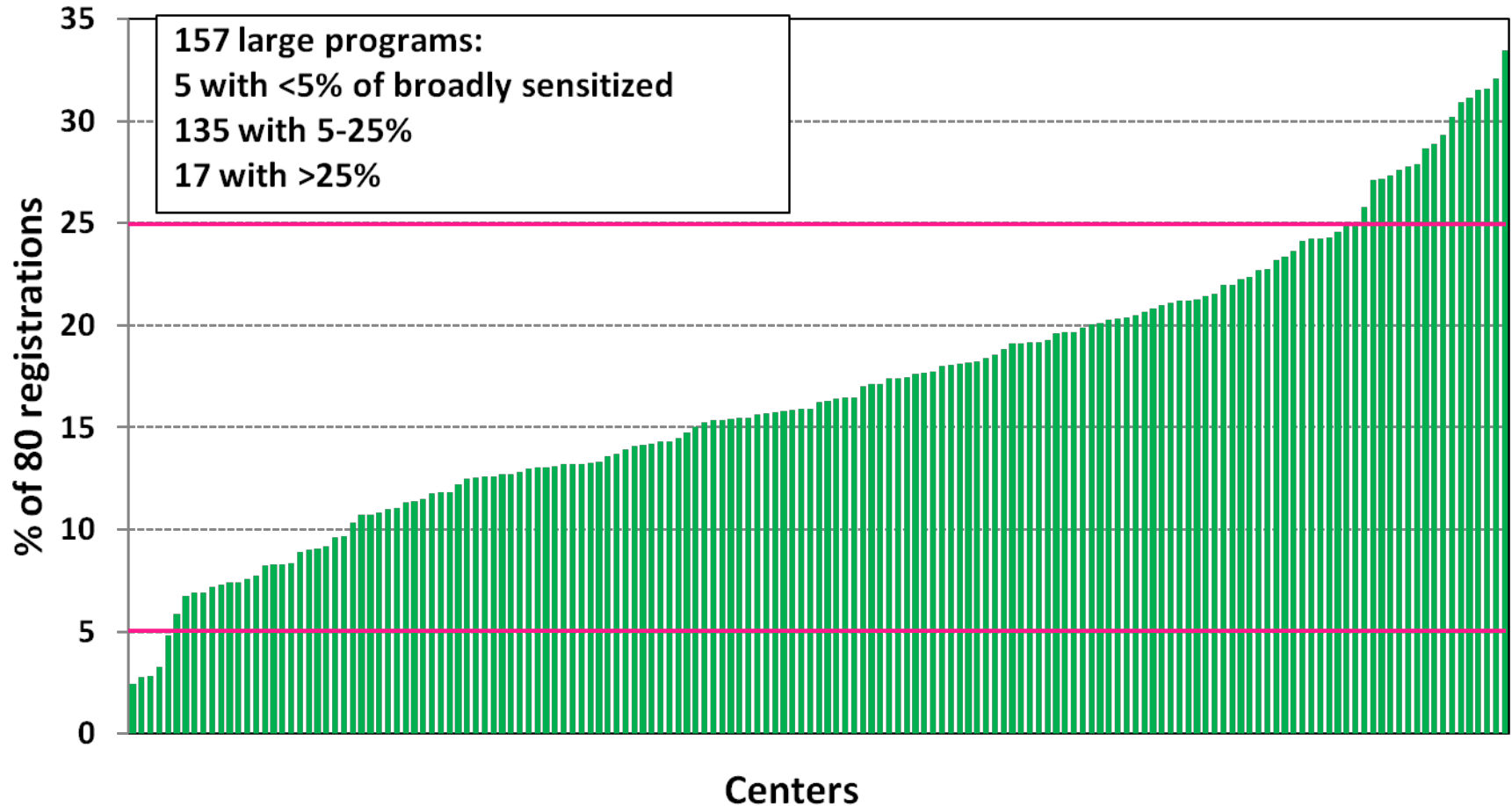


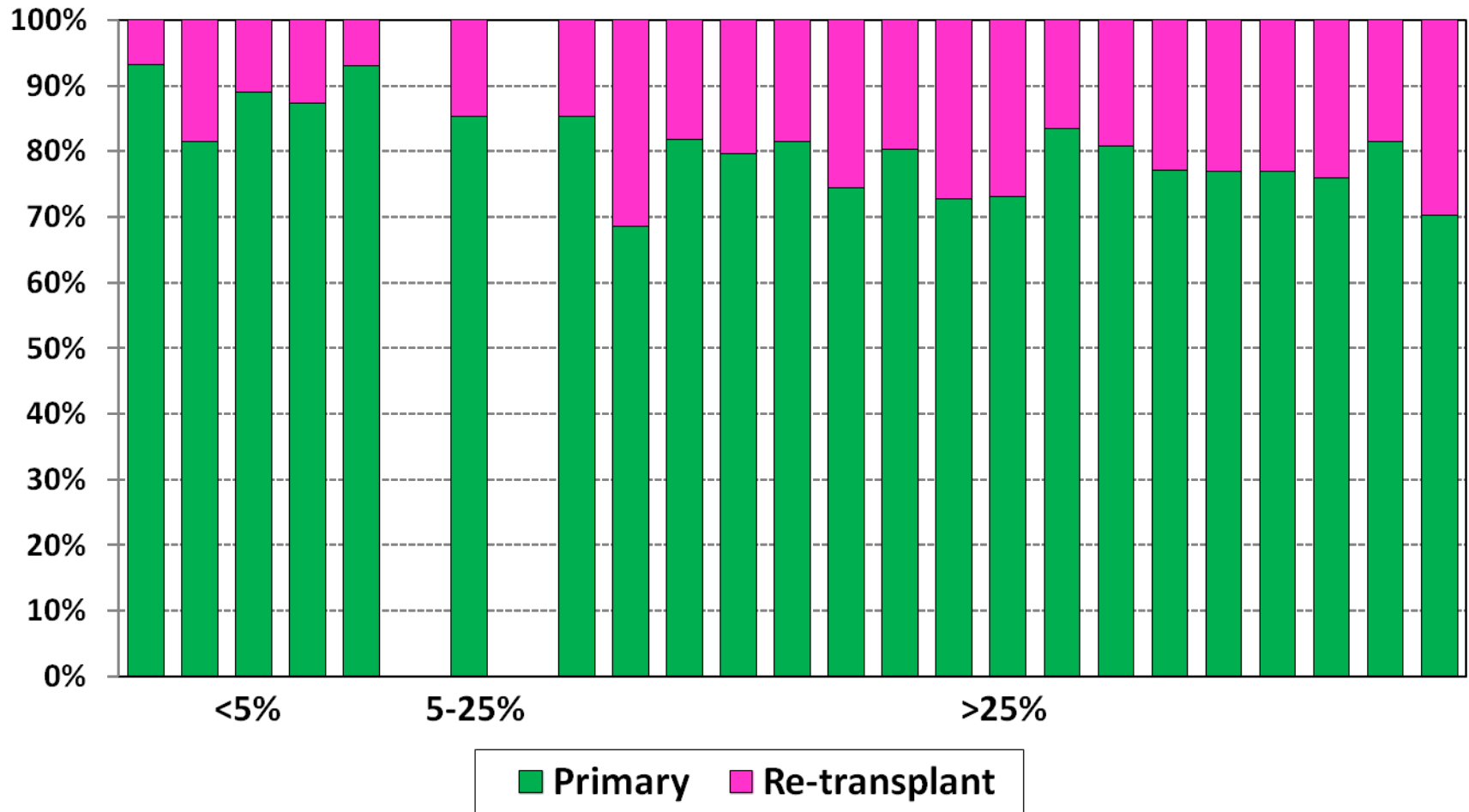
# Summary

- *An overall 65% decrease in the rate of organ refusals due to a positive crossmatch was observed in the first 15 months.*
- *After the implementation of CPRA, the % of offers refused due to a positive crossmatch decreased from 1.8% to 0.7% and then to 0.5%.*
- *In the first 15 months, the transplant rates per 1,000 active patient-years increased significantly for the sensitized patients:*
  - *21-79 CPRA group: 173.9 to 189.4 (RR = 1.09)*
  - *80-89 CPRA group: 287.1 to 467.7 (RR = 1.63)*
  - *90-95 CPRA group: 182.4 to 260.2 (RR = 1.43)*
- *In the second 15 months, the transplant rates for sensitized patients remained higher than the pre-implementation rates.*
- *No significant change in the KM 6, 12, 18 month graft survival rates was observed by PRA/CPRA groups.*

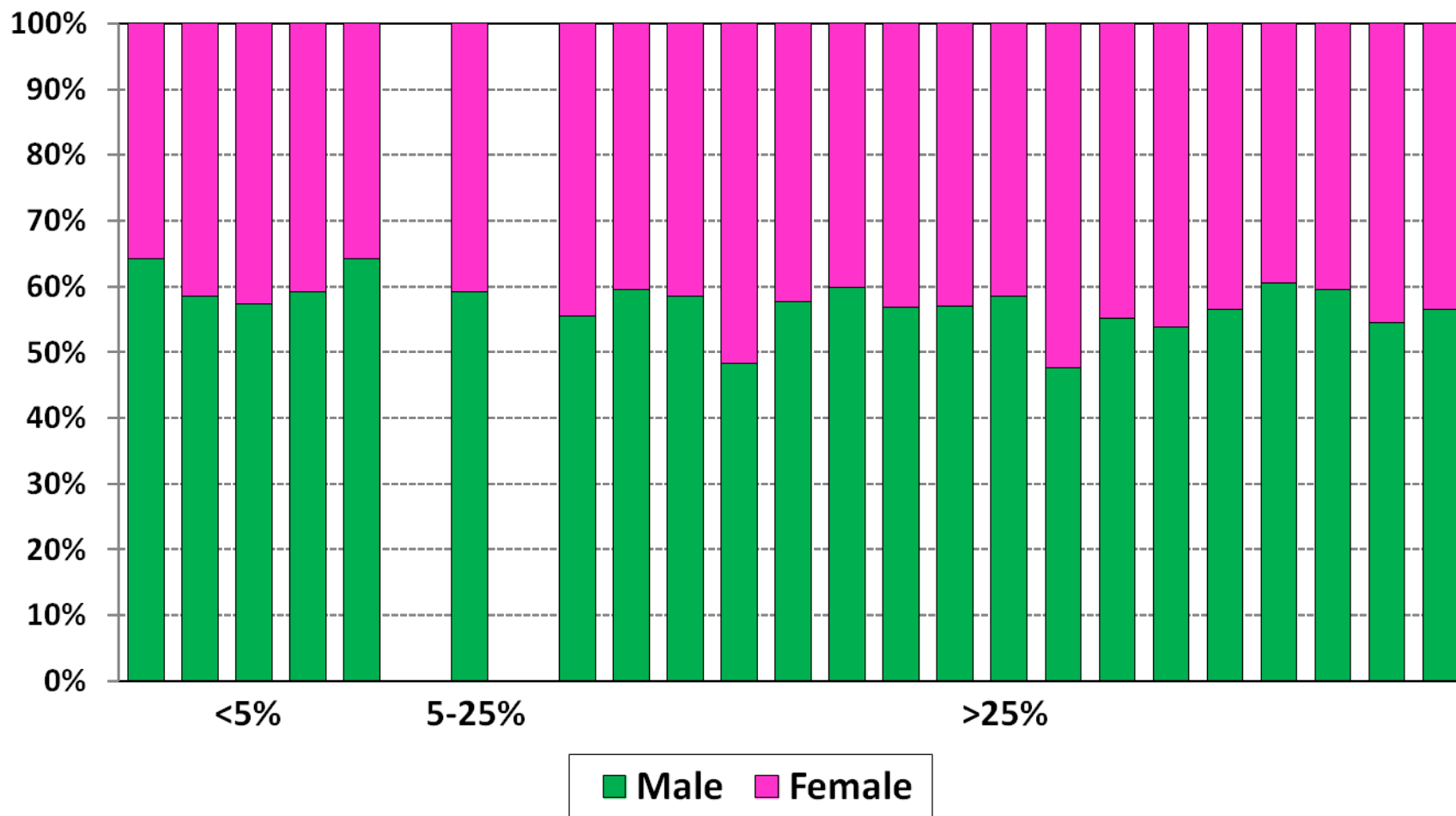
# Percentage of broadly sensitized (80%+) registrations by center, June 30, 2011\*



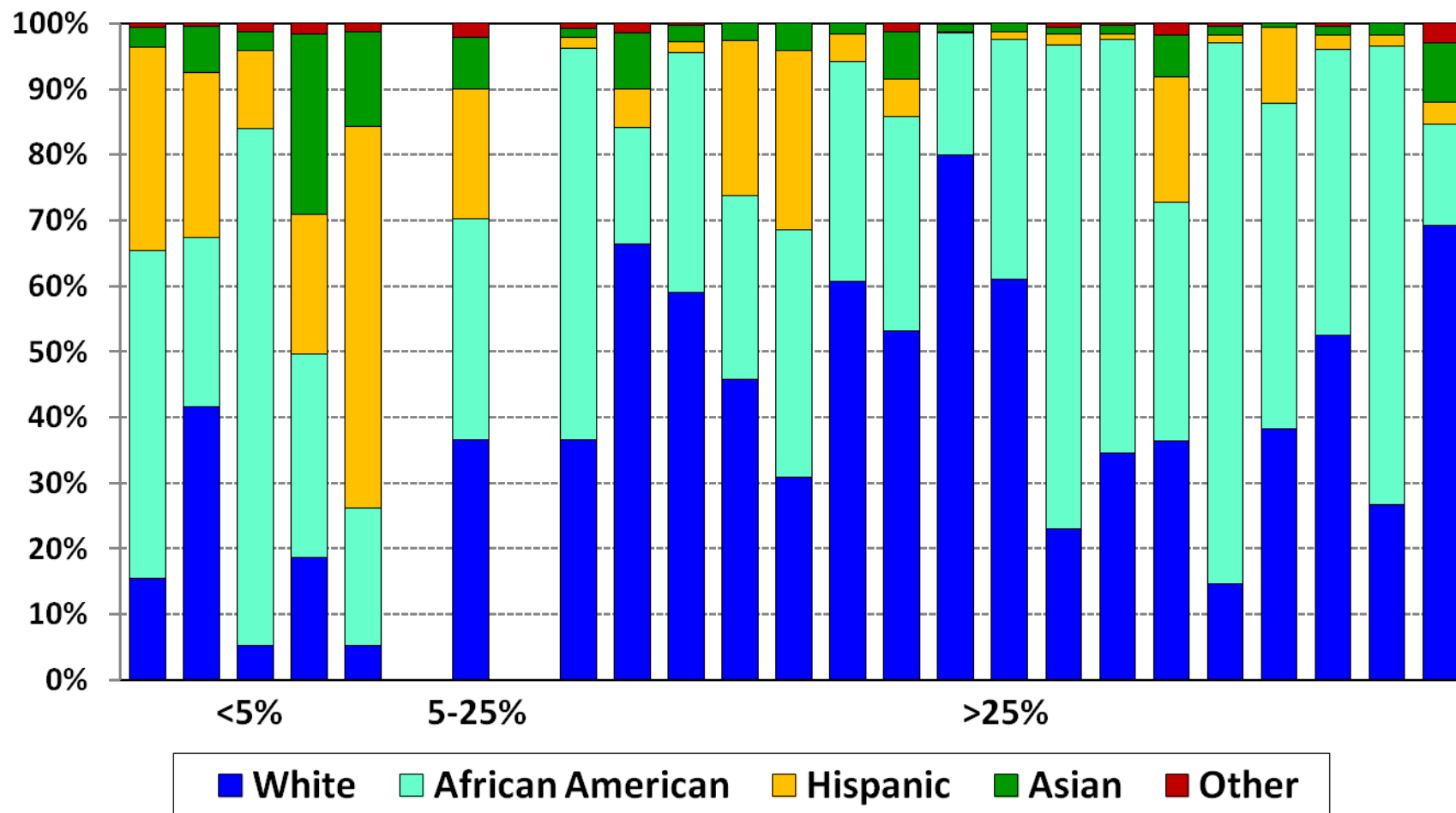
# Retransplant vs. primary registrations by center, June 30, 2011\*



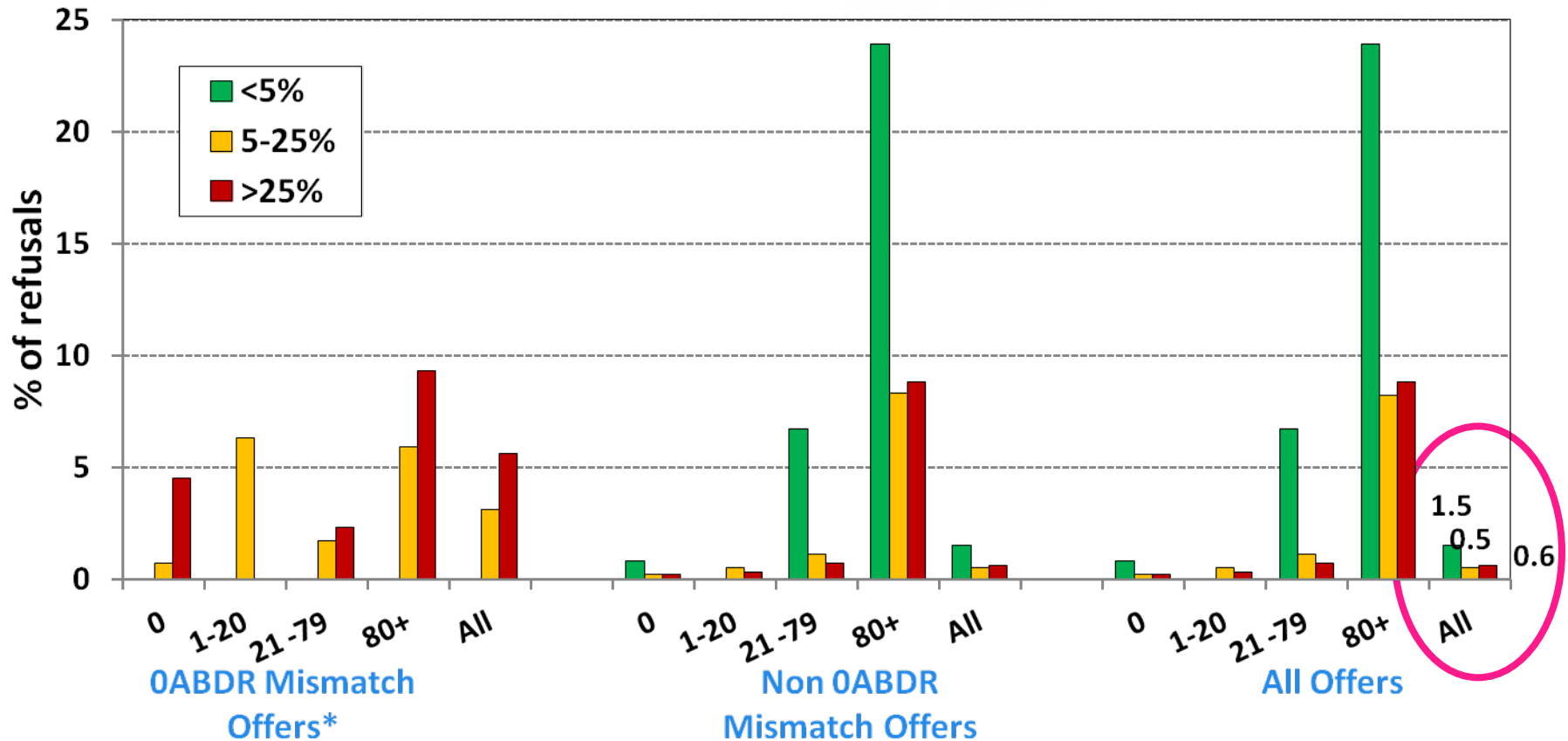
# Gender distribution by center, June 30, 2011\*



# Ethnicity distribution by center, June 30, 2011\*



# % of offers refused due to a positive crossmatch by offer type\*\*

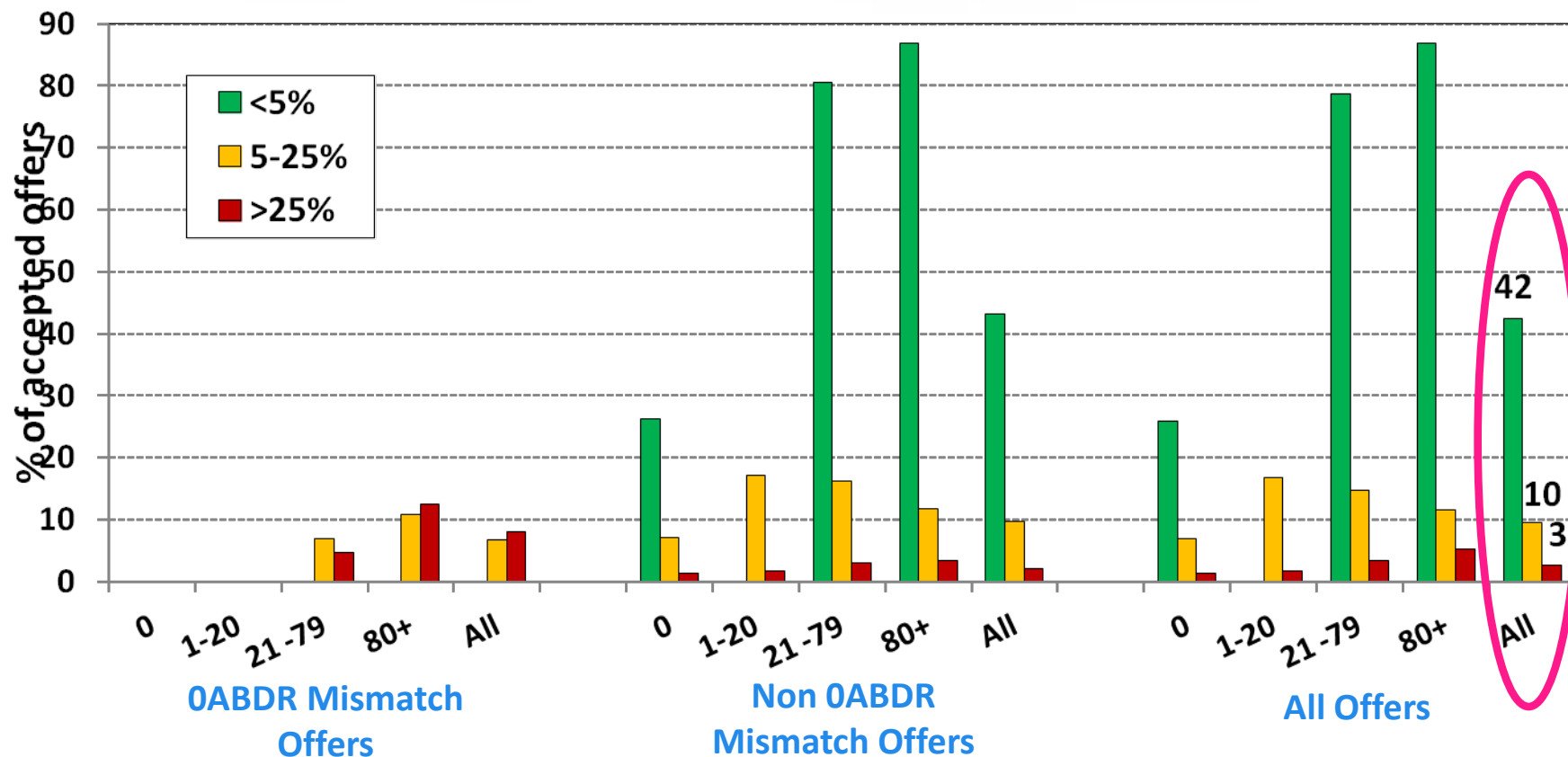


\*Note: patients in <5% centers received only 12 OABDR mismatch offers and none of them were refused due to a positive crossmatch.

Total number of non OABDR mismatch offers refused due to a positive crossmatch for <5% centers:

0% = 101; 1-20% = 0; 21-79% = 50; 80%+ = 66; all CPRA groups = 217

# % of offers accepted but kidneys not transplanted into the intended recipient\*



\*Note: only 4 0ABDR offers were accepted for patients in <5% centers and all of those kidneys were transplanted into the intended recipient.

Total number of non 0ABDR mismatch offers accepted but kidneys not transplanted into the intended recipient in <5% centers: 0% = 49; 1-20% = 0; 21-79% = 33; 80%+ = 33; all CPRA groups = 115

# Summary

For centers with <5% of broadly sensitized kidney candidates:

- Had significantly higher percentage of offers refused due to the positive crossmatches (1.5%) than 5-25% (0.5%) and >25% (0.6%) groups
- Had significantly higher percentage of offers accepted but organs not transplanted into intended recipient (42.4%) than 5-25% (9.6%) and >25% (2.7%) groups

*Are new policies needed to inform transplant centers of their individual data and to address accountability?*

# Updated Results from KPSAM: Runs N1-N3

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# Updated results

- Preliminary results were first presented on a conference call on 12/12/11.
- Further enhancements and improvements were made to KPSAM to correctly handle CPRA, unacceptable antigen updates, and payback kidneys.
- These results reflect those changes.

# Data Request

- “Previously, ...the former SRTR contractor had generated over 40 simulation runs for this committee using the ‘KPSAM’ algorithm.”
- “Run #37 [of KPSAM] included the longevity-matching of kidneys and recipients (Top 20% of kidneys to Top 20% of candidates).”
- “Build upon Run #37 by adding... recently formulated details, such as the CPRA sliding scale, national priority for very highly sensitized candidates (CPRA 98%+), and regional sharing of marginal kidneys (KDPI 85%+).”
- Perform the following simulation runs:
  - N1. Baseline (old Run 35): current ‘as is’ system.
  - N2. Baseline + ‘extras’ (old Run 36).
  - N3. New allocation system including longevity matching.

# Overview of Allocation Components by Run

Concepts	N1	N2	N3
SCD allocation (defined as KDPI $\leq$ .85 for N3)	X	X	X
DCD allocation	X	X	
ECD allocation (defined as KDPI $>$ .85 for N3)	X	X	X
Payback system	X		
Waiting time since listing	X		
Back-dating dialysis time		X	X
Waiting time points based on fractional years		X	X
A2/A2B donor to B candidates priority(local, regional, and national)		X	X
Highest scoring high CPRA classification	X		

# Overview, continued

Concepts	N1	N2	N3
Pediatrics cannot receive non-0 mm ECD offers		X	X
Longevity Matching (top 20% survivors get first chance at top 20% kidneys)			X
"Share 0.35" pediatric priority (Donor < 35 yrs for N1, N2)	X	X	X
CPRA sliding scale			X
National priority for CPRA $\geq$ 98% candidates			X
Regional sharing for marginal kidneys (KDPI > .85)			X
KP/PA System: current	X		
KP/PA system: future		X	X

# Overview of N3

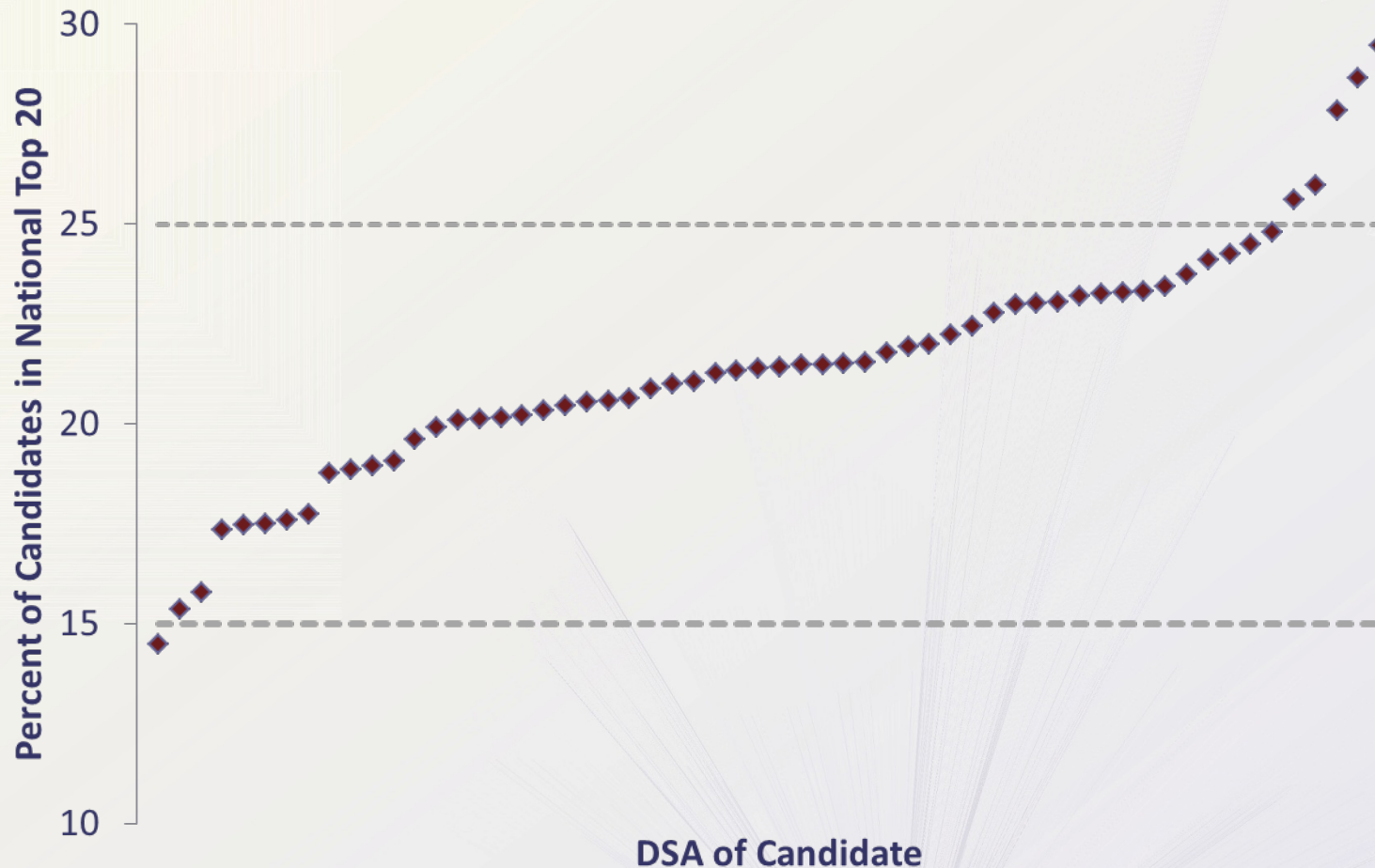
<b>KDPI <math>\leq 0.20</math></b>	KDPI 0.21-0.34	KDPI 0.35-0.85	KDPI $>0.85$
Local CPRA 98+ Reg'l CPRA 98+ Nat' CPRA 98+ Omm top 20 Local pediatrics Local top 20 Omm bottom 80 Local bottom 80 Reg'l pediatrics Reg'l top 20 Reg'l bottom 80 Nat'l pediatrics Nat'l top 20 Nat'l bottom 80	Local CPRA 98+ Reg'l CPRA 98+ Nat'l CPRA 98+ Omm Local pediatrics Local adults Reg'l pediatrics Reg'l adults Nat'l pediatrics Nat'l adults	Local CPRA 98+ Reg'l CPRA 98+ Nat'l CPRA 98+ Omm Local Reg'l Nat'l	Local CPRA 98+ Reg'l CPRA 98+ Nat'l CPRA 98+ Omm Local and reg'l adults Nat'l adults

**Top 20 to Top 20**

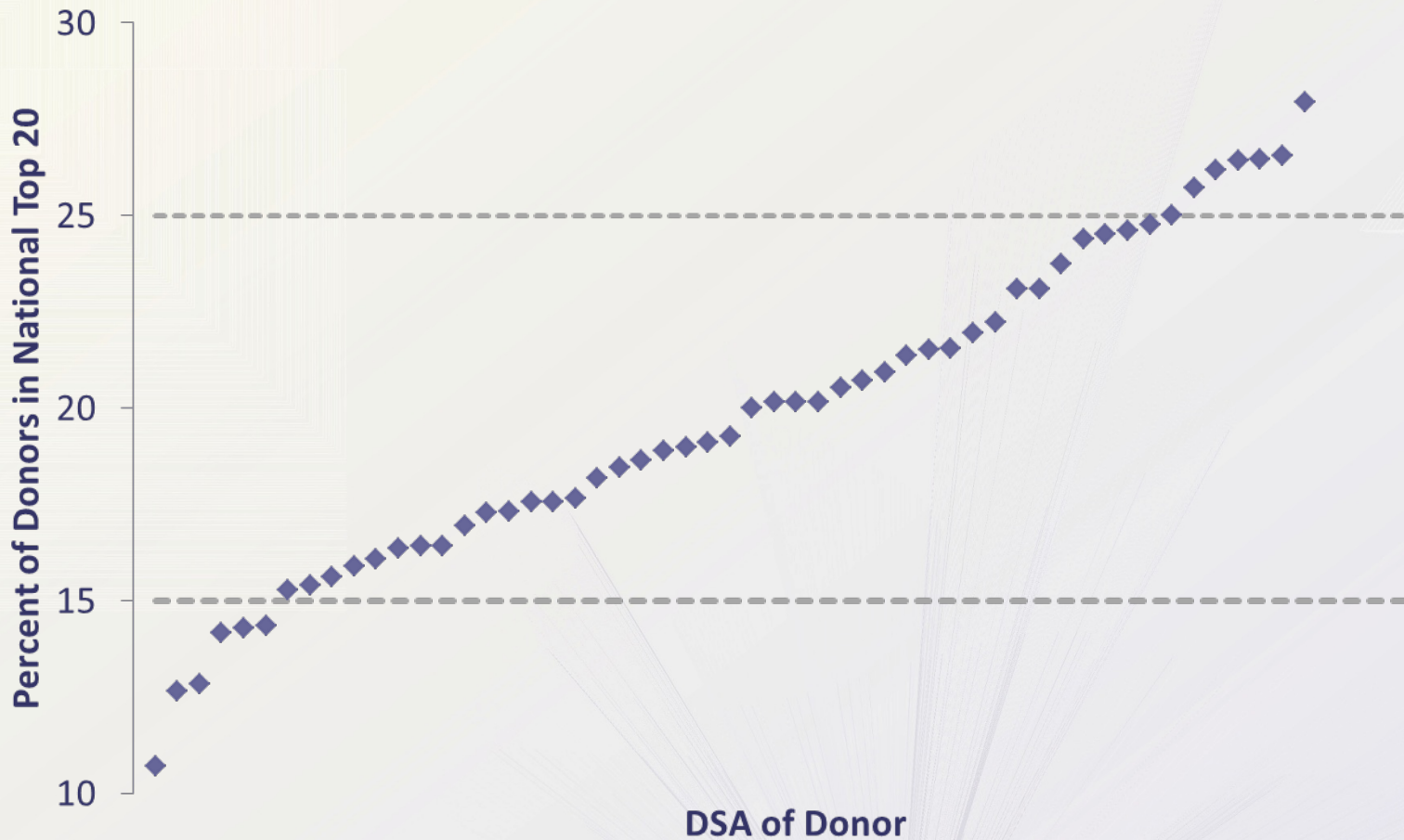
## N3 Concepts: Defining Top 20 to Top 20

- A “top 20” donor is one who is in the top 20<sup>th</sup> percentile of donor quality, estimated using the Kidney Donor Risk Index.
- A “top 20” candidate is one who is in the top 20<sup>th</sup> percentile of estimated post-transplant survival (EPTS), among all candidates nation-wide of the same blood type.
- EPTS was modeled based on age at transplant, presence of diabetes, years of dialysis, and previous organ transplant. These factors were previously decided upon by the Kidney Committee.

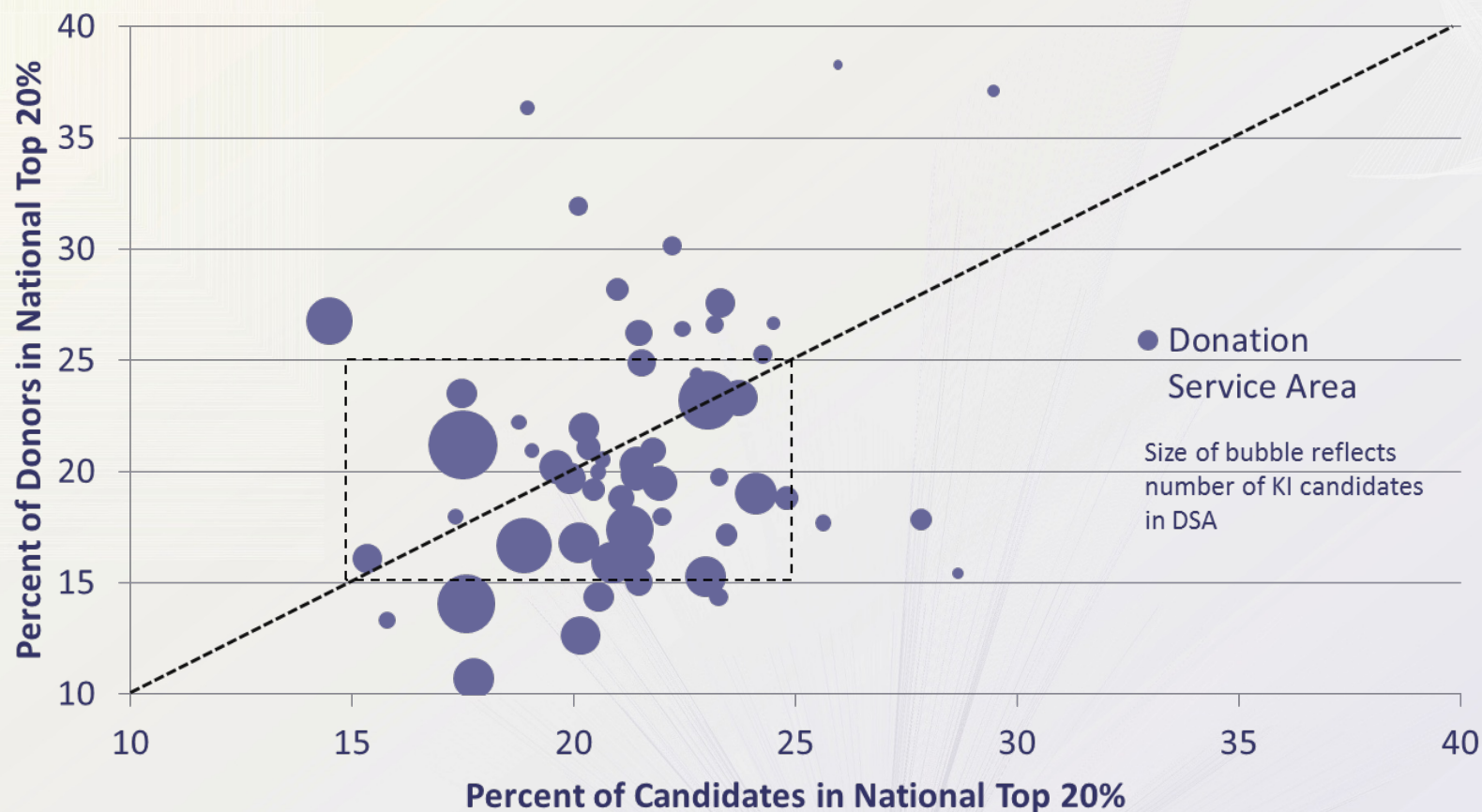
# Percent of candidates in national top 20%, by Donor Service Area of candidate's listing center



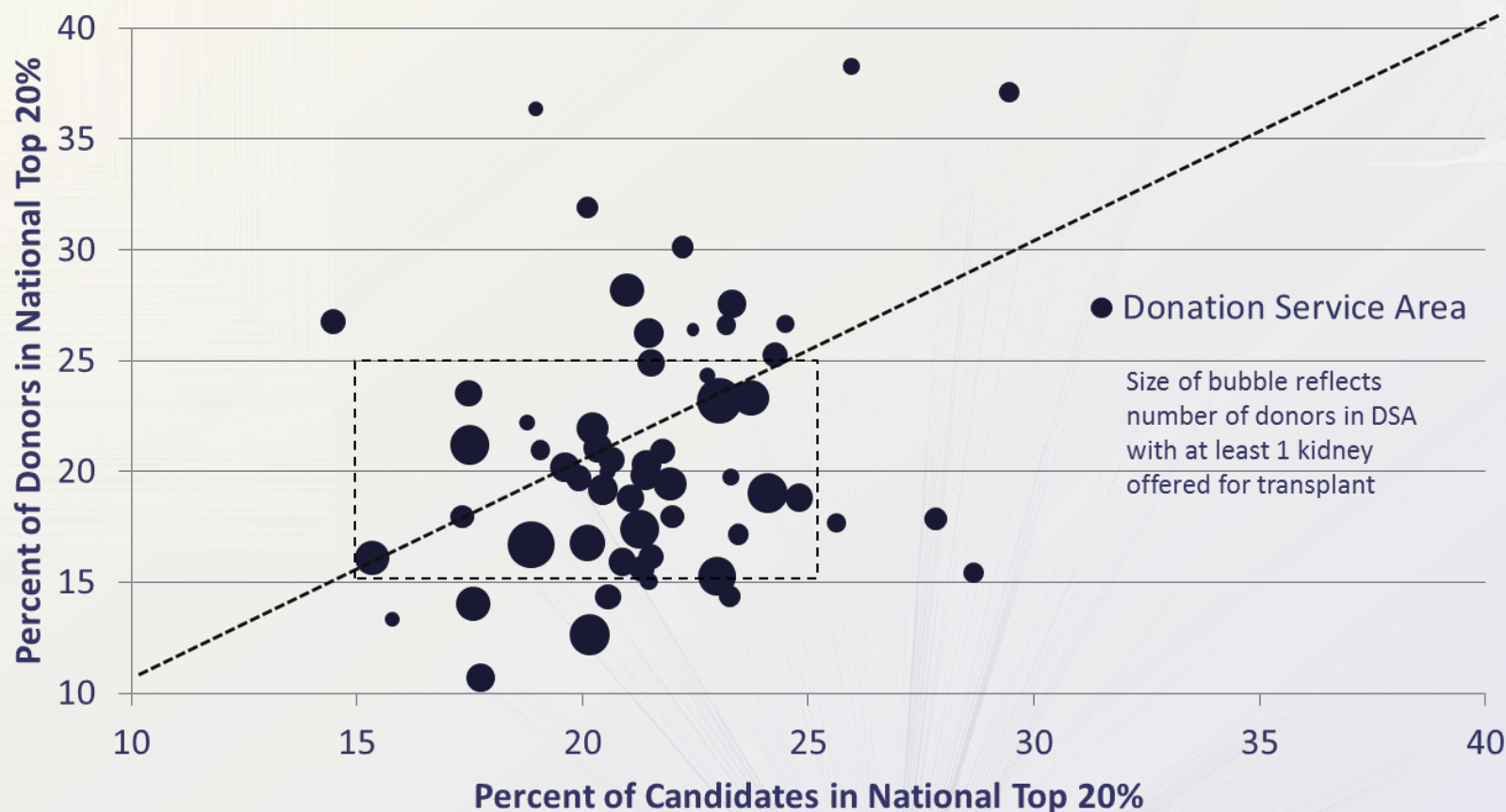
# Percent of kidney donors in national top 20%, by DSA of donor



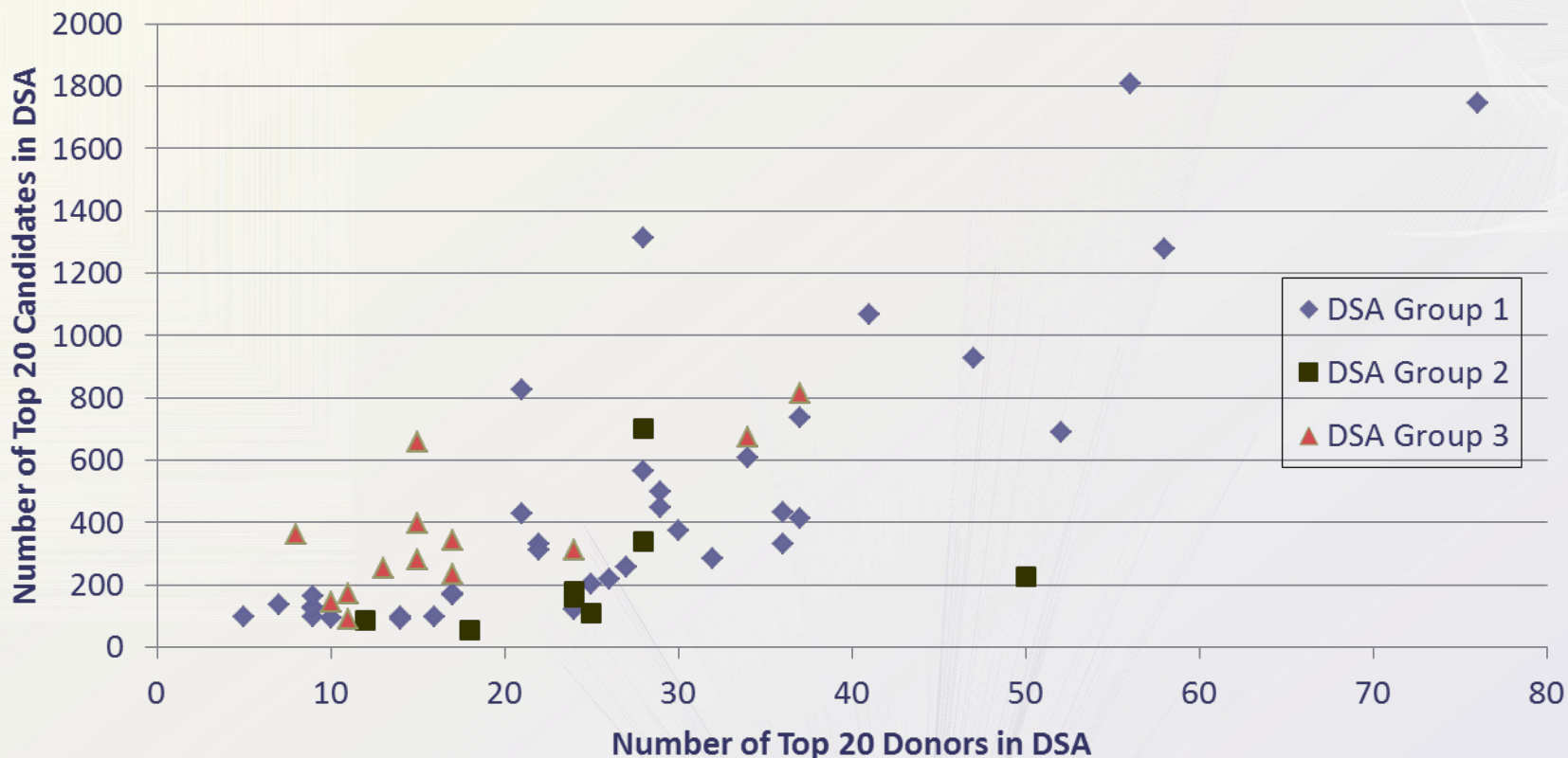
# Percent of Top 20 candidates and Top 20 donors within DSA: by candidate volume



# Percent of Top 20 candidates and Top 20 donors within DSA: by donor volume



# Top 20 donors and candidates by Donation Service Area (DSA): counts



Group 1 is DSAs with less than a 5% difference in the % of Top 20 candidates and Top 20 donors.

Group 2 is DSAs for which the % of Top 20 donors exceeds the % of Top 20 candidates by more than 5%.

Group 3 is DSAs for which the % of Top 20 candidates exceeds the % of Top 20 donors by more than 5%.

# Updated Simulation Results