



Transplant Program Performance Measures Review

Outcome Measures Work Group Update

*Membership and Professional Standards Committee
December 2015*

Collaboration

MPSC Work Group

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Charge

Evaluate ways to decrease the perceived disincentives to transplant created by the current system for reviewing post-transplant outcomes.

Goal: Increase the number of transplants.

Initial Focus

- Work group limited initial focus to kidney – significant data available on kidney
- Consider similar process for other organs following implementation for kidney
- Focus on adjustments to the methodology for post-transplant outcomes review rather than allocation change

MPSC Consideration

- Draft proposal considered October 2015
- Committee had additional questions for the work group to consider
- Work group met November 23rd to consider MPSC questions.

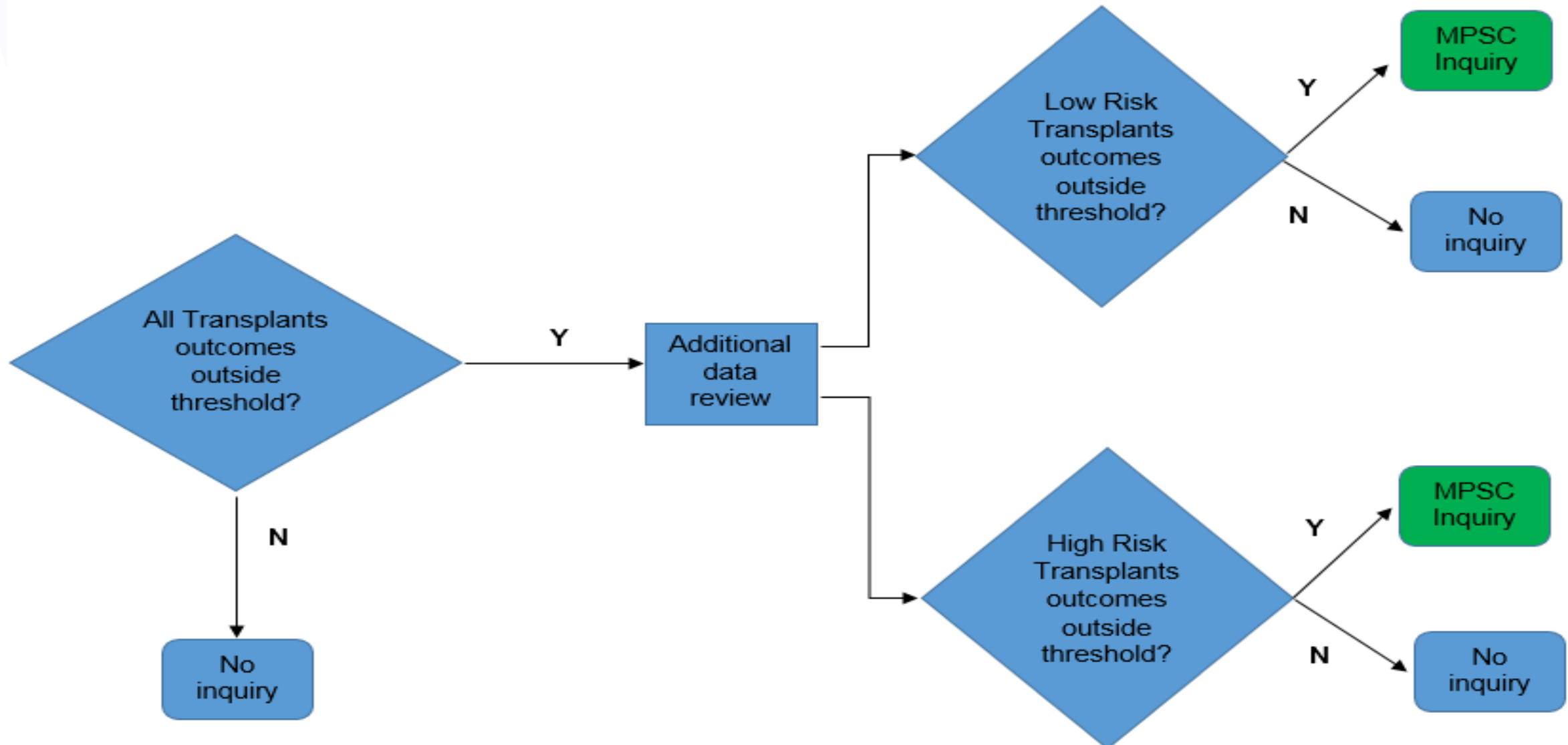
Outstanding questions –

- Inclusion of recipient characteristics?
 - Work Group continues to support including only donor characteristics
- Criteria to protect patient safety in the high risk transplants
 - Work Group supported the use of a separate review of high risk transplants alone if the program falls outside the threshold for all transplants
- Informed consent required?
- Evaluation post-implementation details
 - Length of initial evaluation period
 - More detail on evaluation plan

Suggested criteria

- Kidney transplant programs will be identified for review by MPSC for lower than expected graft or patient survival if kidney graft or patient survival falls outside the threshold for both
 1. All kidney transplants
 2. Either of the following:
 - a. Kidney transplants other than those using kidneys from donors KDPI ≥ 85 or age ≥ 65
 - b. Kidney transplants using a kidney from a donor with a KDPI ≥ 85 or age ≥ 65
- Apply to all kidney programs regardless of whether the program currently under review for outcomes

Proposed Identification Process



Path Forward

- MPSC December conference call
- Spring 2016 – request for pre-public comment feedback
- Early Summer 2016 – Board feedback
- Summer 2016 – public comment
- December 2016 – Board of Directors review of proposal

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Questions?

Additional Slides

OPTN Bylaws, Appendix D.11.A.

For programs performing 10 or more transplants in a 2.5 year period, the MPSC will review a transplant program if it has a higher hazard ratio of mortality or graft failure than would be expected for that transplant program. The criteria used to identify programs with a hazard ratio that is higher than expected will include *either* of the following:

1. The probability is greater than 75% that the hazard ratio is greater than 1.2.
2. The probability is greater than 10% that the hazard ratio is greater than 2.5.

Data reviewed to determine criteria

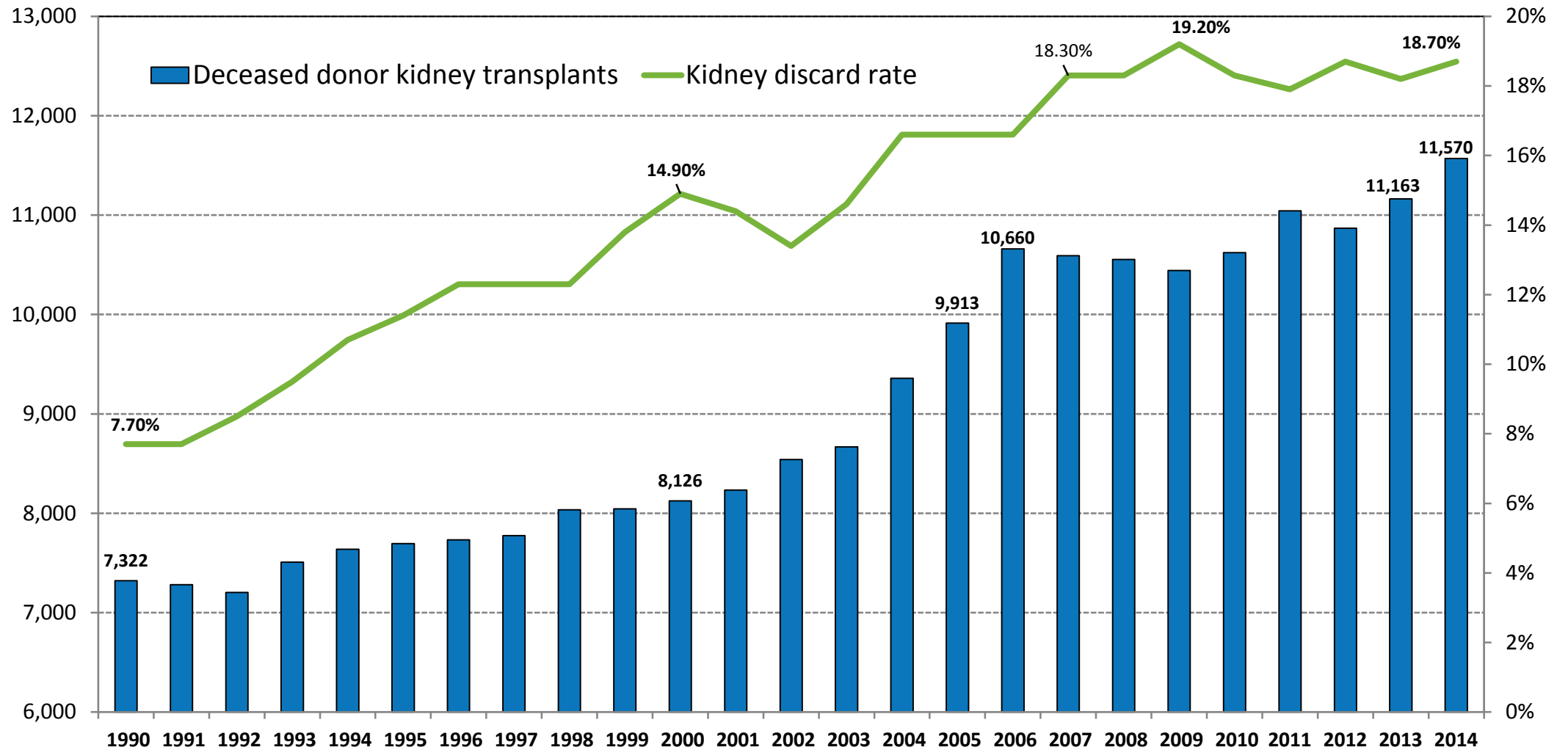
- SRTR risk adjustment in kidney model – 2/26/2015
- UNOS Research data on characteristics of unused kidneys – 4/2/2015 and on kidneys discarded by DSA, region, and median waiting time to transplant – 5/28/2015
- UNOS Research data on relationship between discard rate, KDPI and % glomerulosclerosis for deceased donors based on DSA, region and waiting times – 5/28/2015
- SRTR data on effect of decreased discard rates on program evaluations – 8/4/2015

Data reviewed to determine criteria

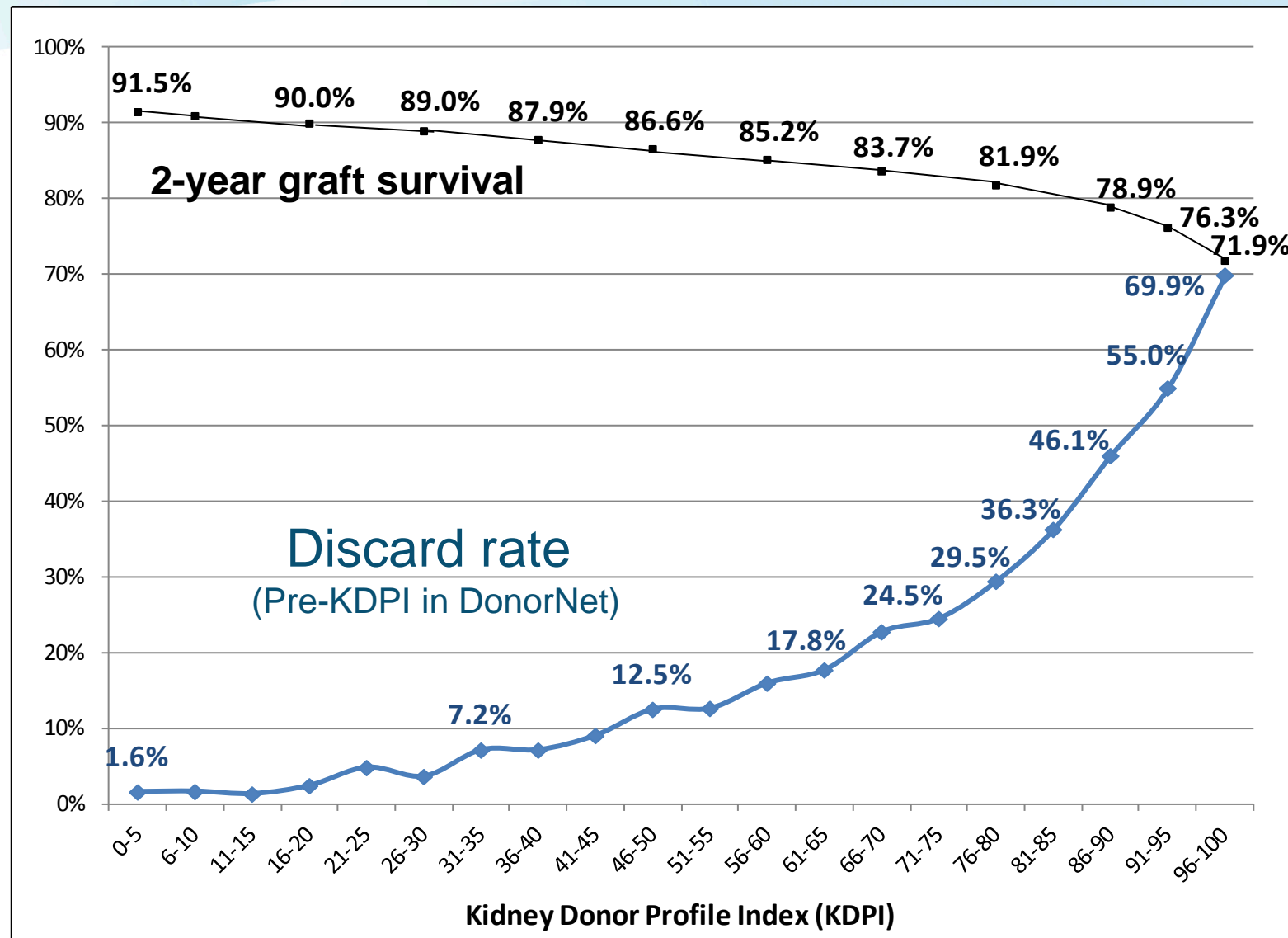
- SRTR suggested reweighting the model to put less emphasis on higher risk transplants rather than excluding them from model – 9/18/2015
- Data for upcoming late Nov/early Dec meeting
 - UNOS Research data on graft and patient survival for high KDPI/older donor recipients
 - SRTR analysis of the programs that would be identified under the proposed process
 - UNOS Research data on high KDPI recipient profiles

Additional Data Slides

Unsettling Trends

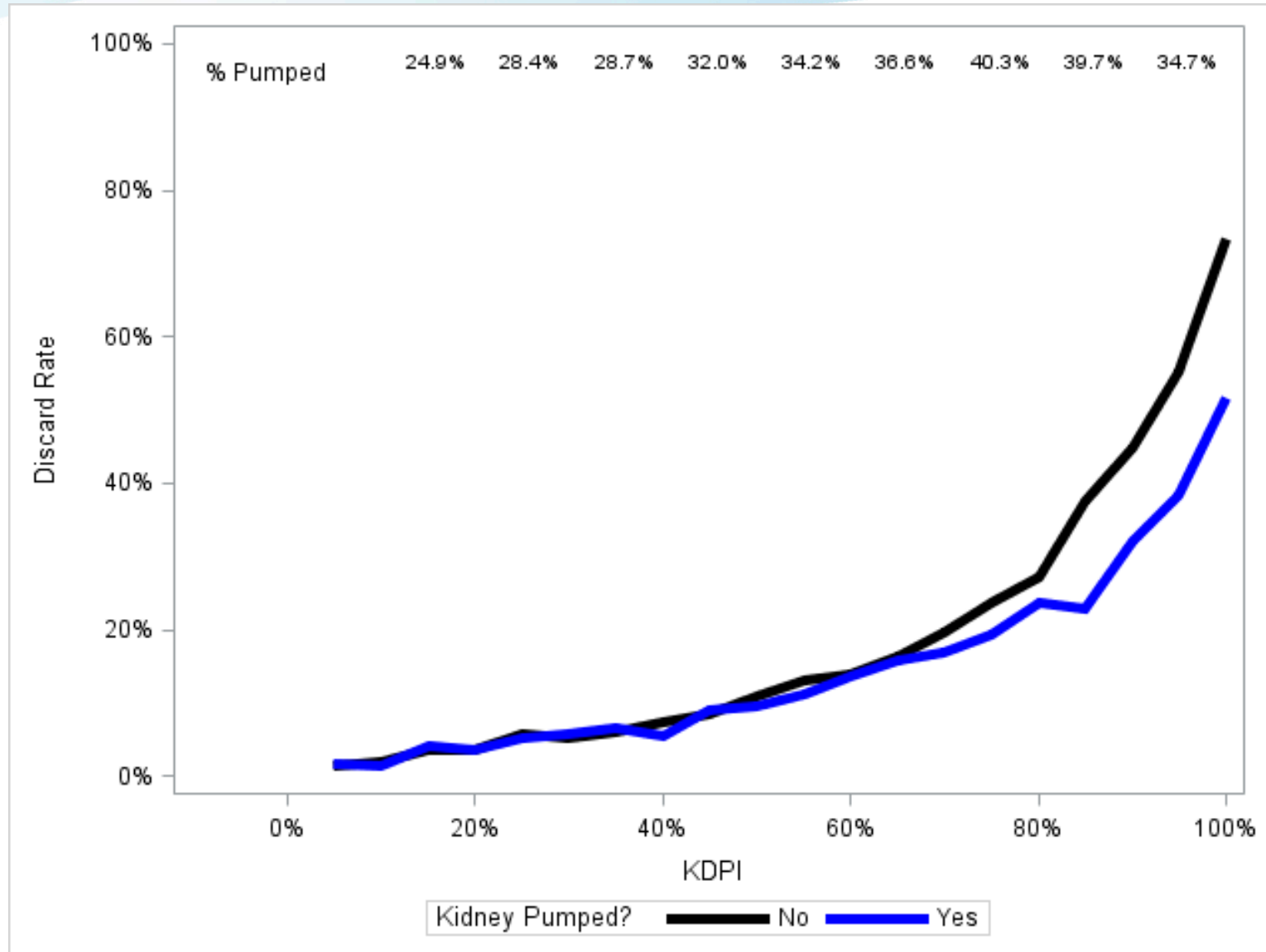


Graft Survival & Discard Rates by KDPI



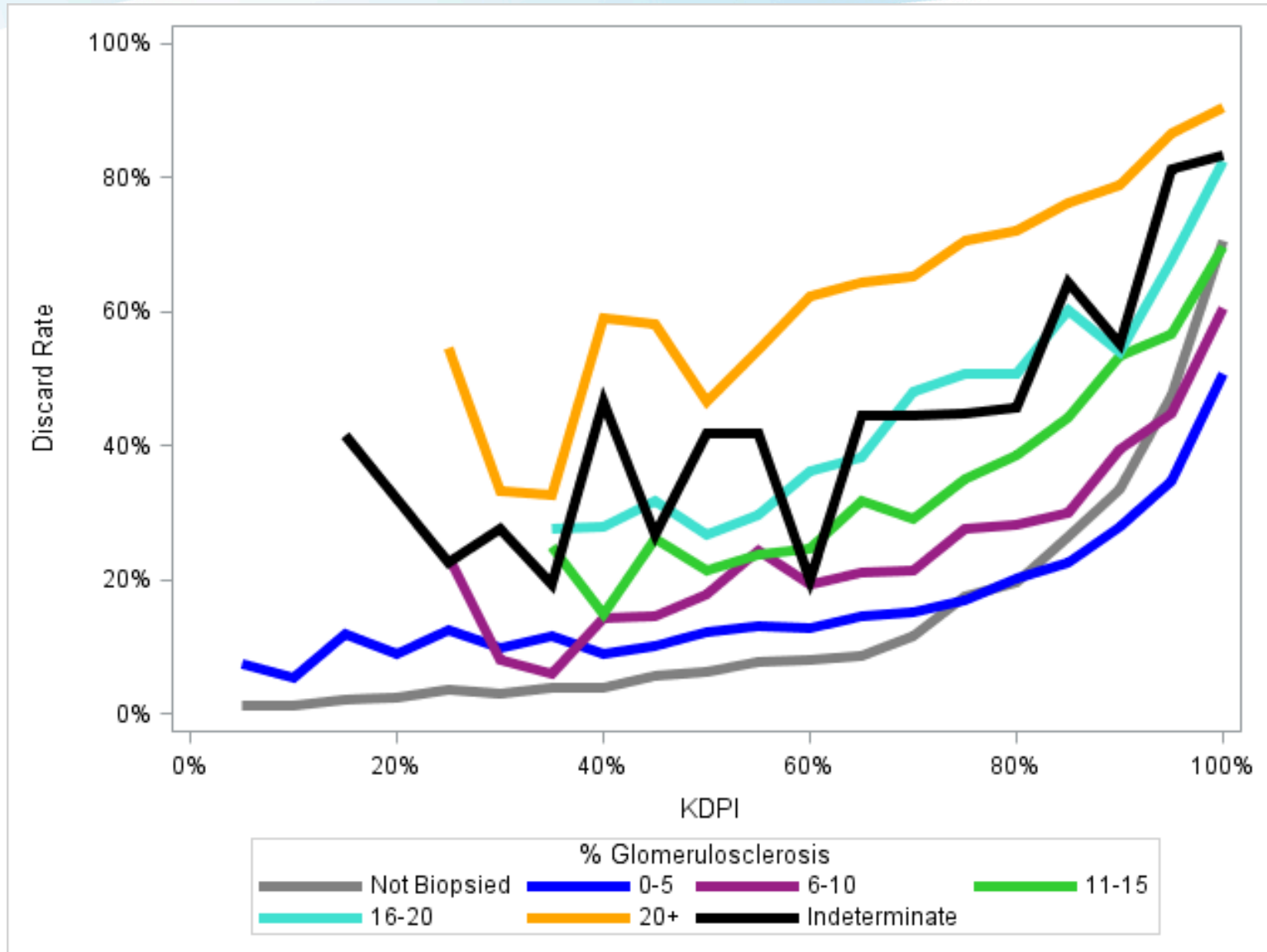
Gradual decline in graft survival, yet steep increases in kidney discard rates.

Figure 3. Discard rate of deceased donor kidneys recovered for transplant from 2007 through 2014 by KDPI and whether or not the kidney was pumped. (% pumped inset)



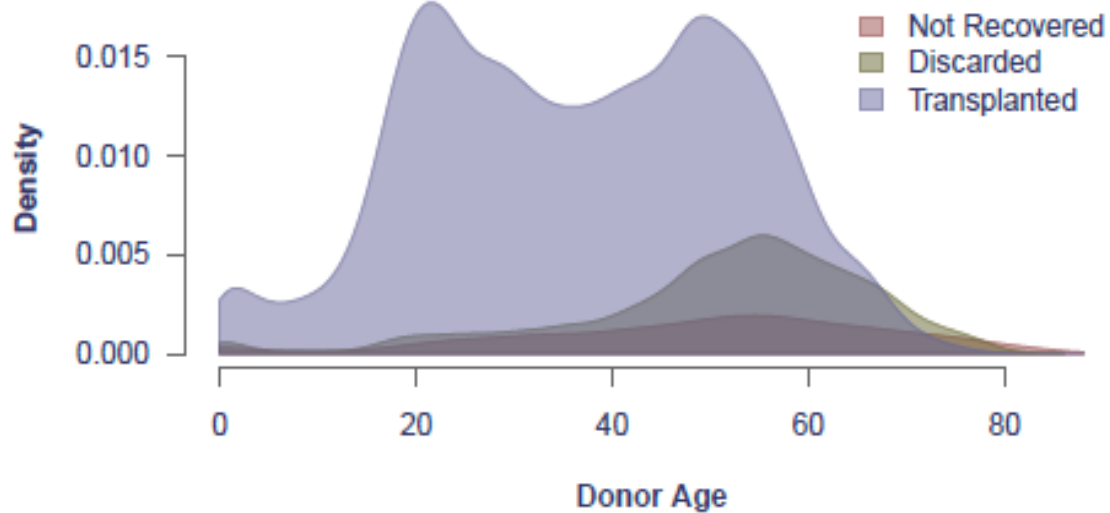
- 31% of all kidneys were pumped
- Pumping varies by OPO

Figure 5. Discard rate of deceased donor kidneys recovered for transplant from 2007 through 2014 by KDPI and percent Glomerulosclerosis.

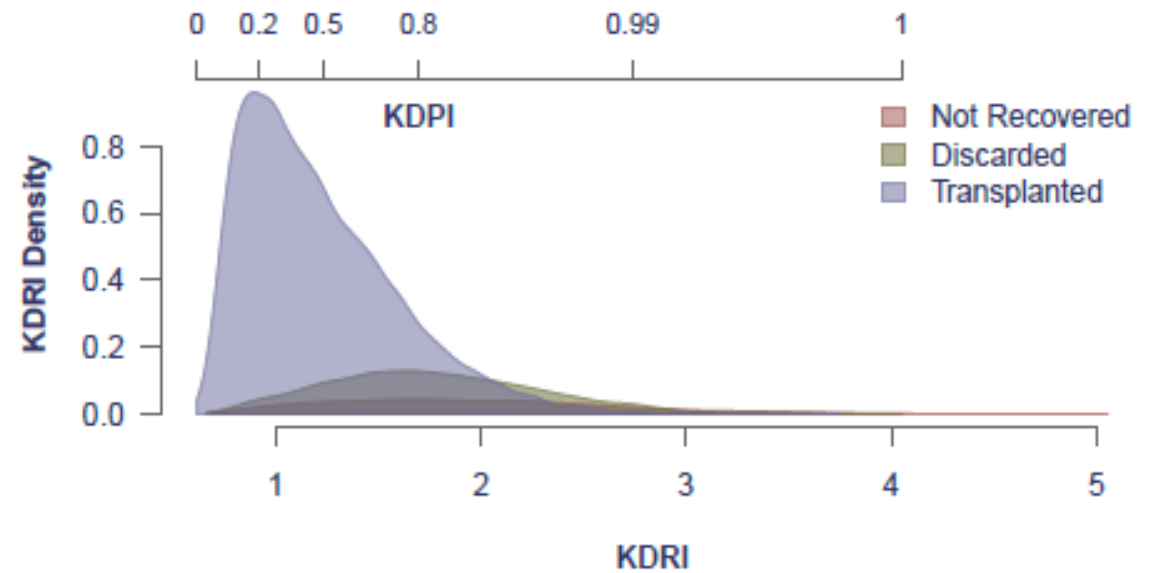


% Glom.	N	%
Not Biopsied	60095	51.17
0-5	35533	30.25
6-10	8557	7.29
11-15	4197	3.57
16-20	2574	2.19
20+	5790	4.93
Indeterminate	707	0.6
Total	117453	100

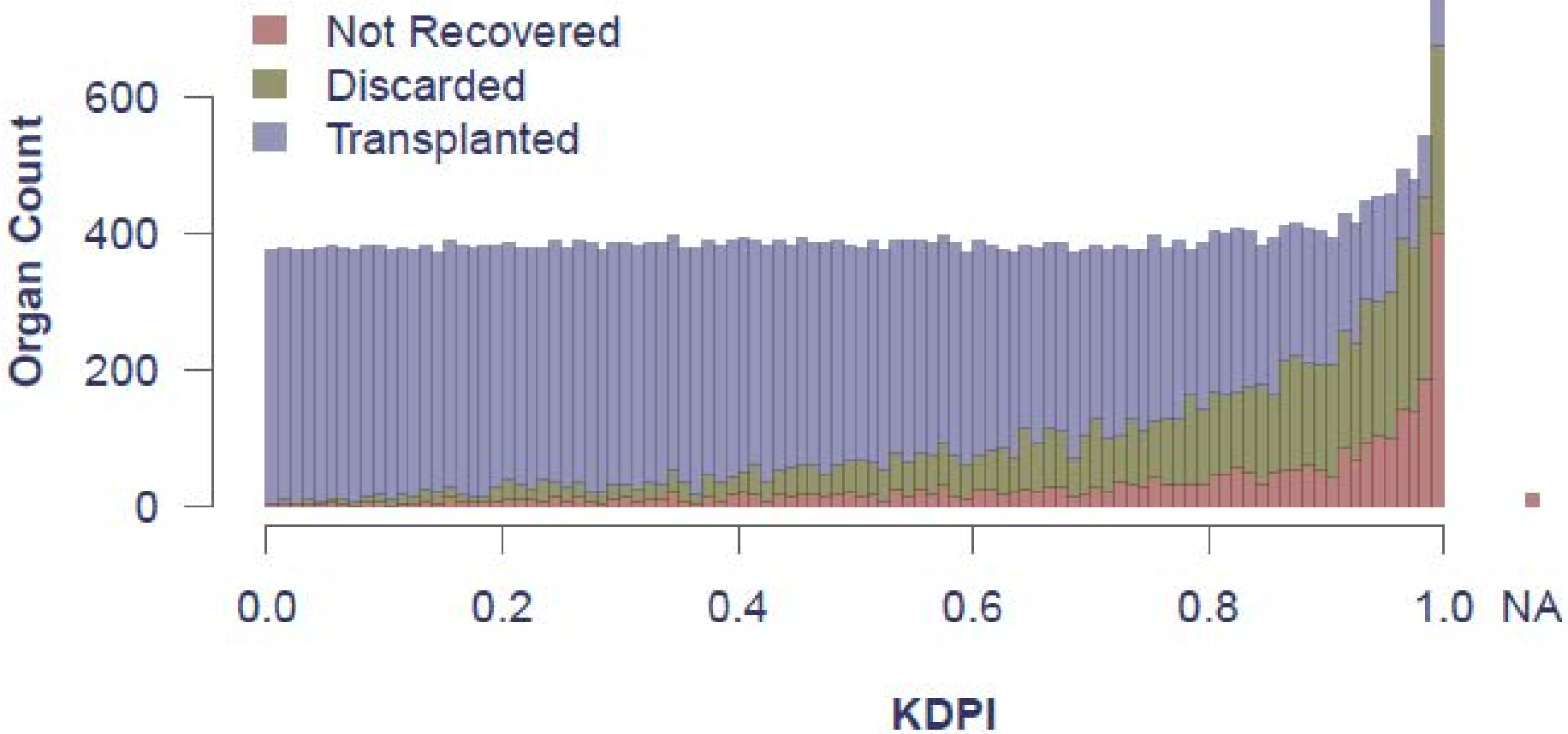
Distribution of donor age by disposition



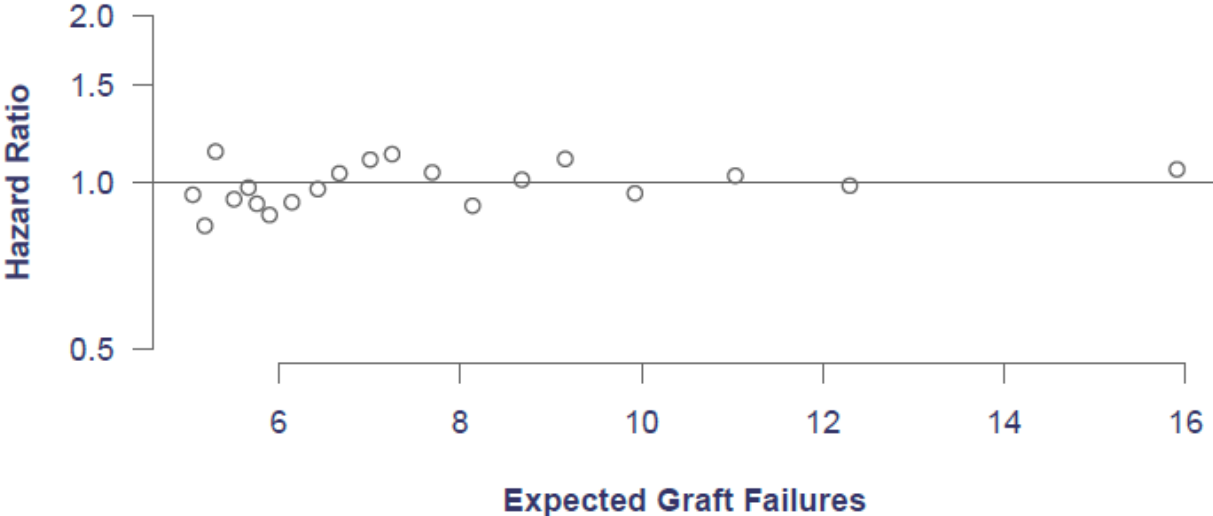
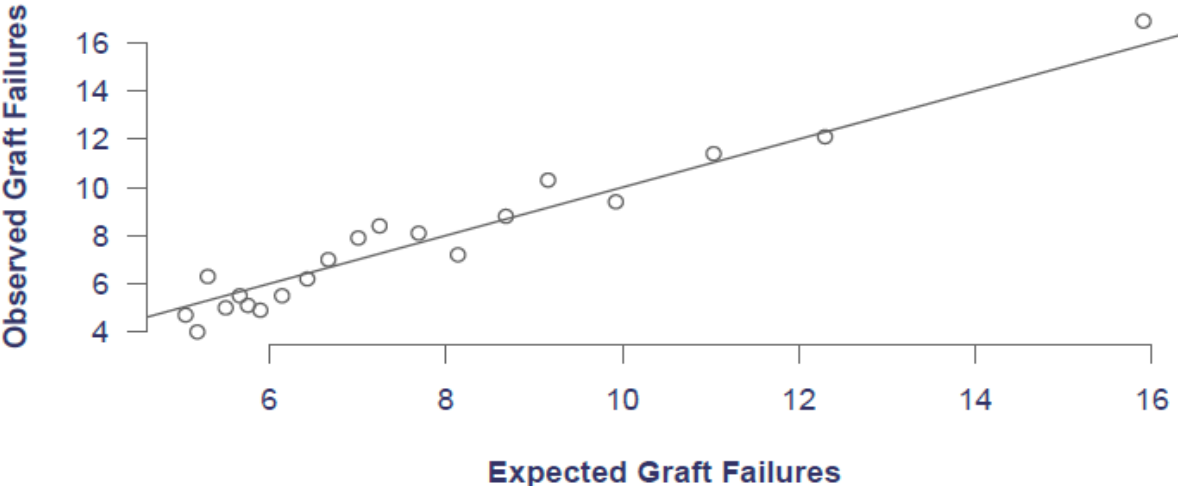
Distribution of KDRI by disposition



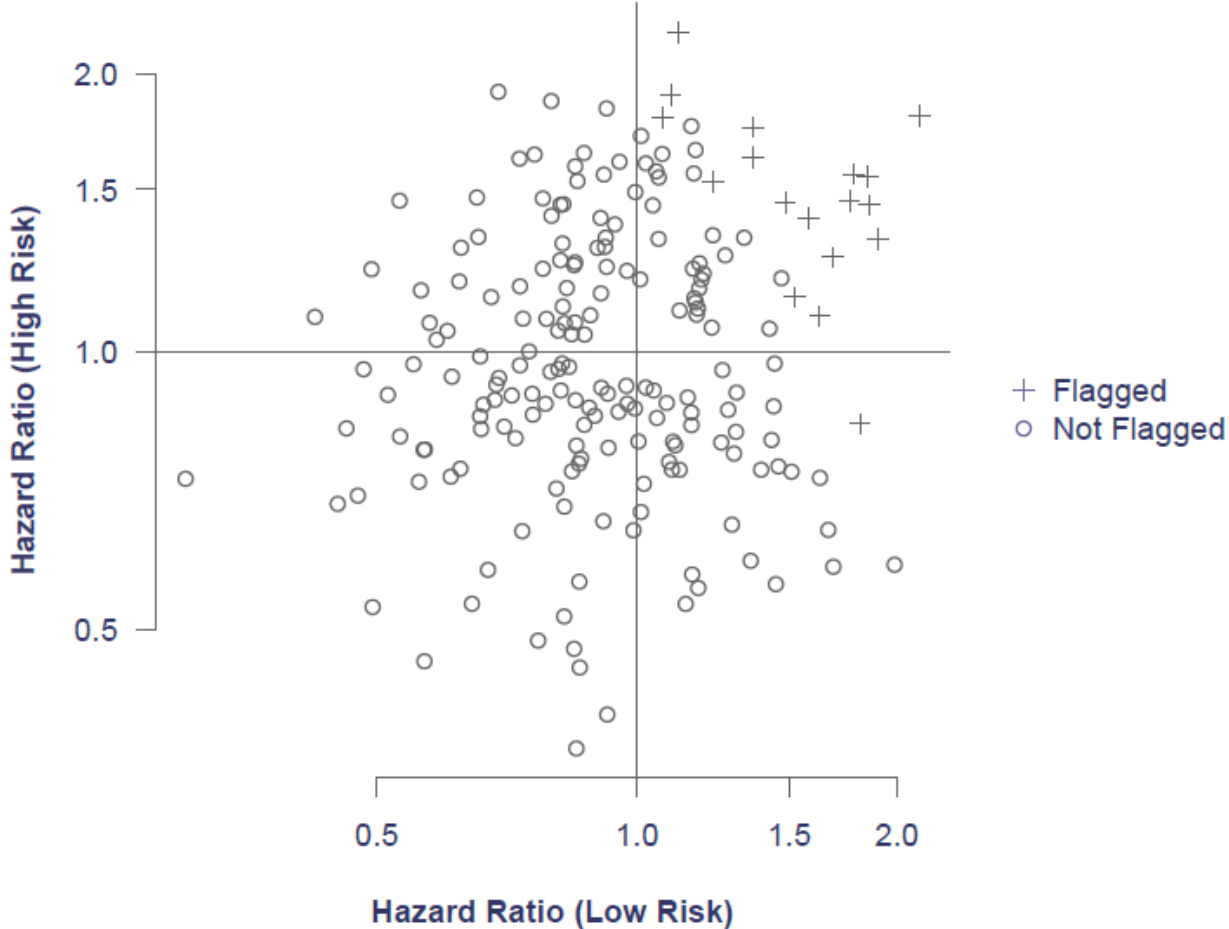
Disposition by KDPI. KDPI is missing when KDRI is greater than any KDRI for a transplanted or discarded organ.



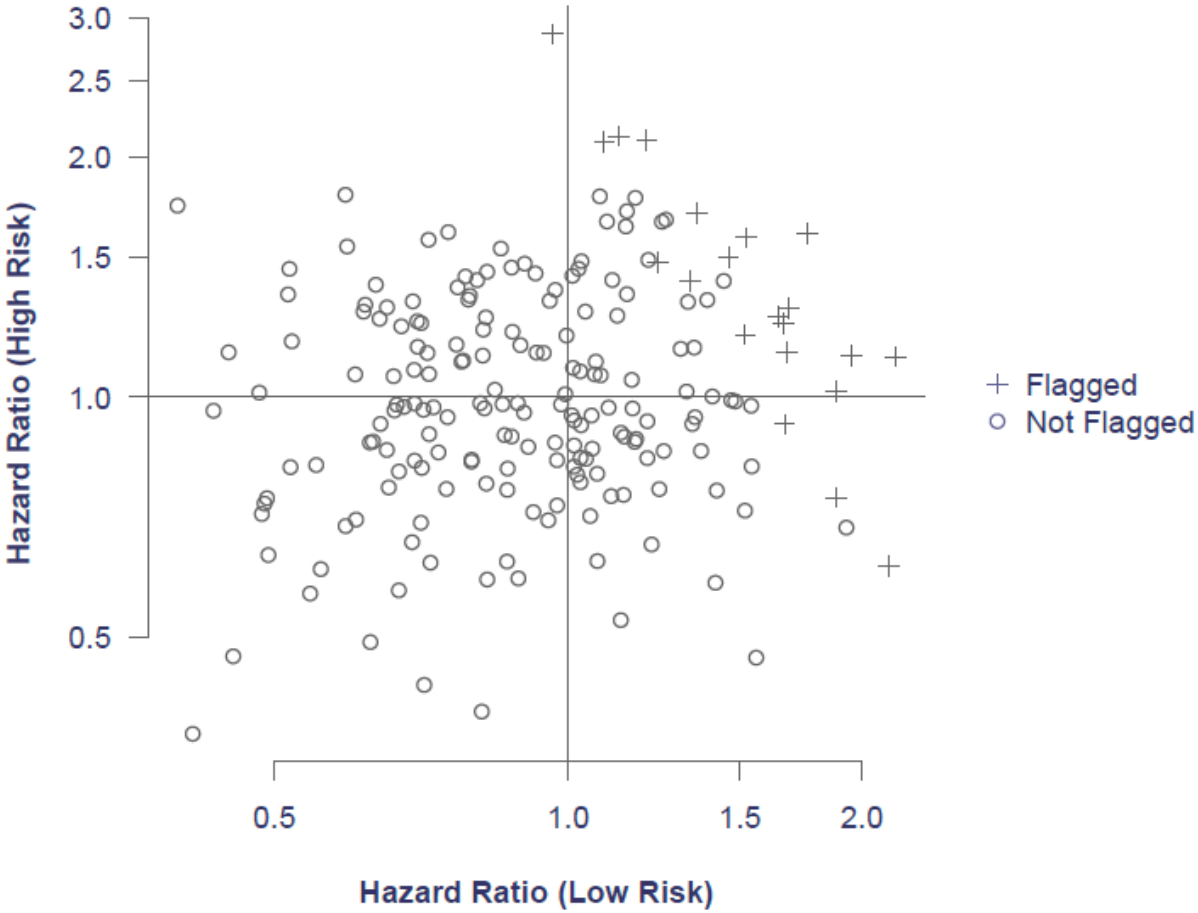
Model calibration for KDRI, June 2015 PSR deceased-donor adult 1-year graft survival model. Each of the 20 points aggregates approximately 5% of the transplants into bins based on KDRI.



Scatterplot of hazard ratios for kidney adult graft survival.



Scatterplot of hazard ratios for kidney adult patient survival.



High Risk Donor Transplants

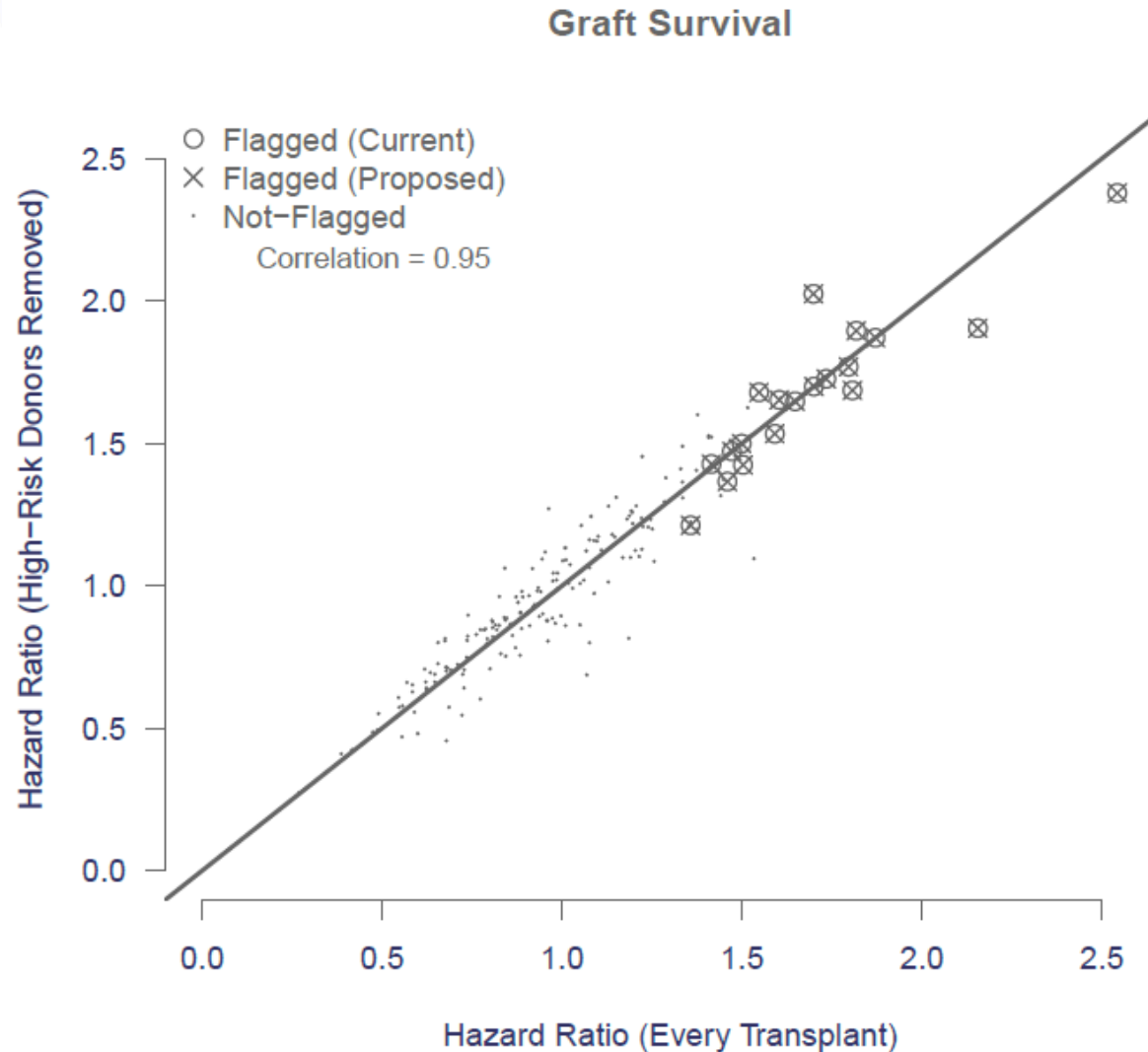
Table 1: The number of deceased donor kidneys evaluated for graft survival broken-down by KDPI and donor age.

	Age < 65	Age ≥ 65
KDPI < 85	22686	192
KDPI ≥ 85	1543	705

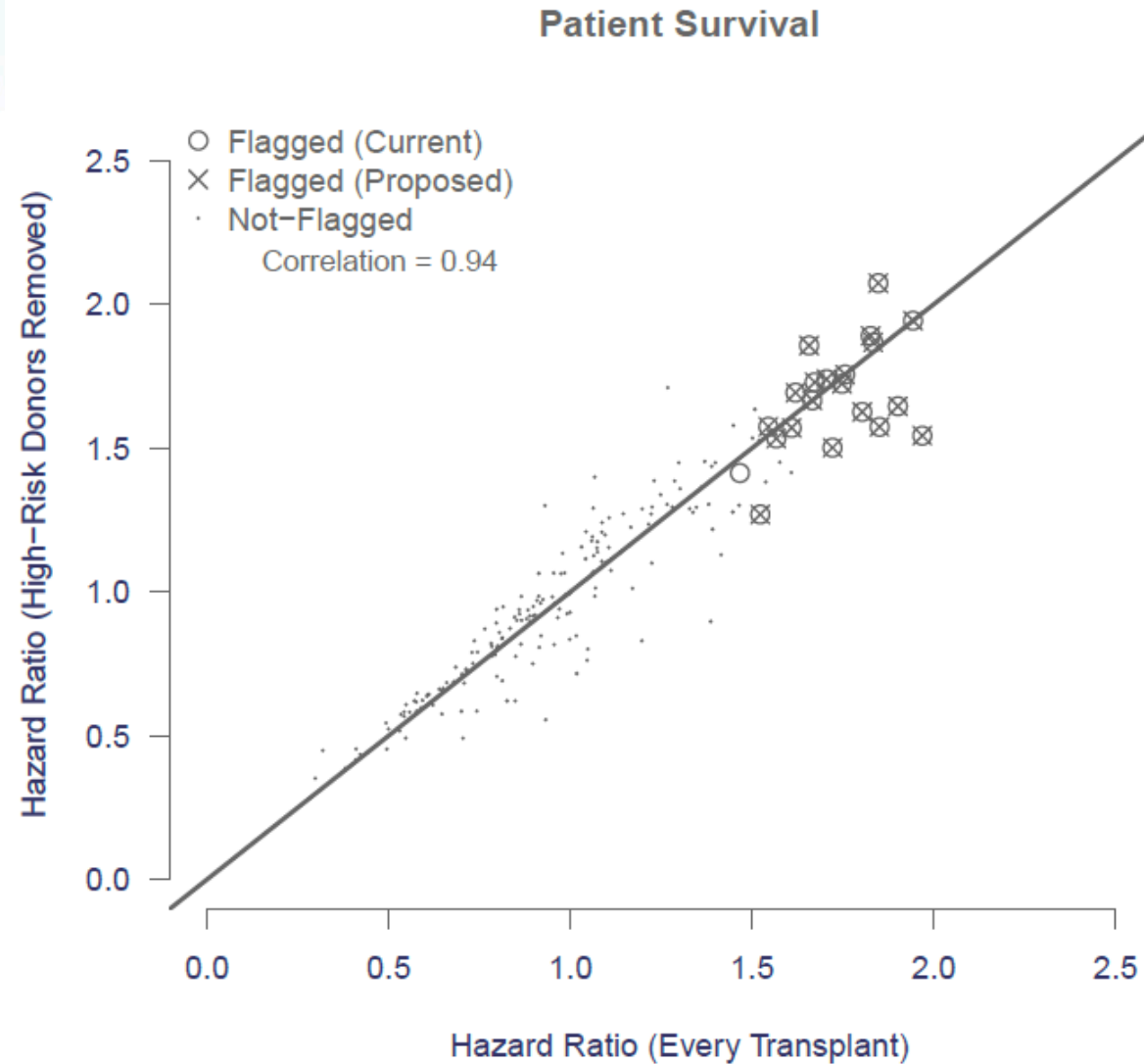
Table 2: The number of deceased donor kidneys evaluated for patient survival broken-down by KDPI and donor age.

	Age < 65	Age ≥ 65
KDPI < 85	19508	183
KDPI ≥ 85	1456	684

Proposed Flag – Graft Survival Results



Proposed Flag – Patient Survival Results



Graft survival.

Rule	# of Centers	# of Transplants	Observed	Expected
Current Rule	19	205.5	16.5	9.7
Current Rule + (LRD or HRD)	19	205.5	16.5	9.7
Current Rule + LRD	17	162.7	13.5	7.3
Current Rule + HRD	2	569	42	29.6
Low Risk Only	22	161	13.2	7.6
High Risk Only	11	268.6	16.7	13.2

Patient survival.

Rule	# of Centers	# of Transplants	Observed	Expected
Current Rule	21	178.7	8.2	4
Current Rule + (LRD or HRD)	20	167.4	7.9	3.8
Current Rule + LRD	17	149.2	7.2	3.3
Current Rule + HRD	4	219.5	10.5	5.3
Low Risk Only	20	165.2	7.4	3.7
High Risk Only	13	184.2	6.5	4.3