



## CONTINUOUS DISTRIBUTION OF PANCREATA

WINTER 2022 PRIORITIZATION EXERCISE – COMMUNITY RESULTS

Prepared by Joann White, MPH

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## Summary

The transplant community participated in an Analytic Hierarchy Process (AHP)<sup>1</sup> exercise regarding the allocation of deceased donor organs from January 27 through March 23, 2022. This report provides background on the project and the results of the exercise. The project received 390 participants from across the transplant community. Areas suggested for discussion are highlighted to stimulate the Committee's deliberations. The Committee will then decide on which scenarios for the SRTR to model before the Committee develops a policy proposal for public comment in 2023.

Participants were asked to weigh their preferences between pairs of attributes, described as patient profiles, in terms of how important each should be in prioritizing candidates for lung transplantation.<sup>2</sup> These pairwise comparisons were then aggregated into overall preferences, or relative importance "weights," for the different attributes. The analysis revealed variability in the weights between the different demographic groups. Another way to compare their relative importance is to rank the attributes according to the AHP weights. **Figure 7** shows the ranking of each attribute by the different demographic groups and the average ranking across all demographic groups. When viewed as rankings, the most important attribute was prioritizing and extremely (biologically) difficult to match candidate ("candidate biology") and the least important attribute was improving placement efficiency. Within each pairwise comparison, there is a fair amount of variance within each demographic group. Because of this, many of the comparisons result in moderate preferences or equal balances between attributes.

This report also contains the comments submitted during the public comment process. They show general support for the project and its methodology while contributing details on specific attributes.

## Project Background

Continuous distribution will be a move from a classification based system to a points based system for organ allocation. Continuous distribution means replacing the current classification approach, which draws hard boundaries between types of patients (blood type compatible vs. identical; sensitized vs not; inside a circle vs. outside), with a composite score that takes into account all of a candidate's characteristics. This score would be constructed with multiple attributes which align with NOTA and the OPTN Final Rule. One aspect of the project includes prioritizing the different attributes used to allocate organs. This report summarizes the results of the Winter 2022 community prioritization exercise.

**Figure 1** shows the phases of the project's development. To construct the composite allocation score for pancreata, the Committee is currently pursuing two parallel stages: 1) prioritizing attributes against each other (as described in this report) and 2) converting attributes into points. The Committee and the Kidney-Pancreas Continuous Distribution Workgroup (the Workgroup) spent 2020 and much of 2021 selecting and building evidence based rating scales<sup>2</sup> to score candidates for each attribute.<sup>3</sup>

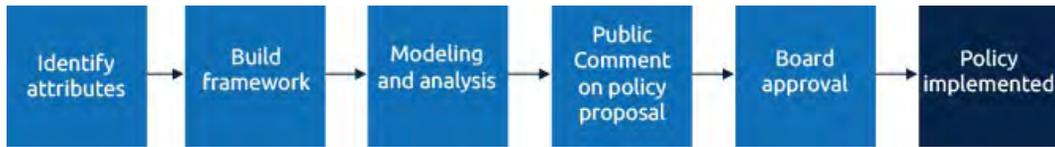
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<sup>1</sup> Saaty, T.L., 1980, 1986 rev. *Multicriteria Decision Making: The Analytic Hierarchy Process*. Dolan, James. 2010. *Multicriteria decision support: A primer on the use of multiple criteria decision making methods to promote evidence-based, patient-centered healthcare*.

<sup>2</sup> For example, "Candidate Biology" was described as "An extremely (biologically) difficult to match candidate".

<sup>3</sup> Rating scales are used to score candidates on clinical data for each attribute.

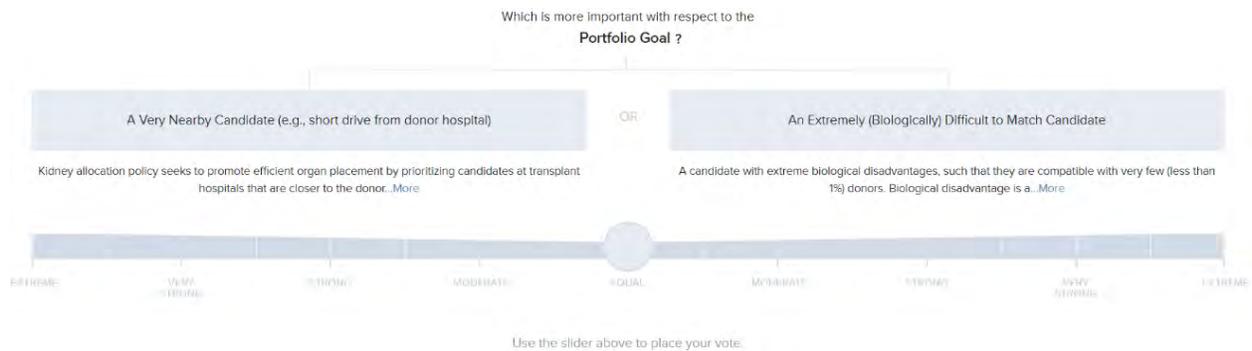
**Figure 1: Project Overview**



Next, the OPTN collected information from the transplant community on how the attributes should be prioritized relative to each other in a reimagined pancreas allocation policy.<sup>4</sup> The Committee will review this analysis, along with their own priorities and the requirements in NOTA and the OPTN Final Rule. From here, the Committee will select a set of priorities to model and build into the composite allocation score.

In an AHP exercise, participants provide their personal value judgments for each pairwise comparisons of attributes, or patient profiles, in the project hierarchy (see **Figure 2**). Participants used the Decision Lens online tool for this exercise.<sup>5</sup> Attribute comparisons are rated from 1 (equal importance) to 9 (extremely important).

**Figure 1: Sample Pairwise Comparison**



## Participation

The AHP exercise was available on the OPTN website, and presented at 11 regional meetings and ten OPTN committee meetings.<sup>6</sup> The exercise was available for participation from January 27 to March 23, 2022.<sup>7</sup> 390 individuals submitted responses to the AHP exercise. When signing up for the exercise, participants were asked for their relationship to transplant. The most frequent participant group was transplant hospital professionals (63%), followed by patients (12%) other transplant, medical, or research professionals (12%), OPO professionals (8%), histocompatibility laboratory professionals (6%),

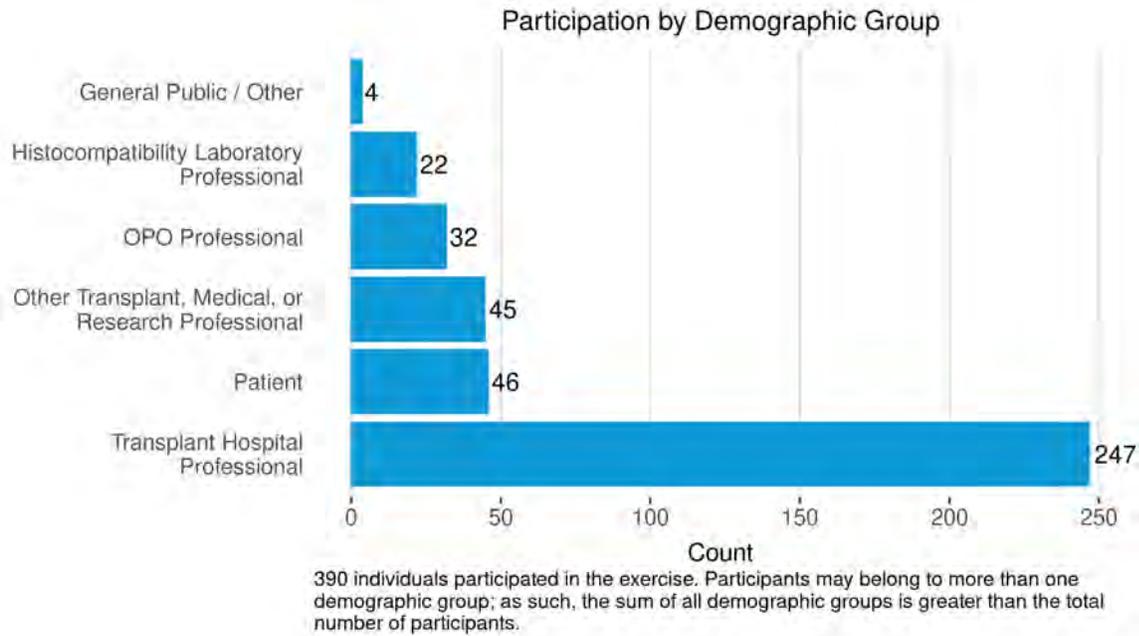
<sup>4</sup> This is also referred to as an Analytic Hierarchy Process (AHP). See generally, Lin, Carol and Harris, Shannon 2013. *A Unified Framework for the Prioritization of Organ Transplant Patients: Analytic Hierarchy Process, Sensitivity, and Multifactor Robustness Study*. *Journal of Multi-Criteria Decision Analysis*.

<sup>5</sup> <https://www.decisionlens.com/>

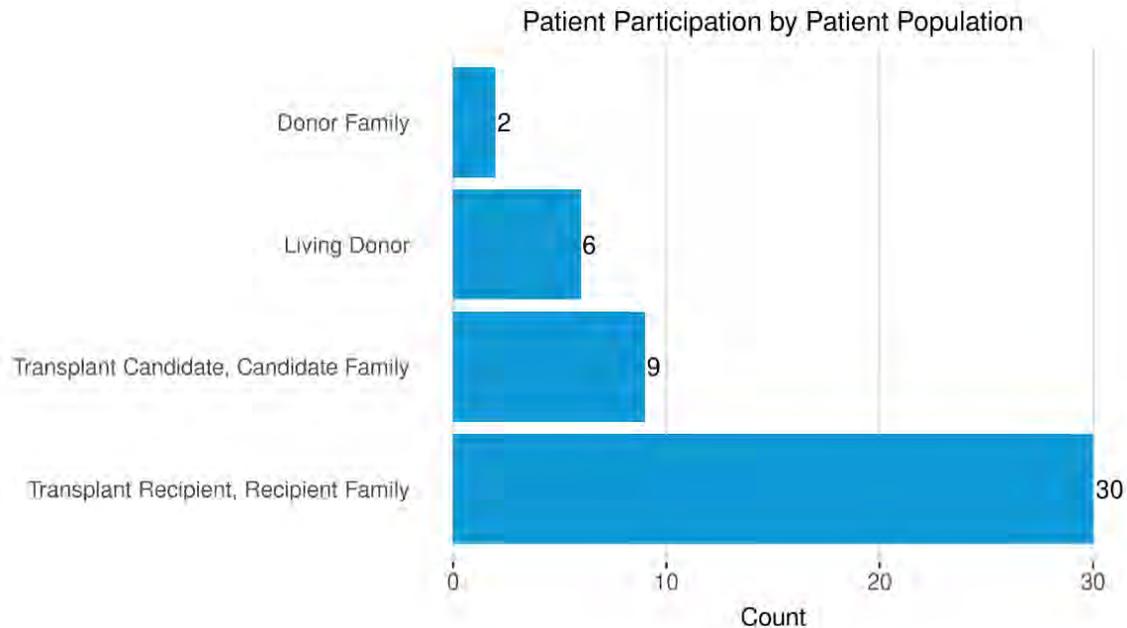
<sup>6</sup> Ethics, Multi-Organ Transplant, Transplant Coordinators, Transplant Administrators, Minority Affairs, Pediatrics, Patient Affairs, Organ Procurement Organization, Living Donor, and Histocompatibility Committees

<sup>7</sup> On January 31, 2022, the description of 'A Very Nearby Candidate' was updated slightly to clarify the participant should assume the other candidate is very far from the donor and that shipping the organ would require a very long flight.

and general public/other (1%). It is also important to note participants may belong to more than one demographic group (ex. a transplant hospital professional who is also a transplant recipient).



The next chart shows the participation of the different patient populations included under the Patient demographic category. Within the patient populations, the majority of the participants were either transplant recipients or recipient family members.

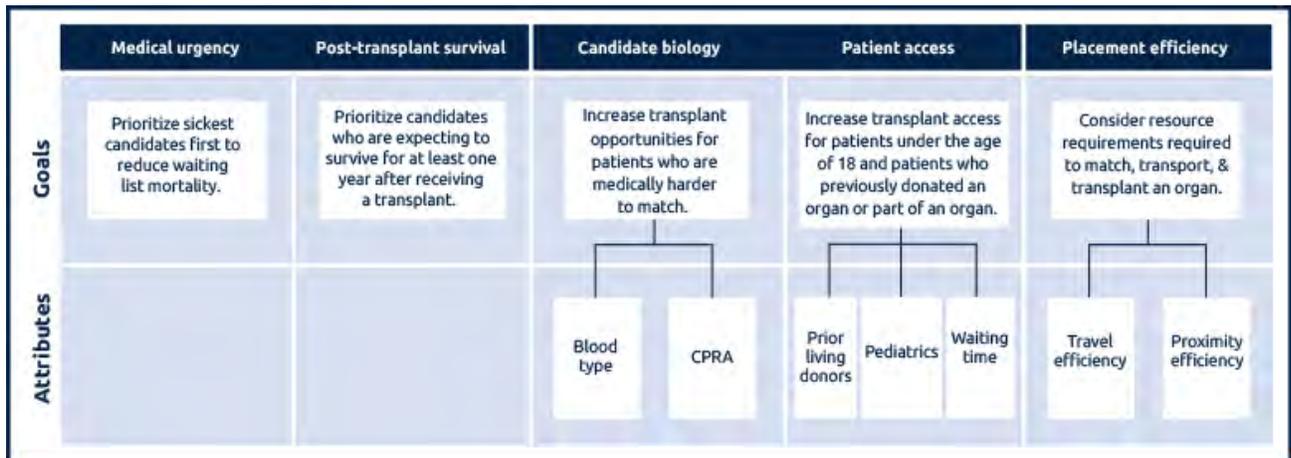


## AHP Hierarchy for Allocating Deceased Donor Pancreata

From 2020 - 2021, the Committee and the Workgroup identified and discussed the attributes to include in the composite allocation score. In selecting the attributes, attention was given to the goal for each category of attributes and how these aligned with the requirements in NOTA and the OPTN Final Rule. The hierarchy of the composite score shows goals and attributes (**Figure 3**). The goals relate to the OPTN’s goals for developing equitable allocation policies as defined by the OPTN Final Rule. The attributes are the organ specific criteria that support each goal. Rating scales use data to score each candidate. Allocation policy goals – for example, prioritizing patients who are medically harder to match and increasing transplant access for patients – may be in tension, and continuous distribution aims to prioritize patients in a way that balances each goal in a transparent way. The specific attributes, their weights, and their rating scales will be organ specific. The attributes align with the ethical principles of utility (for the purposes of this project, the hierarchy splits utility into medical utility and system efficiency) and equity.<sup>8</sup>

In the AHP exercise, participants were asked to weight pairs of patient profiles, or attributes. Where multiple attributes could be empirically weighed on a common scale, clinical data was used for that purpose. (For example, we can use clinical data to measure the likelihood of transplant based upon a candidate’s blood type or CPRA.) The AHP exercise therefore included: candidate biology, patient access, and placement efficiency. Within placement efficiency, participants were asked to compare travel efficiency with proximity efficiency.

**Figure 3: Hierarchy of Pancreas Attributes**



## Overall Ratings

Below are the overall ratings from the community AHP exercise. **Figure 4** shows the overall, unweighted ratings. Because transplant hospital professionals participated in greater volume than other demographic groups, this view skews toward their preferences. In viewing these overall ratings, it is important that the Pancreas Committee remember that this is not a public opinion survey and they should consider the comments alongside the ratings.

<sup>8</sup> *Ethical Principles in the Allocation of Human Organs*, OPTN Ethics Committee.

**Figure 4: Overall Ratings**

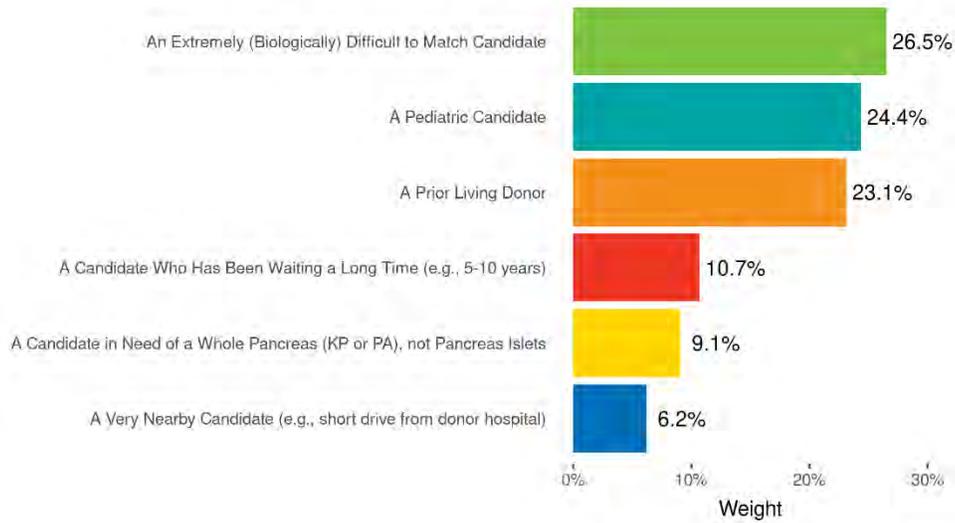
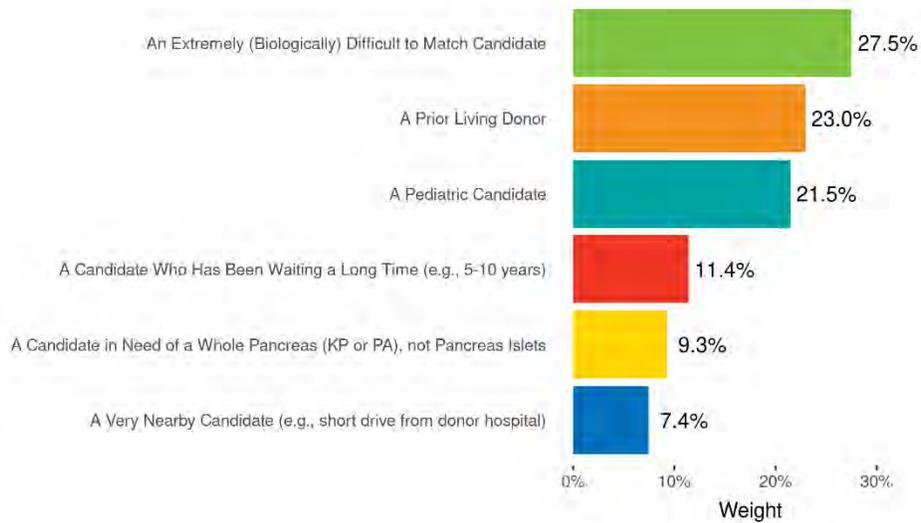


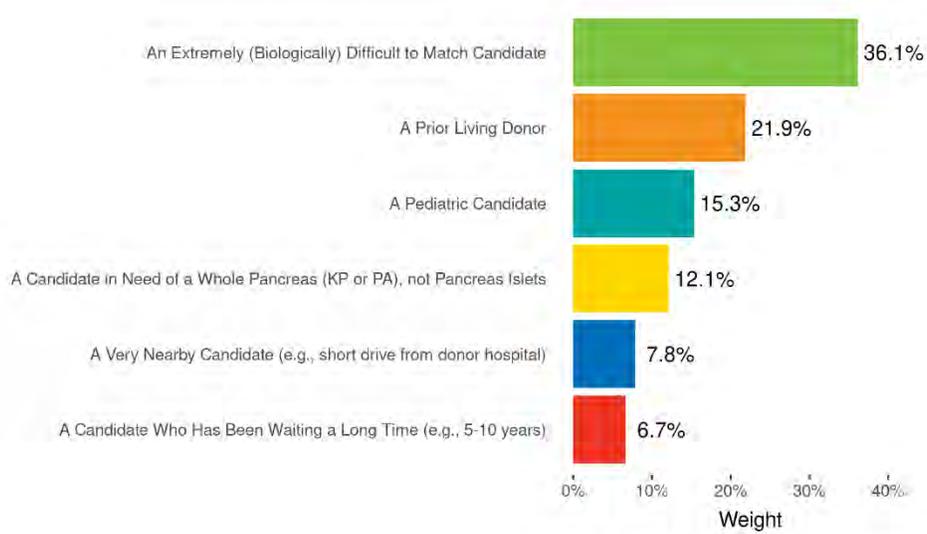
Figure 5 shows the six general demographic groups equally weighted, or population adjusted.

**Figure 5: Overall Ratings, Population-Adjusted**



Finally, Figure 6 is an updated view of the Pancreas Committee's results.

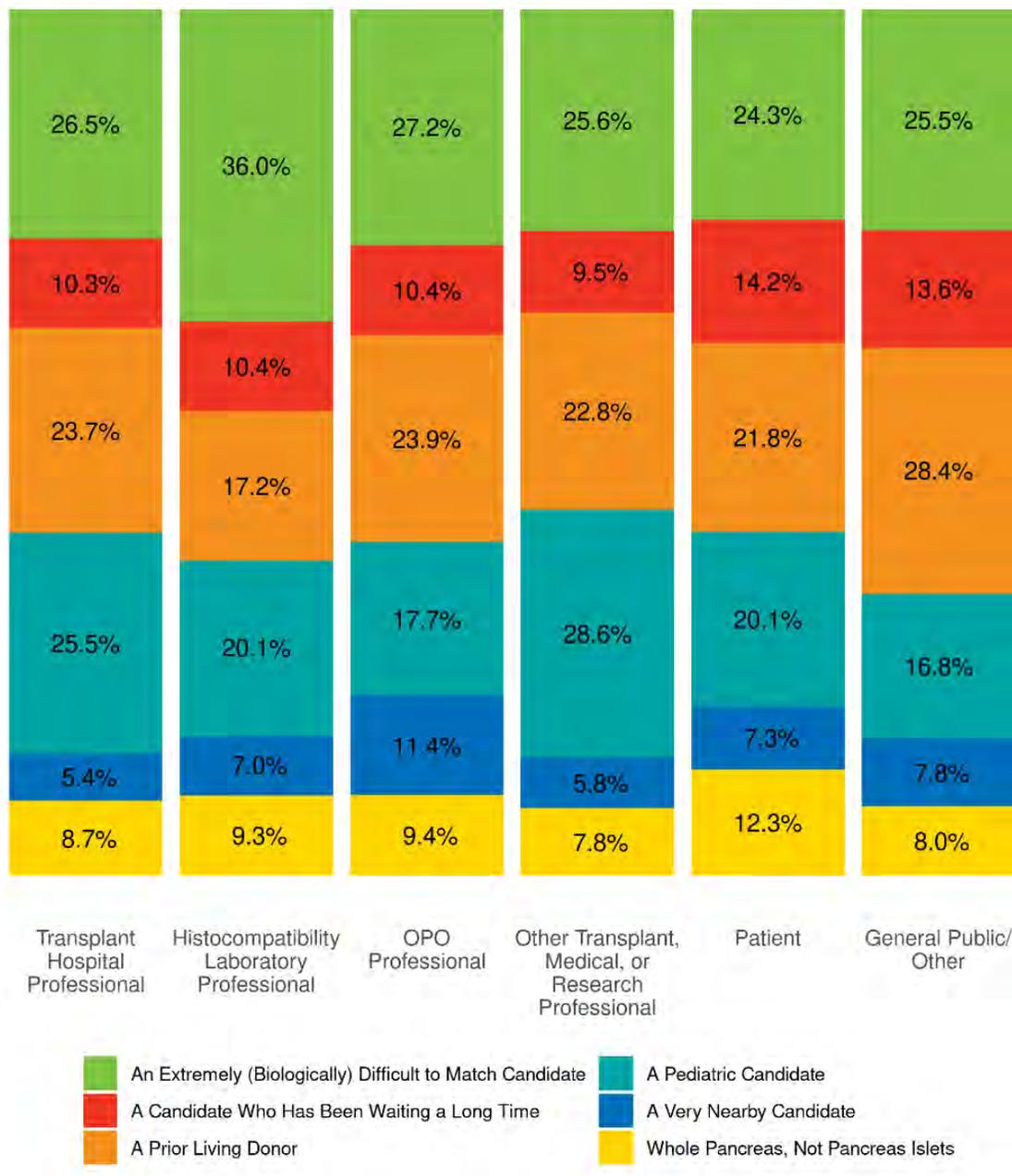
**Figure 6: Pancreas Committee Ratings**



### Priorities by Demographic Groups

Participants were asked to express their preference between each pair of attributes, in terms of which attribute should have more influence (and to what degree) on pancreas candidate prioritization on the match run. These preferences were then aggregated into overall preferences, or relative importance weights, for each attribute. **Figure 7** shows the overall priorities by the six demographic groups. Note the variability in the priorities between the different demographic groups.

**Figure 7: Overall Ratings by Demographic Group**



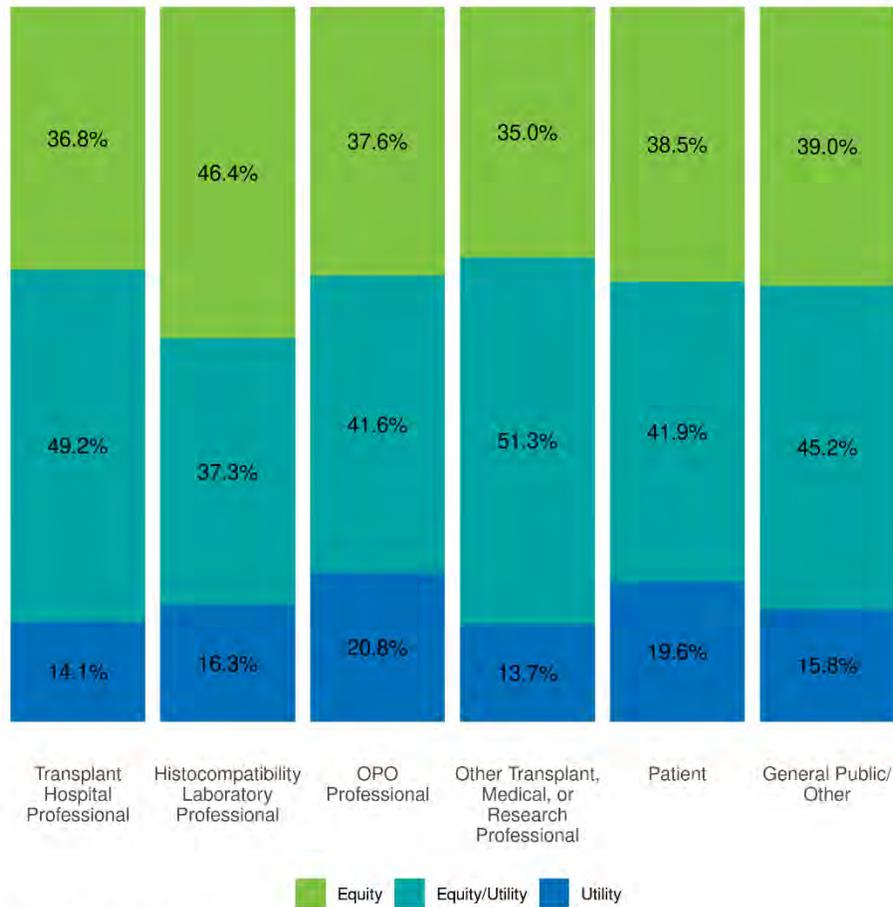
## Ethical Principles

The hierarchy of attributes can be split into ethical principles of equity and utility. These principles have been expressed in NOTA, the 1986 Taskforce on Transplantation, the OPTN Ethical Principles in the Allocation of Human Organs, and the OPTN Ethical Considerations of Continuous Distribution in Organ

Allocation. While these documents express a desire to consider and balance both equity and utility, they do not call for an exact 50/50 balance between these two ethical principles.

Each of the attributes can be grouped into these equitable principles, as shown in **Figure 8**.

**Figure 8: Ethical Balance**



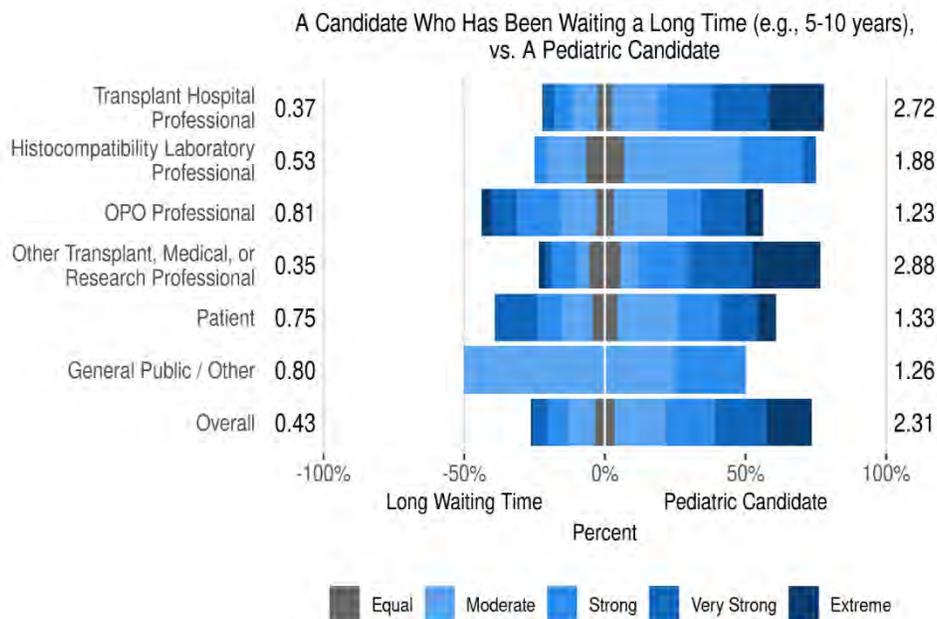
"Equity" includes the candidate biology and waiting time attributes.  
 "Equity/Utility" includes the pediatric and prior living donor attributes.  
 "Utility" includes the proximity efficiency and islets attributes.

## Specific Pairwise Comparisons

In reviewing the specific pairwise comparisons, we looked for agreement amongst voters (do participants agree which of the two attributes is most important) and alignment in their scores (do participants place similar levels of importance on the preferred attribute). We also look for any outliers to the overall group. When the Committee discusses these results, they should pay attention to areas where there is low alignment, low agreement, or outliers.

### Wait Time vs Increase Access for Patients Under the Age of 18

There was wide variation in the results of this pairwise comparison: other transplant, medical, or research professionals and transplant hospital professionals both recorded some extreme values for patients under the age of 18. The average ratings overall were moderately for increasing access for patients under the age of 18.



#### Comments:

Prioritize a candidate who has been waiting a long time (e.g., 5-10 years)

- *This is a bit of an unreasonable comparison, as pediatric recipients for pancreas and islet transplants are extraordinarily uncommon. There may be size constraints, but otherwise I think prioritizing peds would be cumbersome and very rarely used.*
- *Pancreas dysfunction can potentially be treated with insulin and other medications; patients who have been waiting a prolonged time period would seem to be at higher risk of accumulating periods of harm to their entire body due to pancreas dysfunction and longer time facing low or high glucose levels due to pancreata failure*
- *Someone who has been waiting 5-10 years could possibly not be able to wait much longer*

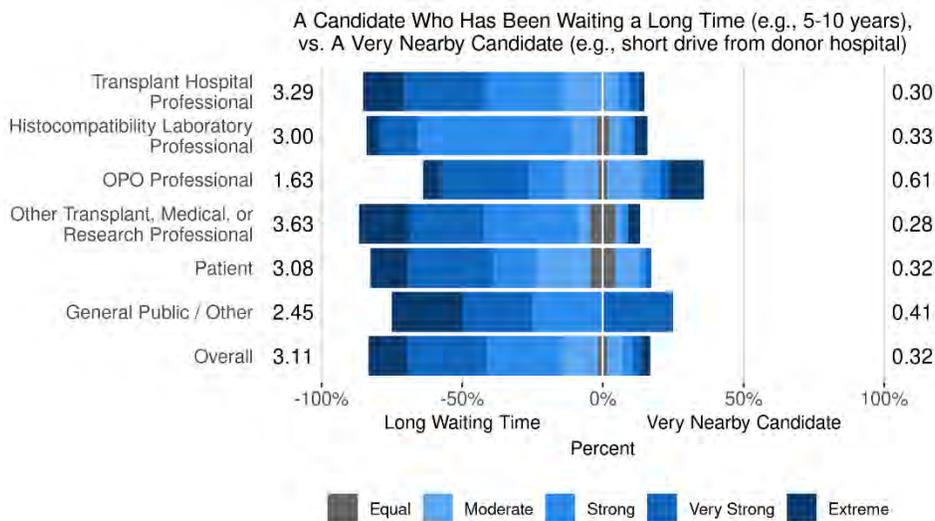
Increase Access for a pediatric candidate.

- *If pediatric candidate is over the age of 21, then they should equally be looked at with long time candidate*

- *Pediatric candidates should get the advantage in pediatric donors, as is true for other organs. I do think for adult donors, pediatric pancreas centers will tend to be generally more conservative in the type of donor they would accept, and will often bypass marginal organs that would be perfectly suitable for adults. Peds should get priority for the high quality, young donors*
- *There are very few pediatric candidates on the wait list for pancreas or islet cell transplants*
- *Children less than 6 years of age do poorly on dialysis and have limited dialysis options. In general, we should give kidneys with long predicted survival to patient with a longer life expectancy*

### Wait Time vs Placement Efficiency

There was wide variation in the results of this pairwise comparison: four of the demographic groups recorded moderate values for longer waiting time attributes. The result was that the average ratings were moderately leaning toward one attribute.



### Comments:

Prioritize a candidate who has been waiting a long time (e.g., 5-10 years)

- *Agree with some priority for longer wait time, tempered by the difficulty in placing pancreas with longer-distance (>1000 miles) centers*
- *I think waiting time should be prioritized over proximity from a health equity standpoint. It is important to ensure where you live doesn't impact how quickly you get an organ, and those in*

*rural communities who may have a great need don't wait longer than those in urban settings.*

- *As long as the candidate is able to get to the hospital within the time allocated for a safe and proper organ transplant, then a "short drive from donor hospital" should not be weighted*

Equal

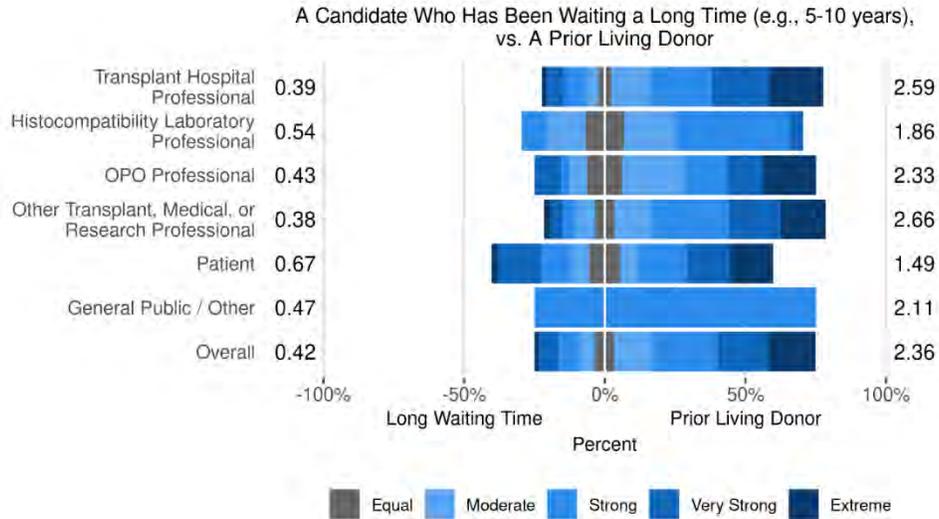
- *A candidate who has been waiting such a long time may already have ways set up in order to get to transplant hospital*
- *DCD or higher KDPI organs should be treated differently and actual distance also matters - ideally would try to maximize benefit to each recipient and limit damage to organs through long travel*

Prioritize a very nearby candidate (e.g., short drive from donor hospital)

- *Nearby candidate should only get first preference, if their health would be more successful and the long waiting candidate is not in dire need.*
- *Pancreas from DCD and donors over 45 years of age should be prioritized to the closest transplant centers to avoid discards. It's difficult enough to get these pancreas placed with the limited CIT necessary.*
- *I am not a pancreas transplant doctor - this question has to be considered in the context of transport time on success of the transplant and risk of increasing complications.*
- *A high KDPI kidney should be prioritize higher for a pediatric or young adult candidate and candidates who are closer to the donor hospital. Goal should still be to match best organs with candidates having the longest potential life span. Yes, highly sensitized patient should have priority access to matching kidneys but not those with top 35% KDPI*
- *This is also a difficult question to respond to as written. The question may be more appropriately phrased as a candidate with a longer wait time at a further center vs a candidate with a shorter wait time at a closer center. And the difference in wait time and distance would also impact on response as this is an extreme example*
- *It is very clear from prior research done by the pancreas transplant committee that very few centers actually import pancreas allografts. Proximity may have a huge impact on pancreas utilization and intra-operative decline of organs*
- *Due to the inclusion of pancreata, and in my experience those being much more sensitive to WIT/CIT, would feel more beneficial to have a candidate nearby receive the organ and have less chance of the organ going to waste*
- *I think if the donor is a DCD or high KDPI donor distance should play a role in the decision, due to quality of organ placement.*

### Wait Time vs Increase Access for Prior Living Donor

There was wide variation in the results of this pairwise comparison. Four of the demographic groups had a moderate preference for increasing access for a prior living donor while two demographic groups rated them equally.



**Comments:**

Prioritize a candidate who has been waiting a long time (e.g., 5-10 years)

- *5-10 years is a long time to wait for transplant. If an organ comes available, they should get first chance*
- *A prior living donor did an incredible thing by donating an organ, but that should not be considered as a weight*

Equal

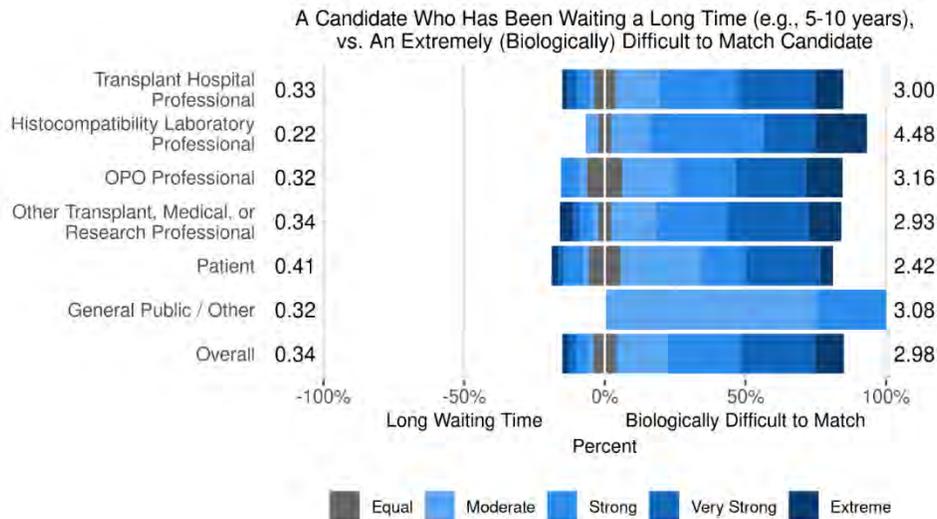
- *This is a confusing question. Since this is for pancreas transplant not kidney transplant. If I am to understand the allocation for this it would be that the "prior living donor" is in need of a kidney and pancreas which means they would have developed diabetes (or other pancreas complication) after donating since they would not have been a candidate to donate with a diagnosis of diabetes.*
- *Depends on who is sicker*

Increase access for a prior living donor.

- *This is an unrealistic question, as all of these recipients are diabetic and therefore unlikely to donate kidneys. That said, always the living donor. (I favor not including this category at all as searching for this "never event" will slow the system and complicate the allocation with no gain)*
- *Prior donor should have first option, but they should also have a choice to give to the longer waiting candidate and take the next one.*
- *Prior kidney donor should receive more priority than for prior other-organ donor for SPK*
- *A prior living donor should have a safety net, but not take priority over all other challenging cases. Some longevity matching is appropriate here as well.*
- *Involving the pancreas if a candidate was a prior living donor, would mean that their single remaining kidney would be more vulnerable to damage, and the fact that they were willing to previously donate a kidney should be valued*
- *Prior living donors should NEVER wait for an organ.*

## Wait Time vs Candidate Biology

There was wide variation in the results of this pairwise comparison. Histocompatibility laboratory professionals had a strong preference for prioritizing an extremely (biologically) difficult to match candidate, while the other five groups had a moderate preference for prioritizing an extremely (biologically) difficult to match candidate.



### Comments:

Prioritize a candidate who has been waiting a long time (e.g., 5-10 years)

- *This question needs more fields and discussion. Most difficulty to match patients are difficult to match because they have had a prior transplant and have a high PRA. This gives them priority over other patients who have never had a transplant. A patient who has never had a transplant should be prioritized over a re-transplant recipient. Is there anything in our policies that addresses this issue?*

Prioritize an Extremely (Biologically) Difficult to Match Candidate

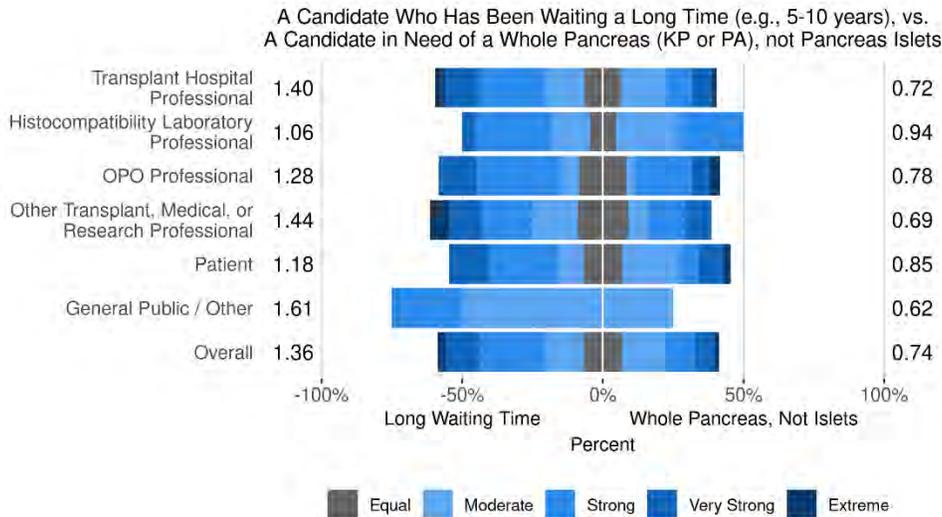
- *Prior transplants should be distinguished from other sensitization*
- *I think that 1% chance of finding a kidney should be refined to a lower percentage given the possibility of national sharing.*
- *Prioritization of difficult to match candidates needs to also factor post transplant life expectancy and that many of these candidates are sensitized due to non-compliance. I believe that the current prioritization of difficult to match candidates has unfairly impacted standard criteria donors - many with long life expectancy and pediatric candidates who need a high quality kidney to support optimal growth, development and long term graft function of their first allograft*
- *I think the candidate who is a difficult match should come first compared to an average candidate*
- *Since it is so hard to find a match for extremely difficult to match candidates, whenever an organ comes available, it should be offered to them*
- *I wonder if there were some sort of estimation on additional wait time burden for B blood type patients that could be accounted for. This should be considered as they had no choice in the matter. For high PRA patients, this is a little trickier - if the high PRA is due to prior non-*

*adherence then that's a much more difficult discussion*

- *EDM Candidate should have first option due to the extreme disadvantage of finding an organ that is compatible*

### Wait Time vs A Candidate in Need of Pancreas or KP

There was wide variation in the results of this pairwise comparison. On average, the groups rated a candidate who has been waiting a long time and a candidate in need of a whole pancreas (KP or PA) equally.



#### Comments:

Prioritize a candidate who has been waiting a long time (e.g., 10-15 years).

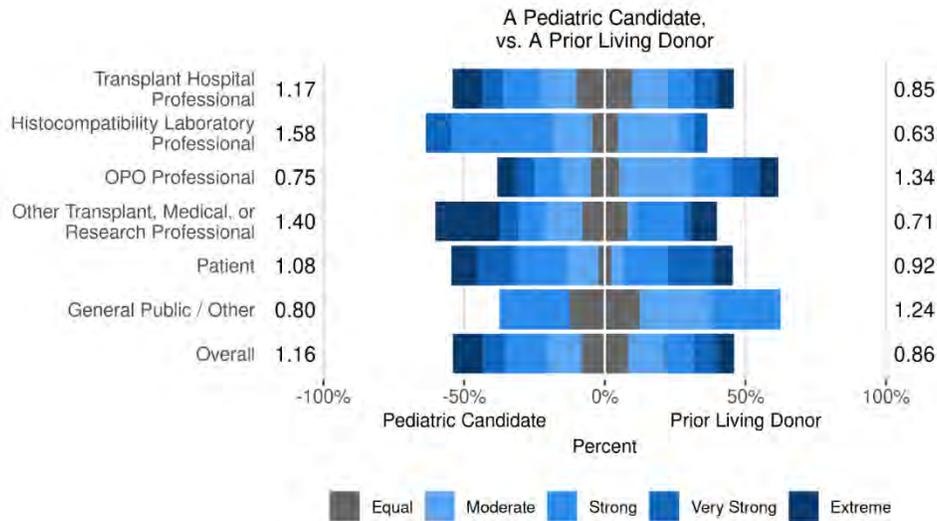
- *Would depend on donor characteristics (e.g. age, BMI) to prioritize whole organ vs islet*
- *Candidate with optimum BMI (within range) should have priority over one with higher BMI (adjusting for muscle to fat ratio)*

Prioritize a candidate in need of a whole pancreas (KP or PA), not pancreas islets

- *Important to use good quality organs for patients who have the unique need for such an organ*
- *Can the person waiting 5-10 be tested to see if they are able to accept the islets?*
- *Pancreas transplant is limited by technical factors. When technically possible, should go for a whole organ transplant. Islets are still not an approved therapy*

### Increase Access for Patients Under the Age of 18 vs Increase Access for Prior Living Donor

On average, the majority of participants and all demographic groups rated access for patients under the age of 18 and access for prior living donors equally.



**Comments:**

Increase Access for a pediatric candidate.

- *This is a tough choice. However, the PLD made a choice, hopefully, based on informed consent. The child with ESRD did not have the luxury of making a choice. Second, the vast majority of PLDs are adults. They have had the luxury of achieving their growth and developmental potentials without fighting chronic disease. They have experienced life, gotten married, had marital relations, had children, etc. A child with ESRD should have the same opportunity.*

Equal

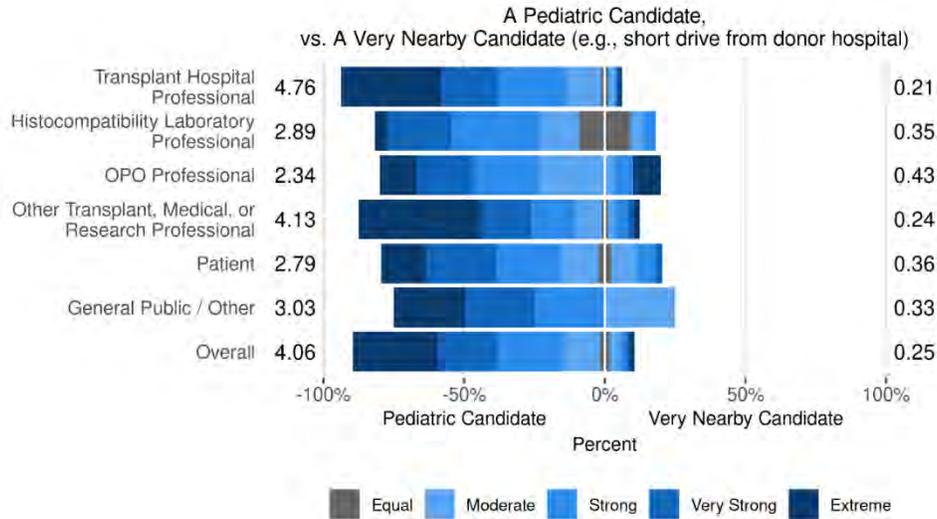
- *Again I'd like to point out this exercise is related to pancreas allocation not kidney allocation.*
- *Pancreas allocation does not affect prior living donors or children*
- *A pediatric donor would not yet been faced with an opportunity to be a living donor; thus this seems an unfair comparison, which is why I chose equal*

Increase access for a prior living donor.

- *Being a prior living donor could be why patient needs transplant now?*
- *Prior donor should have a first choice, but also the option to differ to Pediatric candidate and take the next donation.*
- *This will never happen, but always the living donor. Pediatric diabetic patients are unlikely to develop diabetic nephropathy while in the pediatric age range. Very rarely there is a patient that requires a kidney transplant for another reason and happens to be diabetic as well. Diabetics are not used for living donation. This is extraordinarily unlikely*

[Increase Access for Patients Under the Age of 18 vs Placement Efficiency](#)

The majority of participants and all demographic groups agreed that increasing access for patients under the age of 18 was more important than a very nearby candidate (e.g., short drive from donor hospital). Transplant hospital professionals and other transplant, medical, or research professionals felt this most strongly.



**Comments:**

Increase Access for a pediatric candidate.

- *Pediatric pancreas transplantation is exceedingly rare. Size might be an issue, but I am not certain this is an important consideration*
- *Pediatric patient because you don't know what this is doing to their mental health*
- *I think that pediatric candidates should take priority over nearby candidates for the offers due to the immense negative developmental impact that will shape their entire future. I do recognize many pediatric centers will likely code out for organs that require a long travel time and many of these offers will end up going to a more local recipient anyway, but giving them the option to consider these offers and place value on the pediatric population is important.*
- *UNOS has not done a very good job in protecting vulnerable populations; ie pediatric patients. In addition, the aggregate score of ALL stakeholders (the public, HLA labs, transplant professionals, etc.) say kids should come first. Data shows that a kids first policy will have NO impact on adult transplant rates or outcome. Finally, the inequities caused by allowing MOT to come before children needs to be addressed. Where did this come from? Medical urgency? Where are the data? I have asked UNOS for these minutes/data and I am told there is none to justify the carte blanc placement of all MOTs before children.*
- *Pediatric candidates need access to organs which most benefit their size, long life expectancy, need for an appropriate sized organ of good quality. The development of the KDPI calculation did consider the needs of a pediatric donor. KDPI doesn't allow use of pediatric donor kidney for use in pediatric patients. The use of pediatric liver allografts should be prioritized for small pediatric candidates who are unable to receive an adult sized liver.*

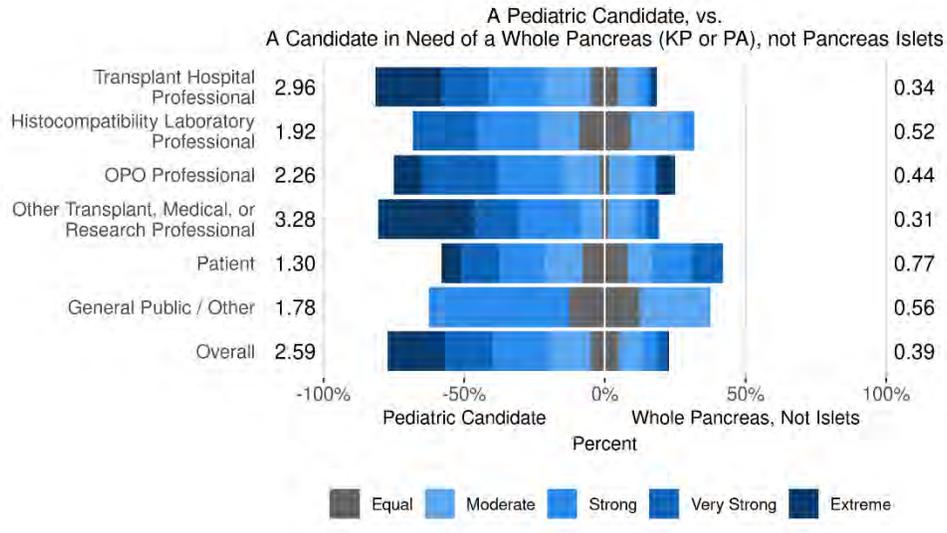
Prioritize a very nearby candidate (e.g., short drive from donor hospital)

- No comments.

[Increase Access for Patients Under the Age of 18 vs A Candidate in Need of Pancreas or KP](#)

This pairwise comparison indicates an overall moderate preference in increasing access for patients

under the age of 18 over a candidate in need of a whole pancreas (KP or PA), not pancreas islets. One group (other transplant, medical, or research professional) felt this most strongly.



**Comments:**

Increase Access for a pediatric candidate.

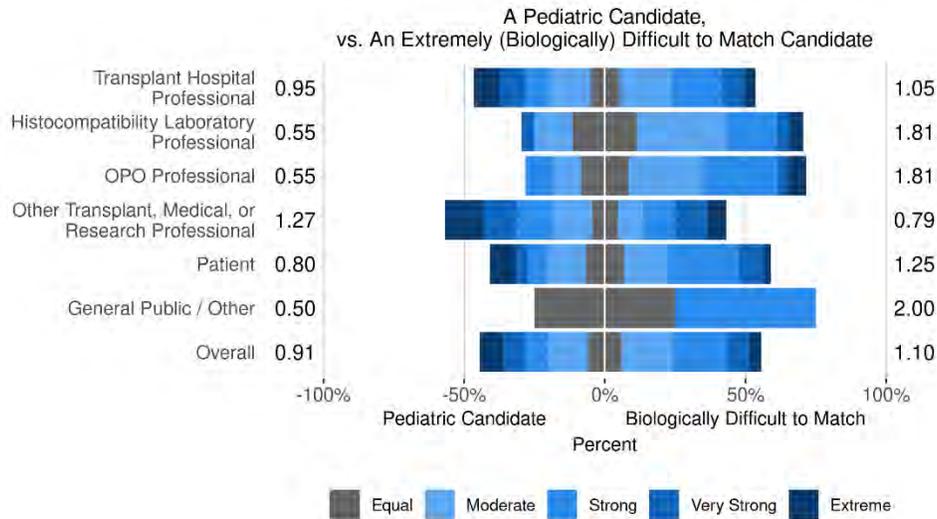
- No comments.

Prioritize a candidate in need of a whole pancreas (KP or PA), not pancreas islets

- *I am assuming here that the pediatric candidate is seeking islet transplantation, in which case my opinion regarding islet vs pancreas supersedes adult vs pediatric*

[Increase Access for Patients Under the Age of 18 vs Candidate Biology](#)

Overall, all participants and demographic groups equally rated increasing access for patients under 18 and an extremely (biologically) difficult to match candidates. One group (general public/other) indicated a moderate preference for an extremely (biologically) difficult to match candidate over increasing access to patients under the age of 18.



**Comments:**

Increase Access for a pediatric candidate.

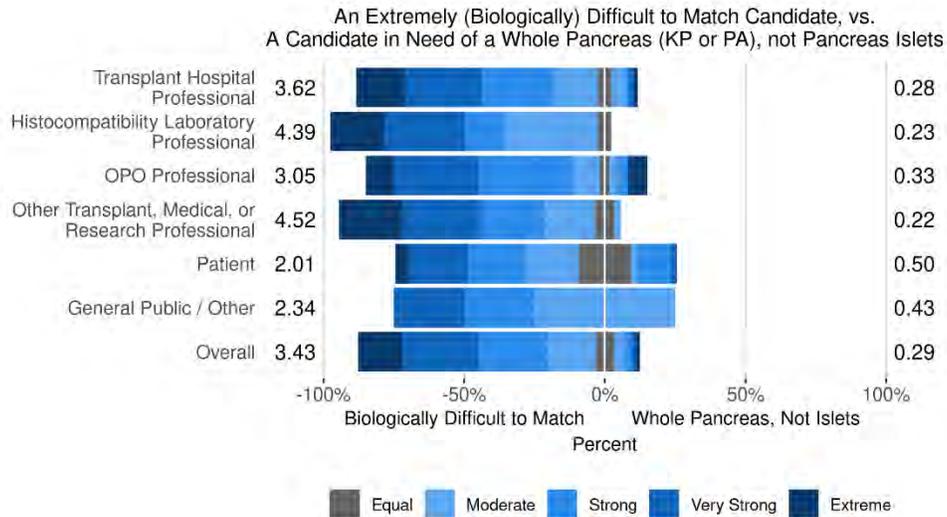
- *As mentioned in a previous comment - B blood type should have consideration. High PRA due to prior non-adherence is more tricky and should not get extra consideration necessarily if patient was competent at time of non-adherence.*
- *Again, this question needs to be broken down. Most biologically difficult to match candidates are adult, retransplants, that are difficulty to match because they have already had a transplant! Most children are primary transplants.*
- *Second, we are comparing age with an induced, biological criteria.*
- *The unique needs of the Pediatric candidates for well matched, high quality organs to support long term allograft function, support cognitive function, physical growth, school function, mental health status are not current being prioritized adequately to reduce their wait time, shorten their time on dialysis or increase the possibility of a pre-emptive transplant. The current allocation points for pediatric candidate does not provide adequate timely access to quality organs - these candidates continue to receive lower priority than multi organ candidate and high PRA candidates. The current wait times are having a negative impact on children and adolescent cognitive development, school function, growth, long term cardiac risk. We are seeing worsening mental health issues in pediatric candidates who continue to wait for many months even to receive an initial organ offer.*
- *The pediatric patient who is extremely difficult to match is currently competing with extremely difficult to match adults for organs with same urgency. Having a way for pediatric extremely difficult to match patients have priority over adult extremely difficult to match patients I hope will change in future.*

Prioritize an extremely (biologically) difficult to match candidate

- *Since it's so hard to find a match for extremely difficult to match candidates, they should be given the opportunity when a match becomes available*
- *Though this candidate may get multiple offers, it is quite likely very few would actually be good matches, and should fairly quickly allow for the offer to be declined and move on to the next potential candidate.*

### Candidate biology vs A Candidate in Need of Pancreas or KP

This pairwise comparison indicates an overall preference for an extremely (biologically) difficult to match candidate over a candidate in need of a whole pancreas (KP or PA) among all participants and the demographic groups. Both histocompatibility laboratory professionals and other transplant, medical, or research professionals felt this most strongly.



#### Comments:

Prioritize an extremely (biologically) difficult to match candidate

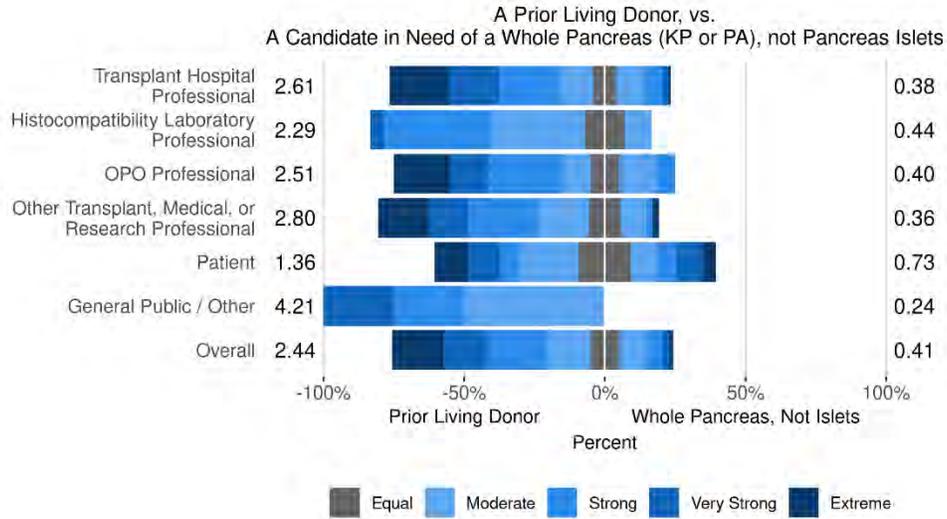
- *Extremely difficult to match candidate may not have another chance at an organ*

Prioritize a candidate in need of a whole pancreas (KP or PA), not pancreas islets

- *Assuming the difficult to match candidate is in need of islet transplant, see prior responses for islet vs. whole organ*

### Increase Access for Prior Living Donor vs A Candidate in Need of Pancreas or KP

This pairwise comparison indicates an overall preference for increasing access for prior living donors over a candidate in need of a whole pancreas (KP or PA). One group (general public/other) felt this most strongly while four groups showed moderate preference.



**Comments:**

Increase access for a prior living donor.

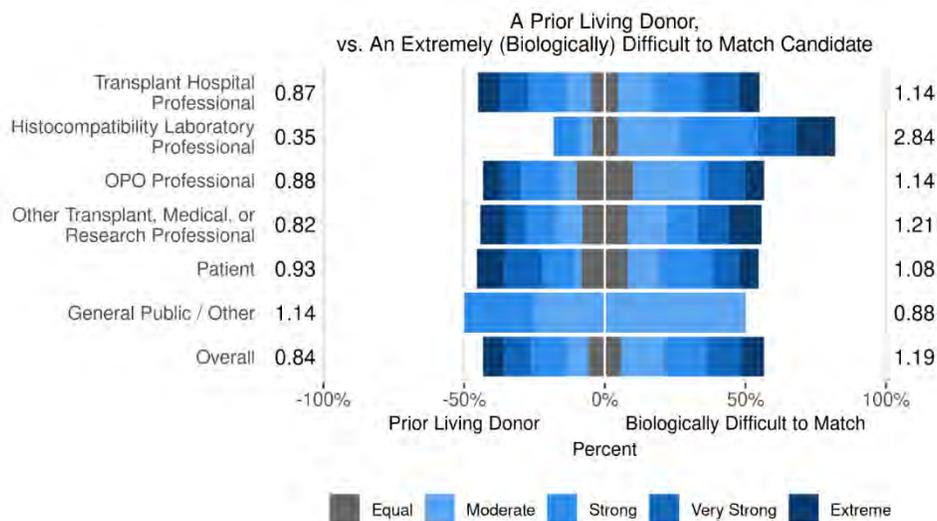
- No comments.

Prioritize a candidate in need of a whole pancreas (KP or PA), not pancreas islets

- *Assuming that the prior living donor needs islets (and again diabetics do not donate kidneys) I would prioritize whole organ pancreas*

[Increase Access for Prior Living Donor vs Candidate biology](#)

The majority of the groups indicated equal preference for increasing access for prior living donors and an extremely (biologically) difficult to match candidate. Histocompatibility laboratory professionals showed a more moderate preference for an extremely (biologically) difficult to match candidate.



**Comments:**

Increase Access for a prior living donor.

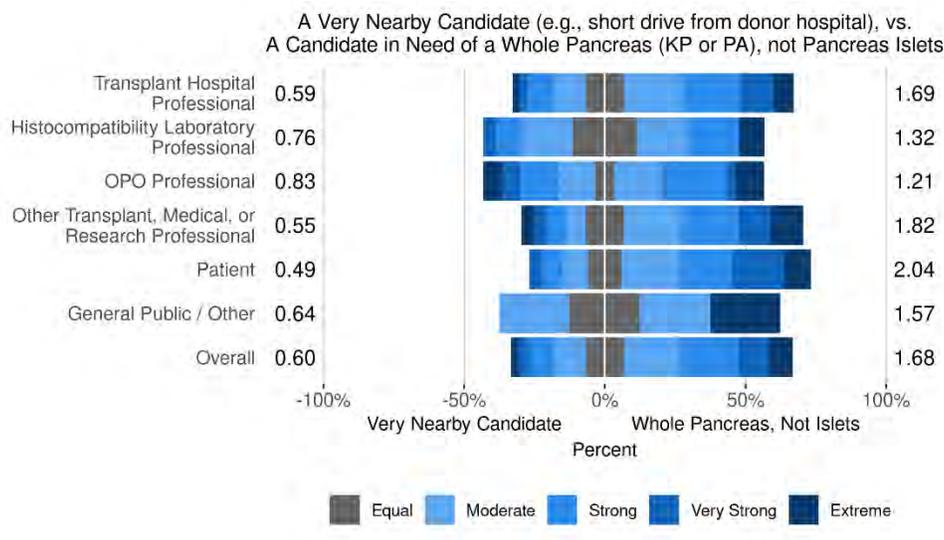
- *Health of prior donor should be taken into account. If their health is better they should be given the option to give to another candidate and take the next donation.*

Prioritize an extremely (biologically) difficult to match candidate

- *Diabetics do not donate kidneys*
- *Extremely difficult to match may not have another organ become available*

### Placement Efficiency vs A Candidate in Need of Pancreas or KP

The majority of the groups indicated equal preference for a very nearby candidate (e.g., short drive from donor hospital) and a candidate in need of a whole pancreas (KP or PA). Patients showed a more moderate preference for a candidate in need of a whole pancreas (KP or PA).



#### Comments:

Prioritize a very nearby candidate (e.g., short drive from donor hospital)

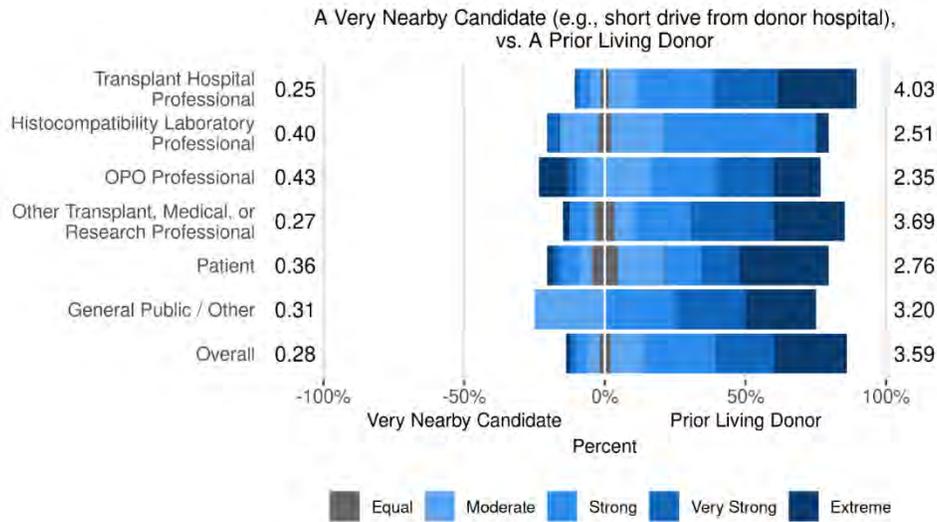
- No comments.

Prioritize a candidate in need of a whole pancreas (KP or PA), not pancreas islets

- *Assuming the nearby candidate is for islet and the other whole pancreas, I would prioritize whole organ over pancreas*

## Placement Efficiency vs Increase Access for Prior Living Donor

This pairwise comparison indicates an overall preference in prioritizing increasing access for prior living donors over a very nearby candidate (e.g., short drive from donor hospital). Transplant hospital professionals felt this most strongly.



### Comments:

Prioritize a very nearby candidate (e.g., short drive from donor hospital)

- *Though if a prior living donor was only slightly further away than another candidate; would give preference to the prior living donor. But wouldn't want a very far away prior living donor getting preference over a very near candidate.*

Equal

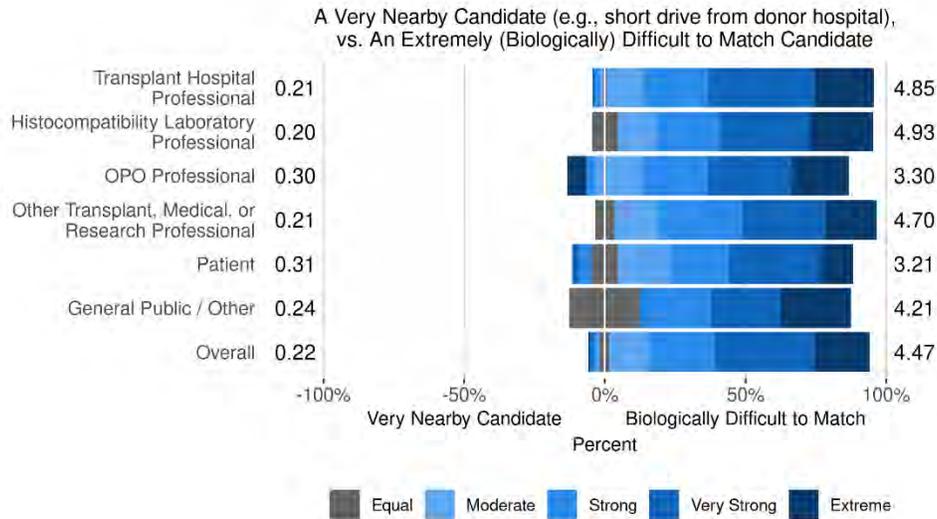
- *These should be given equal opportunity*

Increase Access for a prior living donor.

- *Again, diabetics do not donate kidneys - this is a very unlikely combination. but always the living donor*
- *Proximity should be weighed more heavily for DCD or high KDPI kidneys*

## Placement Efficiency vs Candidate Biology

A majority of participants and all demographic groups agreed that an extremely (biologically) difficult to match candidate was more important than prioritizing a very nearby candidate (e.g., short drive from donor hospital). Four of the groups felt this strongly while OPO professionals and patients were moderate.



**Comments:**

Prioritize a very nearby candidate (e.g., short drive from donor hospital)

- *Primary nearby candidates should be prioritized over patients who are difficult to match because they have had a prior transplant; "fairness"*

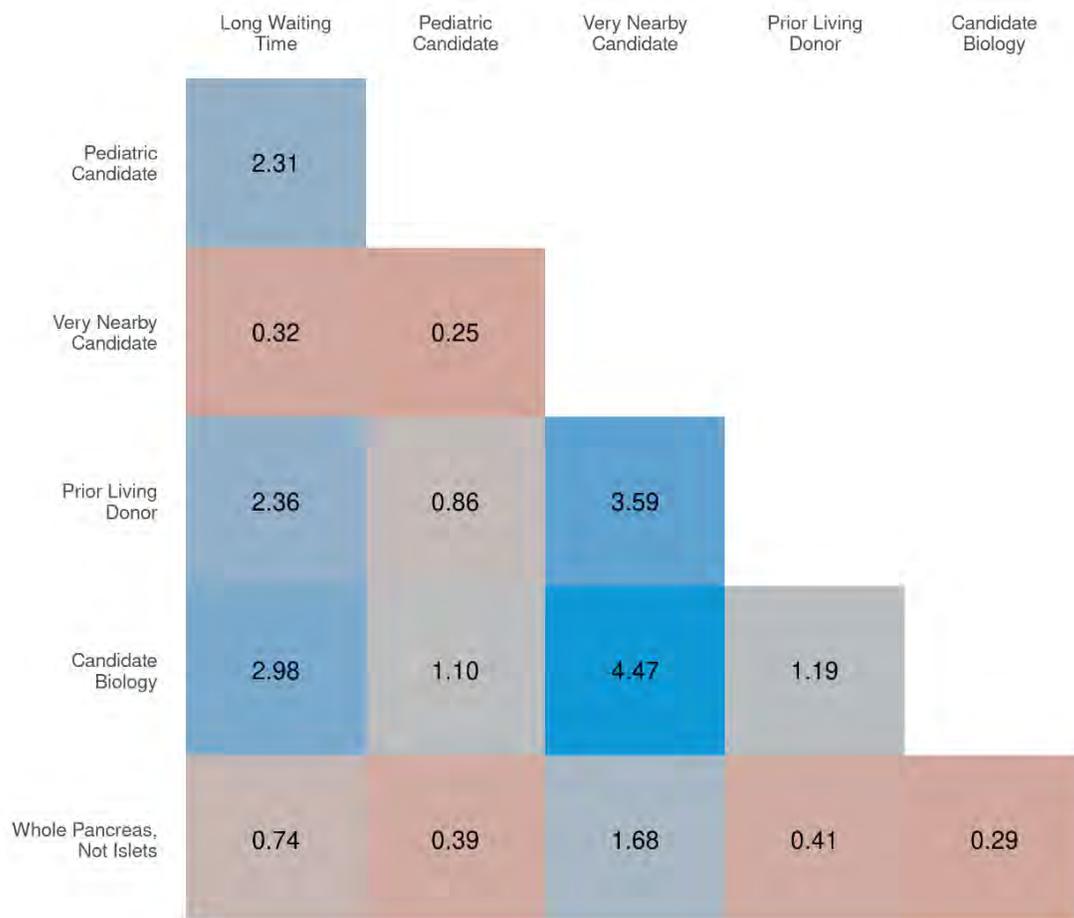
Prioritize an extremely (biologically) difficult to match candidate.

- *Health should be determined to see which is in better health*
- *With caveat regarding high PRA due to prior non-adherence. Also with previously noted consideration of distance vs organ viability concerns*
- *Extremely difficult to match candidates should be given the option to get to hospital since who knows when another viable organ will become available*

## Appendix A: Comparison Matrixes

**Figures 9-10** show the aggregate results for each of the pairwise comparisons and by demographic groups. Items less than one are shaded red and indicate that the column header is the preferred attribute. Items greater than one are shaded blue and indicate that the row header is the preferred attribute in the pairwise comparison. *For example, many of the values underneath “Prioritize a candidate who has been waiting a long time (e.g., 10-15 years)” are blue which indicates the row header is the preferred attribute in those situations.*

**Figure 9: Aggregate Results**



**Figure 10: Aggregate Results by Demographic Group**



## Appendix B: Public Comments<sup>9</sup>

In addition to the comments expressed in the AHP exercise, the transplant community was able to provide comments through Public Comment. 66 comments were submitted through regional meetings, committee meetings, and the online public comment system.

Staff first read all of the comments to identify key statements and organized excerpts of each comment so that recurrent themes could be further analyzed. As with all public comment feedback, the small sample size and participation limit the generalization of these results. They, however, do suggest what other members of the transplant community might say. These comments lend insights into the opinions of the public comment participants.

Commenters covered many different topics, including the following themes:

- Candidate Biology
- Disadvantaged Populations
- Equity in Access
- Ethical Principles
- Geography
- High CPRA
- High KDPI and Medically Complex Donors
- HLA Matching
- Medical Urgency
- Modeling Metrics and Monitoring
- Multi-Organ
- Pediatric Access
- Placement Efficiency
- Post-Transplant Survival
- Waiting Time

Public comment responses indicated general support for priority assigned to the following attributes:

1. Medical Urgency (high weight)
2. Pediatric Priority (high weight)
3. Living Donor Priority (high weight)
4. CPRA (high weight)
5. DR Matching in HLA

Additionally, public comments suggest the following areas should be highlighted in modeling:

1. Disadvantaged populations, particularly re: HLA matching
  - o Race and living donors, socioeconomic, pediatric, rural vs. urban
2. Pediatrics and access to transplant, waiting time to transplant
3. Model longer term outcomes, particularly for pediatrics

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<sup>9</sup> All of the comments in their original form are available at: <https://optn.transplant.hrsa.gov/policies-bylaws/public-comment/continuous-distribution-of-kidneys-pancreata-request-for-feedback/>