



## **CONTINUOUS DISTRIBUTION OF LIVERS**

WINTER 2023 VALUES PRIORITIZATION EXERCISE – COMMUNITY RESULTS

Contents

Executive Summary----- 3  
Values Prioritization Exercise (VPE)----- 5  
Continuous Distribution ----- 6  
Participation----- 6  
Overall Ratings----- 7  
Priorities by Participation Groups----- 11  
Ethical Principles----- 12  
Specific Pairwise Comparisons ----- 13  
Comparison Matrixes----- 29  
Comments Analysis ----- 30

## Executive Summary

The transplant community participated in a values prioritization exercise (VPE) regarding the allocation of deceased donor livers from January 18 to March 18, 2023. The VPE was open for public participation in order to provide a structured way for the community to provide input on their priorities and what they value in a new allocation framework. This report provides a summary of the results of the exercise, which will be utilized by the OPTN Liver and Intestinal Organ Transplantation Committee (the Committee) to inform their discussions regarding the weighting of attributes within a liver composite allocation score.

The information below provides a high-level overview of the public participation for the VPE as well as a summary of the attribute ratings and analysis of comments.

### Participation

- A total of 1,033 individuals submitted responses to the VPE
- The most common participation group was affiliated with the transplant community by being a patient or caregiver (41.5%), followed by transplant hospital professionals (39.8%), general public (12.6%), organ procurement organization (OPO) professionals (5.7%), and laboratory professionals (0.4%)

### Attribute Ratings

- The overall, unweighted ratings are as follows: the most prioritized attribute was a highly medically urgent candidate (27.4%), followed by a pediatric candidate (26.5%), a biologically difficult to match candidate (15.4%), a prior living donor (14.7%), a candidate who has been waiting a long time (8.5%), and lastly, a very nearby candidate (7.5%)
- The population-adjusted ratings, with the five transplant affiliation groups equally weighted are as follows: the most prioritized attribute was a highly medically urgent candidate (25.6%), followed by a pediatric candidate (24.7%), a biologically difficult to match candidate (18.9%), a prior living donor (14.6%), a candidate who has been waiting a long time (8.1%), and a very nearby candidate (8.1%)
- The analysis also revealed variability in the weights between the different transplant affiliation groups:
  - Transplant hospital professionals prioritized a pediatric candidate to a greater extent compared to other participation groups
  - Patients and caregivers prioritized a candidate waiting a long time more so than the other groups
  - Laboratory professionals prioritized a biologically difficult to match candidate and a very nearby candidate to a greater extent than the other transplant affiliation groups

## Comments Analysis

- A total of 1,126 comments were analyzed for content
- Patients or caregivers entered the highest proportion of comments (47.8%), followed by transplant hospital professionals (36.4%), general public (9.3%), organ procurement organization (OPO) professionals (6.1%), and laboratory professionals (0.4%)
- The pairwise comparison that prompted the most comments was Highly Medically Urgent Candidate vs Very Nearby Candidate (14.5%) and the least number of comments were submitted for Candidate Waiting a Long Time vs Prior Living Donor (2.9%)
- Some of the most popular themes that came up from the qualitative analysis for the specific pairwise comparisons include: *special considerations are needed for DCD and other marginal donor livers, time to next suitable offer for each candidate should be considered, and it is important to consider the effect of travel time and distance on graft and transplant outcomes.*

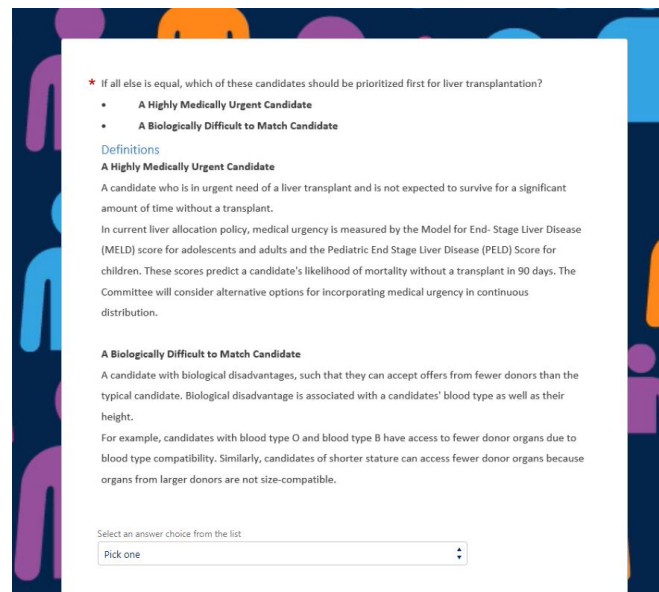
## Values Prioritization Exercise (VPE)

The VPE utilized an Analytical Hierarchy Process (AHP), with participation occurring in an online tool, Salesforce. AHP is a multi-criteria decision-making methodology that asks participants a series of questions to compare the relative importance of a set of criteria through multiple pairwise comparisons.<sup>1</sup> Participants were asked to weigh their preferences between pairs of attributes, described as patient profiles, in terms of how important each should be when prioritizing candidates for liver transplantation.

The exercise prompted participants to respond to 15 pairwise comparisons and select which of the two attributes being compared they would prioritize in each situation if all other aspects of the patient profiles were the same (**Figure 1**). Additionally, participants were asked to indicate from a scale of 1 (equally important) to 9 (extremely important) how important they believe it is for their selected attribute to be prioritized in organ allocation over the other. The attributes included in the VPE are the following: 1) A Highly Medically Urgent Candidate, 2) A Biologically Difficult to Match Candidate, 3) A Pediatric Candidate, 4) A Candidate who has been Waiting a Long Time, 5) A Prior Living Donor, and 6) A Very Nearby Candidate. These pairwise comparisons were then aggregated into overall preferences, or relative importance “weights,” for the different attributes.

In addition to pairwise comparison selections and scores, participants were given the option to enter free-text comments after each pairwise comparison to elaborate on their response or provide feedback. The VPE was available on the OPTN website and presented at eleven regional meetings and eight OPTN committee meetings.

### Sample Pairwise Comparison



★ If all else is equal, which of these candidates should be prioritized first for liver transplantation?

- A Highly Medically Urgent Candidate
- A Biologically Difficult to Match Candidate

**Definitions**

**A Highly Medically Urgent Candidate**  
A candidate who is in urgent need of a liver transplant and is not expected to survive for a significant amount of time without a transplant.  
In current liver allocation policy, medical urgency is measured by the Model for End-Stage Liver Disease (MELD) score for adolescents and adults and the Pediatric End Stage Liver Disease (PELD) Score for children. These scores predict a candidate's likelihood of mortality without a transplant in 90 days. The Committee will consider alternative options for incorporating medical urgency in continuous distribution.

**A Biologically Difficult to Match Candidate**  
A candidate with biological disadvantages, such that they can accept offers from fewer donors than the typical candidate. Biological disadvantage is associated with a candidates' blood type as well as their height.  
For example, candidates with blood type O and blood type B have access to fewer donor organs due to blood type compatibility. Similarly, candidates of shorter stature can access fewer donor organs because organs from larger donors are not size-compatible.

Select an answer choice from the list

Pick one

<sup>1</sup> 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.

## Continuous Distribution

The Committee began developing a framework for the continuous distribution of livers and intestines in December 2021. Continuous distribution aims to eliminate the hard boundaries between classifications that exist in the current allocation system, ultimately resulting in more equity for candidates on the waitlist and increased transparency in the allocation system. More information on the background of continuous distribution is available on the OPTN website and within the Committee's *Update on Continuous Distribution of Livers and Intestines* paper.<sup>2, 3</sup>

At this time, the Committee is working to identify and rank policy outcomes and metrics for each attribute. In addition, the Committee is considering different ways each attribute could be incorporated into a points-based policy framework. The results of the VPE will inform the Committee's deliberations on what the outcome objectives should be for the new liver allocation system.

The Committee will also review the results of a revealed preference analysis (RPA) to inform their discussions on priorities for the allocation system, as well as policy outcomes and metrics for each attribute. The Committee will then utilize an optimization analysis to find policy scenarios that fulfill their stated priorities and outcome metrics. The Committee will continue to engage the transplant community during the development of the continuous distribution project.

## Participation

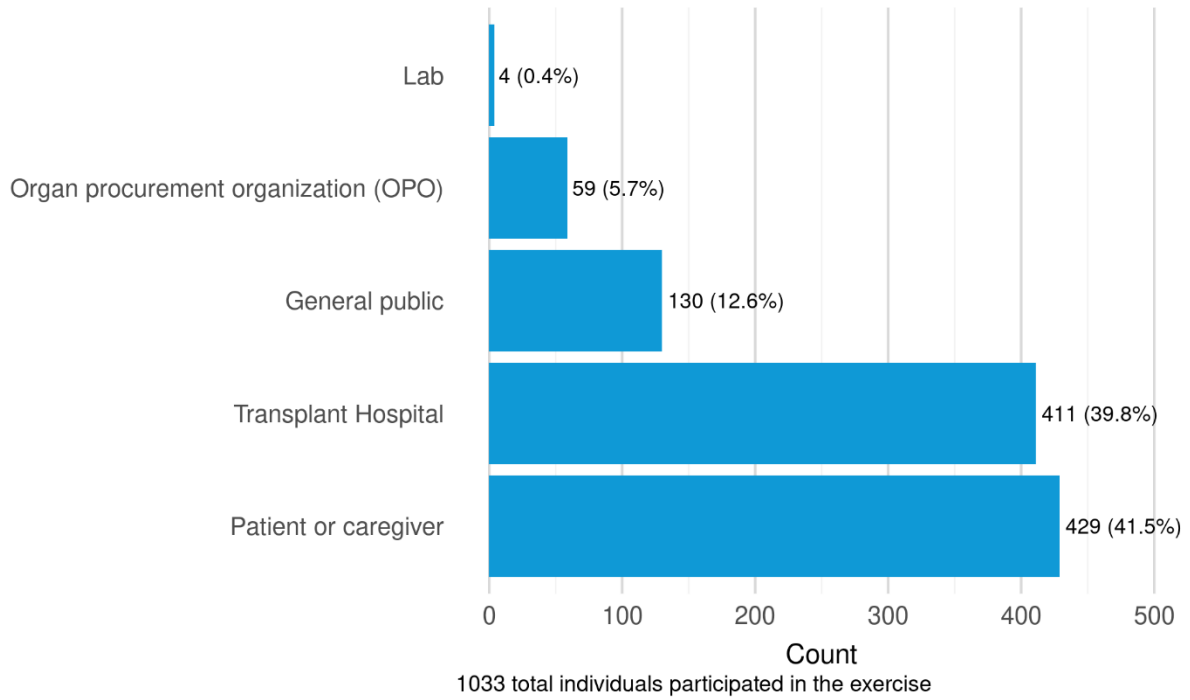
1,033 individuals submitted responses to the VPE, far exceeding participation in previous exercises for other organ systems. During the exercise, participants were asked to select their affiliation to transplant from 5 pre-determined choices. The figure below represents the breakdown of VPE participants by their affiliation to transplant. The most frequent participant group was patient or caregiver (41.5%), followed by transplant hospital professional (39.8%), general public (12.6%), organ procurement organization (OPO) professional (5.7%), and laboratory professional (0.4%).

---

<sup>2</sup> Organ Procurement & Transplant Network, *Continuous Distribution*. Available at: <https://optn.transplant.hrsa.gov/policies-bylaws/a-closer-look/continuous-distribution/>.

<sup>3</sup> OPTN Liver & Intestinal Organ Transplantation Committee, *Update on Continuous Distribution of Livers and Intestines*, Concept paper. Public comment period January 18, 2023 – March 18, 2023. Available at <https://optn.transplant.hrsa.gov/policies-bylaws/public-comment/update-on-continuous-distribution-of-livers-and-intestines/>.

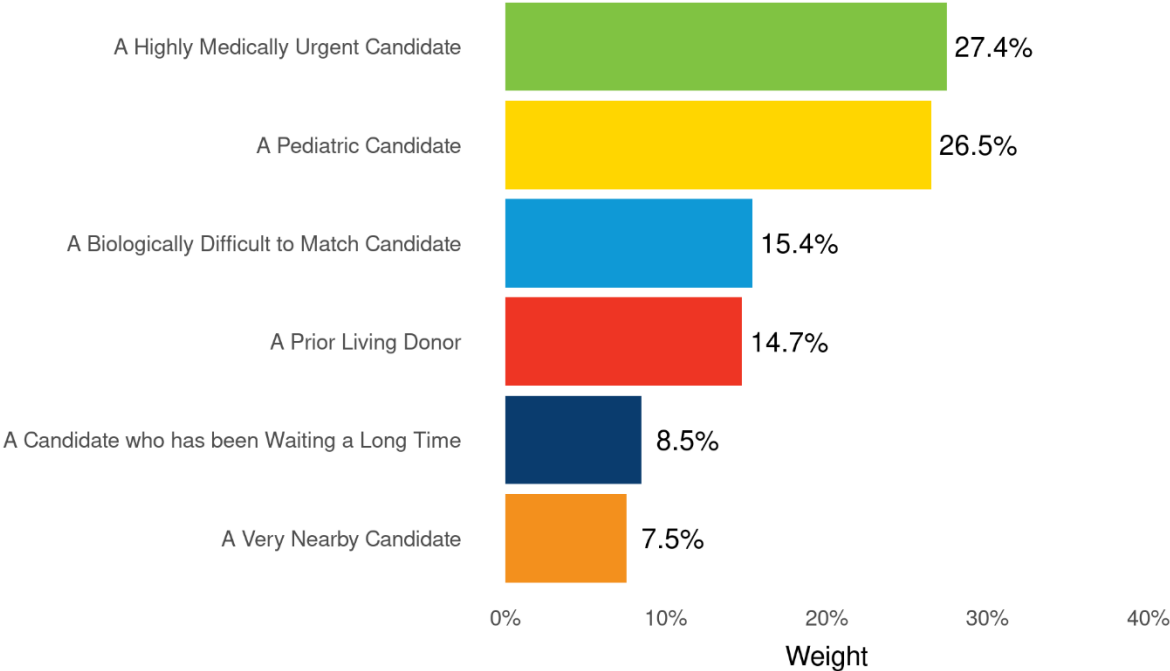
## Participation by Transplant Affiliation



## Overall Ratings

The figure below represents the overall, unweighted ratings from the VPE. Since patients and/or caregivers and transplant hospital professionals participated in greater volume than other transplant affiliation groups, these ratings skew towards their preferences.

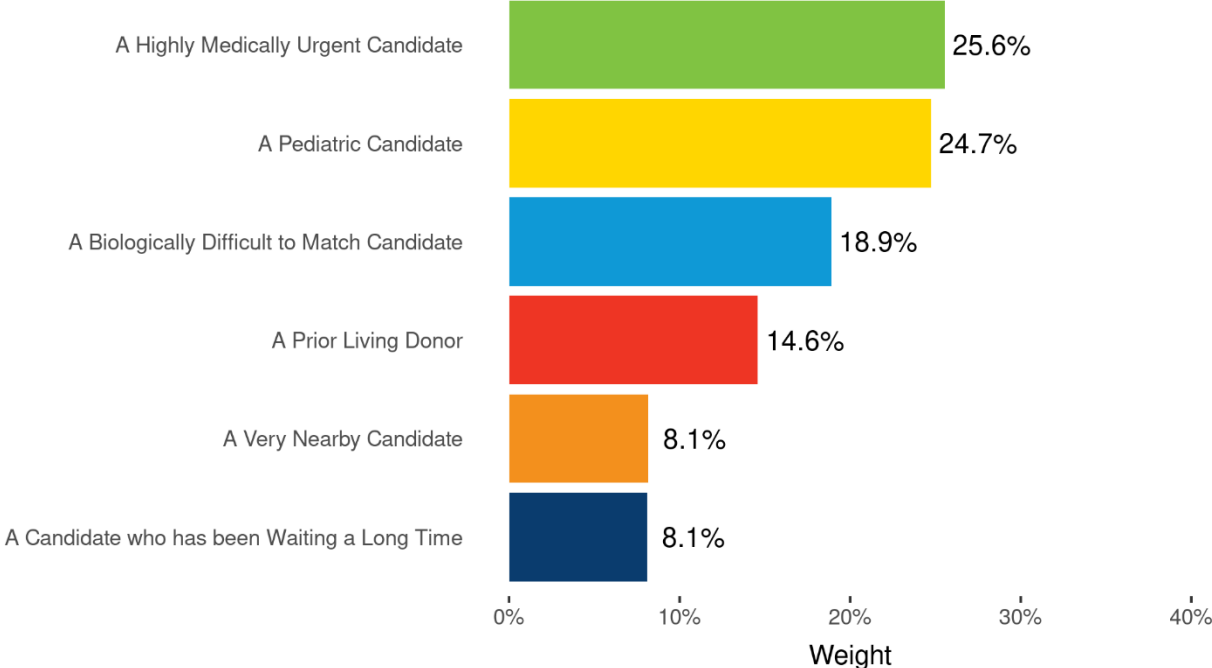
# Overall Ratings





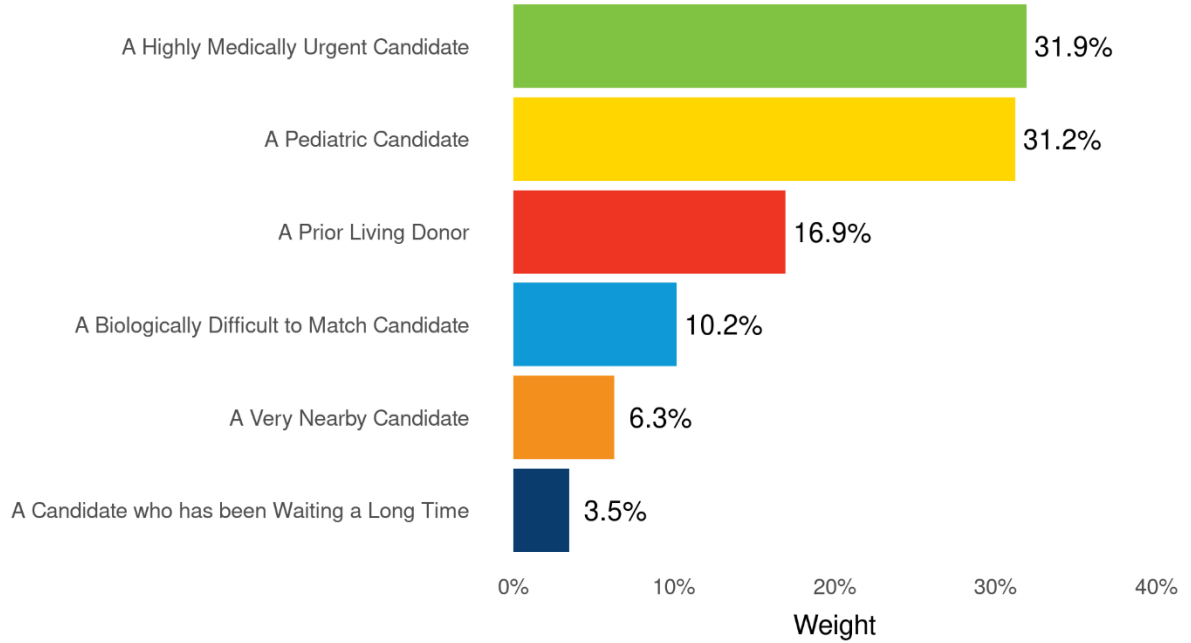
This next figure shows the overall ratings with the five transplant affiliation groups equally weighted, or population-adjusted.

**Overall Ratings, Population-Adjusted**



The figure below represents the preferences of the members of the Liver & Intestinal Organ Transplantation Committee who responded to the VPE.

### Liver/Intestine Committee Ratings

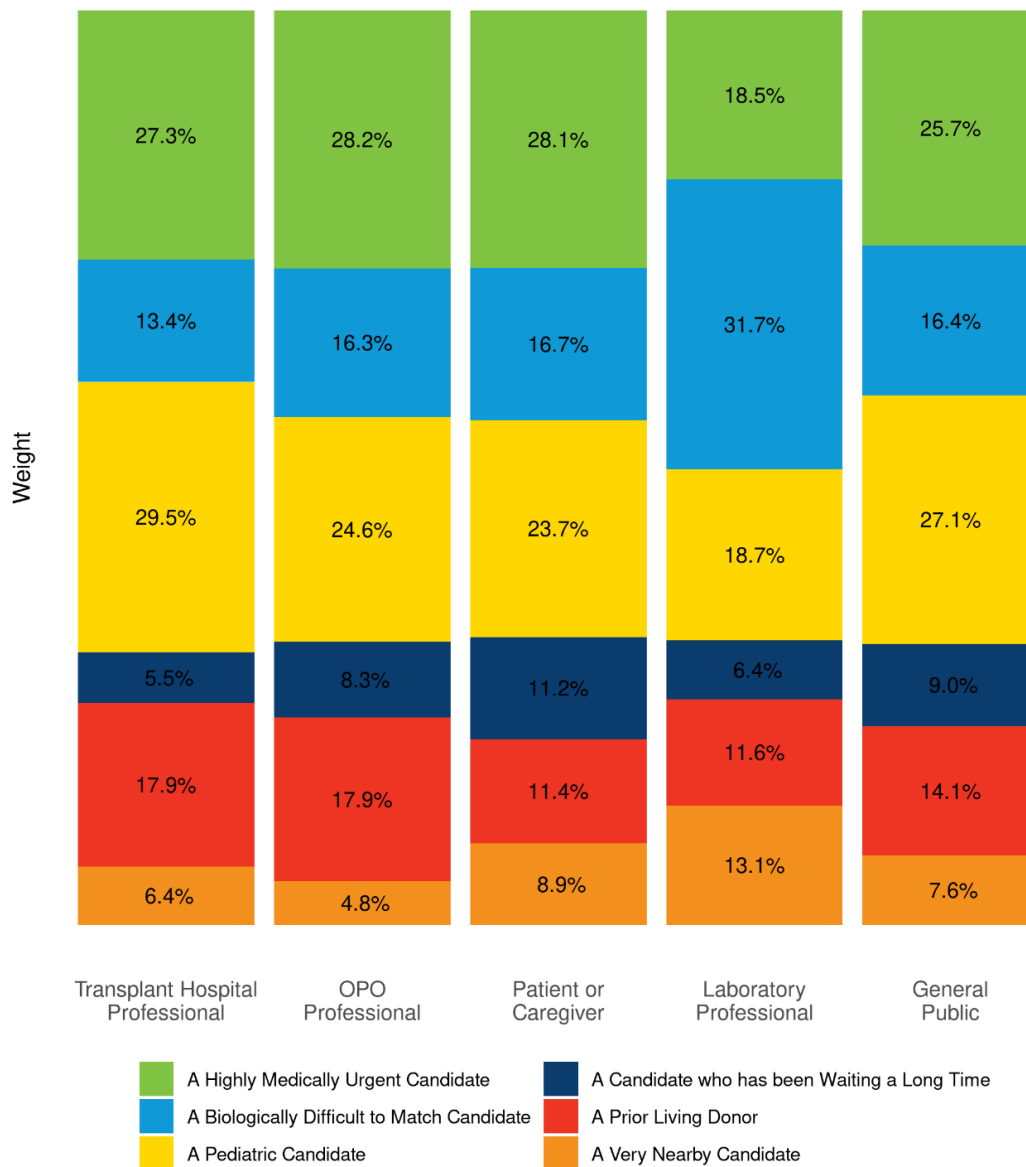


17 committee members participated in the exercise

## Priorities by Participation Groups

Participants were asked to respond to 15 attribute pairwise comparisons and select the attribute which they would prioritize, and to what degree, over the other in terms of liver allocation (or whether the participant found the attributes to be equally important). These preferences were then aggregated into overall weights. The figure below shows the overall preferences of participants by transplant affiliation groups and shows the variability in priorities between the different participant groups.

### Ratings by Transplant Affiliation



## 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.<sup>4,5,6</sup> 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. The figure below represents how each transplant affiliation group prioritized these principles.

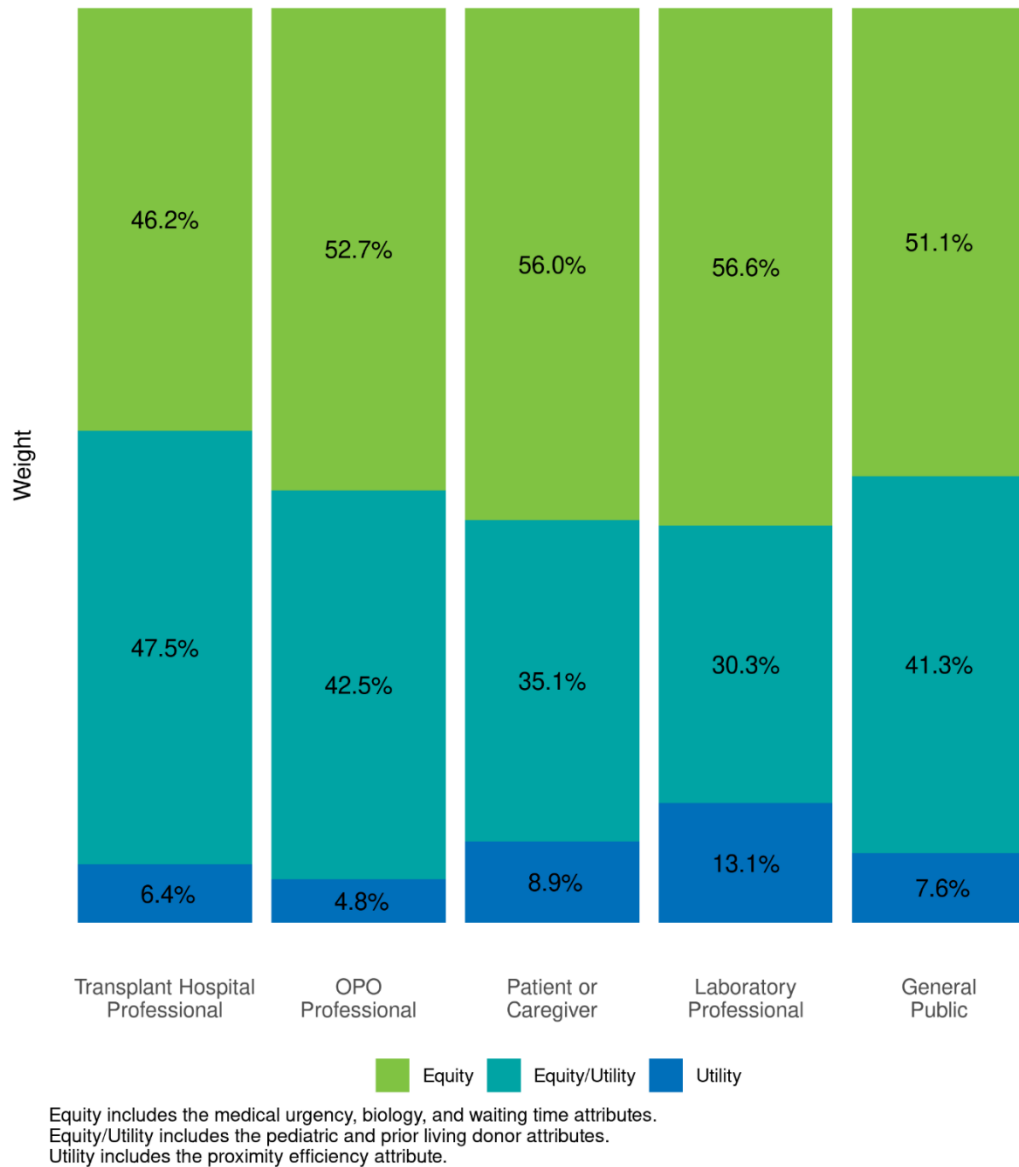
---

<sup>4</sup> 42 U.S. Code § 274 Organ procurement and transplantation network

<sup>5</sup> See Ethical Principles in the Allocation of Human Organs, Updated June 2015, Available at <https://optn.hrsa.gov>.

<sup>6</sup> See Ethical Considerations of Continuous Distribution in Organ Allocation, February 2022, Available at <https://optn.hrsa.gov>.

## Ethical Balance

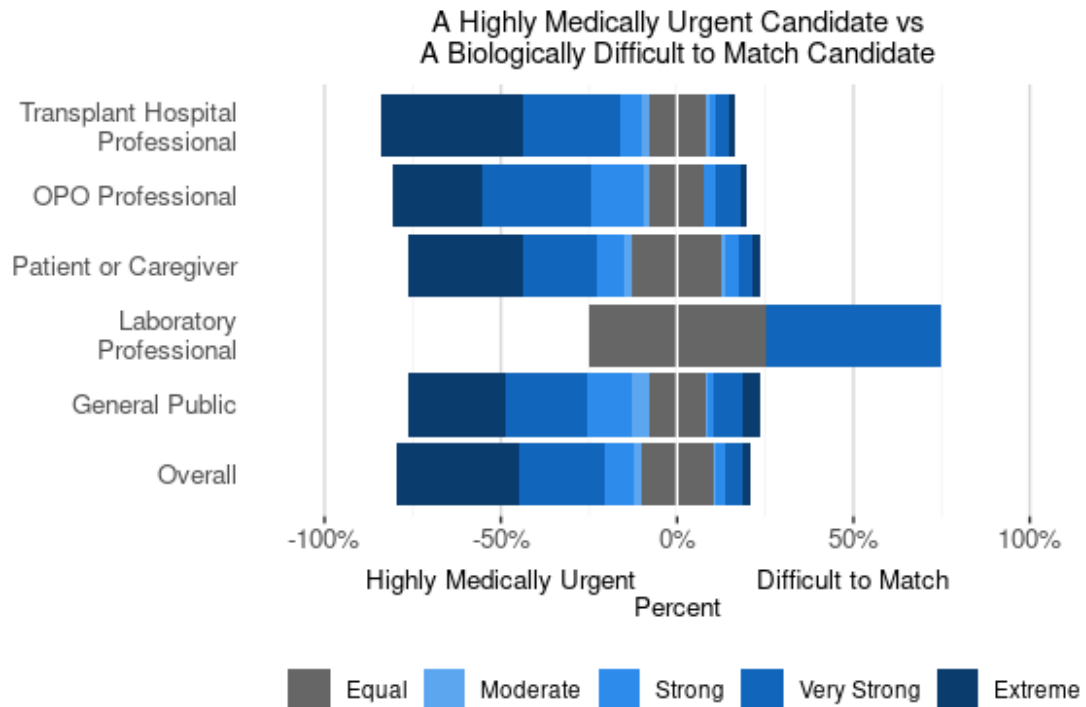


## Specific Pairwise Comparisons

In reviewing the specific pairwise comparisons, 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) were analyzed. In addition, the results were reviewed to identify any outliers to the overall group. It is important to analyze areas where there is low alignment, low agreement, or outliers.

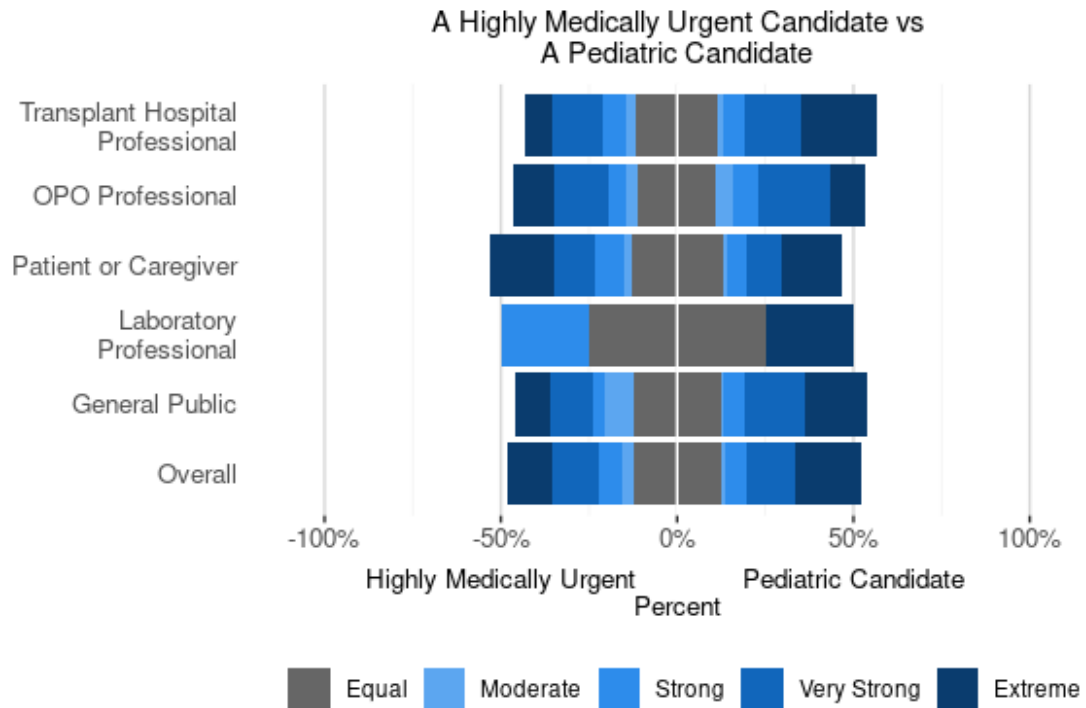
## Highly Medically Urgent Candidate vs Biologically Difficult to Match Candidate

This comparison indicates a preference for a medically urgent candidate by all groups except laboratory professionals, who either had a very strong preference for a biologically difficult to match candidate or indicated that the attributes were equally important.



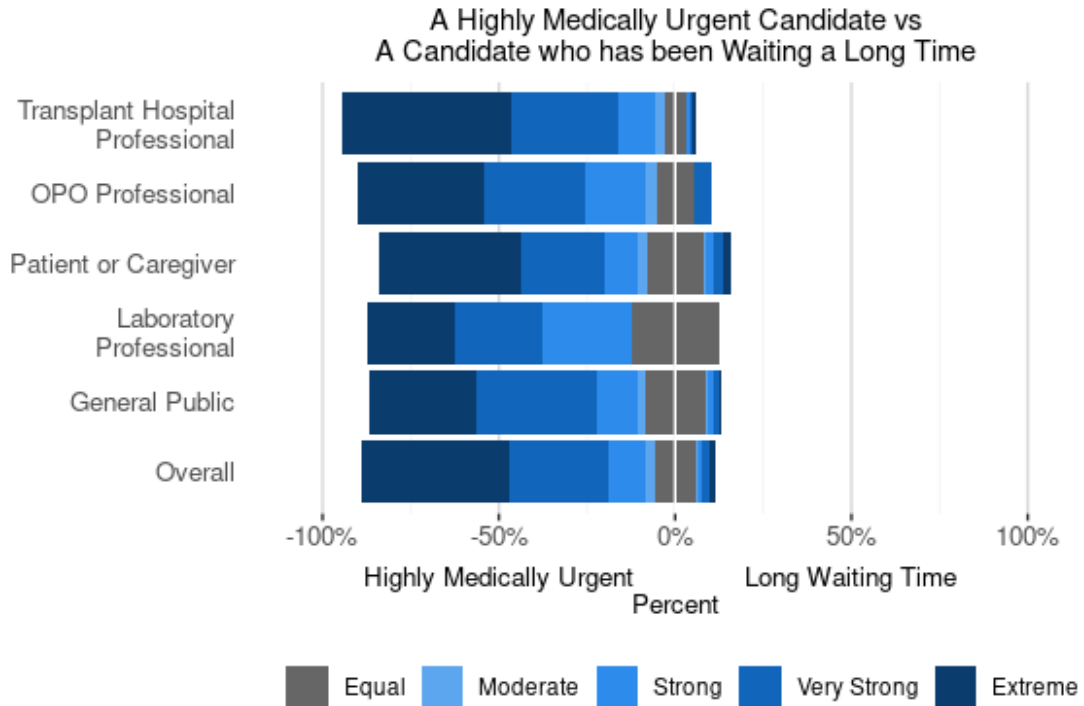
## Highly Medically Urgent Candidate vs Pediatric Candidate

On average, participants rated prioritization for a highly medically urgent and a pediatric candidate equally.



## Highly Medically Urgent Candidate vs Candidate who has been Waiting a Long Time

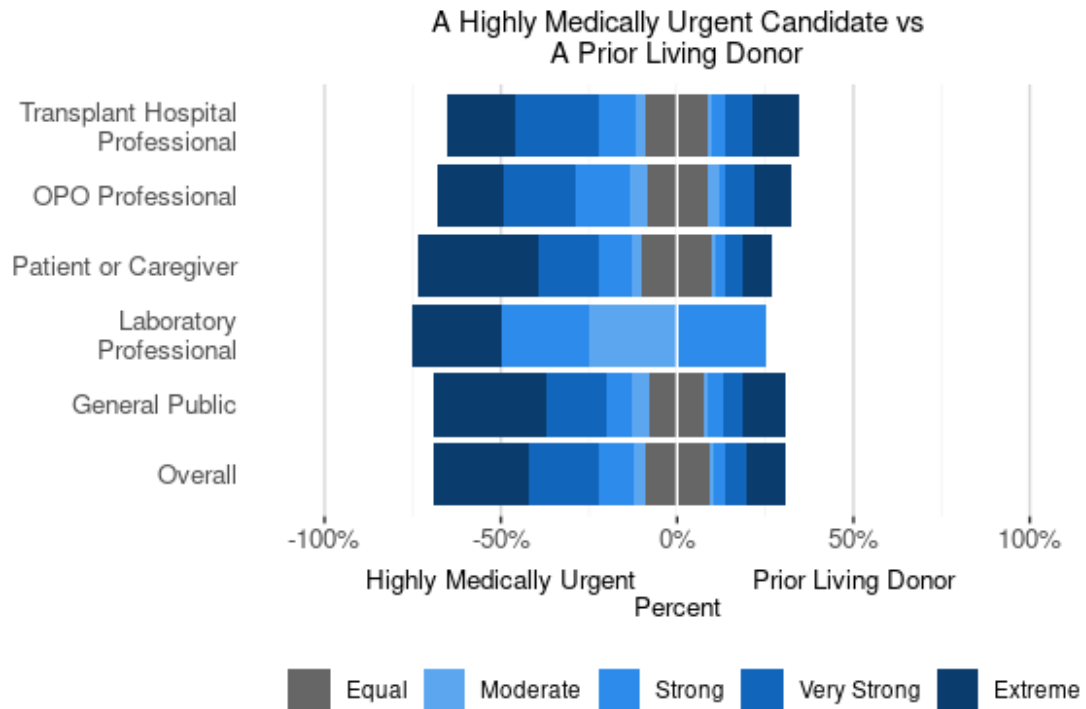
The majority of participants indicated a preference to prioritize a highly medically urgent candidate over a candidate with a long waiting time.





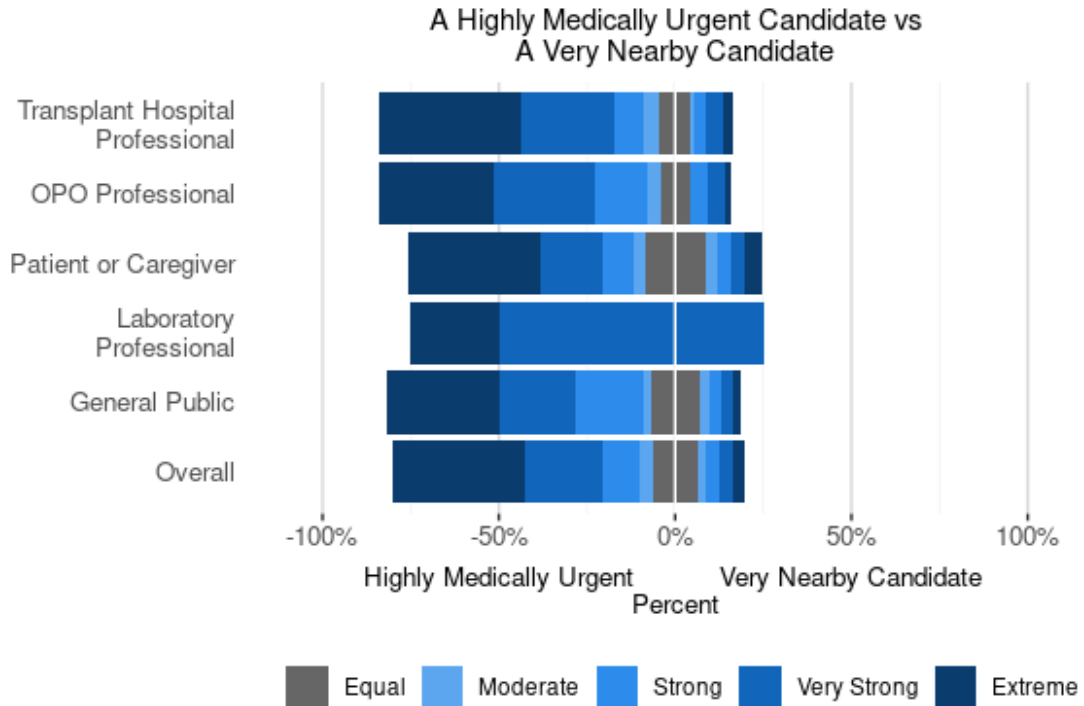
## Highly Medically Urgent Candidate vs Prior Living Donor

A proportion of participants from each group indicated extreme preference to prioritize both of these attributes. However, the overall results of this comparison skew toward a preference to prioritize a highly medically urgent candidate over a prior living donor.



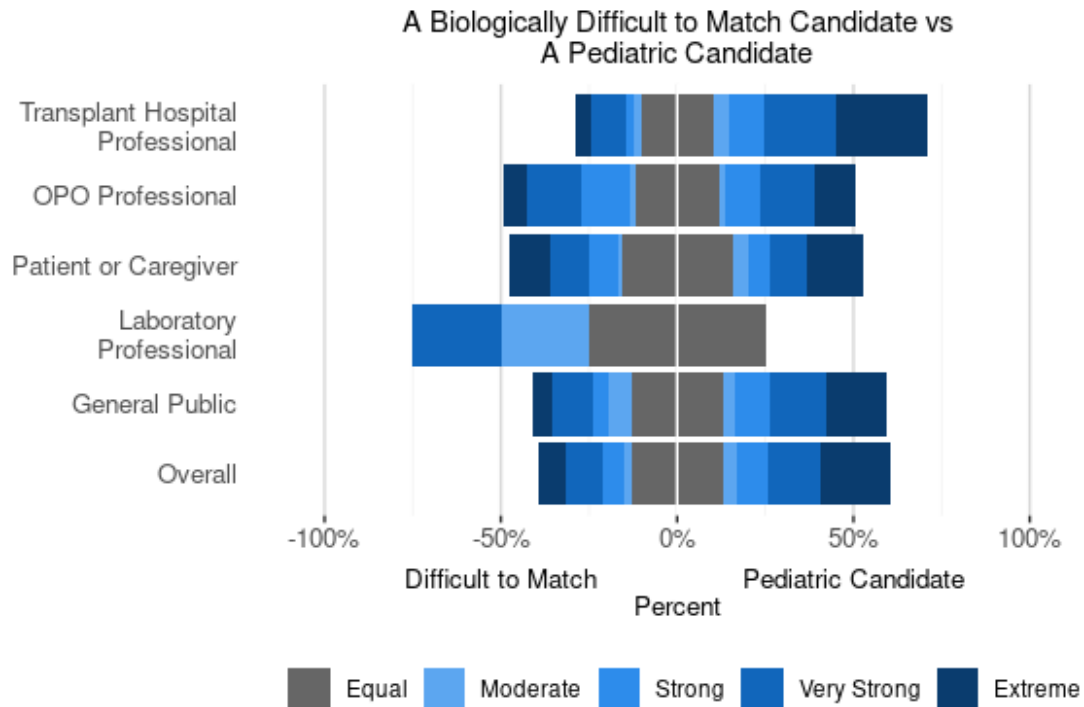
## Highly Medically Urgent Candidate vs Very Nearby Candidate

The majority of participants indicated that they believe prioritizing a highly medically urgent candidate is more important than a very nearby candidate.



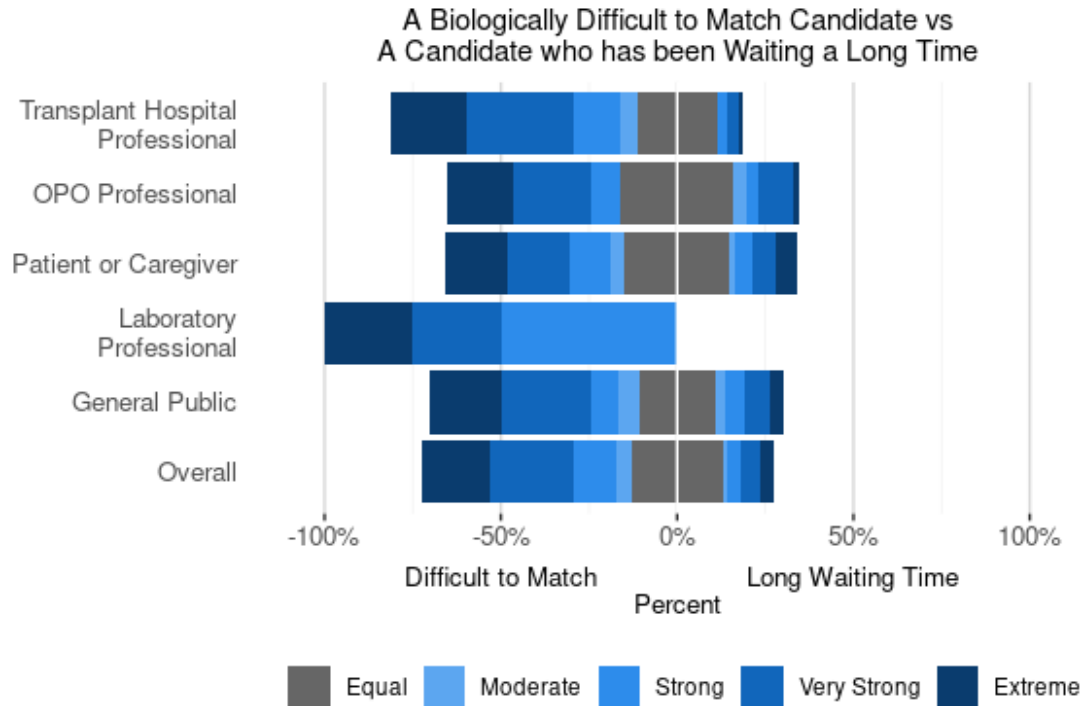
### Biologically Difficult to Match Candidate vs Pediatric Candidate

This pairwise comparison shows split responses between participation groups. Laboratory professionals indicated a strong preference for a biologically difficult to match candidate, while transplant hospital professionals tended to rank a pediatric candidate as more important.



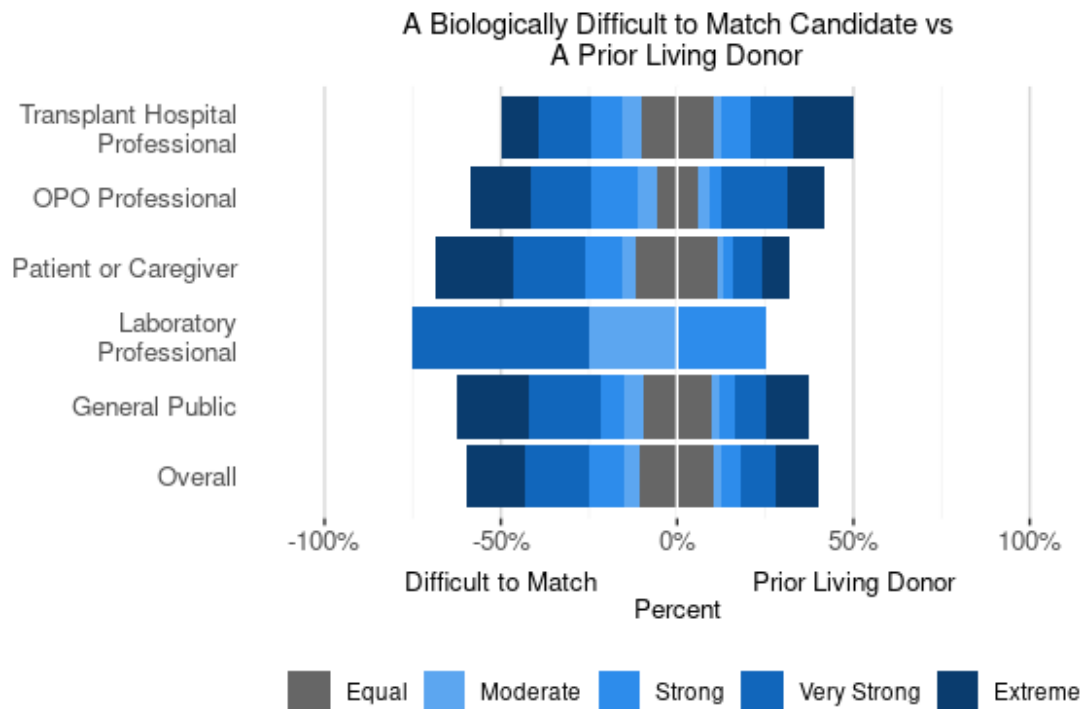
## Biologically Difficult to Match Candidate vs Candidate who has been Waiting a Long Time

The results of this pairwise comparison skew toward a preference for the prioritization of a biologically difficult to match candidate over a candidate with a long waiting time.



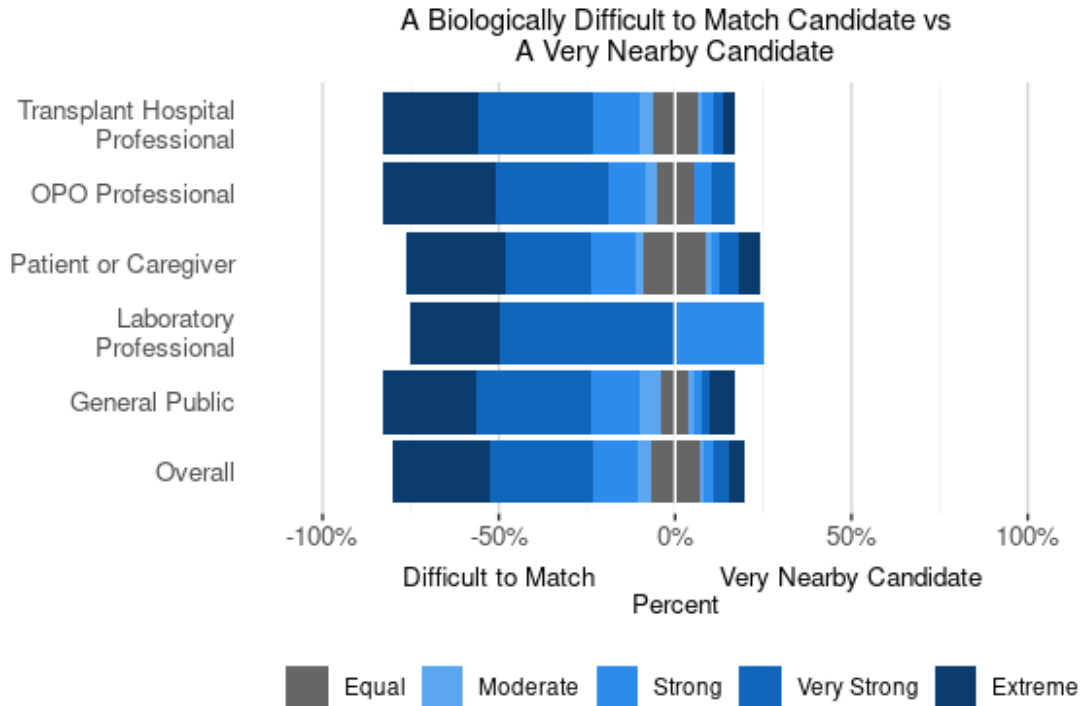
## Biologically Difficult to Match Candidate vs Prior Living Donor

The responses to this pairwise comparison varied between groups, with the results slightly leaning toward a preference to prioritize a biologically difficult to match candidate over a prior living donor.



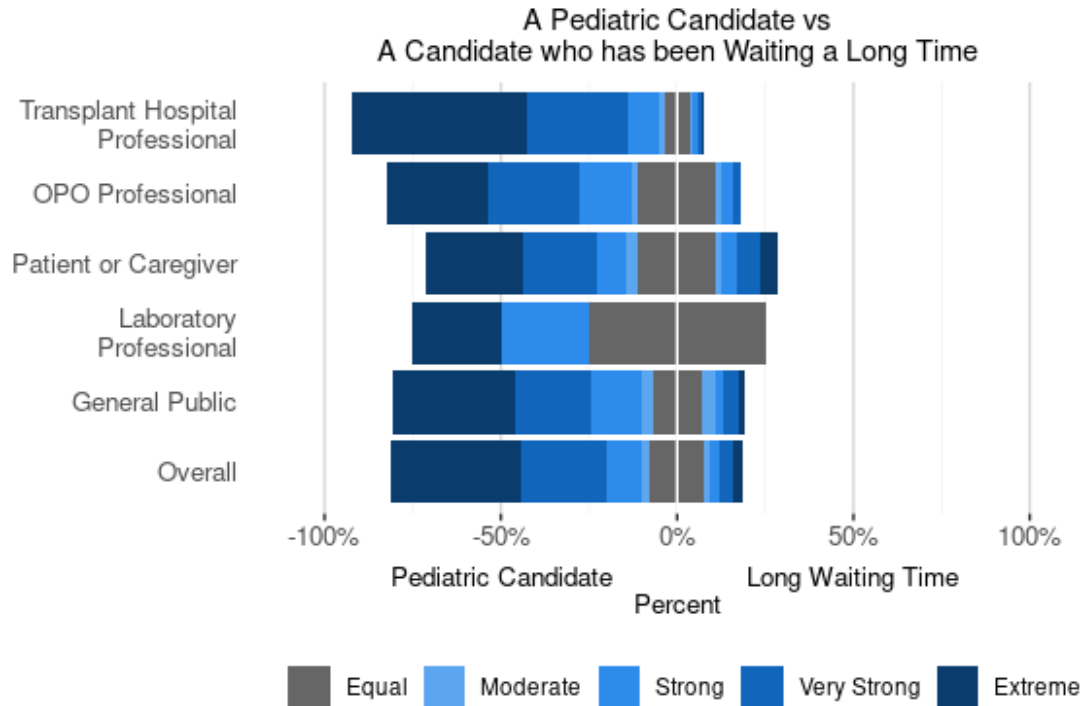
## Biologically Difficult to Match Candidate vs Very Nearby Candidate

The majority of participants responded that they would choose to prioritize a biologically difficult to match candidate over a very nearby candidate.



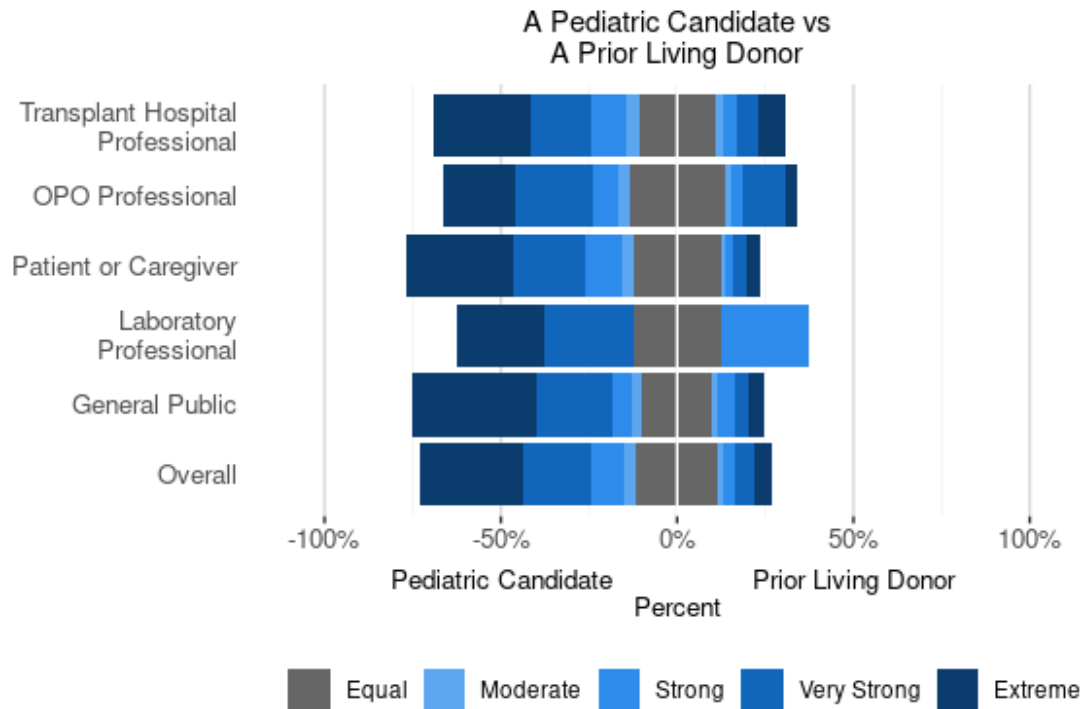
## Pediatric Candidate vs Candidate who has been Waiting a Long Time

The results of this comparison point to participants' strong preference to prioritize a pediatric candidate over a candidate with a long waiting time.



## Pediatric Candidate vs Prior Living Donor

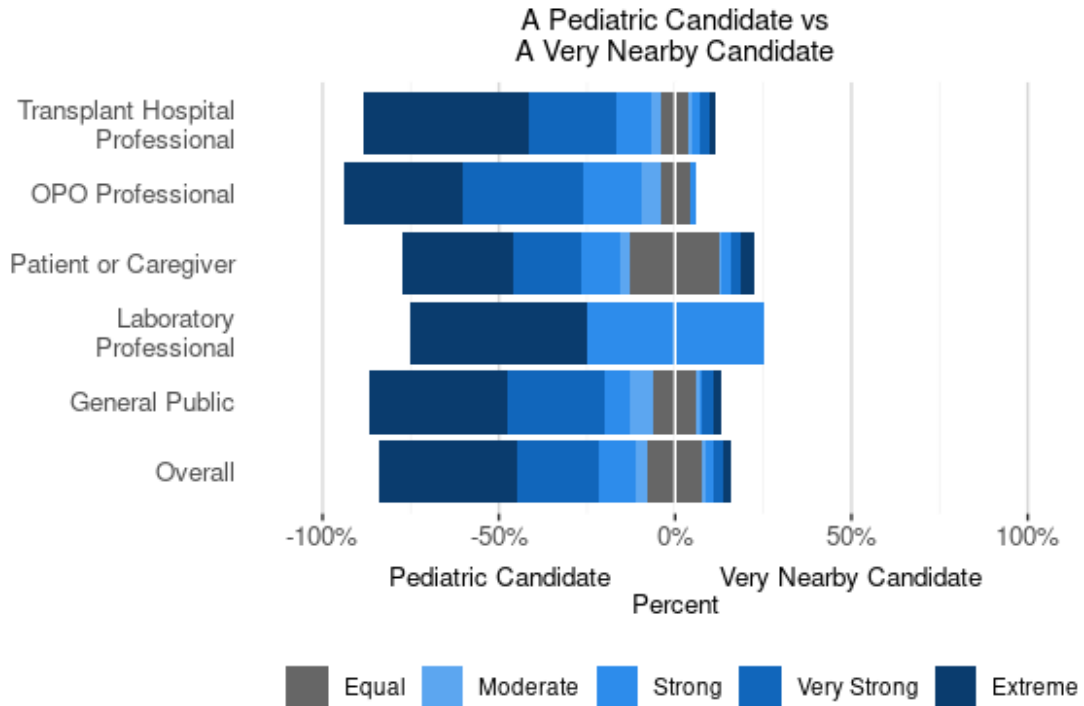
Responses to this pairwise comparison varied, but more participants from all transplant affiliation groups indicated an extreme preference for prioritizing a pediatric candidate over a prior living donor than vice versa.





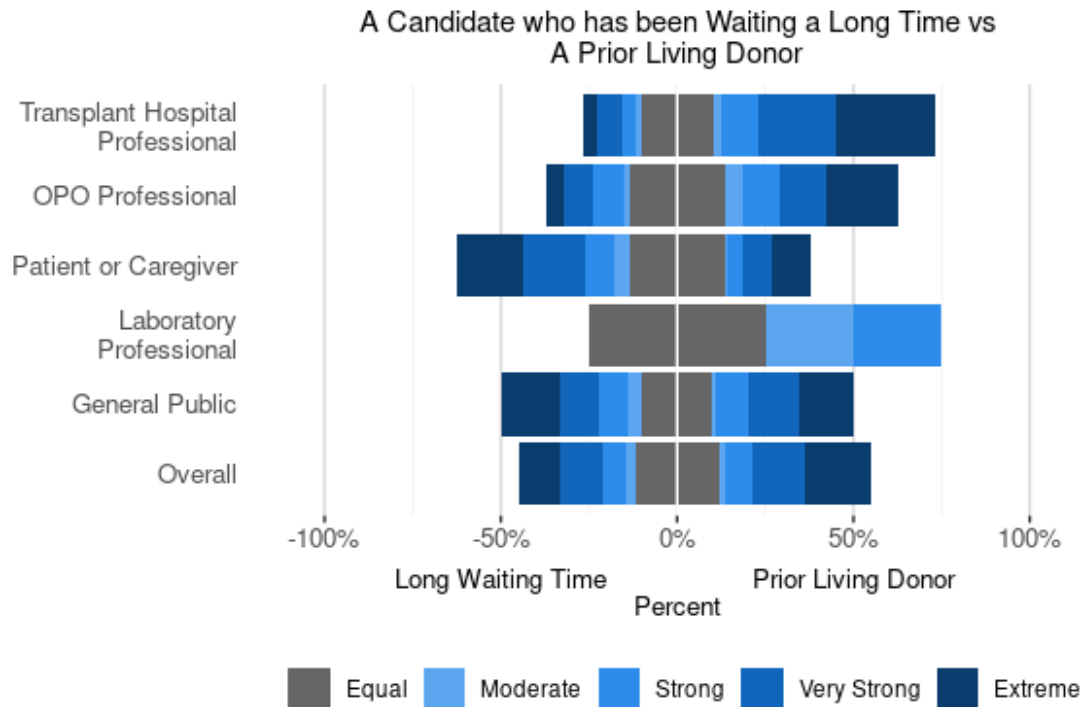
### Pediatric Candidate vs Very Nearby Candidate

The majority of participants indicated that they believe prioritizing a pediatric candidate is more important than a very nearby candidate.



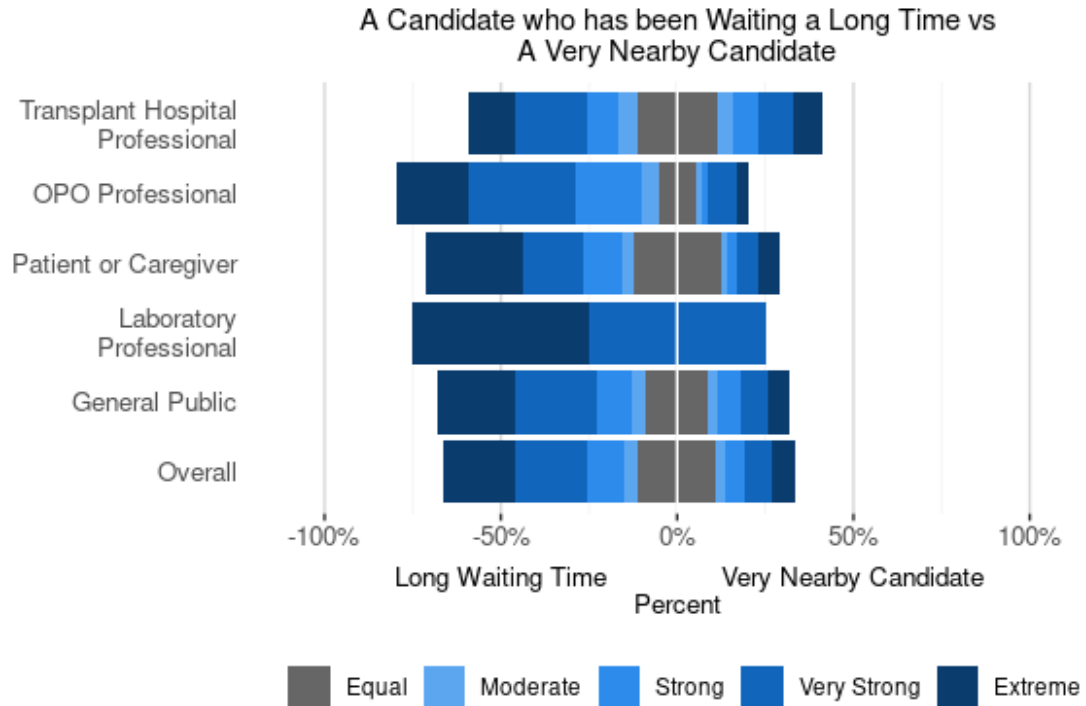
### Candidate who has been Waiting a Long Time vs Prior Living Donor

Responses to this pairwise comparison also varied widely between participation groups. More transplant hospital professionals indicated an extreme preference for a prior living donor, while more patients or caregivers indicated an extreme preference for a candidate with a long waiting time.



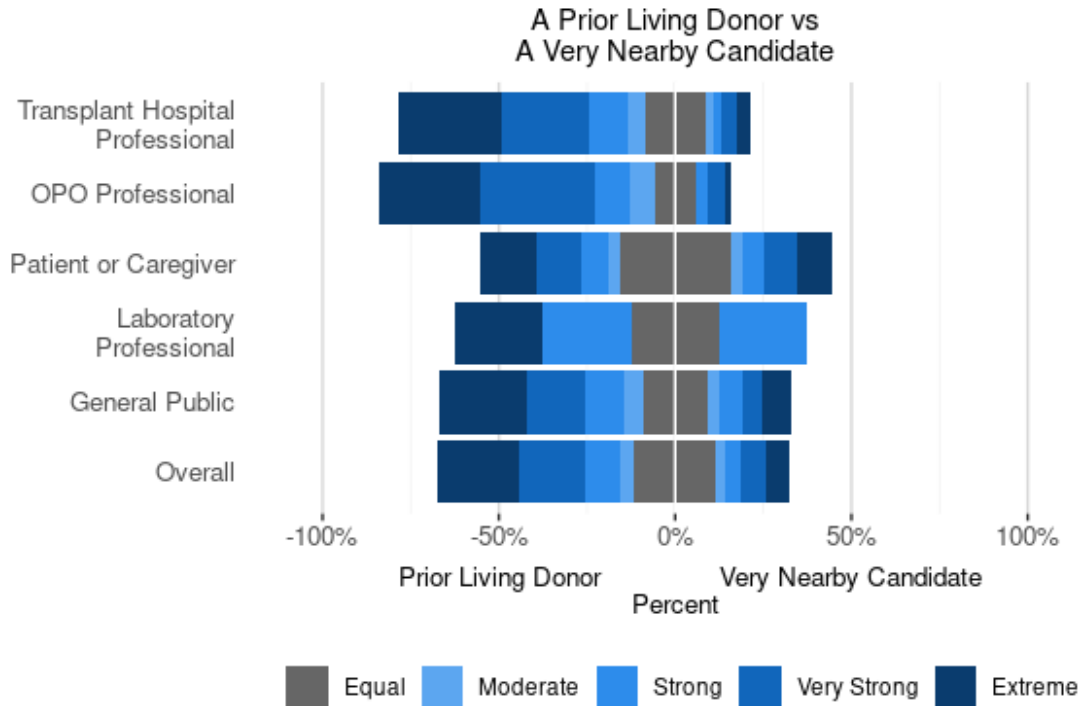
### Candidate who has been Waiting a Long Time vs Very Nearby Candidate

In this pairwise comparison, more participants indicated a preference to prioritize a candidate with a long waiting time over a very nearby candidate.



## Prior Living Donor vs Very Nearby Candidate

The results of this pairwise comparison skew toward a preference for a prior living donor over a very nearby candidate.



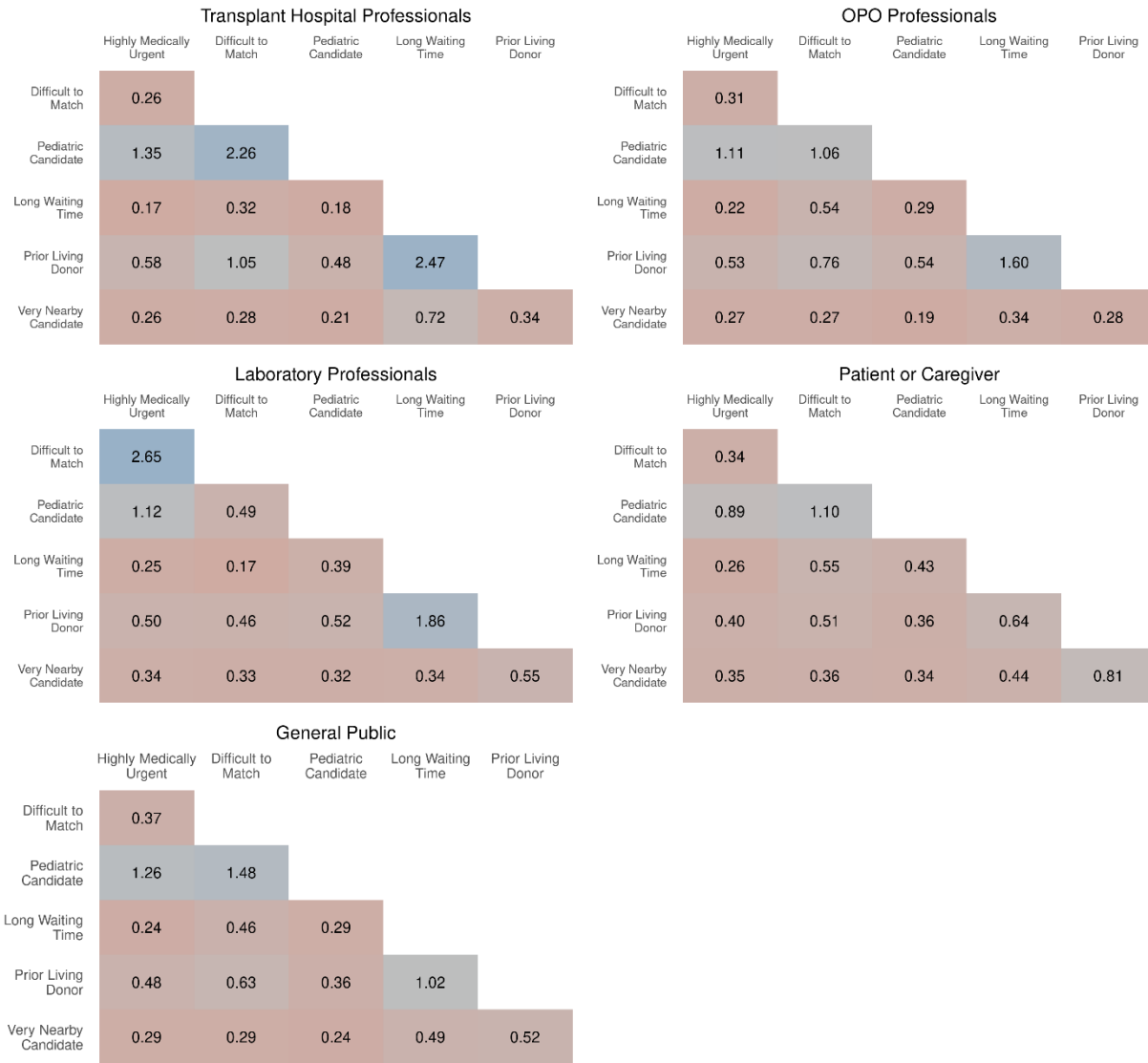
## Comparison Matrixes

The first figure below shows the total aggregate results for each pairwise comparison, and the second figure shows the results stratified by transplant affiliation groups. Items less than 1 are shaded red and indicate the column header is the preferred criterion in that pairwise comparison. Items greater than 1 are shaded blue and indicate that the row header is the preferred criterion in the pairwise comparison. *For example, many items under the attribute “Highly Medically Urgent” are shaded red which indicates that the column header - “Highly Medically Urgent” - was the preferred criterion in those comparisons.*

### Aggregate Results

	Highly Medically Urgent	Difficult to Match	Pediatric Candidate	Long Waiting Time	Prior Living Donor
Difficult to Match	0.31				
Pediatric Candidate	1.11	1.51			
Long Waiting Time	0.22	0.43	0.29		
Prior Living Donor	0.48	0.71	0.41	1.23	
Very Nearby Candidate	0.30	0.32	0.26	0.54	0.51

## Aggregate Results by Transplant Affiliation



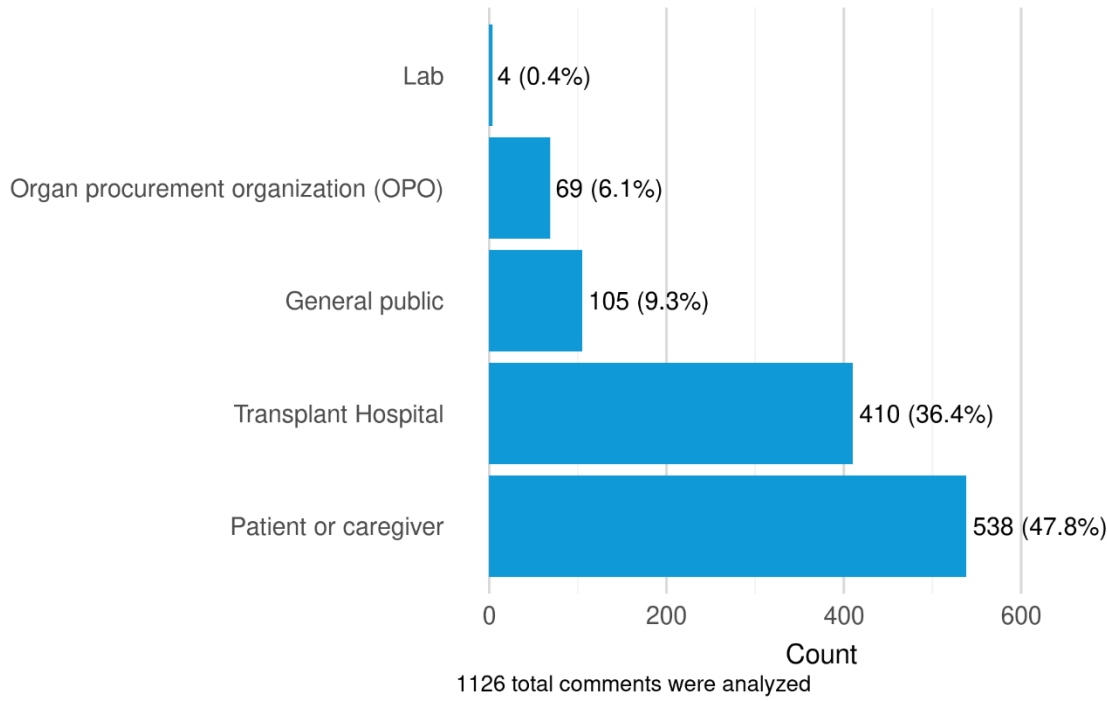
## Comments Analysis

Participants entered a total of 1,885 comments during the VPE. 759 comments were removed due to 1) rating reiteration (restating which criterion they chose during the pairwise comparison and/or the score they gave to that comparison), and 2) containing no analyzable content (i.e. “N/A”, “no comment”, etc.). Qualitative analysis was performed on the remaining 1,126 comments.

The figure below summarizes the comments entered by the participant’s transplant affiliation. Patients or caregivers entered nearly half of all comments (47.8%), followed by

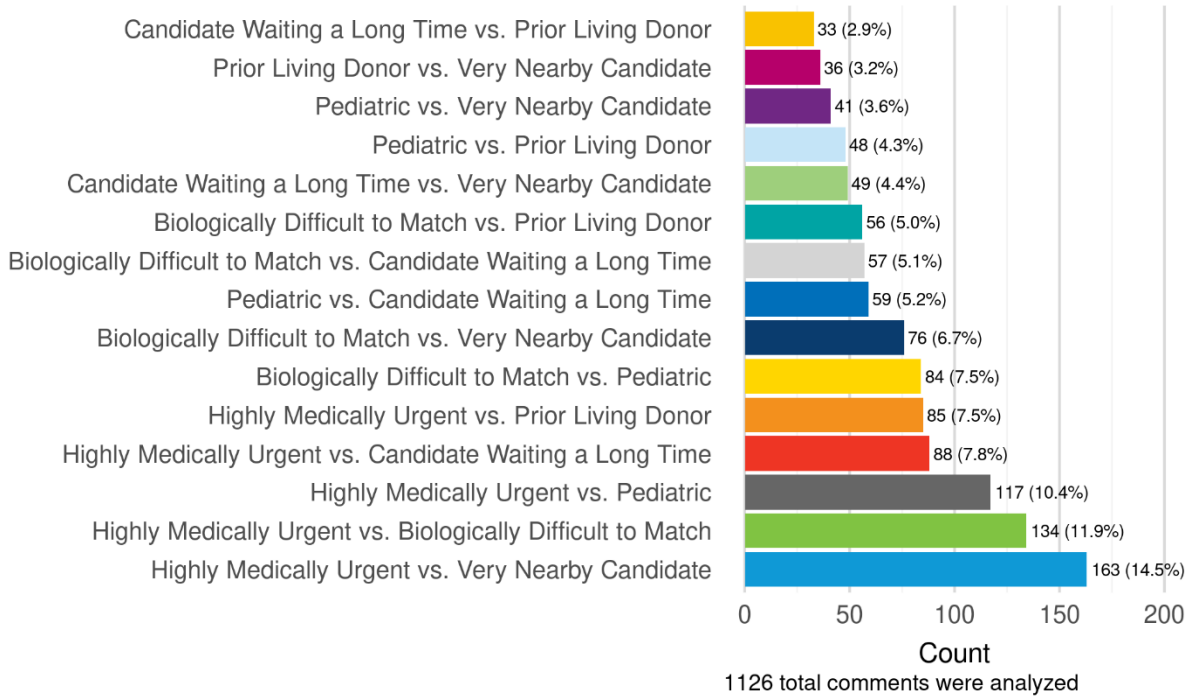
transplant hospital professional (36.4%), general public (9.3%), organ procurement organization (OPO) professionals (6.1%) and laboratory professionals (0.4%).

### Comments by Transplant Affiliation



The following figure represents the number of comments entered for each pairwise comparison. Participants entered the most comments for the comparison of Highly Medically Urgent Candidate vs Very Nearby Candidate (14.5%) and the least number of comments for the Candidate Waiting a Long Time vs Prior Living Donor (2.9%) comparison.

**Comments by Pairwise Comparison**





## Main Themes Identified in Comments by Attribute

Overall, 1,033 participants submitted responses to the VPE and 1,126 comments were analyzed for content. The most commonly recurring theme(s) for each attribute included in the exercise are summarized below. This includes the number of comments coded as belonging to each specific theme, and since individuals could comment a similar sentiment multiple times throughout the exercise, the number of unique participants who submitted comments pertaining to each theme.

- The themes below account for over half (52.6%) of the total amount of comments analyzed

### Highly Medically Urgent Candidate

- *The main goal of organ transplantation should be to save lives.*
  - Comments: 83
  - Participants: 51

Comments pertaining to this theme also referred to other attributes, but the majority of comments (79.5%) were about a highly medically urgent candidate.

### Pediatric Candidate

- *Pediatric candidates deserve priority due to life-years benefit.*
  - Comments: 61
  - Participants: 42
- *Pediatric candidates have less options and more restrictions on the organ offers they can accept.*
  - Comments: 47
  - Participants: 36

### Biologically Difficult to Match Candidate

- *Time to next suitable offer for each candidate should be considered.*
  - Comments: 75
  - Participants: 52

Comments pertaining to this theme also referred to other attributes, but the majority of comments (90.6%) were about a biologically difficult to match candidate.

### Prior Living Donor

- *We should honor prior living donors' sacrifice.*

- Comments: 50
  - Participants: 35
- *Prior living donors should not get special treatment. They donated for altruistic reasons and knew the risks.*
  - Comments: 37
  - Participants: 20
- *Special considerations are needed if a prior living donor's need for transplant is related to their prior donation.*
  - Comments: 34
  - Participants: 24

### **Very Nearby Candidate**

- *Special considerations are needed for DCD and other marginal donor livers.*
  - Comments: 114
  - Participants: 64
- *It is important to consider the effect of travel time and distance on graft and transplant outcomes.*
  - Comments: 62
  - Participants: 48

### **Candidate who has been Waiting a Long Time**

- *Extremely long waiting time correlated with the candidate's level of need.*
  - Comments: 29
  - Participants: 20

## Main Themes Identified in Comments by Pairwise Comparison

Listed below are the most common themes that pertained to each specific pairwise comparison. The total number of comments analyzed for that particular comparison and the number of comments pertaining to a specific theme are also included.

In addition to the themes that came up for each pairwise comparison, the comments contained the following information:

- 54 comments indicated the comparison was “difficult”
- 65 comments shared personal stories about how the pairwise comparison pertained to their experience as a patient, caregiver, professional, living donor, family member, etc.
- 22 comments provided feedback about the survey or asked questions regarding the specific pairwise comparisons

If these comments contained any other content, they were also coded into the appropriate themes below.

### Highly Medically Urgent Candidate vs Biologically Difficult to Match Candidate

Comments analyzed: 134

- The main goal of organ transplantation should be to save lives. (29 comments)

#### **Examples:**

*“Prioritized medically urgent candidates due to medically urgent correlating to death imminent without transplant.”*

*“Although a biologically difficult candidate has limited options..a medically urgent candidate has limited TIME and the only option for them IS death!!!! If a biological candidate has a HIGHER MELD score than the medically urgent patient and the organ is a match then priority should be placed with the biological candidate but not otherwise.”*

*“Death. We can’t let a person die just because another case comes in that might be difficult to match but has more time.”*

- Medically urgent candidates cannot wait longer for transplant. (27 comments)

#### **Examples:**

*“Medical urgency here is more important as the difficult to match candidate (who is presumable less medically urgent) would still have opportunities to be matched while the urgent candidate will die sooner if not transplanted.”*

*“The biologically difficult to match candidate may have more time to wait.”*

*“Having been on the waiting list for a short time I was moved to the top since I was about to die if I had to continue to wait much longer.”*

- Time to next suitable offer for each candidate should be considered. (18 comments)

**Examples:**

*“The urgent case will likely come up in multiple match runs and get another offer quickly well within the 90 days. The candidate difficult to match could deteriorate before getting another match.”*

*“My concern with this pairing is that in any one given circumstance, the medically urgent patient should get the liver; however, this could happen over and over to the other patient. As they get sicker, they should not have to meet the same definition of highly medically urgent because, at that point, a liver may not come available. They should be considered ‘highly medically urgent’ a little sooner because of the average time difference in finding a liver.”*

*“Both patients are clearly at a disadvantage, one with not a lot of time but many potential donor compatibility and the other with more time but less donor compatibility. This makes them equal priority.”*

### Highly Medically Urgent Candidate vs Pediatric Candidate

Comments analyzed: 117

- Pediatric candidates deserve priority due to life-years benefit. (25 comments)

**Examples:**

*“Pediatrics patients should be prioritized due to life years benefit and difficulty of obtaining offers for peds candidates.”*

*“The pediatric candidate has more years to prosper from a donor liver transplant.”*

*“Ideally we would have a measure of benefit (life years w transplant - life years without transplant). Pediatric candidates are typically of greater benefit.”*

- Pediatric donor livers should go to pediatric transplant candidates. (22 comments)

**Examples:**

*“I do think that pediatric candidates should have priority for pediatric donors but this should not trump a highly medically urgent patient.”*

*“Pediatric grafts should be preferentially offered to pediatric patients, but perhaps in reference to grafts from patients >16 rather than >18. Donors 16-18 are generally adult sized.”*

- Pediatric candidates have less options and more restrictions on the organ offers they can accept. (17 comments)

**Examples:**

*"Pediatric candidates are often difficult to place due to size and other factors. Highly medically urgent candidates will appear on multiple match runs for a greater opportunity to receive a suitable organ."*

*"A pediatric patient has fewer chances for a liver because the pool of candidates are smaller than for an adult."*

- This is a case where using a split liver can be considered. (15 comments)

**Examples:**

*"I think this one has an 'it depends.' A pediatric liver should be prioritized to a pediatric recipient. A splittable adult liver could be used for both of the hypothetical transplant candidates above. Opportunity to mandate/incentivize splitting here."*

*"There are equally good arguments for both sides. Children have less organs available generally. This might be a good example of when an organ should be split, with the larger candidate getting the larger portion."*

**Highly Medically Urgent Candidate vs Candidate who has been Waiting a Long Time**

Comments analyzed 88:

- The more stable candidate has the opportunity to wait for another offer. (19 comments)

**Examples:**

*"If the long waiting patient has a low MELD score, it is assumed they can function and continue to wait."*

*"Liver transplant itself brings multiple risks. If the patients are stable, non-critical which should reflect in lower MELD- should await priority when they get sicker."*

- The main goal of organ transplantation should be to save lives. (14 comments)

**Examples:**

*"I do feel that long waits should be given exception points in some way, but allowing a medically urgent patient to acutely die to transplant someone who has morbidity but not imminent death is not the intention of transplantation."*

*"Always the one who needs it the soonest to survive, assuming they do not have other health issues that will cause them to die early from a non liver reason."*

- Candidates can be sicker than their MELD score indicates (or a similar sentiment). (13 comments)

**Examples:**

*“Those who have been waiting a long time with low MELD scores does not mean they are healthier and can wait. Some have very little quality of life and are sicker than their MELD score.”*

*“Other factors besides MELD should be taken into account. MELD isn’t a good indicator or survival in all cases - it is flawed. Sometimes people who have been on the list for a very long time are still dying and their MELD will never be in the correct range to get a transplant. PSC, for example, has many cases such as this.”*

### Highly Medically Urgent Candidate vs Prior Living Donor

Comments analyzed: 85

- We should honor prior living donors’ sacrifice. (23 comments)

#### **Examples:**

*“Anything we can do to protect and promote the short and long term wellbeing of living donors is important. The more that we can do as a transplant community to show that we honor and value living donors, the more peace of mind we can provide as well.”*

*“Living donation can be defined as ‘donating a part of my life.’ LD is a selfless act that should be recognized for the sacrifice in giving. And although there is no monetary compensation, priority should be assigned to the unfortunate candidate who now requires an organ.”*

*“While I think medical urgency is more important, I also believe previously donating an organ should be a factor in prioritization. This demonstrates a commitment to the organ donation and transplantation system and extreme beneficence; it should be honored accordingly. If their need for transplant is a result of their living gift, that may be another factor for consideration, though I would still consider medical urgency to be a higher priority.”*

- Prioritizing living donors would encourage living donation. (14 comments)

#### **Examples:**

*“I am a living kidney donor, so ensuring that other living donors are protected is important to me. Knowing that I am prioritized as a living kidney donor if I never needed a kidney was an important part of my decision to donate. This could be a way to persuade more people to donate their liver.”*

*“Giving equal importance to a prior living donor could help increase living donations.”*

*“There needs to be consideration and safety net provided to living donors in order to promote living donation for patients. Living donation has also made deceased donors available to a different individual.”*

- Prior living donors should not get special treatment. They donated for altruistic reasons and knew the risks. (10 comments)

**Examples:**

*“I wouldn’t want to set a precedent or expectation that someone who is a living donor would automatically get a transplant if needed. That might set someone up to donate for the wrong reasons, and for providers to skirt the system.”*

*“Living donors assume the associated risks when deciding to donate.”*

**Highly Medically Urgent Candidate vs Very Nearby Candidate**

Comments analyzed: 163

- Special considerations are needed for DCD and other marginal donor livers. (54 comments)

**Examples:**

*“The person further away may need the liver more and therefore every effort should be made to get it to them. Proximity should matter more where there is a DCD and time is of the essence before organs are not able to be transplanted.”*

*“For DCD livers, geographic proximity should probably be taken into account with slightly more importance, but still not over a highly medically urgent candidate.”*

*“Nearby should be prioritized heavily when it is for an organ with a lesser ability to withstand transit.”*

*“For DCD, late turn down, older donor age, and other cases where livers would be expected to be difficult to place and extended CITs would result in organ discards, nearby candidates should be prioritized.”*

- It is important to consider the effect of travel time and distance on graft and transplant outcomes. (23 comments)

**Examples:**

*“I think a decision needs to be made as to which candidate has the better chance of a successful outcome. There is a need to weigh the chance that the organ will become not viable if the transportation time is too long.”*

*“Again, I’m a medical urgency person. That being said, a shorter, less complex transfer of the organ can help to ensure a better outcome for the closest patient waiting. Obviously, we do not know the distance from the donor hospital for the medically urgent candidate and that knowing that might very well have a bearing on the decision making involved.”*

*“Would also need to consider risk to graft for transportation, risk of poor outcomes in highly urgent patient and will this adversely affect the graft performance in a very sick patient.”*

- Improvements and advances in technology are nullifying concerns regarding distance and will continue to improve. (20 comments)

**Examples:**

*“As we make new advances in sustaining organs, the proximity to a transplant hospital shouldn’t take precedent over need.”*

*“Especially given pump data, proximity should only matter if the organ could not feasibly get to the more medically urgent recipient.”*

*“Although the logistics concerns are fair, the cold ischemic time concerns seem less relevant now in the age of perfusion technology.”*

### Biologically Difficult to Match Candidate vs Pediatric Candidate

Comments analyzed: 84

- Pediatric candidates have less options and more restrictions on the organ offers they can accept. (22 comments)

**Examples:**

*“Since there are not many pediatric donors and they can’t receive a large liver (such as one from an adult), the pediatric patient is just as vulnerable as the biologically difficult candidate.”*

*“I think a pediatric candidate IS a hard to match candidate so they should get more prioritization in this otherwise equal match up.”*

*“Pediatric patients can equally be considered as a disadvantaged group as other factors such as size and quality play a stronger role.”*

- Time to next suitable offer for each candidate should be considered. (15 comments)

**Examples:**

*“With the information given, I have to choose the difficult to match case, for two reasons. First, there will be fewer organs available for this case, and, current policy already prioritize pediatric cases. While I do not waver with this choice, I recognize the ‘fair innings’ and compassionate grounds that weigh in with pediatric cases. I have children and see this, but have to choose as I did.”*

*“I think again that a biologically difficult to match recipient should be given priority due to receiving significantly fewer offers.”*



## Biologically Difficult to Match Candidate vs Candidate who has been Waiting a Long Time

Comments analyzed: 57

- Time to next suitable offer for each candidate should be considered. (16 comments)

### Examples:

*"A biologically difficult to match recipient should be given priority over long wait time. Though both receive fewer offers, a good match is difficult to find, while a long wait time will have more future opportunities."*

*"Rare organs should go to the biologically difficult to match as we don't know how long they will have to wait for another offer."*

*"I think both factors need to be taken into consideration as they have differing complications, but someone with a difficult to match organ is limited on what organs they can take over someone who has more options (if they receive an offer)."*

- Being a biologically difficult to match candidate correlated with a long waiting time. (12 comments)

### Examples:

*"Biologically difficult to match is hard to define but is likely the same patient as someone who has been waiting a long time."*

*"This is harder to answer because I would imagine those who are difficult to match will also be those who are on the list for many years. But again, because they are hard to match, when they do match I feel they should receive priority over someone who has been waiting for a different reason."*

- Extremely long waiting time correlated with the candidate's level of need. (9 comments)

### Examples:

*"Time on list is really not that important for liver candidates - if anything it may show that they may not actually need a transplant."*

*"One might question the reason for someone to have been listed for 10-15 years. Other than a difficult match, it seems unlikely they would really need an organ, or that their selection criteria are too restrictive for them likely ever to find a suitable organ."*

## Biologically Difficult to Match Candidate vs Prior Living Donor

Comments analyzed: 56

- Time to next suitable offer for each candidate should be considered. (12 comments)

### **Examples:**

*“The biological person may only have a few chances, that would be more important because it may take a long time for them to have another match.”*

*“This is a difficult choice. The biologically difficult patient is at a distinct disadvantage due to the lack of enough organs available as well as appropriate matches. The prior organ donor has risked life in order to help another. I am not sure what is the best choice here.”*

*“Since a difficult to match will have less availability of finding a donor, this should trump a prior donor.”*

- We should honor prior living donors’ sacrifice. (8 comments)

### **Examples:**

*“I believe it is important that we honor former living donors.”*

*“Prior living donors must be protected, they have sacrificed and put themselves at risk to allow transplants to occur. Not prioritizing them sends a terrible message and could influence the decision of whether to donate on future potential donors.”*

- Prior living donors should not get special treatment. They donated for altruistic reasons and knew the risks. (7 comments)

### **Examples:**

*“Just because you donate you should not get to jump in front of others. You donate out of the goodness of your heart not as insurance.”*

*“You should not be moved to the top of the list just because you previously donated. That was a gift.”*

- Special considerations are needed if a prior living donor’s need for transplant is related to their prior donation. (7 comments)

### **Examples:**

*“I feel the same about this as I did about the prior living donor question. If the donor’s liver condition is as the result of donating (or a direct disadvantage due to donating) then the donor should be prioritized.”*

*“I think prioritizing live donors in the absence of donation-related organ failure is pretty biased.”*

## Biologically Difficult to Match Candidate vs Very Nearby Candidate

Comments analyzed: 76

- Special considerations are needed for DCD and other marginal donor livers. (22 comments)

### Examples:

*"I don't think proximity should matter unless travel time will impact the success of the transplant (DCD)."*

*"The exception to prioritizing a biologically difficult to match candidate would be for DCD donors particularly if there are transportation limitations due to the donor hospital and recovery taking place in a rural area with transportation challenges."*

*"Proximity should be weighted more heavily for DCD livers."*

- It is important to consider the effect of travel time and distance on graft and transplant outcomes. (17 comments)

### Examples:

*"With transportation as robust as it is, I don't think nearness of the recipient should play much of a factor at all, unless the organ runs a 50% or higher risk of becoming non-viable due to long-distance transport."*

*"But again, we need to take distance into consideration with moving these organs. We throw a lot of kidneys away every year because we can't get them to the destinations in time. We need to remember that livers can have even less cold time."*

*"So long as the PTRs distance is within a range that allows explant, travel, and transplant in a time that the liver remains viable I do not feel that the 'closer the better' applies. Difficult to match takes precedence here, in my opinion."*

- Time to next suitable offer for each candidate should be considered. (8 comments)

### Examples:

*"The biologically difficult candidate should have priority over a nearby candidate if the candidate has a very limited pool of matching donors."*

*"Fewer opportunities are afforded a biologically difficult match candidate."*

## Pediatric Candidate vs Candidate who has been Waiting a Long Time

Comments analyzed: 59

- Pediatric candidates deserve priority due to life-years benefit. (18 comments)

### Examples:

*“A chance at life should be prioritized over a long wait time.”*

*“The pediatric may have a chance to live longer, stronger life.”*

*“Life expectancy and quality should be the most important considerations.”*

- Extremely long waiting time correlated with the candidate’s level of need. (9 comments)

**Examples:**

*“Long waiting time (10-15 years) in liver transplant suggests against need for transplant and should almost be a negative factor (esp if greater than 2-3 years). Patients who would truly benefit from transplantation often have survival less than 2 years, thus these questions imply that the patients ‘waiting for 10-15 years’ on LT list should probably be delisted for being too healthy/recovery.”*

*“Clearly if someone has waited 10-15 years for a liver transplant they should not be waitlisted.”*

**Pediatric Candidate vs Prior Living Donor**

Comments analyzed: 48

- We should honor prior living donors’ sacrifice. (10 comments)

**Examples:**

*“Prior living donors are essential to protect, both as a matter of principle and as a message to potential donors that you will be protected in return for your sacrifice and risk.”*

*“While pediatric candidates are difficult to match with a suitable donor, prior living donors that go into organ failure are relatively few and should be given priority for making the initial selfless donation.”*

- Prior living donors should not get special treatment. They donated for altruistic reasons and knew the risks. (8 comments)

**Examples:**

*“The need for the pediatric liver outweighs the voluntary prior donor due to the choice the donor made and their knowledge of risks.”*

*“You donate organs out of the goodness of your heart, not to get to pass by all the people that have been waiting.”*

- Pediatric candidates deserve priority due to life-years benefit. (6 comments)

**Examples:**

*“Children’s growth, development, and entire future depend on functioning organs. They should be prioritized to give them any hope of a life.”*

*“A child has their full life ahead of them.”*

- Pediatric candidates have less options and more restrictions on the organ offers they can accept. (6 comments)

**Examples:**

*“While living donors should be given some priority, I believe the pediatric candidate should be prioritized due to the decreased amount of future donor offers.”*

*“Prior living donor has options for transplant with adult sized donor, and should not outweigh pediatric candidate for pediatric donor.”*

### Pediatric Candidate vs Very Nearby Candidate

Comments analyzed: 41

- Special considerations are needed for DCD and other marginal donor livers. (10 comments)

**Examples:**

*“Because this is limited to pediatric donors, I would prioritize pediatric candidates. These are going to be excellent donors that can tolerate long cold times and will benefit pediatric patients. Marginal grafts and DCD donors should be weighted more heavily for local allocation.”*

*“Proximity should be a factor in allocating DCD donors. Allocation should be based on MELD and PELD scores, however I also believe that centers needing long flights after organ recovery should be bypassed (ie: if the flight time required is over 4hrs, the candidate should be bypassed).”*

*“DCD liver should be prioritized for nearby candidates.”*

- It is important to consider the effect of travel time and distance on graft and transplant outcomes. (10 comments)

**Examples:**

*“Should depend on the condition of the liver and the time available to do the transplant without damaging the transplant liver.”*

*“Want the best outcome from the transplanted organ. Long extended CIT may lessen the time of functioning for the organ. Would not want to risk this outcome in a peds patient.”*

## Candidate who has been Waiting a Long Time vs Prior Living Donor

Comments analyzed: 33

- Special considerations are needed if a prior living donor's need for transplant is related to their prior donation. (7 comments)

### Examples:

*"Prioritization should be done if the liver failure is related to the resection for donation."*

*"I do feel a prior living donor should be given a stronger weight of priority, especially if the donor's liver is failing because it did not recover as expected."*

- We should honor prior living donors' sacrifice. (6 comments)

### Examples:

*"Reading it now, a person who donated part of their liver was selfless and needs to be prioritized over stable liver patients who are waiting."*

*"Living donors have already taken someone else 'off the waitlist.' We must honor our commitment to them and prioritize them if they have an organ need."*

- Prior living donors should not get special treatment. They donated for altruistic reasons and knew the risks. (6 comments)

### Examples:

*"Honestly I really don't think prior living donors should be given any priority based solely on their prior donation. If it wasn't safe or viable for them to donate then they wouldn't have been able to and if they developed a condition later in life then the normal priority system would/should take precedence."*

*"A living donor assumes all risks when deciding to donate."*

## Candidate who has been Waiting a Long Time vs Very Nearby Candidate

Comments analyzed: 49

- Special considerations are needed for DCD and other marginal donor livers. (17 comments)

### Examples:

*"Proximity should be weighted more heavily for organs from higher risk donors (DCD, elderly, steatotic)."*

*"Proximity for DCD donors definitely has a heavier weight than DBD donors but many programs now are looking to use pumps so proximity doesn't play as big of a role. I*

*expect there are programs that won't have access to pumps so agree that DCD should probably still have a heavier weight. Would also say proximity would weigh heavier with expedited offers, unless a pump is being used."*

- It is important to consider the effect of travel time and distance on graft and transplant outcomes. (7 comments)

**Examples:**

*"Waiting a long time is hard in many ways. I would prioritize the nearby candidate if there was concern for the organ's viability related to transportation."*

*"If the length of time outside the body decreases the chances for a successful outcome then the shorter distance is my choice."*

**Prior Living Donor vs Very Nearby Candidate**

Comments analyzed: 36

- Special considerations are needed for DCD and other marginal donor livers. (9 comments)

**Examples:**

*"As mentioned before, proximity need only be a consideration when the quality of the organ may be affected by travel, such as with DCD livers."*

*"DCD organ should have distance factored in."*

- It is important to consider the effect of travel time and distance on graft and transplant outcomes. (5 comments)

**Examples:**

*"The organ needs to go to the best candidate as long as the organ is not in jeopardy due to the travel distance."*

*"If the organ has a better chance to thrive by being transplanted sooner, this circumstance should have priority."*