0.209)</td>
<td>145 (138,154)</td>
<td>0.019 (0.019,0.02)</td>
<td>14 (14,15)</td>
<td>0.345 (0.224,0.521)</td>
</tr>
<tr>
<td>1CR_steep</td>
<td>0.194 (0.186,0.208)</td>
<td>144 (139,155)</td>
<td>0.019 (0.017,0.021)</td>
<td>14 (13,16)</td>
<td>0.358 (0.258,0.53)</td>
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<tr>
<td>2CR_150</td>
<td>0.226 (0.212,0.239)</td>
<td>166 (157,175)</td>
<td>0.02 (0.018,0.023)</td>
<td>15 (13,17)</td>
<td>0.297 (0.21,0.357)</td>
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<td>2CR_250</td>
<td>0.203 (0.194,0.222)</td>
<td>151 (145,164)</td>
<td>0.02 (0.017,0.022)</td>
<td>14 (13,16)</td>
<td>0.316 (0.224,0.415)</td>
</tr>
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</table>

** Transplant Distance Statistics (in Nautical Miles)

### Table 4 Recipient - Donor Distance Statistics (in NM), Kidney-Alone Transplants

<table>
<thead>
<tr>
<th>Scenario</th>
<th>5th %ile</th>
<th>Q1</th>
<th>Median</th>
<th>Mean</th>
<th>Q3</th>
<th>95th %ile</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>0.00</td>
<td>15.67</td>
<td>107.56</td>
<td>343.85</td>
<td>439.49</td>
<td>1592.12</td>
<td>522.86</td>
</tr>
<tr>
<td>1CR_nopts</td>
<td>11.54</td>
<td>188.82</td>
<td>354.29</td>
<td>485.21</td>
<td>487.56</td>
<td>1703.07</td>
<td>513.07</td>
</tr>
<tr>
<td>1CR_shallow</td>
<td>9.20</td>
<td>171.33</td>
<td>341.61</td>
<td>474.06</td>
<td>486.22</td>
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</tr>
<tr>
<td>1CR_steep</td>
<td>7.27</td>
<td>158.99</td>
<td>327.90</td>
<td>463.85</td>
<td>484.98</td>
<td>1670.79</td>
<td>509.84</td>
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<tr>
<td>2CR_150</td>
<td>0.51</td>
<td>43.23</td>
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<td>397.15</td>
<td>495.65</td>
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</tr>
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<td>2CR_250</td>
<td>3.66</td>
<td>94.54</td>
<td>205.88</td>
<td>414.23</td>
<td>465.44</td>
<td>1704.28</td>
<td>539.95</td>
</tr>
</tbody>
</table>

### Table 5 Recipient - Donor Distance Statistics (in NM), Kidney-Pancreas Transplants

<table>
<thead>
<tr>
<th>Scenario</th>
<th>5th %ile</th>
<th>Q1</th>
<th>Median</th>
<th>Mean</th>
<th>Q3</th>
<th>95th %ile</th>
<th>Std Deviation</th>
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<tbody>
<tr>
<td>BL</td>
<td>0.00</td>
<td>15.67</td>
<td>107.56</td>
<td>343.85</td>
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<td>354.29</td>
<td>485.21</td>
<td>487.56</td>
<td>1703.07</td>
<td>513.07</td>
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<tr>
<td>1CR_shallow</td>
<td>9.20</td>
<td>171.33</td>
<td>341.61</td>
<td>474.06</td>
<td>486.22</td>
<td>1683.09</td>
<td>510.76</td>
</tr>
<tr>
<td>1CR_steep</td>
<td>7.27</td>
<td>158.99</td>
<td>327.90</td>
<td>463.85</td>
<td>484.98</td>
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<td>509.84</td>
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<tr>
<td>2CR_150</td>
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<td>128.83</td>
<td>397.15</td>
<td>495.65</td>
<td>1727.14</td>
<td>571.38</td>
</tr>
<tr>
<td>2CR_250</td>
<td>3.66</td>
<td>94.54</td>
<td>205.88</td>
<td>414.23</td>
<td>465.44</td>
<td>1704.28</td>
<td>539.95</td>
</tr>
<tr>
<td>Scenario</td>
<td>5th %ile</td>
<td>Q1</td>
<td>Median</td>
<td>Mean</td>
<td>Q3</td>
<td>95th %ile</td>
<td>Std Deviation</td>
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<td>1416.55</td>
<td>530.05</td>
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<td>439.88</td>
<td>407.56</td>
<td>1754.20</td>
<td>631.49</td>
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Maps of Transplant Rate by DSA

Figure 1 Maps of Transplant Rate by DSA
Maps of Waitlist Mortality Rate by DSA

Figure 2 Maps of Waitlist Mortality Rate by DSA
Maps of Transplant Rate by Region

Figure 3 Maps of Transplant Rate by Region
Maps of Median Organ Travel Distance by DSA

Figure 4 Maps of Median Organ Travel Distance by DSA
**Distribution of Organ Travel Distance**

*Figure 5 Distribution of Organ Travel Distance*

Q1, Q2 (median), Q3, and 95th percentiles are shown with horizontal lines on each plot.

All metrics reported as \textit{mean (min, max)} across the 10 simulation iterations.
Subgroup Analyses

Transplant

Transplant Rates

Transplant Rates: Age 0-17

Figure 6 Transplant Rates by Age 0-17: Kidney
Transplant Rates: Age 18+

Figure 7 Transplant Rates by Age 18+: Kidney
Transplant Rates by Age 18+: Kidney-Pancreas

**Figure 8 Transplant Rates by Age 18+: Kidney-Pancreas**
**Figure 9 Transplant Rates by Age 18+: Pancreas**
Transplant Rates: Race

**Figure 10 Transplant Rates by Race: Kidney**
Figure 11 Transplant Rates by Race: Kidney-Pancreas
Figure 12 Transplant Rates by Race: Pancreas
Transplant Rates: Ethnicity

Figure 13: Transplant Rates by Ethnicity: Kidney
Figure 14 Transplant Rates by Ethnicity: Kidney-Pancreas
Figure 15 Transplant Rates by Ethnicity: Pancreas
Transplant Rates: Sex

Figure 16 Transplant Rates by Sex: Kidney
Figure 17 Transplant Rates by Sex: Kidney-Pancreas
Figure 18 Transplant Rates by Sex: Pancreas
Transplant Rates: ABO Group

Figure 19 Transplant Rates by ABO Group: Kidney
Figure 20 Transplant Rates by ABO Group: Kidney-Pancreas
Figure 21 Transplant Rates by ABO Group: Pancreas
Transplant Rates: Diagnosis

Figure 22 Transplant Rates by Diagnosis: Kidney
Figure 23 Transplant Rates by Diagnosis: Kidney-Pancreas
Figure 24 Transplant Rates by Diagnosis: Pancreas
Transplant Rates: Dialysis Time

Figure 25 Transplant Rates by Dialysis Time: Kidney
Transplant Rates: cPRA: 0 - 60

Figure 26 Transplant Rates by cPRA: 0 - 60: Kidney
Figure 27 Transplant Rates by cPRA: 0 - 60: Kidney-Pancreas
Figure 28 Transplant Rates by cPRA: 0 - 60: Pancreas
Transplant Rates: cPRA: 61 - 94

*Figure 29 Transplant Rates by cPRA: 61 - 94: Kidney*
Figure 30 Transplant Rates by cPRA: 61 - 94: Kidney-Pancreas
Figure 31 Transplant Rates by cPRA: 61 - 94: Pancreas
Transplant Rates: cPRA: 95 - 100

Figure 32 Transplant Rates by cPRA: 95 - 100: Kidney
Figure 33 Transplant Rates by cPRA: 95 - 100: Kidney-Pancreas
Figure 34 Transplant Rates by cPRA: 95 - 100: Pancreas
Transplant Rates: cPRA: 95 - 98

Figure 35 Transplant Rates by cPRA: 95 - 98: Kidney
Transplant Rates: cPRA: 99 - 100

Figure 36 Transplant Rates by cPRA: 99 - 100: Kidney
Transplant Rates: cPRA: 95 - 99

Figure 37 Transplant Rates by cPRA: 95 - 99: Kidney
Transplant Rates: cPRA: 99 - 99.8

Figure 38 Transplant Rates by cPRA: 99 - 99.8: Kidney
Transplant Rates: cPRA: 99.8 - 100

Figure 39 Transplant Rates by cPRA: 99.8 - 100: Kidney
Transplant Rates: Payment Status

Figure 40 Transplant Rates by Payment Status: Kidney
Figure 41 Transplant Rates by Payment Status: Kidney-Pancreas
Figure 42 Transplant Rates by Payment Status: Pancreas
Transplant Rates: Urbanicity

Figure 43 Transplant Rates by Urbanicity: Kidney
Figure 44 Transplant Rates by Urbanicity: Kidney-Pancreas
Figure 45 Transplant Rates by Urbanicity: Pancreas
Figure 46 Transplant Rates by EPTS: Kidney
Transplant Rates: Median Household Income by Zip Code

Figure 47 Transplant Rates by Median Household Income by Zip Code: Kidney
Figure 48 Transplant Rates by Median Household Income by Zip Code: Kidney-Pancreas
Figure 49 Transplant Rates by Median Household Income by Zip Code: Pancreas
Transplant Counts

Transplant Counts: Age at Transplant 0-17

Figure 50 Transplant Counts by Age at Transplant 0-17: Kidney
Transplant Counts: Age at Transplant 18+

**Figure 51 Transplant Counts by Age at Transplant 18+: Kidney**
Figure 52 Transplant Counts by Age at Transplant 18+: Kidney-Pancreas
Figure 53 Transplant Counts by Age at Transplant 18+: Pancreas
Transplant Counts: Race

Figure 54 Transplant Counts by Race: Kidney
Figure 55 Transplant Counts by Race: Kidney-Pancreas
Figure 56 Transplant Counts by Race: Pancreas
Transplant Counts: Ethnicity

*Figure 57 Transplant Counts by Ethnicity: Kidney*
Figure 58 Transplant Counts by Ethnicity: Kidney-Pancreas
Figure 59 Transplant Counts by Ethnicity: Pancreas
Transplant Counts: Sex

Transplant Counts by Sex: Kidney

*Figure 60 Transplant Counts by Sex: Kidney*
Figure 61 Transplant Counts by Sex: Kidney-Pancreas
Figure 62 Transplant Counts by Sex: Pancreas
Transplant Counts: ABO Group

Figure 63 Transplant Counts by ABO Group: Kidney
Figure 64 Transplant Counts by ABO Group: Kidney-Pancreas
Figure 65 Transplant Counts by ABO Group: Pancreas
Transplant Counts: Diagnosis

Figure 66 Transplant Counts by Diagnosis: Kidney
Figure 67 Transplant Counts by Diagnosis: Kidney-Pancreas
Figure 68 Transplant Counts by Diagnosis: Pancreas
Transplant Counts: Dialysis Time

Figure 69 Transplant Counts by Dialysis Time: Kidney
Transplant Counts: cPRA: 0 - 60

**Figure 70 Transplant Counts by cPRA: 0 - 60: Kidney**
Figure 71 Transplant Counts by cPRA: 0 - 60: Kidney-Pancreas
Figure 72 Transplant Counts by cPRA: 0 - 60: Pancreas
Transplant Counts: cPRA: 61 - 94

Figure 73 Transplant Counts by cPRA: 61 - 94: Kidney
Figure 74 Transplant Counts by cPRA: 61 - 94: Kidney-Pancreas
Figure 75 Transplant Counts by cPRA: 61 - 94: Pancreas
Transplant Counts: cPRA: 95 - 100

Figure 76 Transplant Counts by cPRA: 95 - 100: Kidney
Figure 77 Transplant Counts by cPRA: 95 - 100: Kidney-Pancreas
Figure 78 Transplant Counts by cPRA: 95 - 100: Pancreas
Transplant Counts: cPRA: 95 - 98

Figure 79 Transplant Counts by cPRA: 95 - 98: Kidney
Transplant Counts: cPRA: 99 - 100

Figure 80 Transplant Counts by cPRA: 99 - 100: Kidney
Transplant Counts: cPRA: 95 - 99

Figure 81 Transplant Counts by cPRA: 95 - 99: Kidney
Transplant Counts: cPRA: 99 - 99.8

Figure 82 Transplant Counts by cPRA: 99 - 99.8: Kidney
Transplant Counts: cPRA: 99.8 - 100

Figure 83 Transplant Counts by cPRA: 99.8 - 100: Kidney
Transplant Counts: Payment Status

Figure 84 Transplant Counts by Payment Status: Kidney
Figure 85 Transplant Counts by Payment Status: Kidney-Pancreas
Figure 86 Transplant Counts by Payment Status: Pancreas
Transplant Counts: Urbanicity

**Figure 87 Transplant Counts by Urbanicity: Kidney**
Figure 88 Transplant Counts by Urbanicity: Kidney-Pancreas
Figure 89 Transplant Counts by Urbanicity: Pancreas
Transplant Counts: Local/Regional/National

**Figure 90 Transplant Counts by Local/Regional/National: Kidney**
Figure 91 Transplant Counts by Local/Regional/National: Kidney-Pancreas
Figure 92 Transplant Counts by Local/Regional/National: Pancreas
Transplant Counts: EPTS

Figure 93 Transplant Counts by EPTS: Kidney
Transplant Counts: Median Household Income by Zip Code

**Figure 94 Transplant Counts by Median Household Income by Zip Code: Kidney**
Figure 95 Transplant Counts by Median Household Income by Zip Code: Kidney-Pancreas
Figure 96 Transplant Counts by Median Household Income by Zip Code: Pancreas
Transplant Counts: Donor KDPI

Figure 97 Transplant Counts by Donor KDPI: Kidney
Transplant Counts: DCD Donor

Transplant Counts by DCD Donor: Kidney

Figure 98 Transplant Counts by DCD Donor: Kidney
Transplant Counts: Number of DR mismatches

Figure 99 Transplant Counts by Number of DR mismatches: Kidney
Transplant Percentages

Transplant Percentages: Age at Transplant 0-17

Figure 100 Percent of Transplants by Age at Transplant 0-17: Kidney
Transplant Percentages: Age at Transplant 18+

Figure 101 Percent of Transplants by Age at Transplant 18+: Kidney
Figure 102 Percent of Transplants by Age at Transplant 18+: Kidney-Pancreas
Figure 103 Percent of Transplants by Age at Transplant 18+: Pancreas
Transplant Percentages: Race

Figure 104 Percent of Transplants by Race: Kidney
Figure 105 Percent of Transplants by Race: Kidney-Pancreas
Figure 106 Percent of Transplants by Race: Pancreas
Transplant Percentages: Ethnicity

**Figure 107** Percent of Transplants by Ethnicity: Kidney
Figure 108 Percent of Transplants by Ethnicity: Kidney-Pancreas
Figure 109 Percent of Transplants by Ethnicity: Pancreas
Transplant Percentages: Sex

Figure 110 Percent of Transplants by Sex: Kidney
Figure 111 Percent of Transplants by Sex: Kidney-Pancreas
Figure 112 Percent of Transplants by Sex: Pancreas
Transplant Percentages: ABO Group

Figure 113 Percent of Transplants by ABO Group: Kidney
Figure 114 Percent of Transplants by ABO Group: Kidney-Pancreas
Figure 115 Percent of Transplants by ABO Group: Pancreas
Transplant Percentages: Diagnosis

Figure 116 Percent of Transplants by Diagnosis: Kidney
Figure 117 Percent of Transplants by Diagnosis: Kidney-Pancreas
Figure 118 Percent of Transplants by Diagnosis: Pancreas
Transplant Percentages: Dialysis Time

Figure 119 Percent of Transplants by Dialysis Time: Kidney
Transplant Percentages: cPRA: 0 - 60

Figure 120 Percent of Transplants by cPRA: 0 - 60: Kidney
Figure 121 Percent of Transplants by cPRA: 0 - 60: Kidney-Pancreas
Figure 122 Percent of Transplants by cPRA: 0 - 60: Pancreas
Transplant Percentages: cPRA: 61 - 94

**Figure 123** Percent of Transplants by cPRA: 61 - 94: Kidney
Figure 124 Percent of Transplants by cPRA: 61 - 94: Kidney-Pancreas
Figure 125 Percent of Transplants by cPRA: 61 - 94: Pancreas
Transplant Percentages: cPRA: 95 - 100

Figure 126 Percent of Transplants by cPRA: 95 - 100: Kidney
Figure 127 Percent of Transplants by cPRA: 95 - 100: Kidney-Pancreas
Figure 128 Percent of Transplants by cPRA: 95 - 100: Pancreas
Transplant Percentages: cPRA: 95 - 98

Figure 129 Percent of Transplants by cPRA: 95 - 98: Kidney
Transplant Percentages: cPRA: 99 - 100

Figure 130 Percent of Transplants by cPRA: 99 - 100: Kidney
Transplant Percentages: cPRA: 95 - 99

Figure 131 Percent of Transplants by cPRA: 95 - 99: Kidney
Transplant Percentages: cPRA: 99 - 99.8

Figure 132 Percent of Transplants by cPRA: 99 - 99.8: Kidney
Transplant Percentages: cPRA: 99.8 - 100

Figure 133 Percent of Transplants by cPRA: 99.8 - 100: Kidney
Transplant Percentages: Payment Status

Figure 134 Percent of Transplants by Payment Status: Kidney
Figure 135 Percent of Transplants by Payment Status: Kidney-Pancreas
Figure 136 Percent of Transplants by Payment Status: Pancreas
Transplant Percentages: Urbanicity

Figure 137 Percent of Transplants by Urbanicity: Kidney
Figure 138 Percent of Transplants by Urbanicity: Kidney-Pancreas
Figure 139 Percent of Transplants by Urbanicity: Pancreas
Transplant Percentages: Local/Regional/National

Figure 140 Percent of Transplants by Local/Regional/National: Kidney
Figure 141 Percent of Transplants by Local/Regional/National: Kidney-Pancreas
Figure 142 Percent of Transplants by Local/Regional/National: Pancreas
Transplant Percentages: EPTS

Figure 143 Percent of Transplants by EPTS: Kidney
Transplant Percentages: Median Household Income by Zip Code

Figure 144 Percent of Transplants by Median Household Income by Zip Code: Kidney
Figure 145 Percent of Transplants by Median Household Income by Zip Code: Kidney-Pancreas
Figure 146 Percent of Transplants by Median Household Income by Zip Code: Pancreas
Transplant Percentages: Donor KDPI

Figure 147 Percent of Transplants by Donor KDPI: Kidney
Transplant Percentages: DCD Donor

*Figure 148 Percent of Transplants by DCD Donor: Kidney*
Transplant Percentages: Number of DR mismatches

Figure 149 Percent of Transplants by Number of DR mismatches: Kidney
Waitlist Mortality

**Waitlist Mortality Rates**

Waitlist Mortality Rates: Age 0-17

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*Figure 150* Waitlist Mortality rates by Age 0-17: Kidney

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Waitlist Mortality Rates: Age 18+

Figure 151 Waitlist Mortality rates by Age 18+: Kidney
Figure 152 Waitlist Mortality rates by Age 18+: Kidney-Pancreas
Figure 153 Waitlist Mortality rates by Age 18+: Pancreas
Waitlist Mortality Rates: Race

Figure 154 Waitlist Mortality rates by Race: Kidney
Figure 155 Waitlist Mortality rates by Race: Kidney-Pancreas
**Figure 156** Waitlist Mortality rates by Race: Pancreas
Waitlist Mortality Rates: Ethnicity

Figure 157 Waitlist Mortality rates by Ethnicity: Kidney
Figure 158 Waitlist Mortality rates by Ethnicity: Kidney-Pancreas
Figure 159 Waitlist Mortality rates by Ethnicity: Pancreas
Figure 160 Waitlist Mortality rates by Sex: Kidney
Figure 161 Waitlist Mortality rates by Sex: Kidney-Pancreas
Figure 162 Waitlist Mortality rates by Sex: Pancreas
Waitlist Mortality Rates: ABO Group

Figure 163 Waitlist Mortality rates by ABO Group: Kidney
Figure 164 Waitlist Mortality rates by ABO Group: Kidney-Pancreas
Figure 165 Waitlist Mortality rates by ABO Group: Pancreas
Waitlist Mortality Rates: Diagnosis

Figure 166 Waitlist Mortality rates by Diagnosis: Kidney
Figure 167 Waitlist Mortality rates by Diagnosis: Kidney-Pancreas
Figure 168 Waitlist Mortality rates by Diagnosis: Pancreas
Waitlist Mortality Rates: Dialysis Time

Figure 169 Waitlist Mortality rates by Dialysis Time: Kidney
Waitlist Mortality Rates: cPRA: 0 - 60

Figure 170 Waitlist Mortality rates by cPRA: 0 - 60: Kidney
Figure 171 Waitlist Mortality rates by cPRA: 0 - 60: Kidney-Pancreas
Figure 172 Waitlist Mortality rates by cPRA: 0 - 60: Pancreas
Waitlist Mortality Rates: cPRA: 61 - 94

Figure 173 Waitlist Mortality rates by cPRA: 61 - 94: Kidney
Figure 174 Waitlist Mortality rates by cPRA: 61 - 94: Kidney-Pancreas
Figure 175 Waitlist Mortality rates by cPRA: 61 - 94: Pancreas
Waitlist Mortality Rates: cPRA: 95 - 100

Figure 176 Waitlist Mortality rates by cPRA: 95 - 100: Kidney
Figure 177 Waitlist Mortality rates by cPRA: 95 - 100: Kidney-Pancreas
Figure 178 Waitlist Mortality rates by cPRA: 95 - 100: Pancreas
Waitlist Mortality Rates: cPRA: 95 - 98

Figure 179 Waitlist Mortality rates by cPRA: 95 - 98: Kidney
Waitlist Mortality Rates: cPRA: 99 - 100

Figure 180 Waitlist Mortality rates by cPRA: 99 - 100: Kidney
Waitlist Mortality Rates: cPRA: 95 - 99

Figure 181 Waitlist Mortality rates by cPRA: 95 - 99: Kidney
Waitlist Mortality Rates: cPRA: 99 - 99.8

*Figure 182 Waitlist Mortality rates by cPRA: 99 - 99.8: Kidney*
Waitlist Mortality Rates: cPRA: 99.8 - 100

Figure 183 Waitlist Mortality rates by cPRA: 99.8 - 100: Kidney
Waitlist Mortality Rates: Payment Status

Figure 184 Waitlist Mortality rates by Payment Status: Kidney
Figure 185 Waitlist Mortality rates by Payment Status: Kidney-Pancreas
Figure 186 Waitlist Mortality rates by Payment Status: Pancreas
Waitlist Mortality Rates: Urbanicity

![Graph showing waitlist mortality rates by urbanicity for kidney transplants.](image)

*Figure 187 Waitlist Mortality rates by Urbanicity: Kidney*
Figure 188 Waitlist Mortality rates by Urbanicity: Kidney-Pancreas
Figure 189 Waitlist Mortality rates by Urbanicity: Pancreas
Waitlist Mortality Rates: EPTS

Figure 190 Waitlist Mortality rates by EPTS: Kidney
Waitlist Mortality Rates: Median Household Income by Zip Code

Figure 191 Waitlist Mortality rates by Median Household Income by Zip Code: Kidney
Figure 192 Waitlist Mortality rates by Median Household Income by Zip Code: Kidney-Pancreas
Figure 193 Waitlist Mortality rates by Median Household Income by Zip Code: Pancreas
Waitlist Mortality Counts

Waitlist Mortality Counts: Age 0-17

Figure 194 Waitlist Mortality Counts by Age 0-17: Kidney
Figure 195 Waitlist Mortality Counts by Age 18+: Kidney
Figure 196 Waitlist Mortality Counts by Age 18+: Kidney-Pancreas
Figure 197 Waitlist Mortality Counts by Age 18+: Pancreas
Waitlist Mortality Counts: Race

Figure 198 Waitlist Mortality Counts by Race: Kidney
Figure 199 Waitlist Mortality Counts by Race: Kidney-Pancreas
Figure 200 Waitlist Mortality Counts by Race: Pancreas
Waitlist Mortality Counts: Ethnicity

Figure 201 Waitlist Mortality Counts by Ethnicity: Kidney
Figure 202 Waitlist Mortality Counts by Ethnicity: Kidney-Pancreas
Figure 203 Waitlist Mortality Counts by Ethnicity: Pancreas
Waitlist Mortality Counts: Sex

Figure 204 Waitlist Mortality Counts by Sex: Kidney
Figure 205 Waitlist Mortality Counts by Sex: Kidney-Pancreas
Figure 206 Waitlist Mortality Counts by Sex: Pancreas
Waitlist Mortality Counts: ABO Group

Figure 207 Waitlist Mortality Counts by ABO Group: Kidney
Figure 208 Waitlist Mortality Counts by ABO Group: Kidney-Pancreas
Figure 209 Waitlist Mortality Counts by ABO Group: Pancreas
Waitlist Mortality Counts: Diagnosis

Figure 210 Waitlist Mortality Counts by Diagnosis: Kidney
Figure 211 Waitlist Mortality Counts by Diagnosis: Kidney-Pancreas
Figure 212 Waitlist Mortality Counts by Diagnosis: Pancreas
Waitlist Mortality Counts: Dialysis Time

Figure 213 Waitlist Mortality Counts by Dialysis Time: Kidney
Waitlist Mortality Counts: cPRA: 0 - 60

Figure 214 Waitlist Mortality Counts by cPRA: 0 - 60: Kidney
Figure 215 Waitlist Mortality Counts by cPRA: 0 - 60: Kidney-Pancreas
Figure 216 Waitlist Mortality Counts by cPRA: 0 - 60: Pancreas
Waitlist Mortality Counts: cPRA: 61 - 94

Figure 217 Waitlist Mortality Counts by cPRA: 61 - 94: Kidney
Figure 218 Waitlist Mortality Counts by cPRA: 61 - 94: Kidney-Pancreas
Figure 219 Waitlist Mortality Counts by cPRA: 61 - 94: Pancreas
Waitlist Mortality Counts: cPRA: 95 - 100

Figure 220 Waitlist Mortality Counts by cPRA: 95 - 100: Kidney
Figure 221 Waitlist Mortality Counts by cPRA: 95 - 100: Kidney-Pancreas
Figure 222 Waitlist Mortality Counts by cPRA: 95 - 100: Pancreas
Waitlist Mortality Counts: cPRA: 95 - 98

Figure 223 Waitlist Mortality Counts by cPRA: 95 - 98: Kidney
Waitlist Mortality Counts: cPRA: 99 - 100

Figure 224 Waitlist Mortality Counts by cPRA: 99 - 100: Kidney
Waitlist Mortality Counts: cPRA: 95 - 99

Figure 225 Waitlist Mortality Counts by cPRA: 95 - 99: Kidney
Waitlist Mortality Counts: cPRA: 99 - 99.8

![Graph showing waitlist mortality counts by cPRA: 99 - 99.8 for Kidney]

*Figure 226 Waitlist Mortality Counts by cPRA: 99 - 99.8: Kidney*
Waitlist Mortality Counts: cPRA: 99.8 - 100

Figure 227 Waitlist Mortality Counts by cPRA: 99.8 - 100: Kidney
Waitlist Mortality Counts: Payment Status

Figure 228 Waitlist Mortality Counts by Payment Status: Kidney
Figure 229 Waitlist Mortality Counts by Payment Status: Kidney-Pancreas
Figure 230 Waitlist Mortality Counts by Payment Status: Pancreas
Waitlist Mortality Counts: Urbanicity

Figure 231 Waitlist Mortality Counts by Urbanicity: Kidney
Figure 232 Waitlist Mortality Counts by Urbanicity: Kidney-Pancreas
Figure 233 Waitlist Mortality Counts by Urbanicity: Pancreas
Waitlist Mortality Counts: EPTS

Figure 234 Waitlist Mortality Counts by EPTS: Kidney
Waitlist Mortality Counts: Median Household Income by Zip Code

Figure 235 Waitlist Mortality Counts by Median Household Income by Zip Code: Kidney
Figure 236 Waitlist Mortality Counts by Median Household Income by Zip Code: Kidney-Pancreas
Figure 237 Waitlist Mortality Counts by Median Household Income by Zip Code: Pancreas
Waitlist Mortality Percentages

Waitlist Mortality Percentages: Age 0-17

Figure 238 Percent of Waitlist Deaths by Age 0-17: Kidney
Waitlist Mortality Percentages: Age 18+

Figure 239 Percent of Waitlist Deaths by Age 18+: Kidney
Figure 240 Percent of Waitlist Deaths by Age 18+: Kidney-Pancreas
Figure 241 Percent of Waitlist Deaths by Age 18+: Pancreas
Waitlist Mortality Percentages: Race

Figure 242 Percent of Waitlist Deaths by Race: Kidney
Figure 243 Percent of Waitlist Deaths by Race: Kidney-Pancreas
Figure 244 Percent of Waitlist Deaths by Race: Pancreas
Waitlist Mortality Percentages: Ethnicity

![Graph showing percent of waitlist deaths by ethnicity for kidney patients.]

*Figure 245 Percent of Waitlist Deaths by Ethnicity: Kidney*
Figure 246 Percent of Waitlist Deaths by Ethnicity: Kidney-Pancreas
Figure 247 Percent of Waitlist Deaths by Ethnicity: Pancreas
Waitlist Mortality Percentages: Sex

Figure 248 Percent of Waitlist Deaths by Sex: Kidney
Figure 249 Percent of Waitlist Deaths by Sex: Kidney-Pancreas
Figure 250 Percent of Waitlist Deaths by Sex: Pancreas
Figure 251 Percent of Waitlist Deaths by ABO Group: Kidney
Figure 252 Percent of Waitlist Deaths by ABO Group: Kidney-Pancreas
Figure 253 Percent of Waitlist Deaths by ABO Group: Pancreas
Waitlist Mortality Percentages: Diagnosis

Figure 254 Percent of Waitlist Deaths by Diagnosis: Kidney
Figure 255 Percent of Waitlist Deaths by Diagnosis: Kidney-Pancreas
Figure 256 Percent of Waitlist Deaths by Diagnosis: Pancreas
Waitlist Mortality Percentages: Dialysis Time

Figure 257 Percent of Waitlist Deaths by Dialysis Time: Kidney
Waitlist Mortality Percentages: cPRA: 0 - 60

Figure 258 Percent of Waitlist Deaths by cPRA: 0 - 60: Kidney
Figure 259 Percent of Waitlist Deaths by cPRA: 0 - 60: Kidney-Pancreas
Figure 260 Percent of Waitlist Deaths by cPRA: 0 - 60: Pancreas
Waitlist Mortality Percentages: cPRA: 61 - 94

Figure 261 Percent of Waitlist Deaths by cPRA: 61 - 94: Kidney
Figure 262 Percent of Waitlist Deaths by cPRA: 61 - 94: Kidney-Pancreas
Figure 263 Percent of Waitlist Deaths by cPRA: 61 - 94: Pancreas
Waitlist Mortality Percentages: cPRA: 95 - 100

Figure 264 Percent of Waitlist Deaths by cPRA: 95 - 100: Kidney
Figure 265 Percent of Waitlist Deaths by cPRA: 95 - 100: Kidney-Pancreas
Figure 266 Percent of Waitlist Deaths by cPRA: 95 - 100: Pancreas
Waitlist Mortality Percentages: cPRA: 95 - 98

Figure 267 Percent of Waitlist Deaths by cPRA: 95 - 98: Kidney
Waitlist Mortality Percentages: cPRA: 99 - 100

Figure 268 Percent of Waitlist Deaths by cPRA: 99 - 100: Kidney
Waitlist Mortality Percentages: cPRA: 95 - 99

Figure 269 Percent of Waitlist Deaths by cPRA: 95 - 99: Kidney
Waitlist Mortality Percentages: cPRA: 99 - 99.8

Figure 270 Percent of Waitlist Deaths by cPRA: 99 - 99.8: Kidney

Figure 270 Percent of Waitlist Deaths by cPRA: 99 - 99.8: Kidney
Waitlist Mortality Percentages: cPRA: 99.8 - 100

Figure 271 Percent of Waitlist Deaths by cPRA: 99.8 - 100: Kidney
Waitlist Mortality Percentages: Payment Status

Figure 272 Percent of Waitlist Deaths by Payment Status: Kidney
Figure 273 Percent of Waitlist Deaths by Payment Status: Kidney-Pancreas
Figure 274 Percent of Waitlist Deaths by Payment Status: Pancreas
Waitlist Mortality Percentages: Urbanicity

Figure 275 Percent of Waitlist Deaths by Urbanicity: Kidney
Figure 276 Percent of Waitlist Deaths by Urbanicity: Kidney-Pancreas
Figure 277 Percent of Waitlist Deaths by Urbanicity: Pancreas
Waitlist Mortality Percentages: EPTS

Figure 278 Percent of Waitlist Deaths by EPTS: Kidney
Figure 279 Percent of Waitlist Deaths by Median Household Income by Zip Code: Kidney
Figure 280 Percent of Waitlist Deaths by Median Household Income by Zip Code: Kidney-Pancreas
Figure 281 Percent of Waitlist Deaths by Median Household Income by Zip Code: Pancreas
Posttransplant Mortality

**Posttransplant Mortality Rates**

Posttransplant Mortality Rates: Age at Transplant 0-17

![Posttransplant Mortality Rates by Age at Transplant 0-17: Kidney](image)

*Figure 282 Posttransplant Mortality Rates by Age at Transplant 0-17: Kidney*
Posttransplant Mortality Rates: Age at Transplant 18+

Figure 283 Posttransplant Mortality Rates by Age at Transplant 18+: Kidney
Figure 284 Posttransplant Mortality Rates by Age at Transplant 18+: Kidney-Pancreas
Figure 285 Posttransplant Mortality Rates by Age at Transplant 18+: Pancreas
Figure 286 Posttransplant Mortality Rates by Race: Kidney
Figure 287 Posttransplant Mortality Rates by Race: Kidney-Pancreas
Figure 288 Posttransplant Mortality Rates by Race: Pancreas
Posttransplant Mortality Rates: Ethnicity

Figure 289 Posttransplant Mortality Rates by Ethnicity: Kidney
Figure 290 Posttransplant Mortality Rates by Ethnicity: Kidney-Pancreas
Figure 291 Posttransplant Mortality Rates by Ethnicity: Pancreas
Figure 292 Posttransplant Mortality Rates by Sex: Kidney
Figure 293 Posttransplant Mortality Rates by Sex: Kidney-Pancreas
Figure 294 Posttransplant Mortality Rates by Sex: Pancreas
Posttransplant Mortality Rates: ABO Group

**Figure 295** Posttransplant Mortality Rates by ABO Group: Kidney
Figure 296 Posttransplant Mortality Rates by ABO Group: Kidney-Pancreas
Figure 297 Posttransplant Mortality Rates by ABO Group: Pancreas
Posttransplant Mortality Rates: Diagnosis

Figure 298 Posttransplant Mortality Rates by Diagnosis: Kidney
Figure 299 Posttransplant Mortality Rates by Diagnosis: Kidney-Pancreas
Figure 300 Posttransplant Mortality Rates by Diagnosis: Pancreas
Figure 301 Posttransplant Mortality Rates by Dialysis Time: Kidney
Posttransplant Mortality Rates: cPRA: 0 - 60

Figure 302 Posttransplant Mortality Rates by cPRA: 0 - 60: Kidney
Figure 303 Posttransplant Mortality Rates by cPRA: 0 - 60: Kidney-Pancreas
Figure 304 Posttransplant Mortality Rates by cPRA: 0 - 60: Pancreas
Posttransplant Mortality Rates: cPRA: 61 - 94

Figure 305 Posttransplant Mortality Rates by cPRA: 61 - 94: Kidney
Figure 306 Posttransplant Mortality Rates by cPRA: 61 - 94: Kidney-Pancreas
Figure 307 Posttransplant Mortality Rates by cPRA: 61 - 94: Pancreas
Posttransplant Mortality Rates: cPRA: 95 - 100

Figure 308 Posttransplant Mortality Rates by cPRA: 95 - 100: Kidney
Figure 309 Posttransplant Mortality Rates by cPRA: 95 - 100: Kidney-Pancreas
Figure 310 Posttransplant Mortality Rates by cPRA: 95 - 100: Pancreas
Posttransplant Mortality Rates: cPRA: 95 - 98

Figure 311 Posttransplant Mortality Rates by cPRA: 95 - 98: Kidney
Posttransplant Mortality Rates: cPRA: 99 - 100

Figure 312 Posttransplant Mortality Rates by cPRA: 99 - 100: Kidney
Posttransplant Mortality Rates: cPRA: 95 - 99

Figure 313 Posttransplant Mortality Rates by cPRA: 95 - 99: Kidney
Posttransplant Mortality Rates: cPRA: 99 - 99.8

*Figure 314 Posttransplant Mortality Rates by cPRA: 99 - 99.8: Kidney*
Posttransplant Mortality Rates: cPRA: 99.8 - 100

Figure 315 Posttransplant Mortality Rates by cPRA: 99.8 - 100: Kidney
Posttransplant Mortality Rates: Payment Status

Figure 316 Posttransplant Mortality Rates by Payment Status: Kidney
Figure 317 Posttransplant Mortality Rates by Payment Status: Kidney-Pancreas
Figure 318 Posttransplant Mortality Rates by Payment Status: Pancreas
Posttransplant Mortality Rates: Urbanicity

Figure 319 Posttransplant Mortality Rates by Urbanicity: Kidney
Figure 320 Posttransplant Mortality Rates by Urbanicity: Kidney-Pancreas
Figure 321 Posttransplant Mortality Rates by Urbanicity: Pancreas
Posttransplant Mortality Rates: Local/Regional/National

Figure 322 Posttransplant Mortality Rates by Local/Regional/National: Kidney
Figure 323 Posttransplant Mortality Rates by Local/Regional/National: Kidney-Pancreas
Figure 324 Posttransplant Mortality Rates by Local/Regional/National: Pancreas
Figure 325 Posttransplant Mortality Rates by EPTS: Kidney
Posttransplant Mortality Rates: Median Household Income by Zip Code

Figure 326 Posttransplant Mortality Rates by Median Household Income by Zip Code: Kidney
Figure 327 Posttransplant Mortality Rates by Median Household Income by Zip Code: Kidney-Pancreas
Figure 328 Posttransplant Mortality Rates by Median Household Income by Zip Code: Pancreas
Posttransplant Mortality Rates: Donor KDPI

Figure 329 Posttransplant Mortality Rates by Donor KDPI: Kidney
Posttransplant Mortality Rates: DCD Donor

Figure 330 Posttransplant Mortality Rates by DCD Donor: Kidney
Posttransplant Mortality Rates: Number of DR mismatches

Figure 331 Posttransplant Mortality Rates by Number of DR mismatches: Kidney
Posttransplant Graft Failure Rates

Posttransplant Graft Failure Rates: Age at Transplant 0-17

Figure 332 Posttransplant Graft Failure Rates by Age at Transplant 0-17: Kidney
Figure 333 Posttransplant Graft Failure Rates by Age at Transplant 18+: Kidney
Figure 334 Posttransplant Graft Failure Rates by Age at Transplant 18+: Kidney-Pancreas
Figure 335 Posttransplant Graft Failure Rates by Age at Transplant 18+: Pancreas
Posttransplant Graft Failure Rates: Race

Figure 336 Posttransplant Graft Failure Rates by Race: Kidney
Figure 337 Posttransplant Graft Failure Rates by Race: Kidney-Pancreas
Figure 338 Posttransplant Graft Failure Rates by Race: Pancreas
Posttransplant Graft Failure Rates: Ethnicity

Figure 339 Posttransplant Graft Failure Rates by Ethnicity: Kidney
Figure 340 Posttransplant Graft Failure Rates by Ethnicity: Kidney-Pancreas
Figure 341 Posttransplant Graft Failure Rates by Ethnicity: Pancreas
Posttransplant Graft Failure Rates: Sex

Figure 342 Posttransplant Graft Failure Rates by Sex: Kidney
Figure 343 Posttransplant Graft Failure Rates by Sex: Kidney-Pancreas
Figure 344 Posttransplant Graft Failure Rates by Sex: Pancreas
Posttransplant Graft Failure Rates: ABO Group

Figure 345 Posttransplant Graft Failure Rates by ABO Group: Kidney
Figure 346 Posttransplant Graft Failure Rates by ABO Group: Kidney-Pancreas
Figure 347 Posttransplant Graft Failure Rates by ABO Group: Pancreas
Figure 348 Posttransplant Graft Failure Rates by Diagnosis: Kidney
Figure 349 Posttransplant Graft Failure Rates by Diagnosis: Kidney-Pancreas
Figure 350 Posttransplant Graft Failure Rates by Diagnosis: Pancreas
Posttransplant Graft Failure Rates: Dialysis Time

Figure 351 Posttransplant Graft Failure Rates by Dialysis Time: Kidney
Posttransplant Graft Failure Rates: cPRA: 0 - 60

Figure 352: Posttransplant Graft Failure Rates by cPRA: 0 - 60: Kidney
Figure 353 Posttransplant Graft Failure Rates by cPRA: 0 - 60: Kidney-Pancreas
Figure 354 Posttransplant Graft Failure Rates by cPRA: 0 - 60: Pancreas
Posttransplant Graft Failure Rates: cPRA: 61 - 94

Figure 355 Posttransplant Graft Failure Rates by cPRA: 61 - 94: Kidney
Figure 356 Posttransplant Graft Failure Rates by cPRA: 61 - 94: Kidney-Pancreas
Figure 357 Posttransplant Graft Failure Rates by cPRA: 61 - 94: Pancreas
Posttransplant Graft Failure Rates: cPRA: 95 - 100

Figure 358 Posttransplant Graft Failure Rates by cPRA: 95 - 100: Kidney
Figure 359 Posttransplant Graft Failure Rates by cPRA: 95 - 100: Kidney-Pancreas
Figure 360 Posttransplant Graft Failure Rates by cPRA: 95 - 100: Pancreas
Posttransplant Graft Failure Rates: cPRA: 95 - 98

Figure 361 Posttransplant Graft Failure Rates by cPRA: 95 - 98: Kidney
Posttransplant Graft Failure Rates: cPRA: 99 - 100

Figure 362 Posttransplant Graft Failure Rates by cPRA: 99 - 100: Kidney
Figure 363 Posttransplant Graft Failure Rates by cPRA: 95 - 99: Kidney
Posttransplant Graft Failure Rates: cPRA: 99 - 99.8

Figure 364 Posttransplant Graft Failure Rates by cPRA: 99 - 99.8: Kidney
Figure 365 Posttransplant Graft Failure Rates by cPRA: 99.8 - 100: Kidney
Posttransplant Graft Failure Rates: Payment Status

Figure 366 Posttransplant Graft Failure Rates by Payment Status: Kidney
Figure 367 Posttransplant Graft Failure Rates by Payment Status: Kidney-Pancreas
Figure 368 Posttransplant Graft Failure Rates by Payment Status: Pancreas
Posttransplant Graft Failure Rates: Urbanicity

Figure 369 Posttransplant Graft Failure Rates by Urbanicity: Kidney
Figure 370 Posttransplant Graft Failure Rates by Urbanicity: Kidney-Pancreas
Figure 371 Posttransplant Graft Failure Rates by Urbanicity: Pancreas
Posttransplant Graft Failure Rates: Local/Regional/National

Figure 372 Posttransplant Graft Failure Rates by Local/Regional/National: Kidney
Figure 373 Posttransplant Graft Failure Rates by Local/Regional/National: Kidney-Pancreas
Figure 374 Posttransplant Graft Failure Rates by Local/Regional/National: Pancreas
Posttransplant Graft Failure Rates: EPTS

Figure 375 Posttransplant Graft Failure Rates by EPTS: Kidney
Posttransplant Graft Failure Rates: Median Household Income by Zip Code

Figure 376 Posttransplant Graft Failure Rates by Median Household Income by Zip Code: Kidney
Figure 377 Posttransplant Graft Failure Rates by Median Household Income by Zip Code: Kidney-Pancreas
Figure 378 Posttransplant Graft Failure Rates by Median Household Income by Zip Code: Pancreas
Posttransplant Graft Failure Rates: Donor KDPI

Figure 379 Posttransplant Graft Failure Rates by Donor KDPI: Kidney
Figure 380 Posttransplant Graft Failure Rates by DCD Donor: Kidney
Posttransplant Graft Failure Rates: Number of DR mismatches

Figure 381 Posttransplant Graft Failure Rates by Number of DR mismatches: Kidney