Improving the Organ Allocation System

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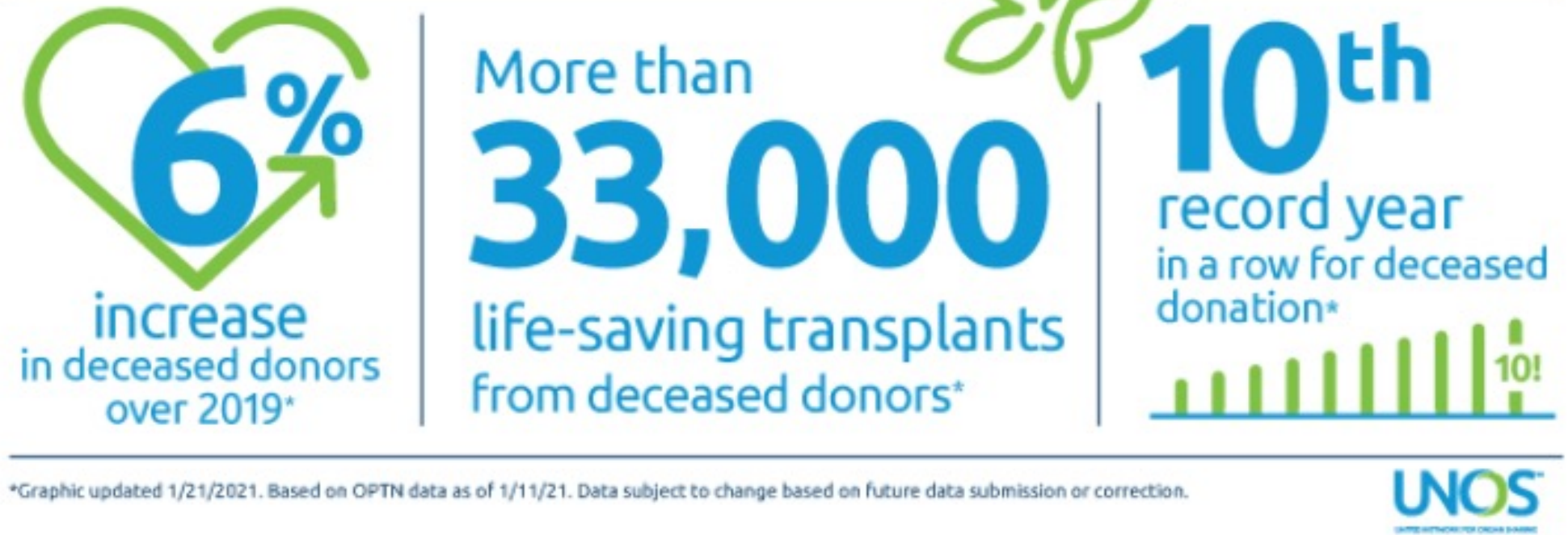
Disclosures

I have no commercial interests to disclose.

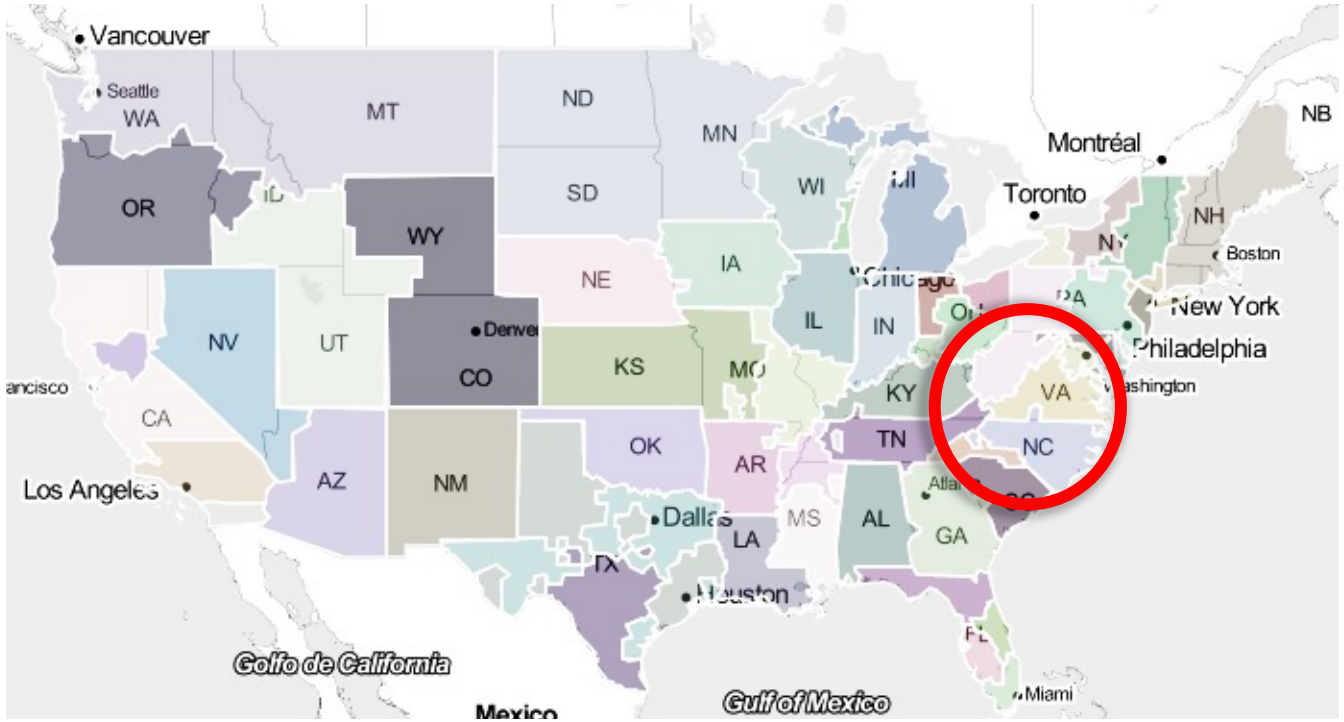
2020 | Most lives ever saved by deceased donors



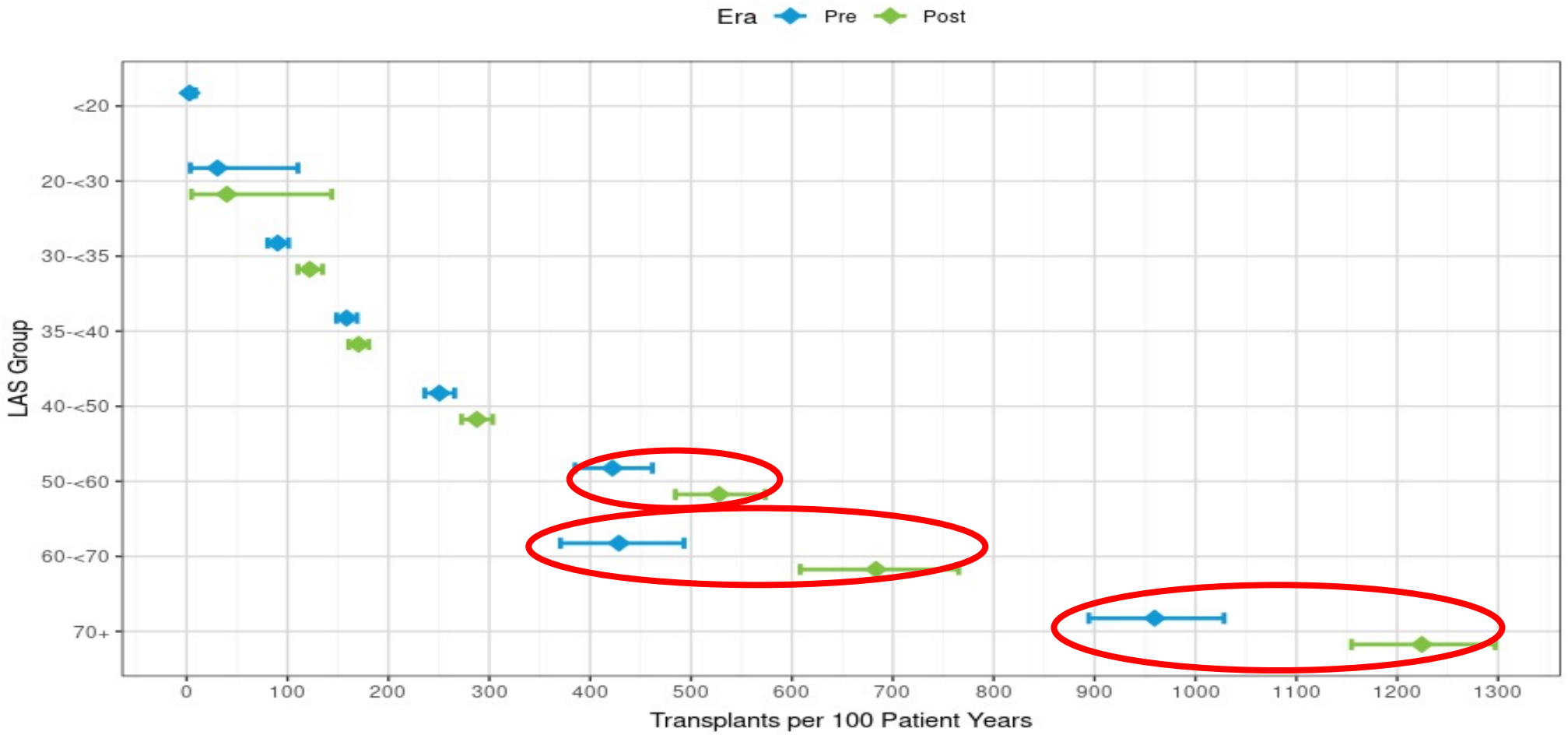
*Graphic updated 1/21/2021. Based on OPTN data as of 1/11/21. Data subject to change based on future data submission or correction.

UNOS

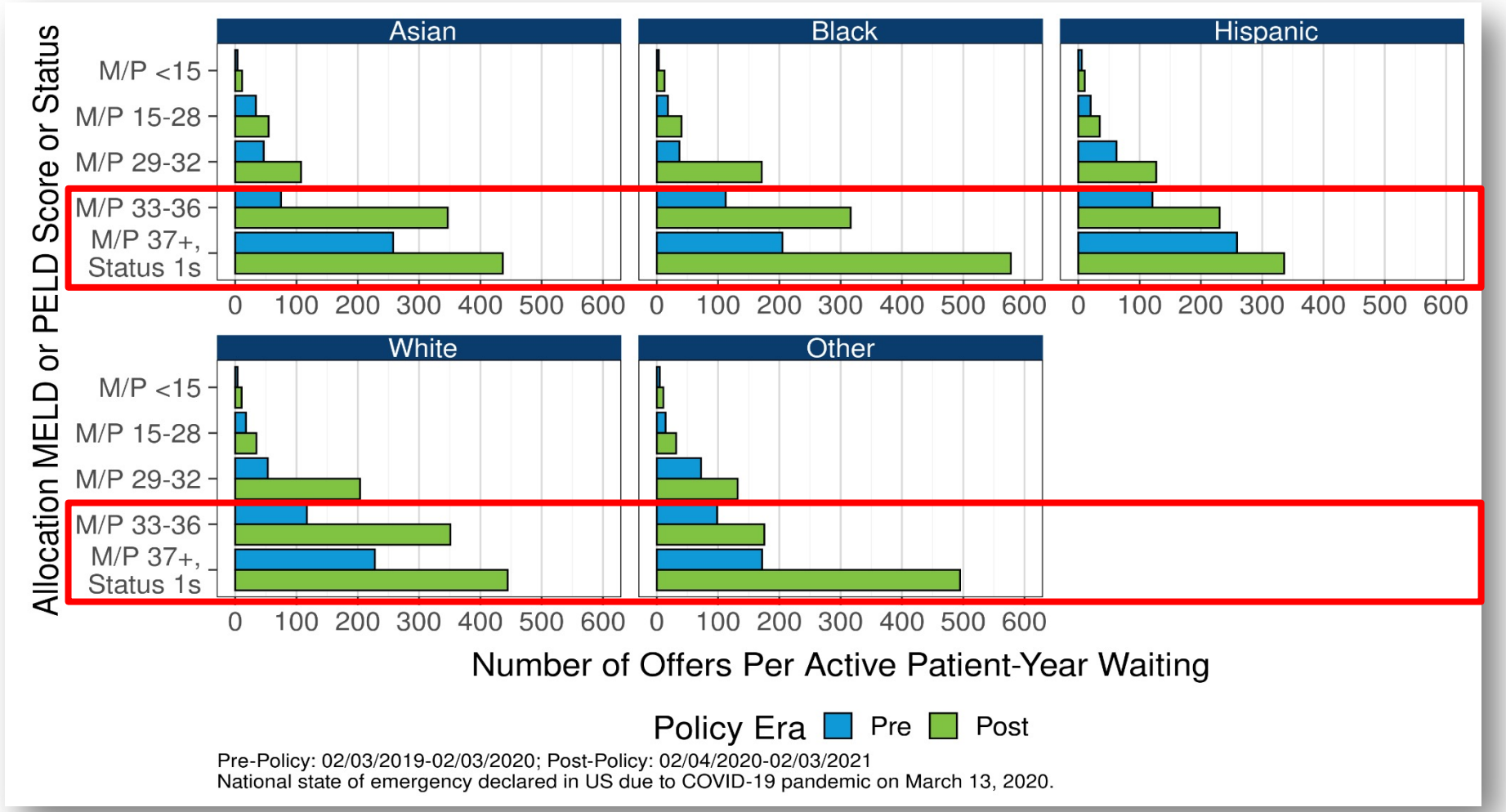
Circle policies



Lung circles 3-year report



Liver circles 1-year report



Noreen-Burns, S. "OPTN One Year Monitoring Report of Liver and Intestine Acuity Circle Allocation; Removal of DSA and Region as Units of Allocation". *5 April 2021.* https://optn.transplant.hrsa.gov/media/4542/data_report_liver_full_1yrallocation_20210405.pdfhttps://optn.transplant.hrsa.gov/media/4542/data_report_liver_full_1yrallocation_20210405.pdf

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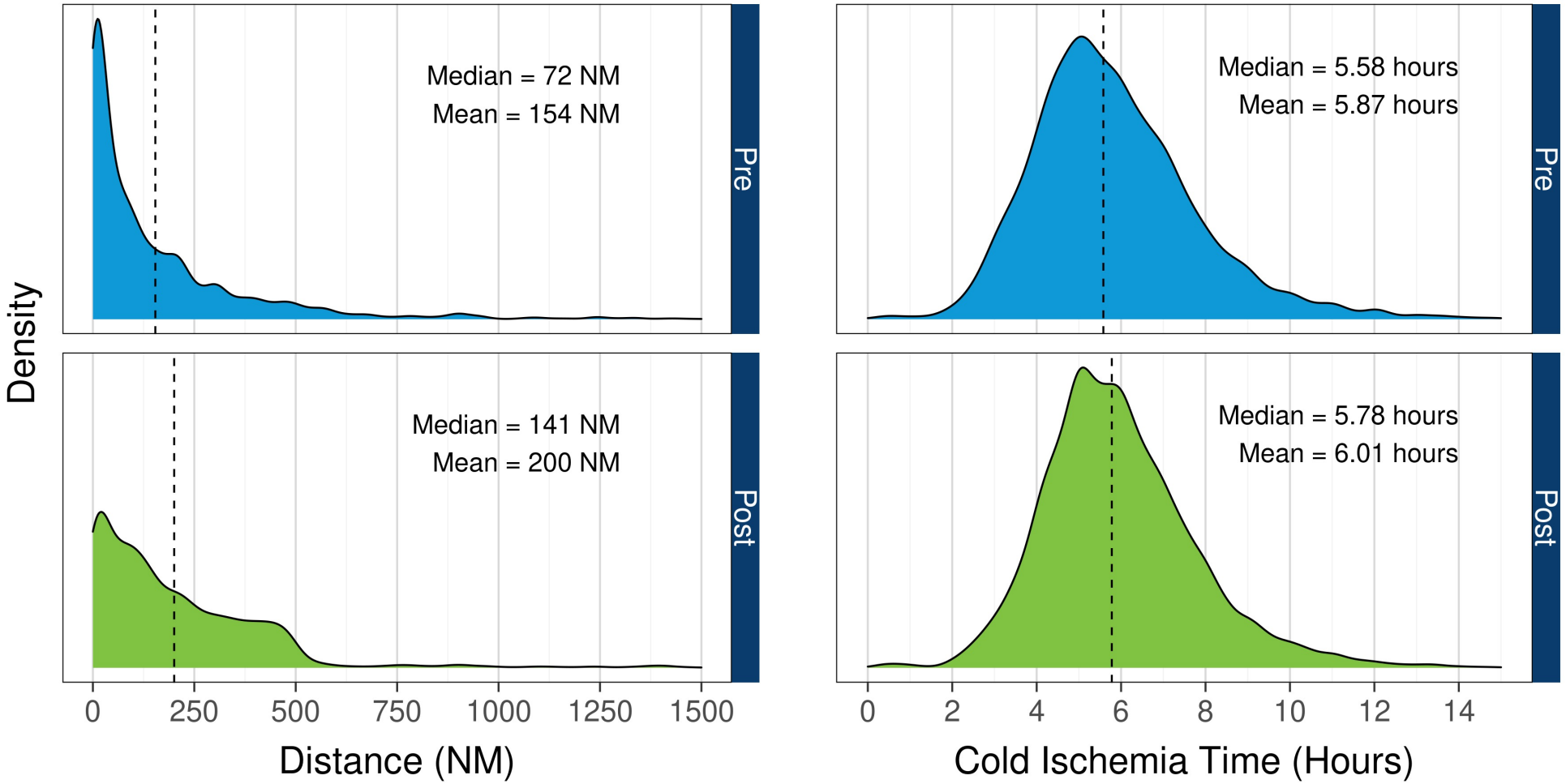


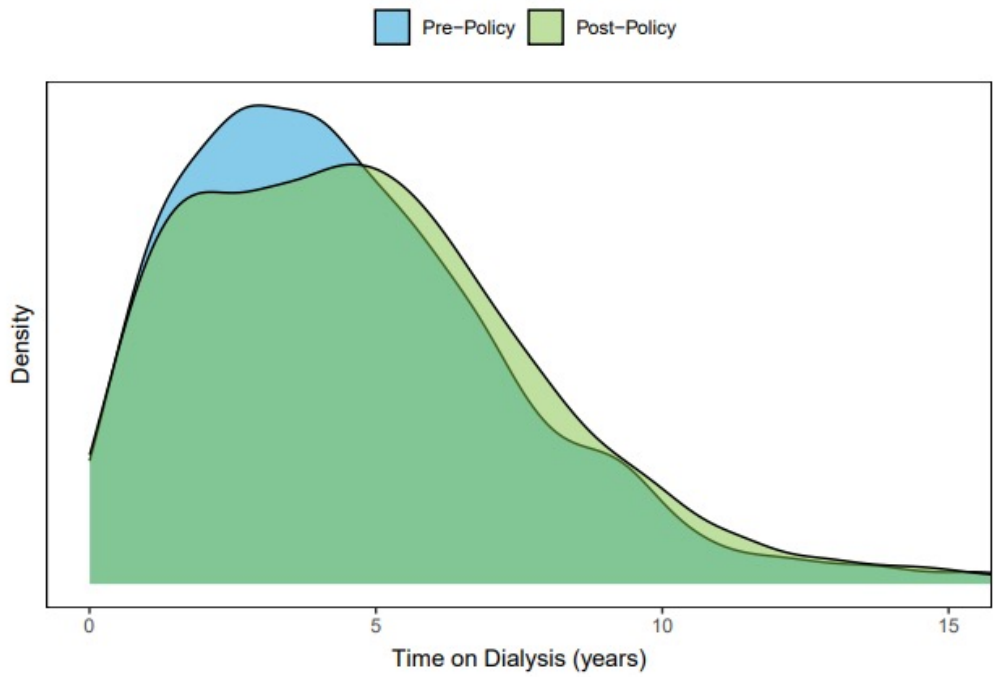
Pre-Policy: 02/03/2019-12/31/2019; Post-Policy: 02/04/2020-12/31/2020
National state of emergency declared in US due to COVID-19 pandemic on March 13, 2020.
* Dotted lines indicate average distance within each era.
** There were 15 pre- and 14 post-policy transplants > 1500 NM.

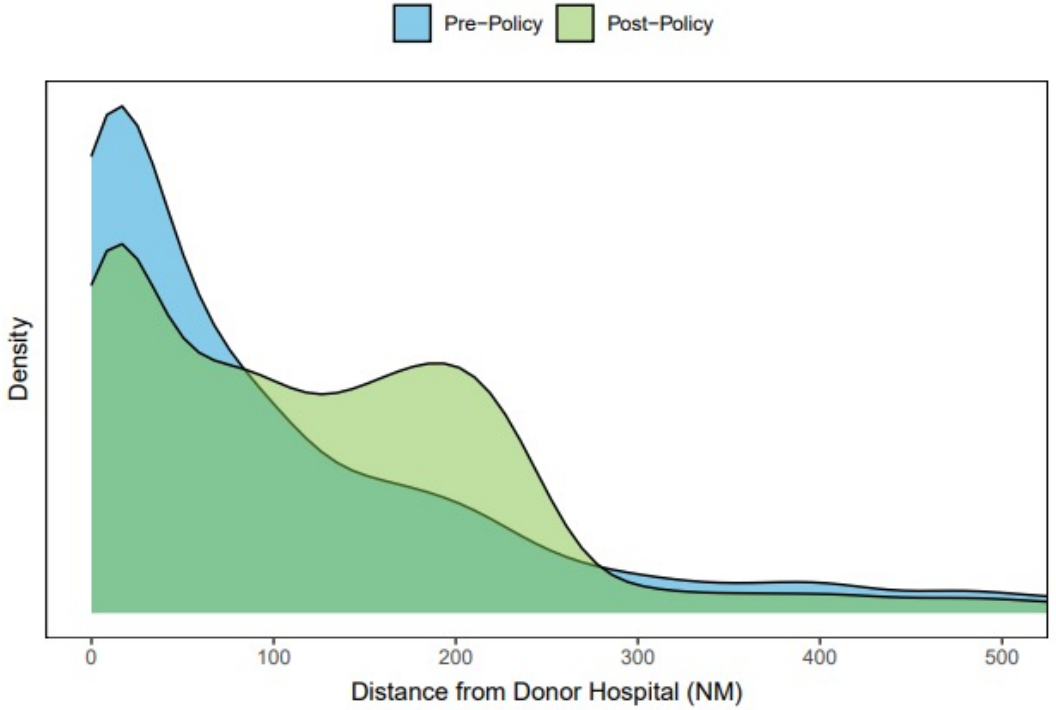
* Dotted lines indicate median cold ischemia time within each era.
** There were 42 pre- and 135 post-policy transplants with missing cold ischemia time. There were 17 pre- and 15 post-policy transplants with cold ischemia time > 15 hours.

Liver circles 1-year report

- Transplant rates significantly increased for liver-alone candidates with MELD or PELD scores 29+/Status 1A/1B
- Waiting list dropout rates significantly increased for liver-alone candidates with MELD or PELD scores 29-36
- Increased offer rates for all MELD or PELD score/status groups
- No significant changes in six-month assumed alive post-transplant patient survival rates
- Utilization rate and rate of livers recovered and not transplanted decreased nationally

Kidney circles 3-month report

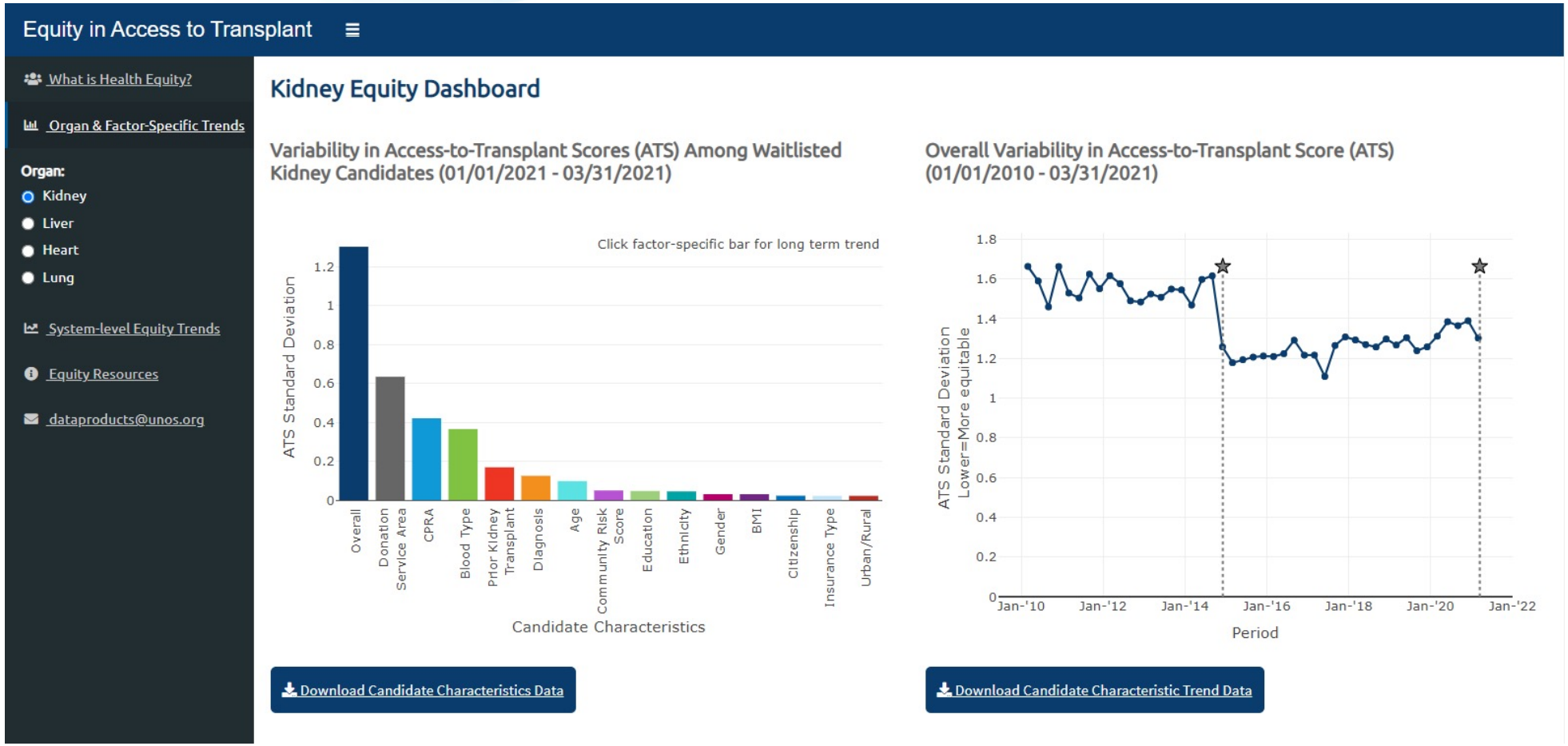




Kidney circles 3-month report

- Transplant volumes increased
  - Pediatrics
  - Black and Hispanic candidates
  - Higher dialysis time candidates
  - CPRA 80-97%
- Overall discard rate did not increase
- More kidneys are distributed outside the donor hospital DSA, but most stay within 250 NM
- Results align with KPSAM modeling used to inform policy development

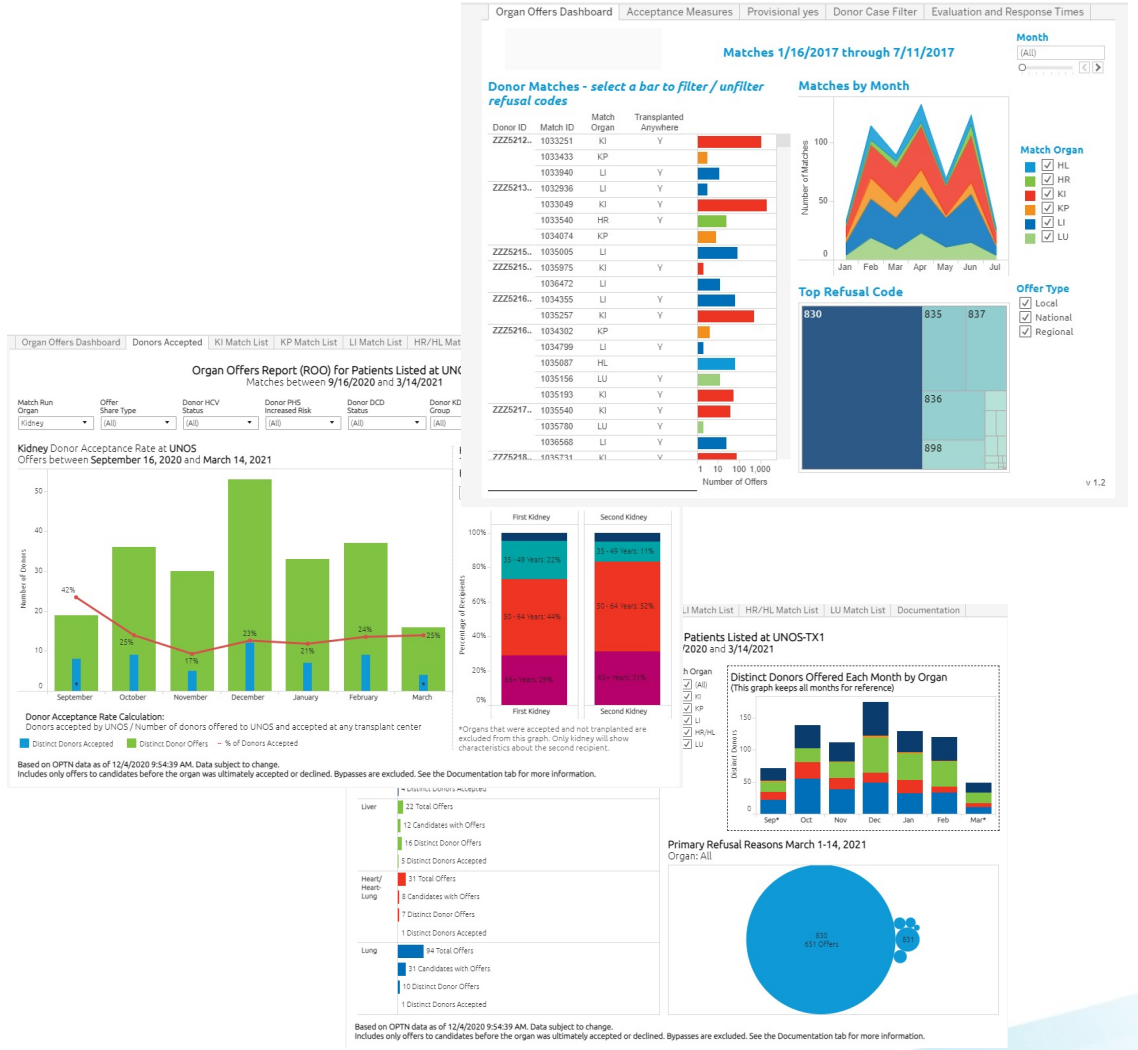
Measuring results



Improving offer logistics

Select IT improvement projects

- Image Sharing
- DonorNet Mobile
- APIs
- Recovery and Usage Maps (RUM)
- Report of Organs Offered (ROO)
- *Predictive analytics on the way!*



*Detail on slides 11-17
**Detail on slides 18-

Policy approaches to improving offers

- **Standardization of processes**
  - Defining provisional yes offers and outlining the responsibilities of members
  - Offer Filters for Kidney
  - Modify amount of offers sent out
  - Time Limits on Offers
- **Dynamic match run**
  - Capability to filter off candidates from match run who no longer meet acceptance criteria once donor information is updated
  - Continuously evolving match run

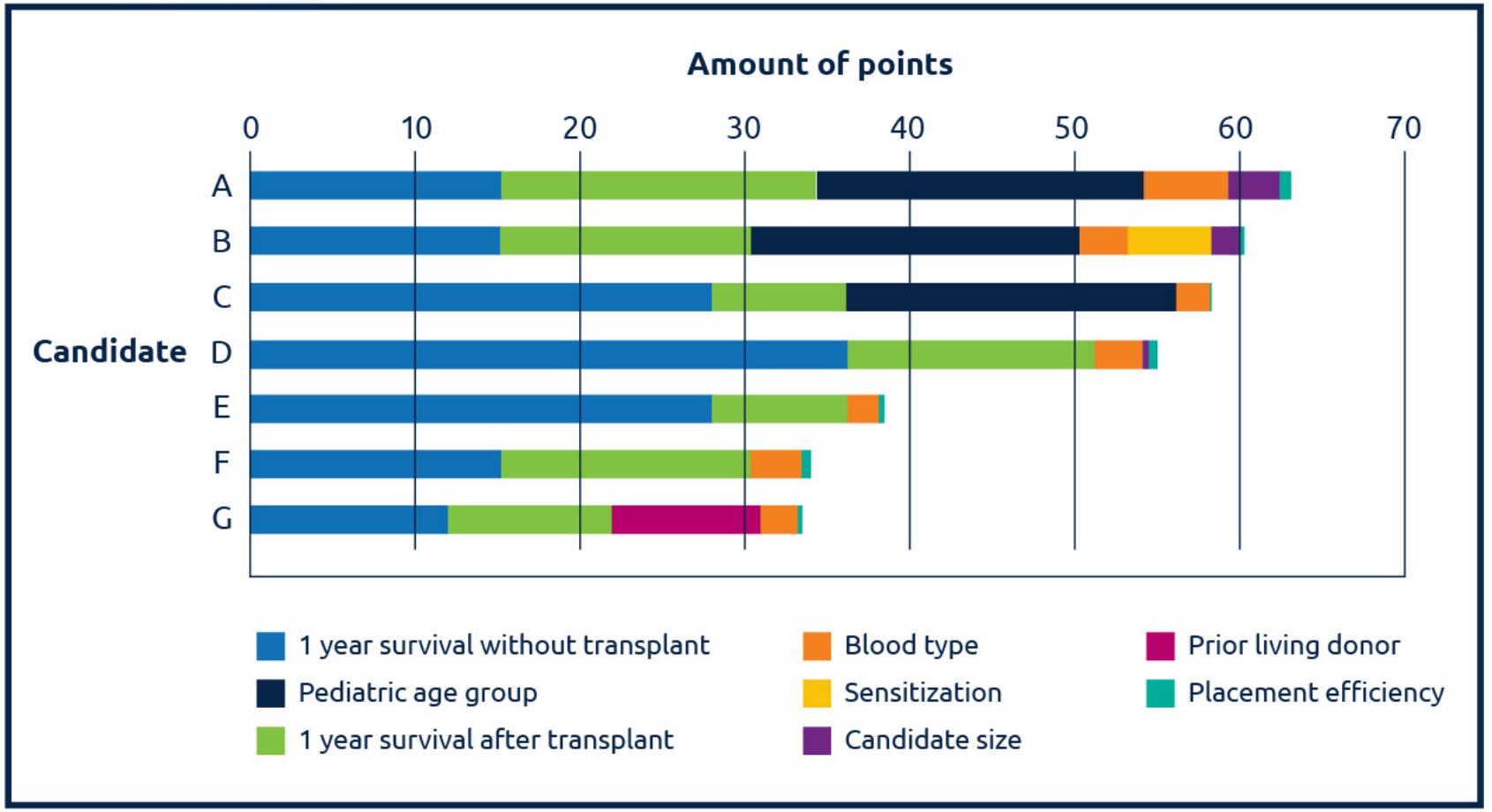
Making policymaking more efficient – Continuous Distribution

Geography is NOT THE ONLY BOUNDARY

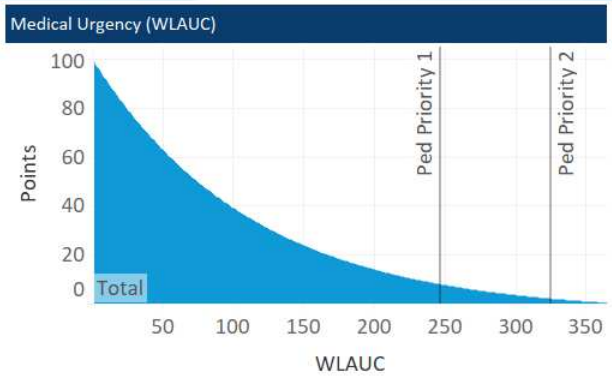
Current kidney allocation system

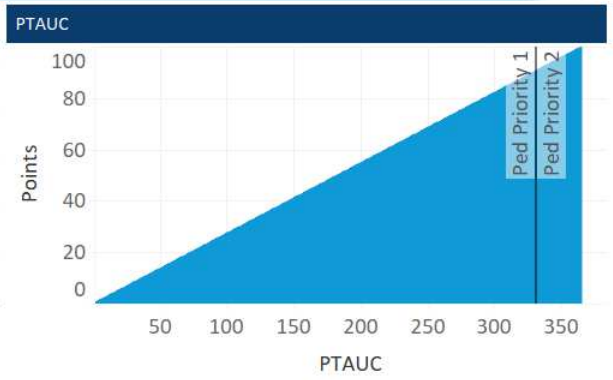
Sequence A KDPI 0-20%	Sequence B KDPI 20-34%	Sequence C KDPI 35-85%	Sequence D KDPI 86-100%
100% Highly Sensitized	100% Highly Sensitized	100% Highly Sensitized	All Highly Sensitized
Inside circle prior living donor	Inside circle prior living donor	Inside circle prior living donor	0-ABDRmm
Inside circle pediatrics	Inside circle pediatrics	98-99% Highly Sensitized	Inside circle safety net
98-99% Highly Sensitized	98-99% Highly Sensitized	0-ABDRmm	Inside circle
0-ABDRmm	0-ABDRmm	Inside circle safety net	National
Inside circle top 20% EPTS	Inside circle safety net	Inside circle	
0-ABDRmm (all)	Inside circle adults	National	
Inside circle (all)	National pediatrics		
National pediatrics	National adults		
National (top 20%)			
National (all)			

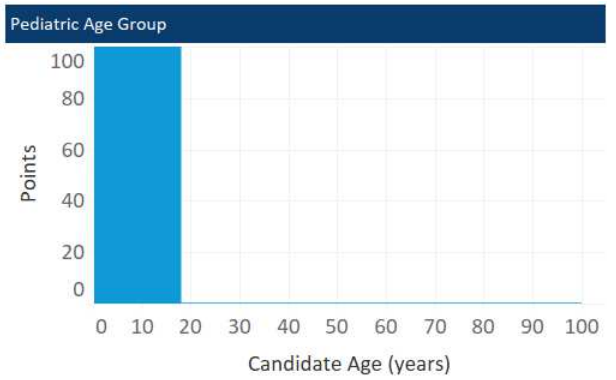
Continuous distribution match run

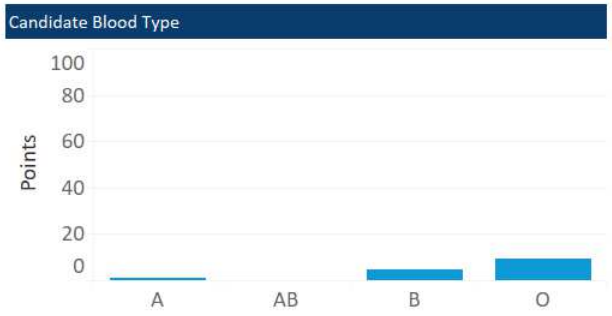


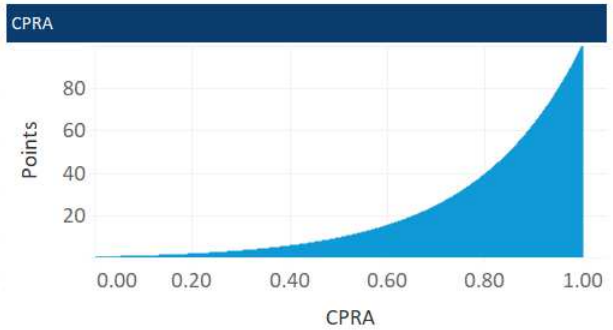
Lung rating factors

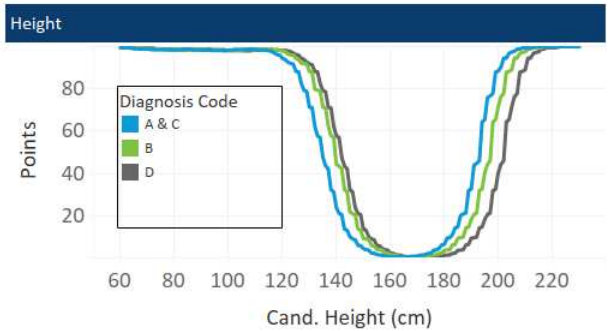


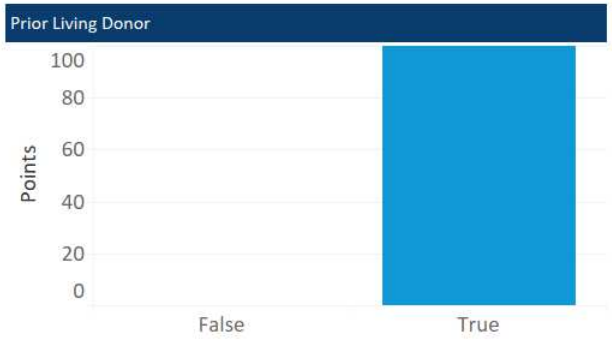


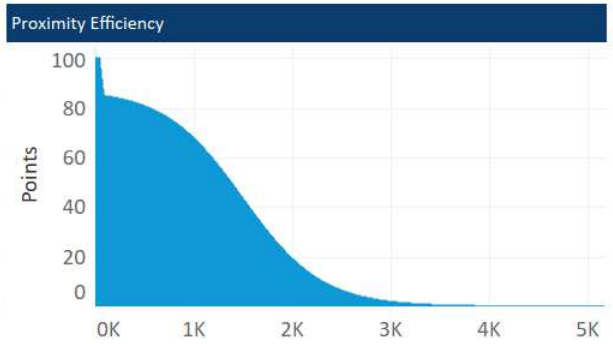


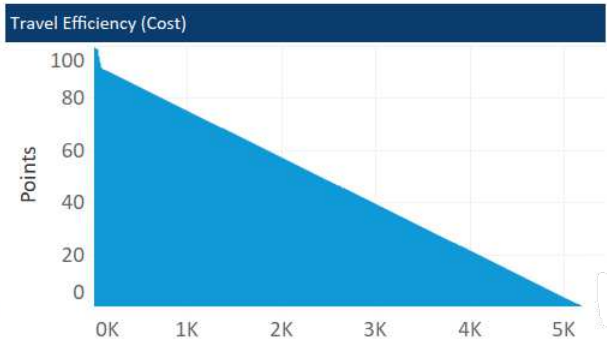












Applying weights to each factor

Waitlist urgency

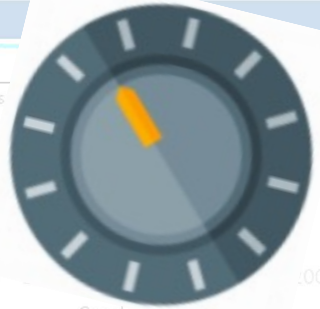
Post-tx survival

Ped status

ABO Compat.

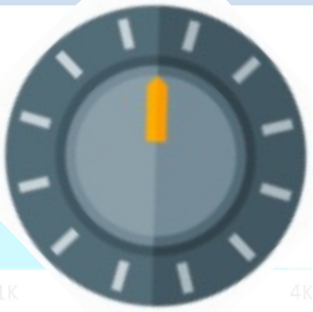
CPRA

Height match



Prior LD

Efficiency



Travel