User Guide

This report contains a wide range of useful information about the heart transplant program at NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP). The report has three main sections:

A. Program Summary
B. Waiting List Information
C. Transplant Information

The Program Summary is a one-page summary highlighting characteristics of the program, including the number of candidates on the waiting list, the number of transplants performed at the program, the number of patients being cared for by the program, and patient outcomes, including outcomes while on the waiting list (the transplant rate and the death rate while on the waiting list) and outcomes after transplant (patient and graft survival probabilities). If the program performed transplants in both adults and children, survival probabilities for adults and children (pediatrics) are provided separately. For each of the outcomes measures presented, a comparison is provided showing what would be expected at this program if it were performing as similar programs around the country perform when treating similar patients. More details regarding these outcome measures are provided in Sections B and C of the report.

The Waiting List Information section contains more detailed information on how many candidates are on the waiting list at the program, the types of candidates on the waiting list, how long candidates typically have to wait for a transplant at this program, how frequently candidates successfully receive a transplant, and how often candidates on the waiting list die before receiving a transplant.

Table B1 shows the activity on this program's waiting list during two recent 1-year periods and provides comparisons to all programs within this program's OPTN region (see http://optn.transplant.hrsa.gov/members/regions.asp for information on OPTN regions) and the nation as a whole. Tables B2 and B3 describe the candidates on the waiting list at this program, with comparisons to candidates waiting in the same donor service area (OPO/DSA) the OPTN region, and the nation as a whole.

Table B4 shows how many candidates were removed from the waiting list because they received a transplant. The program's transplant rate is calculated as the number of candidates who received a transplant divided by the person-years observed at the program (person-years is a combination of how many candidates were on the waiting list along with how long each candidate was followed since some candidates are not on the waiting list for the entire year). The transplant rate and comparisons to what would be expected at this program are presented in Figures B1 and B2. Figure B1 shows the transplant rate compared to what was expected at this program. The expected transplant rate is an estimate of what we would expect at this program if it were performing transplants at rates similar to other programs in the US with similar candidates on their waiting lists. The expected rate is only an estimate, and is made with a certain level of uncertainty. This uncertainty is shown in Figure B2. Figure B2 displays the ratio of the observed to the expected transplant rate. A ratio of 1 indicates that the observed transplant rate was equal to the expected transplant rate, while a ratio less than 1 indicates the observed rate was lower than expected rate and a ratio greater than 1 indicates the observed rate was higher than the expected rate. However, the level of uncertainty must be considered when interpreting these numbers. The 95% interval is also shown on Figure B2. This interval provides a range within which the true ratio of observed to expected transplant rates is likely to be. If this

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confidence interval includes (crosses) 1.0, then we cannot say that this program's observed transplant rate is different from what would be expected. The observed deceased donor transplant rate at this program was 49.3 per 100 person-years. Transplant rates are also provided for adult and pediatric patients separately along with comparisons to adult and pediatric rates in the DSA, the OPTN region, and the nation. Please refer to the PSR Technical Methods documentation available at http://www.srtr.org for more detail regarding how expected rates are calculated.

The death rate (also known as the mortality rate) for candidates on the waiting list is presented in Table B5 and Figures B4-B6. These data are presented in the same way as the transplant rate data in the previous section. The intent of these tables and figures is to describe risk of death once candidates are listed rather than while they are listed. Therefore, time at risk and deaths after removal from the waiting list for reasons other than transplant, transfer to another transplant program, or recovery (no longer needing a transplant), and before any subsequent transplant, are included. As with transplant rates, mortality rates should be interpreted carefully taking into consideration the interval displayed in Figure B5. For a complete description of how observed and expected mortality rates are calculated, please refer to the technical documentation available at http://www.srtr.org.

Table B6 presents information on what happens to candidates on the waiting list by three different time points after listing: 6 months, 12 months, and 18 months. The table displays percentages of candidates who have died, been removed from the waiting list, been transplanted, or been transferred or lost-to-follow-up. Tables B7 and B8 provide more detail regarding how many candidates have received a deceased donor transplant by certain time points during the first 3 years after being put on the transplant waiting list. Each row of Tables B7 and B8 presents the percent of candidates who received a deceased donor transplant by each time point. Table B9 presents data on the time it took for different percentages of patients to be transplanted for candidates added to the list between 01/01/2012 and 06/30/2017. The time it took for 5% (the 5th percentile) of patients to receive a transplant at this program was 0.5 months. If "Not Observed" is displayed in the table, then too few candidates received transplants before 12/31/2017 to calculate a particular percentile of transplant times.

Table B10 contains a summary of the offer acceptance practices of the program. The offer acceptance ratio indicates whether the program is more or less likely to accept offers than the average program. If the offer acceptance ratio is greater than 1.0, then the program tends to accept more offers than average; if the offer acceptance ratio is less than 1.0, then the program tends to accept fewer offers than average. Figures B7 shows the distribution of program offer acceptance rates as well as the offer acceptance rate for this program. Figures B8 - B11 similarly show offer acceptance rates for subsets of offers.

The Transplant Information section begins with descriptions of transplant recipients in Tables C1 and C2. Data on recipients of deceased donor transplants are presented (Tables C1D and C2D); if applicable, data on recipients of living donor transplants are presented separately (Tables C1L and C2L). Comparisons to the region and the nation as a whole are provided. A description of the deceased donors used at this program is provided in Table C3D, along with characteristics of living donors in Table C3L, if applicable. Finally, information on the transplant procedure for deceased and living donor transplants is presented in Tables C4D and C4L, respectively.

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Starting with Table C5, transplant outcomes are presented along with comparisons to what would be expected at this program and what happened in the nation as a whole. Tables C5-C10 present information on graft survival (survival of the transplanted organ), with data presented separately for adult and pediatric recipients. Patients are followed from the time of transplant until either failure of the transplanted organ or death, whichever comes first. Please refer to the technical methods for more information on these calculations (http://www.srtr.org).

While Tables C5-C10 present data on graft survival, Tables C11-C16 present information on patient survival. For these tables, patients are followed from the time of transplant until death, regardless of whether the transplant is functioning or the patient required another transplant to survive.

Tables C17 and C18 summarize the multiorgan transplant outcomes at this program. The summary statistics in these tables are descriptive and are not risk-adjusted for different donor and candidate characteristics.

Additional information regarding the technical methods and the risk adjustment models used to estimate expected event rates is available on the SRTR website at http://www.srtr.org. We welcome and encourage feedback on these reports. Please feel free to share feedback with the SRTR at the following e-mail: srtr@srtr.org.

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A. Program Summary

Figure A1. Waiting list and transplant activity

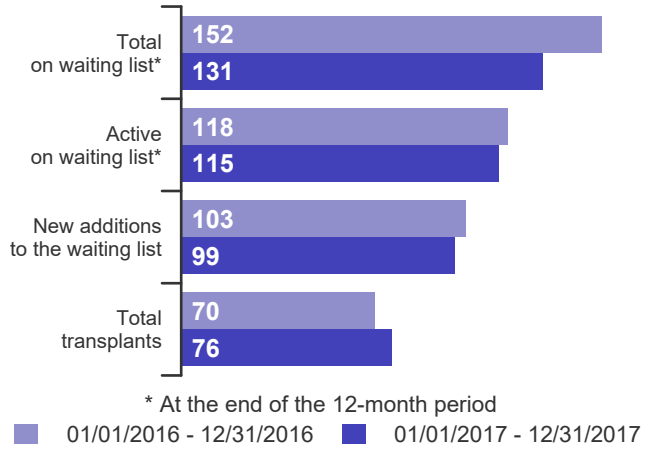


Table A1. Census of transplant recipients

Recipients	01/01/2016-12/31/2016	01/01/2017-12/31/2017
Transplanted at this center	70	76
Followed by this center*	835	755
...transplanted at this program	790	716
...transplanted elsewhere	45	39

* Recipients followed are transplant recipients for whom the center has submitted a post-transplant follow-up form for a transplant that took place before the 12-month interval for each column.

Figure A2. Transplant rates 01/01/2016 - 12/31/2017

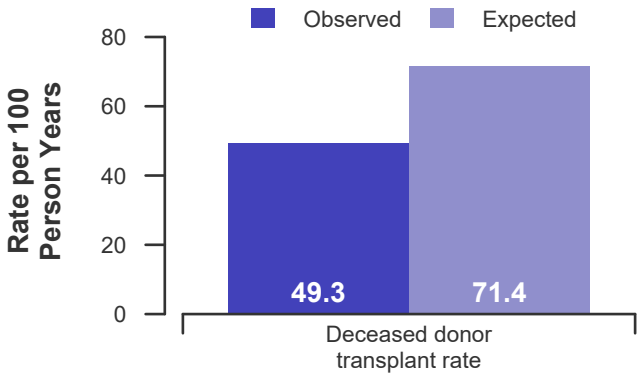


Figure A3. Waiting list mortality rates 01/01/2016 - 12/31/2017

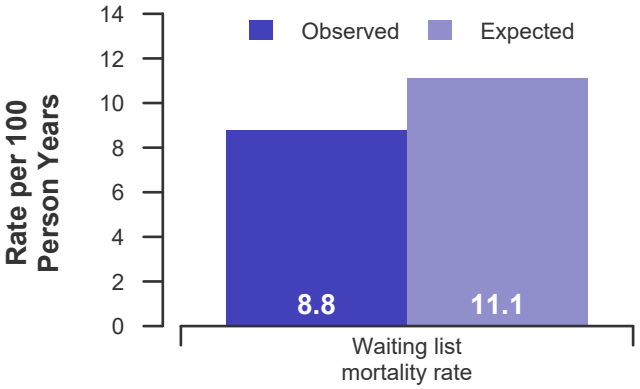


Figure A4. First-year adult graft and patient survival: 01/01/2015 - 06/30/2017

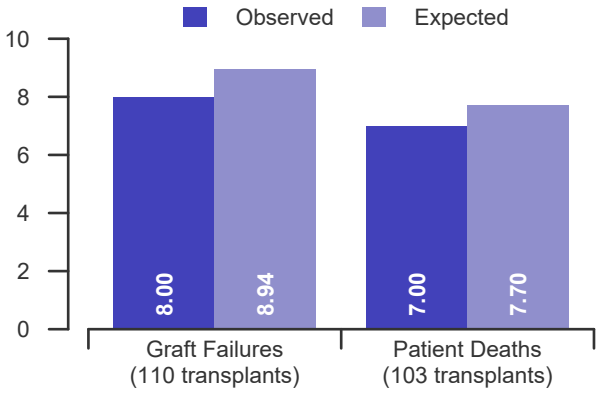
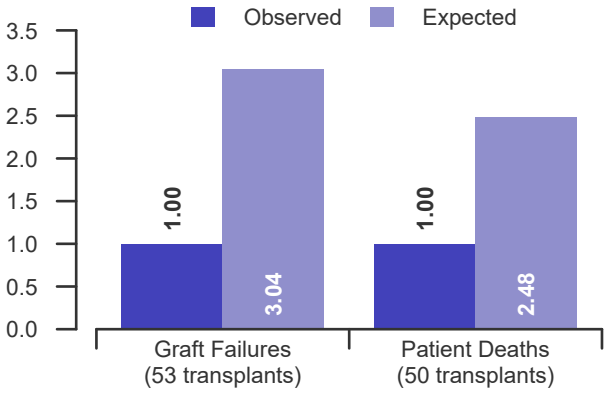


Figure A5. First-year pediatric graft and patient survival: 01/01/2015 - 06/30/2017



B. Waiting List Information

Table B1. Waiting list activity summary: 01/01/2016 - 12/31/2017

Waiting List Registrations	Counts for this center		Activity for 01/01/2017 to 12/31/2017 as percent of registrants on waiting list on 01/01/2017		
	01/01/2016-12/31/2016	01/01/2017-12/31/2017	This Center (%)	OPTN Region (%)	U.S. (%)
On waiting list at start	169	152	100.0	100.0	100.0
Additions					
New listings at this center	103	99	65.1	86.9	112.4
Removals					
Transferred to another center	18	3	2.0	1.5	2.8
Received living donor transplant*	0	0	0.0	0.0	0.0
Received deceased donor transplant*	70	76	50.0	60.2	80.3
Died	10	9	5.9	8.1	8.0
Transplanted at another center	10	7	4.6	2.3	1.3
Deteriorated	4	12	7.9	5.8	8.7
Recovered	6	5	3.3	2.9	5.8
Other reasons	2	8	5.3	4.9	7.6
On waiting list at end of period	152	131	86.2	101.2	97.9

* These patients were removed from waiting list with removal code indicating transplant; this may not equal the number of transplants performed at this center during the specified period.

B. Waiting List Information

Table B2. Demographic characteristics of waiting list candidates
Candidates registered on the waiting list between 01/01/2017 and 12/31/2017

Demographic Characteristic	New Waiting List Registrations 01/01/2017 to 12/31/2017 (%)			All Waiting List Registrations on 12/31/2017 (%)		
	This Center (N=99)	OPTN Region (N=299)	U.S. (N=4,536)	This Center (N=131)	OPTN Region (N=348)	U.S. (N=3,949)
All (%)	100.0	100.0	100.0	100.0	100.0	100.0
Ethnicity/Race (%)*						
White	57.6	53.2	60.8	56.5	50.9	59.8
African-American	18.2	23.4	23.9	19.1	25.6	26.3
Hispanic/Latino	16.2	15.7	10.3	18.3	17.5	10.2
Asian	7.1	5.4	3.9	6.1	4.6	2.9
Other	1.0	2.3	1.0	0.0	1.4	0.8
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Age (%)						
<2 years	12.1	7.4	6.0	3.8	3.4	2.9
2-11 years	8.1	3.7	4.0	2.3	1.4	3.9
12-17 years	10.1	4.3	4.0	0.8	1.1	2.8
18-34 years	6.1	5.7	9.2	10.7	9.2	11.5
35-49 years	20.2	16.7	18.4	31.3	25.6	22.8
50-64 years	29.3	42.1	42.1	38.2	42.2	43.8
65+ years	14.1	20.1	16.3	13.0	17.0	12.2
Other (includes prenatal)	0.0	0.0	0.0	0.0	0.0	0.0
Gender (%)						
Male	67.7	70.2	71.0	81.7	77.3	74.0
Female	32.3	29.8	29.0	18.3	22.7	26.0

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

B. Waiting List Information

Table B3. Medical characteristics of waiting list candidates
Candidates registered on the waiting list between 01/01/2017 and 12/31/2017

Medical Characteristic	New Waiting List Registrations 01/01/2017 to 12/31/2017 (%)			All Waiting List Registrations on 12/31/2017 (%)		
	This Center (N=99)	OPTN Region (N=299)	U.S. (N=4,536)	This Center (N=131)	OPTN Region (N=348)	U.S. (N=3,949)
All (%)	100.0	100.0	100.0	100.0	100.0	100.0
Blood Type (%)						
O	42.4	40.1	44.4	57.3	53.4	57.0
A	35.4	37.1	37.9	29.0	29.0	29.6
B	16.2	17.1	13.4	12.2	13.8	11.5
AB	6.1	5.7	4.2	1.5	3.7	2.0
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Previous Transplant (%)						
Yes	5.1	4.0	4.1	5.3	3.7	4.3
No	94.9	96.0	95.9	94.7	96.3	95.7
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Primary Disease (%)						
Cardiomyopathy	61.6	56.9	57.9	55.7	54.6	55.4
Coronary Artery Disease	14.1	27.1	26.0	26.7	31.6	29.1
Retransplant/Graft Failure	4.0	3.3	3.5	4.6	3.2	3.6
Valvular Heart Disease	1.0	1.0	0.9	1.5	2.0	0.9
Congenital Heart Disease	17.2	8.7	10.3	9.2	6.0	9.9
Other	2.0	3.0	1.3	2.3	2.6	1.2
Missing	0.0	0.0	0.0	0.0	0.0	0.0
Medical Urgency Status at Listing (%)						
Status 1A	41.4	45.5	31.4	21.4	22.7	13.3
Status 1B	37.4	36.5	41.6	36.6	42.8	41.1
Status 2	21.2	17.7	23.2	42.0	34.2	41.7
Temporarily Inactive	0.0	0.3	3.8	0.0	0.3	3.9

B. Waiting List Information

Table B4D. Deceased donor transplant rates: 01/01/2016 - 12/31/2017

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
All Candidates				
Count on waiting list at start*	168	319	347	4,181
Person Years**	296.1	638.5	686.1	8,166.2
Removals for Transplant	146	359	395	6,432
Adult (18+) Candidates				
Count on waiting list at start*	163	305	333	3,809
Person Years**	281.6	606.7	654.2	7,399.2
Removals for transpant	103	297	333	5,530
Pediatric (<18) Candidates				
Count on waiting list at start*	5	14	14	372
Person Years**	14.5	31.8	31.8	767.1
Removals for transplant	43	62	62	902

* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of the study period. Inactive time on the waiting list is included in the calculations for this table.

** Person years are calculated as days (converted to fractional years). The number of days from January 1 or from the date of first wait listing until death, transplant, removal from the waiting list or December 31.

Figure B1D. Observed and expected deceased donor transplant rates: 01/01/2016 - 12/31/2017

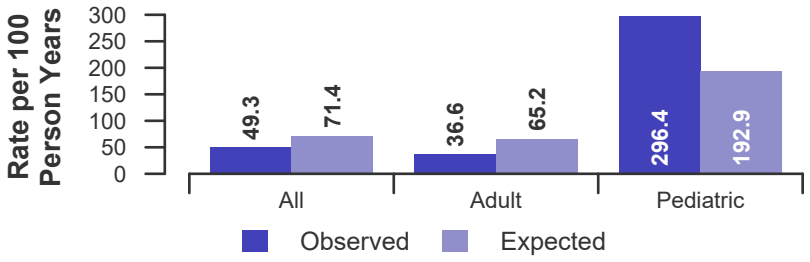


Figure B2D. Deceased donor transplant rate ratio estimate

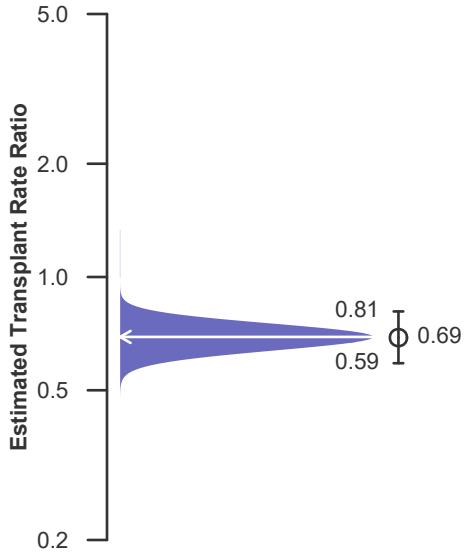
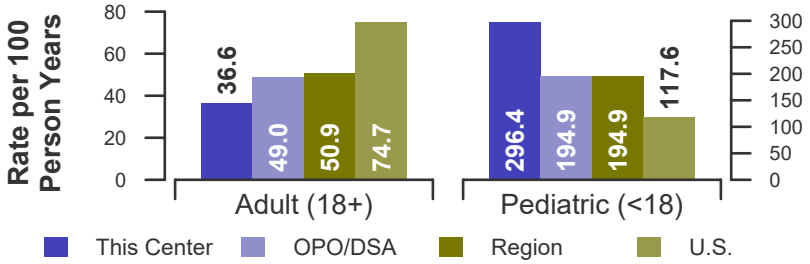


Figure B3D. Observed adult (18+) and pediatric (<18) deceased donor transplant rates: 01/01/2016 - 12/31/2017



B. Waiting List Information

Table B5. Waiting list mortality rates: 01/01/2016 - 12/31/2017

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
All Candidates				
Count on waiting list at start*	168	319	347	4,181
Person Years**	307.2	660.1	716.2	9,102.8
Number of deaths	27	62	68	1,048
Adult (18+) Candidates				
Count on waiting list at start*	163	305	333	3,809
Person Years**	289.3	623.3	679.4	8,256.8
Number of deaths	23	56	62	903
Pediatric (<18) Candidates				
Count on waiting list at start*	5	14	14	372
Person Years**	17.9	36.8	36.8	846.1
Number of deaths	4	6	6	145

* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of the study period. Inactive time on the waiting list is included in the calculations for this table.

** Person years are calculated as days (converted to fractional years). The number of days from January 1 or from the date of first wait listing until death, transplant, 60 days after recovery, transfer or December 31.

Figure B4. Observed and expected waiting list mortality rates: 01/01/2016 - 12/31/2017

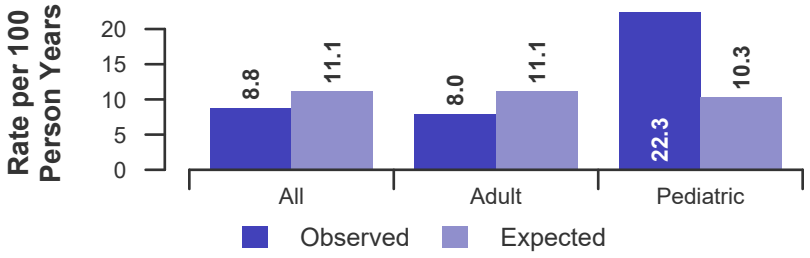


Figure B5. Waiting list mortality rate ratio estimate

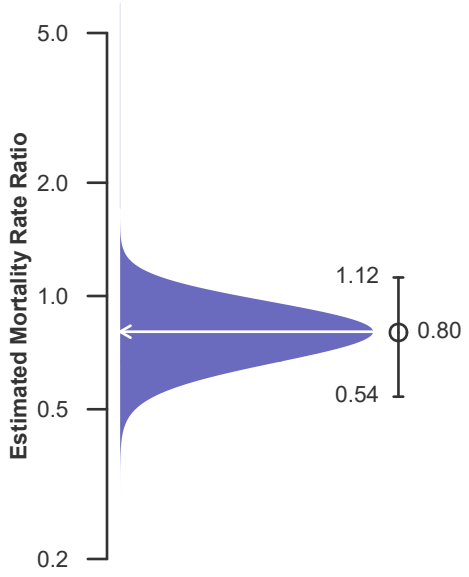
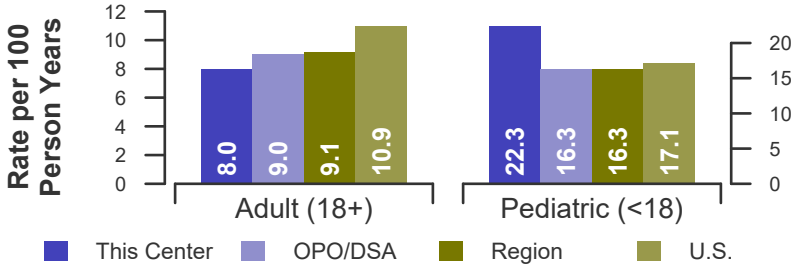


Figure B6. Observed adult (18+) and pediatric (<18) waiting list mortality rates: 01/01/2016 - 12/31/2017



B. Waiting List Information

Table B6. Waiting list candidate status after listing
Candidates registered on waiting list between 07/01/2015 and 06/30/2016

Waiting list status (survival status)	This Center (N=92) Months Since Listing			U.S. (N=4,332) Months Since Listing		
	6	12	18	6	12	18
Alive on waiting list (%)	48.9	28.3	19.6	42.9	26.9	18.6
Died on the waiting list without transplant (%)	1.1	3.3	3.3	5.1	5.9	6.3
Removed without transplant (%):						
Condition worsened (status unknown)	1.1	2.2	2.2	4.1	5.0	5.6
Condition improved (status unknown)	1.1	1.1	1.1	1.2	2.4	3.0
Refused transplant (status unknown)	1.1	1.1	1.1	0.2	0.3	0.3
Other	0.0	0.0	0.0	1.4	2.4	3.0
Transplant (living or deceased donor) (%):						
Functioning (alive)	39.1	46.7	48.9	42.0	51.1	48.3
Failed-Retransplanted (alive)	0.0	0.0	0.0	0.0	0.0	0.1
Failed-alive not retransplanted	0.0	0.0	0.0	0.0	0.0	0.0
Died	1.1	2.2	3.3	2.1	3.6	4.6
Status Yet Unknown*	1.1	8.7	14.1	0.3	1.4	8.8
Lost or Transferred (status unknown) (%)	5.4	6.5	6.5	0.7	1.0	1.3
TOTAL (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total % known died on waiting list or after transplant	2.2	5.4	6.5	7.2	9.5	10.9
Total % known died or removed as unstable	3.3	7.6	8.7	11.3	14.4	16.5
Total % removed for transplant	41.3	57.6	66.3	44.5	56.1	61.7
Total % with known functioning transplant (alive)	39.1	46.7	48.9	42.0	51.1	48.3

* Follow-up form covering specified time period not yet completed, and possibly has not become due.

B. Waiting List Information

Table B7. Percent of candidates with deceased donor transplants: demographic characteristics
Candidates registered on the waiting list between 01/01/2012 and 12/31/2014

Characteristic	Percent transplanted at time periods since listing									
	This Center					United States				
	N	30 day	1 year	2 years	3 years	N	30 day	1 year	2 years	3 years
All	392	8.7	39.5	49.0	52.6	11,978	15.8	52.6	61.0	64.0
Ethnicity/Race*										
White	187	5.3	30.5	42.2	44.9	7,602	16.1	52.7	61.4	64.2
African-American	107	9.3	42.1	53.3	58.9	2,713	14.0	49.6	57.7	61.2
Hispanic/Latino	64	9.4	50.0	54.7	56.2	1,118	15.1	54.4	61.8	64.8
Asian	33	24.2	63.6	63.6	69.7	418	23.4	64.4	71.3	73.7
Other	1	0.0	0.0	0.0	0.0	127	18.9	60.6	66.9	70.1
Unknown	0	--	--	--	--	0	--	--	--	--
Age										
<2 years	23	26.1	82.6	87.0	87.0	757	17.4	60.8	62.0	62.2
2-11 years	30	36.7	83.3	83.3	83.3	540	15.2	64.8	69.8	71.5
12-17 years	20	40.0	85.0	85.0	85.0	463	29.6	72.8	80.1	82.3
18-34 years	37	2.7	43.2	54.1	62.2	1,132	14.7	49.8	58.5	62.2
35-49 years	78	2.6	24.4	35.9	38.5	2,177	13.7	46.8	57.5	61.1
50-64 years	151	2.0	31.1	44.4	49.0	5,133	14.7	50.3	59.7	63.3
65+ years	53	5.7	22.6	28.3	32.1	1,774	18.3	56.0	62.6	64.1
Other (includes prenatal)	0	--	--	--	--	2	0.0	0.0	0.0	0.0
Gender										
Male	280	6.8	31.4	42.1	46.1	8,542	14.4	50.6	59.7	63.1
Female	112	13.4	59.8	66.1	68.8	3,436	19.4	57.7	64.2	66.2

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

B. Waiting List Information

Table B8. Percent of candidates with deceased donor transplants: medical characteristics
Candidates registered on the waiting list between 01/01/2012 and 12/31/2014

Characteristic	Percent transplanted at time periods since listing									
	This Center					United States				
	N	30 day	1 year	2 years	3 years	N	30 day	1 year	2 years	3 years
All	392	8.7	39.5	49.0	52.6	11,978	15.8	52.6	61.0	64.0
Blood Type										
O	172	5.8	26.7	33.7	39.5	5,324	10.1	43.8	52.9	56.8
A	119	7.6	42.0	57.1	59.7	4,403	19.7	58.4	66.7	69.2
B	77	10.4	54.5	59.7	61.0	1,677	18.1	58.7	66.1	68.3
AB	24	29.2	70.8	83.3	83.3	572	32.7	72.9	77.1	77.8
Previous Transplant										
Yes	29	0.0	41.4	41.4	44.8	510	13.7	46.9	52.7	55.1
No	363	9.4	39.4	49.6	53.2	11,468	15.9	52.9	61.4	64.4
Primary Disease										
Cardiomyopathy	213	10.3	41.3	51.2	55.4	6,474	17.0	53.8	62.6	65.9
Coronary Artery Disease	103	1.9	25.2	36.9	40.8	3,571	14.3	51.6	60.4	63.5
Retransplant/Graft Failure	27	0.0	40.7	40.7	44.4	453	13.9	47.5	53.2	55.6
Valvular Heart Disease	6	16.7	16.7	33.3	33.3	161	16.1	49.7	57.1	59.0
Congenital Heart Disease	40	22.5	72.5	80.0	80.0	1,166	14.9	52.8	58.2	59.7
Other	3	0.0	0.0	0.0	0.0	153	14.4	47.1	52.3	54.2
Missing	0	--	--	--	--	0	--	--	--	--
Medical Urgency Status at Listing										
Old Status 1	0	--	--	--	--	0	--	--	--	--
Status 1A	142	20.4	61.3	62.7	64.8	3,802	30.1	66.7	70.2	71.3
Status 1B	128	2.3	34.4	46.9	52.3	4,511	12.3	53.7	63.3	66.9
Status 2	122	1.6	19.7	35.2	38.5	3,239	5.1	36.6	48.7	53.3
Unknown	0	--	--	--	--	426	7.5	38.0	46.9	48.6

B. Waiting List Information

Table B9. Time to transplant for waiting list candidates*
Candidates registered on the waiting list between 01/01/2012 and 06/30/2017

	Months to Transplant**			
Percentile	**Center**	**OPO/DSA**	**Region**	**U.S.**
5th	0.5	0.6	0.6	0.3
10th	0.9	0.9	1	0.6
25th	3.3	2.7	3.0	1.9
50th (median time to transplant)	12.3	10.3	10.8	8.5
75th	Not Observed	Not Observed	Not Observed	Not Observed

* If cells contain "Not Observed" fewer than that percentile of patients had received a transplant. For example, the 50th percentile of time to transplant is the time when 50% of candidates have received transplants. If waiting times are long, then the 50th percentile may not be observed during the follow-up period for this table. Also, if more than 50% of candidates are removed from the list due to death or other reasons before receiving transplants, then the 50th percentile of time to transplant will not be observed.

** Censored on 12/31/2017. Calculated as the months after listing, during which the corresponding percent of all patients initially listed had received a transplant.

B. Waiting List Information

Table B10. Offer Acceptance Practices: 01/01/2017 - 12/31/2017

Offers Acceptance Characteristics	This Center	OPO/DSA	Region	U.S.
Overall				
Number of Offers	967	3,574	3,835	38,815
Number of Acceptances	74	168	188	3,011
Expected Acceptances	60.6	214.5	229.7	3,009.2
Offer Acceptance Ratio*	1.21	0.79	0.82	1.00
95% Credible Interval**	[0.96, 1.50]	--	--	--
PHS increased infectious risk				
Number of Offers	334	1,563	1,658	11,542
Number of Acceptances	18	55	65	840
Expected Acceptances	16.8	79.1	84.7	840.0
Offer Acceptance Ratio*	1.06	0.70	0.77	1.00
95% Credible Interval**	[0.65, 1.58]	--	--	--
Ejection fraction < 60				
Number of Offers	398	1,404	1,507	11,961
Number of Acceptances	23	57	62	887
Expected Acceptances	22.8	71.5	76.2	900.1
Offer Acceptance Ratio*	1.01	0.80	0.82	0.99
95% Credible Interval**	[0.65, 1.44]	--	--	--
Donor Age >= 40				
Number of Offers	347	1,264	1,397	14,640
Number of Acceptances	14	41	45	621
Expected Acceptances	12.3	53.9	57.9	625.9
Offer Acceptance Ratio*	1.12	0.77	0.79	0.99
95% Credible Interval**	[0.64, 1.72]	--	--	--
Hard-to-Place Hearts (Over 50 Offers)				
Number of Offers	468	1,493	1,582	10,590
Number of Acceptances	5	14	14	182
Expected Acceptances	11.0	30.2	31.6	182.8
Offer Acceptance Ratio*	0.54	0.50	0.48	1.00
95% Credible Interval**	[0.22, 1.00]	--	--	--
Donor more than 500 miles away				
Number of Offers	213	775	865	7,344
Number of Acceptances	15	29	31	328
Expected Acceptances	8.4	29.6	32.9	317.1
Offer Acceptance Ratio*	1.63	0.98	0.95	1.03
95% Credible Interval**	[0.95, 2.49]	--	--	--

* The offer acceptance ratio estimates the relative offer acceptance practice of NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP) compared to the national offer acceptance practice. A ratio above one indicates the program is more likely to accept an offer compared to national offer acceptance practices (e.g., an offer acceptance ratio of 1.25 indicates a 25% more likely to accept an offer), while a ratio below one indicates the program is less likely to accept an offer compared to national offer acceptance practices (e.g., an offer acceptance ratio of 0.75 indicates a 25% less likely to accept an offer).
** As an example, the 95% Credible Interval for the overall offer acceptance ratio, [0.96, 1.50], indicates the location of NYCP's true offer acceptance ratio with 95% probability. The best estimate is 21% more likely to accept an offer compared to national acceptance behavior, but NYCP's performance could plausibly range from 4% reduced acceptance up to 50% higher acceptance.

B. Waiting List Information

Figure B7. Offer acceptance: Overall

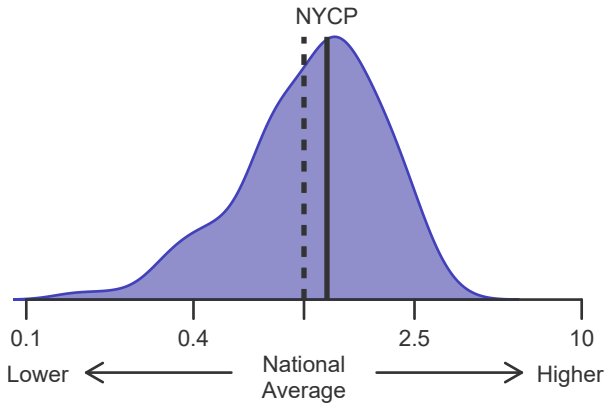


Figure B8. Offer acceptance: PHS increased infectious risk

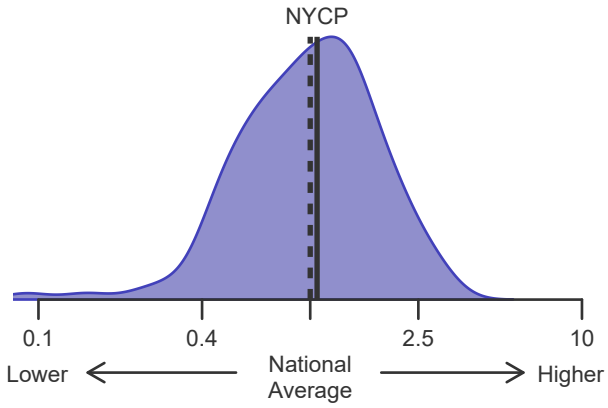


Figure B9. Offer acceptance: Ejection fraction < 60

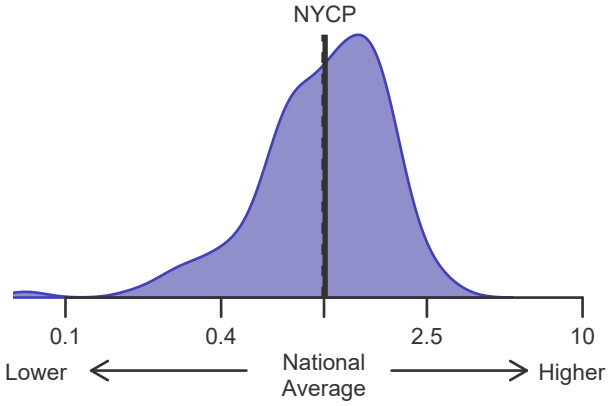


Figure B10. Offer acceptance: Donor age >= 40

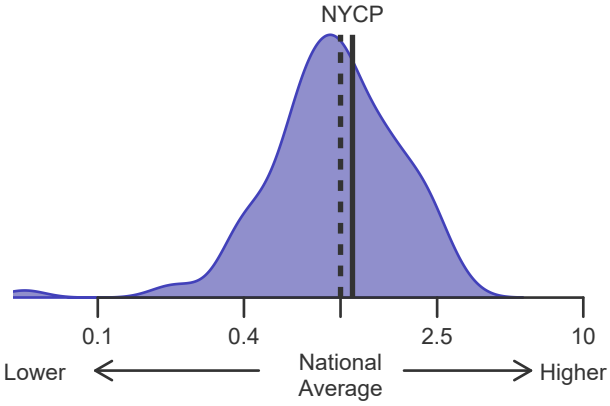


Figure B11. Offer acceptance: Offer number > 50

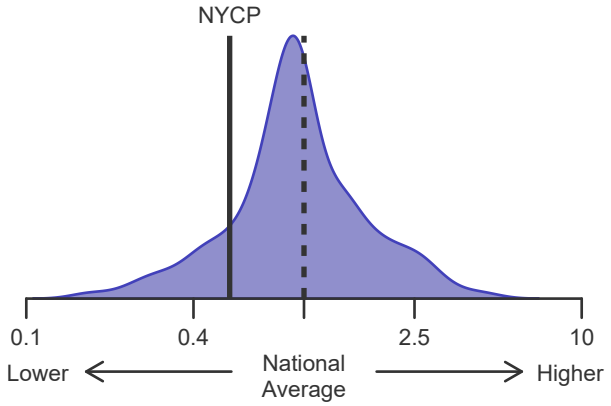
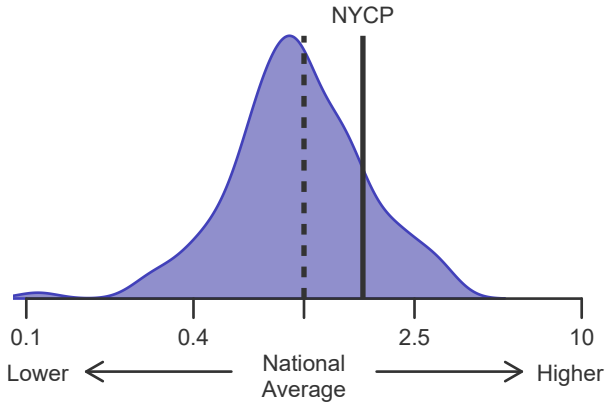


Figure B12. Offer acceptance: Donor more than 500 miles away



C. Transplant Information

Table C1D. Deceased donor transplant recipient demographic characteristics
Patients transplanted between 01/01/2017 and 12/31/2017

Characteristic	Percentage in each category		
	Center (N=76)	Region (N=207)	U.S. (N=3,242)
Ethnicity/Race (%)*			
White	44.7	47.3	61.6
African-American	30.3	32.9	23.5
Hispanic/Latino	14.5	13.5	10.0
Asian	9.2	5.3	4.1
Other	1.3	1.0	0.9
Unknown	0.0	0.0	0.0
Age (%)			
<2 years	7.9	5.8	4.8
2-11 years	6.6	2.9	4.0
12-17	13.2	5.8	4.5
18-34	13.2	9.2	9.5
35-49 years	18.4	20.3	17.7
50-64 years	30.3	41.1	41.9
65+ years	10.5	15.0	17.6
Unknown	0.0	0.0	0.0
Gender (%)			
Male	57.9	68.1	71.6
Female	42.1	31.9	28.4

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

C. Transplant Information

Table C2D. Deceased donor transplant recipient medical characteristics
Patients transplanted between 01/01/2017 and 12/31/2017

Characteristic	Percentage in each category		
	Center (N=76)	Region (N=207)	U.S. (N=3,242)
Blood Type (%)			
O	34.2	37.2	40.2
A	42.1	36.2	40.2
B	18.4	21.7	14.3
AB	5.3	4.8	5.3
Previous Transplant (%)			
Yes	6.6	3.4	3.0
No	93.4	96.6	97.0
Body Mass Index (%)			
0-20	26.3	17.4	17.1
21-25	34.2	33.8	29.1
26-30	21.1	28.0	29.8
31+	18.4	20.8	23.5
Unknown	0.0	0.0	0.5
Primary Disease (%)			
Cardiomyopathy	72.4	66.2	62.2
Coronary Artery Disease	11.8	25.1	26.4
Retransplant/Graft Failure	0.0	0.0	0.0
Valvular Heart Disease	0.0	1.0	0.9
Congenital Heart Disease	14.5	7.2	9.6
Other	1.3	0.5	0.9
Missing	0.0	0.0	0.1
Medical Urgency Status at Transplant (%)			
Status 1A	88.2	88.9	68.4
Status 1B	10.5	10.6	29.1
Status 2	1.3	0.5	2.4
Temporarily Inactive	0.0	0.0	0.0
Recipient Medical Condition at Transplant (%)			
Not Hospitalized	44.7	43.0	50.3
Hospitalized	15.8	23.7	16.6
ICU	39.5	33.3	33.1
Unknown	0.0	0.0	0.0
Recipient Mechanical, Ventilated or Organ-Perfusion Support Status at Transplant (%)			
No Support Mechanism	3.9	7.7	15.9
Devices*	69.7	67.1	55.1
Other Support Mechanism	26.3	25.1	29.1
Unknown	0.0	0.0	0.0

* Devices include ventricular assist devices (VAD), extracorporeal membrane oxygenation (ECMO), intraaortic balloon pump (IABP), and total artificial heart (TAH).

C. Transplant Information

Table C3D. Deceased donor characteristics
Transplants performed between 01/01/2017 and 12/31/2017

Donor Characteristic	Percentage in each category		
	Center (N=76)	Region (N=207)	U.S. (N=3,242)
Cause of Death (%)			
Deceased: Stroke	11.8	13.5	14.5
Deceased: MVA	15.8	16.9	21.9
Deceased: Other	72.4	69.6	63.6
Ethnicity/Race (%)*			
White	61.8	63.8	64.3
African-American	15.8	17.4	16.8
Hispanic/Latino	18.4	16.4	16.0
Asian	3.9	2.4	1.9
Other	0.0	0.0	1.0
Not Reported	0.0	0.0	0.0
Age (%)			
<2 years	9.2	4.8	4.1
2-11 years	7.9	4.8	4.2
12-17	19.7	9.7	8.0
18-34	36.8	47.8	51.8
35-49 years	15.8	22.2	25.4
50-64 years	10.5	10.6	6.6
65+ years	0.0	0.0	0.0
Unknown	0.0	0.0	0.0
Gender (%)			
Male	46.1	63.8	68.7
Female	53.9	36.2	31.3
Blood Type (%)			
O	39.5	44.9	50.2
A	42.1	36.2	37.2
B	15.8	15.0	10.2
AB	2.6	3.9	2.4
Unknown	0.0	0.0	0.0

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

C. Transplant Information

Table C4D. Deceased donor transplant characteristics
Transplants performed between 01/01/2017 and 12/31/2017

Transplant Characteristic	Percentage in each category		
	Center (N=76)	Region (N=207)	U.S. (N=3,242)
Total Ischemic Time (Minutes): Local (%)			
Deceased: 0-90 min	9.5	16.9	8.6
Deceased: 91-180 min	85.7	68.8	58.3
Deceased: 181-270 min	4.8	10.4	30.2
Deceased: 271-360 min	0.0	1.3	2.1
Deceased: 361+ min	0.0	1.3	0.5
Not Reported	0.0	1.3	0.4
Total Ischemic Time (Minutes): Shared (%)			
Deceased: 0-90 min	0.0	1.5	1.0
Deceased: 91-180 min	20.0	17.7	13.1
Deceased: 181-270 min	72.7	69.2	71.3
Deceased: 271-360 min	7.3	10.0	12.8
Deceased: 361+ min	0.0	0.8	1.4
Not Reported	0.0	0.8	0.5
Procedure Type (%)			
Heart alone	97.4	91.3	93.3
Heart and another organ	2.6	8.7	6.7
Sharing (%)			
Local	27.6	37.2	59.6
Shared	72.4	62.8	40.4
Median Time in Hospital After Transplant*	22.0 Days	21.0 Days	16.0 Days

* Multiple organ transplants are excluded from this statistic.

C. Transplant Information

Table C5D. Adult (18+) 1-month survival with a functioning deceased donor graft
Single organ transplants performed between 01/01/2015 and 06/30/2017
Deaths and retransplants are considered graft failures

	NYCP	U.S.
Number of transplants evaluated	110	6,028
Estimated probability of surviving with a functioning graft at 1 month (unadjusted for patient and donor characteristics)	100.00%	96.28%
Expected probability of surviving with a functioning graft at 1 month (adjusted for patient and donor characteristics)	96.46%	--
Number of observed graft failures (including deaths) during the first month after transplant	0	224
Number of expected graft failures (including deaths) during the first month after transplant	3.98	--
Estimated hazard ratio*	0.33	--
95% credible interval for the hazard ratio**	[0.04, 0.93]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.04, 0.93], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 67% lower risk of graft failure compared to an average program, but NYCP's performance could plausibly range from 96% reduced risk up to 7% reduced risk.

Figure C1D. Adult (18+) 1-month deceased donor graft failure HR estimate

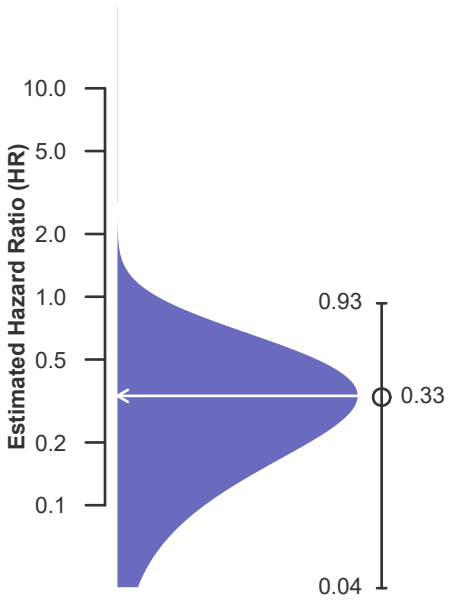
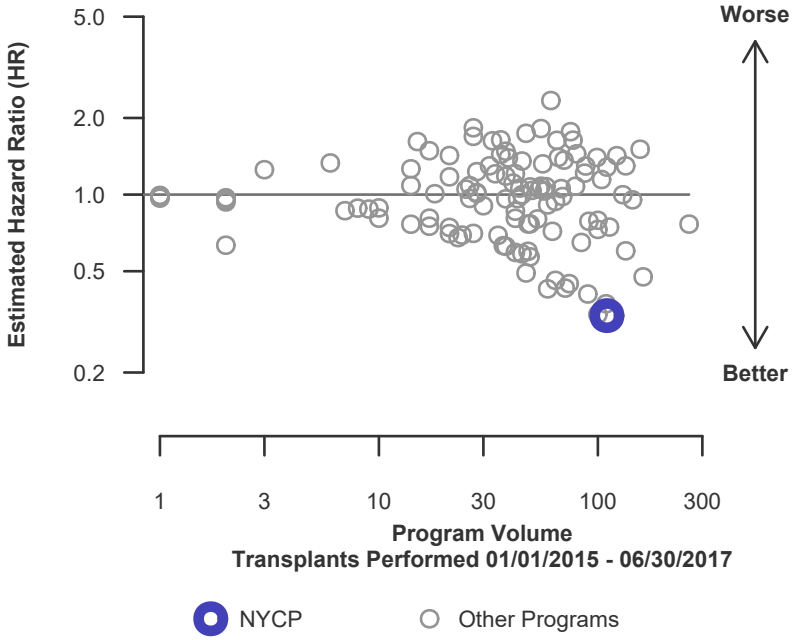


Figure C2D. Adult (18+) 1-month deceased donor graft failure HR program comparison



C. Transplant Information

Table C6D. Adult (18+) 1-year survival with a functioning deceased donor graft
Single organ transplants performed between 01/01/2015 and 06/30/2017
Deaths and retransplants are considered graft failures

	NYCP	U.S.
Number of transplants evaluated	110	6,028
Estimated probability of surviving with a functioning graft at 1 year (unadjusted for patient and donor characteristics)	91.88%	91.42%
Expected probability of surviving with a functioning graft at 1 year (adjusted for patient and donor characteristics)	91.69%	--
Number of observed graft failures (including deaths) during the first year after transplant	8	496
Number of expected graft failures (including deaths) during the first year after transplant	8.94	--
Estimated hazard ratio*	0.91	--
95% credible interval for the hazard ratio**	[0.44, 1.56]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.44, 1.56], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 9% lower risk of graft failure compared to an average program, but NYCP's performance could plausibly range from 56% reduced risk up to 56% increased risk.

Figure C3D. Adult (18+) 1-year deceased donor graft failure HR estimate

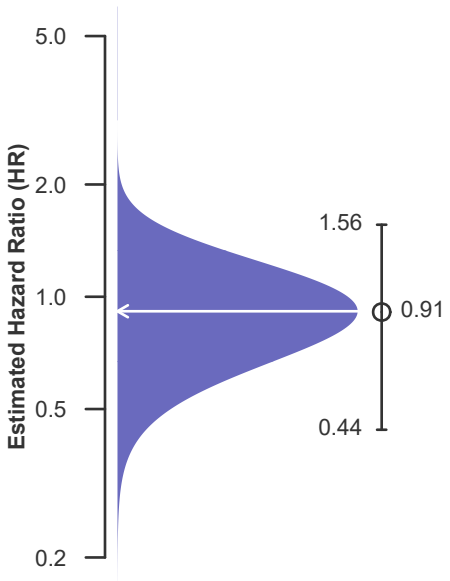
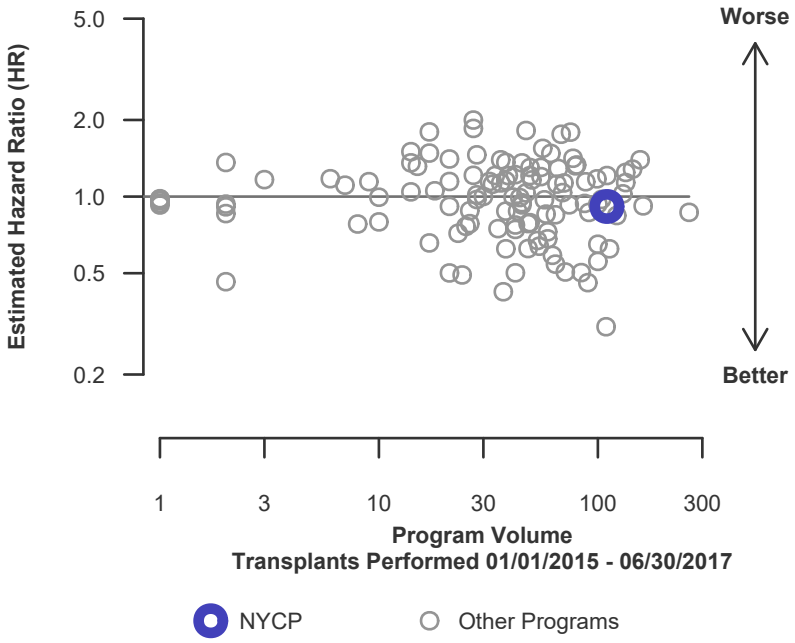


Figure C4D. Adult (18+) 1-year deceased donor graft failure HR program comparison



C. Transplant Information

Table C7D. Adult (18+) 3-year survival with a functioning deceased donor graft
Single organ transplants performed between 07/01/2012 and 12/31/2014
Deaths and retransplants are considered graft failures

	NYCP	U.S.
Number of transplants evaluated	133	5,074
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	84.21%	84.79%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	83.48%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	21	772
Number of expected graft failures (including deaths) during the first 3 years after transplant	21.97	--
Estimated hazard ratio*	0.96	--
95% credible interval for the hazard ratio**	[0.61, 1.39]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.61, 1.39], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 4% lower risk of graft failure compared to an average program, but NYCP's performance could plausibly range from 39% reduced risk up to 39% increased risk.

Figure C5D. Adult (18+) 3-year deceased donor graft failure HR estimate

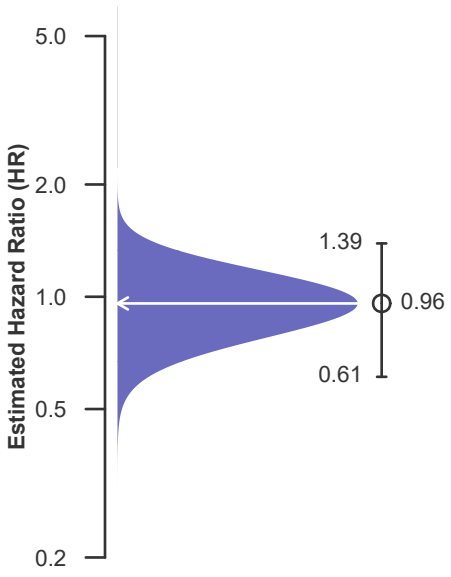
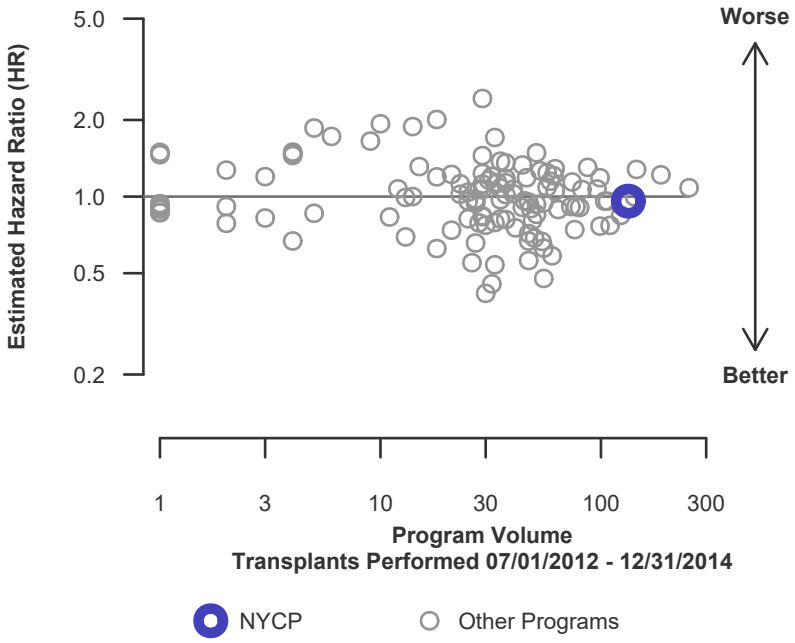


Figure C6D. Adult (18+) 3-year deceased donor graft failure HR program comparison



C. Transplant Information

Table C8D. Pediatric (<18) 1-month survival with a functioning deceased donor graft
Single organ transplants performed between 01/01/2015 and 06/30/2017
Deaths and retransplants are considered graft failures

	NYCP	U.S.
Number of transplants evaluated	53	1,122
Estimated probability of surviving with a functioning graft at 1 month (unadjusted for patient and donor characteristics)	100.00%	97.59%
Expected probability of surviving with a functioning graft at 1 month (adjusted for patient and donor characteristics)	97.87%	--
Number of observed graft failures (including deaths) during the first month after transplant	0	27
Number of expected graft failures (including deaths) during the first month after transplant	1.14	--
Estimated hazard ratio*	0.64	--
95% credible interval for the hazard ratio**	[0.08, 1.77]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.08, 1.77], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 36% lower risk of graft failure compared to an average program, but NYCP's performance could plausibly range from 92% reduced risk up to 77% increased risk.

Figure C7D. Pediatric (<18) 1-month deceased donor graft failure HR estimate

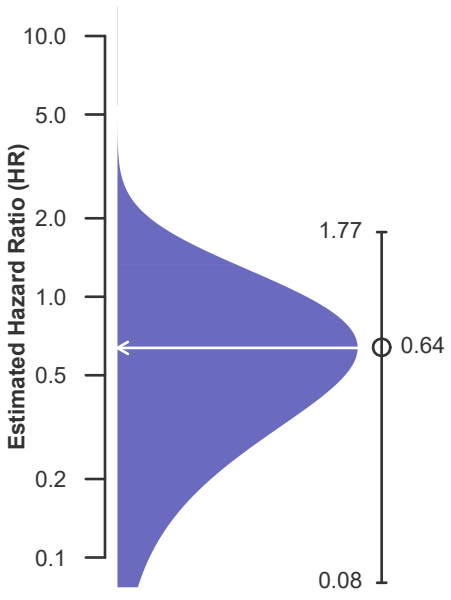
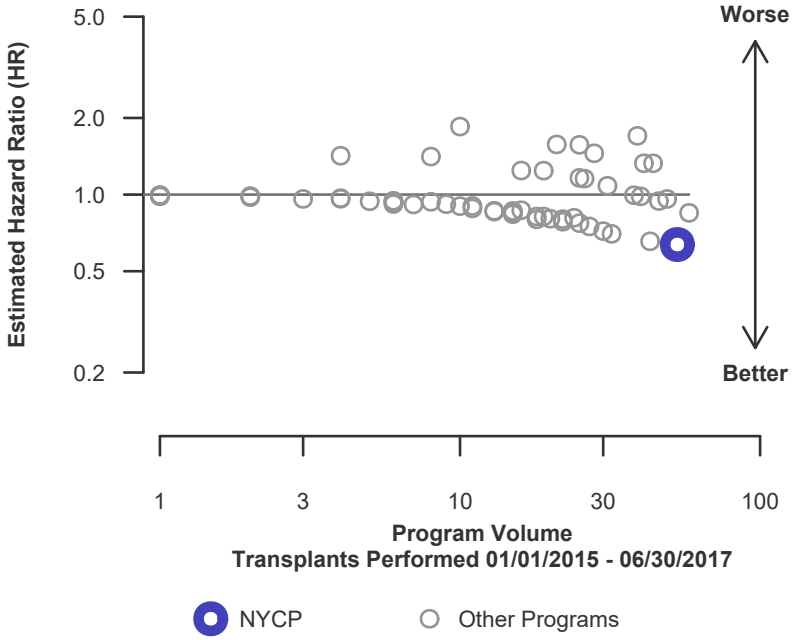


Figure C8D. Pediatric (<18) 1-month deceased donor graft failure HR program comparison



C. Transplant Information

Table C9D. Pediatric (<18) 1-year survival with a functioning deceased donor graft
Single organ transplants performed between 01/01/2015 and 06/30/2017
Deaths and retransplants are considered graft failures

	NYCP	U.S.
Number of transplants evaluated	53	1,122
Estimated probability of surviving with a functioning graft at 1 year (unadjusted for patient and donor characteristics)	97.56%	93.41%
Expected probability of surviving with a functioning graft at 1 year (adjusted for patient and donor characteristics)	94.13%	--
Number of observed graft failures (including deaths) during the first year after transplant	1	71
Number of expected graft failures (including deaths) during the first year after transplant	3.04	--
Estimated hazard ratio*	0.60	--
95% credible interval for the hazard ratio**	[0.12, 1.43]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.12, 1.43], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 40% lower risk of graft failure compared to an average program, but NYCP's performance could plausibly range from 88% reduced risk up to 43% increased risk.

Figure C9D. Pediatric (<18) 1-year deceased donor graft failure HR estimate

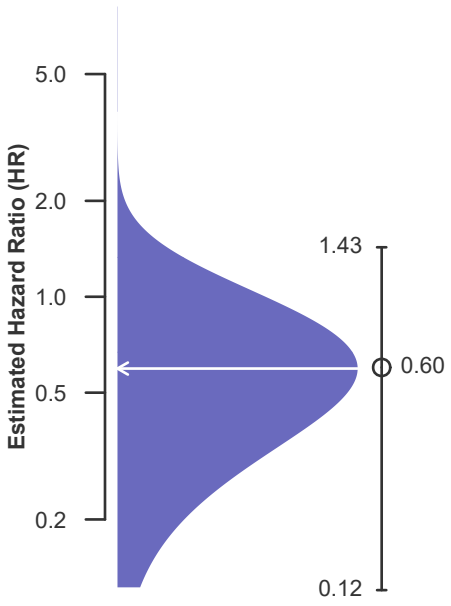
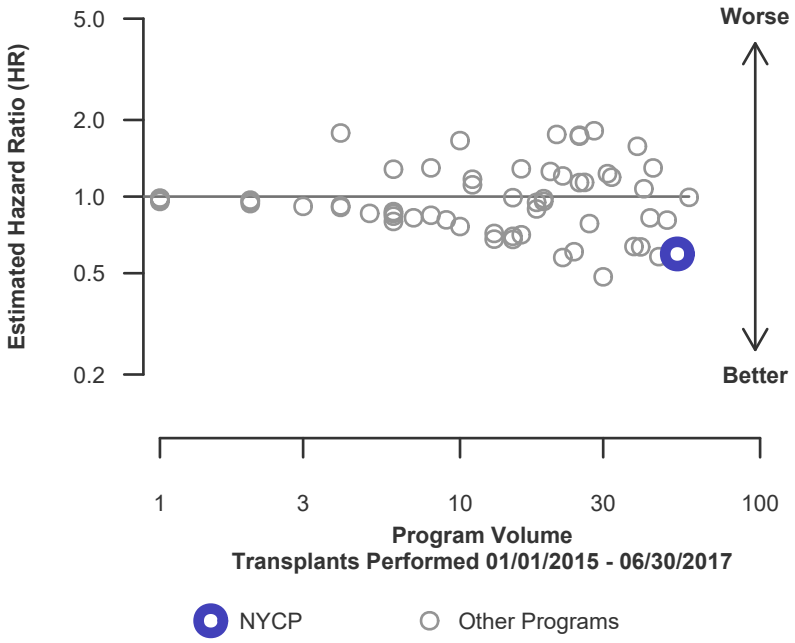


Figure C10D. Pediatric (<18) 1-year deceased donor graft failure HR program comparison



C. Transplant Information

Table C10D. Pediatric (<18) 3-year survival with a functioning deceased donor graft
Single organ transplants performed between 07/01/2012 and 12/31/2014
Deaths and retransplants are considered graft failures

	NYCP	U.S.
Number of transplants evaluated	52	1,009
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	94.23%	87.61%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	87.62%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	3	125
Number of expected graft failures (including deaths) during the first 3 years after transplant	6.67	--
Estimated hazard ratio*	0.58	--
95% credible interval for the hazard ratio**	[0.19, 1.18]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.19, 1.18], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 42% lower risk of graft failure compared to an average program, but NYCP's performance could plausibly range from 81% reduced risk up to 18% increased risk.

Figure C11D. Pediatric (<18) 3-year deceased donor graft failure HR estimate

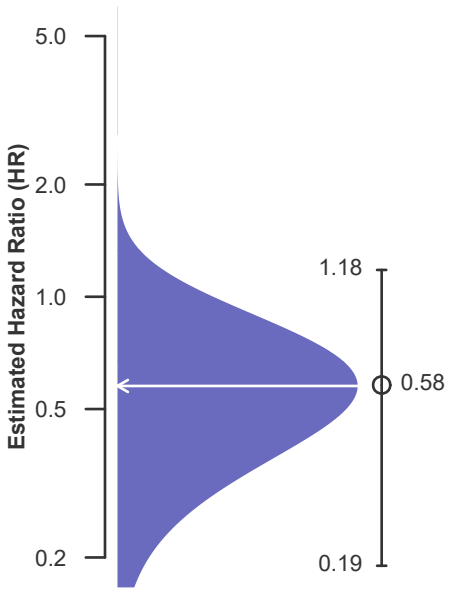
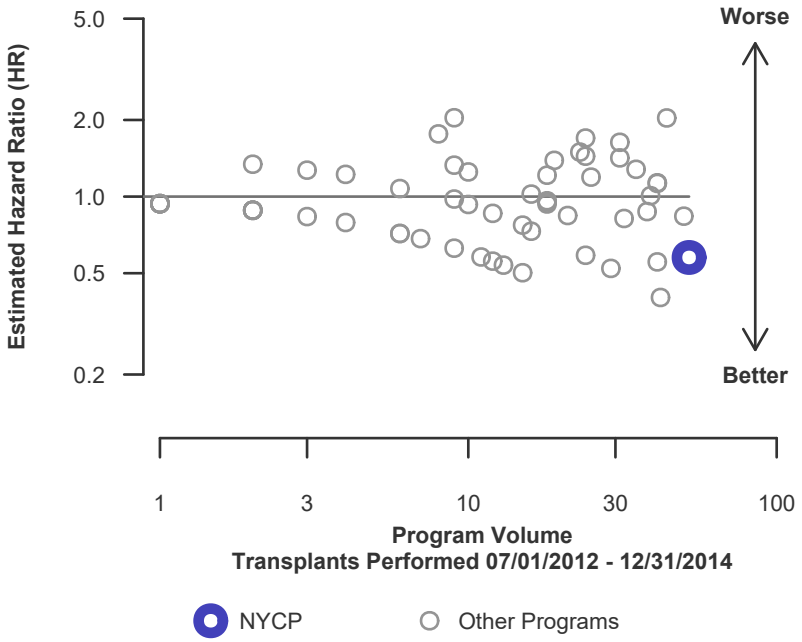


Figure C12D. Pediatric (<18) 3-year deceased donor graft failure HR program comparison



C. Transplant Information

Table C11D. Adult (18+) 1-month patient survival (deceased donor graft recipients)
Single organ transplants performed between 01/01/2015 and 06/30/2017
Retransplants excluded

	NYCP	U.S.
Number of transplants evaluated	103	5,900
Estimated probability of surviving at 1 month (unadjusted for patient and donor characteristics)	100.00%	96.47%
Expected probability of surviving at 1 month (adjusted for patient and donor characteristics)	96.78%	--
Number of observed deaths during the first month after transplant	0	208
Number of expected deaths during the first month after transplant	3.38	--
Estimated hazard ratio*	0.37	--
95% credible interval for the hazard ratio**	[0.05, 1.04]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.05, 1.04], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 63% lower risk of patient death compared to an average program, but NYCP's performance could plausibly range from 95% reduced risk up to 4% increased risk.

Figure C13D. Adult (18+) 1-month patient death HR estimate (deceased donor grafts)

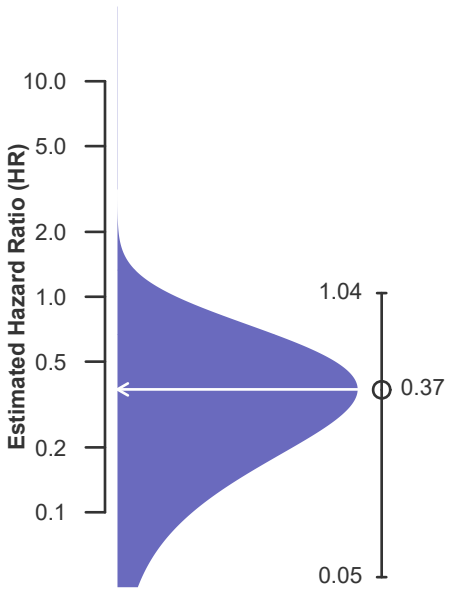
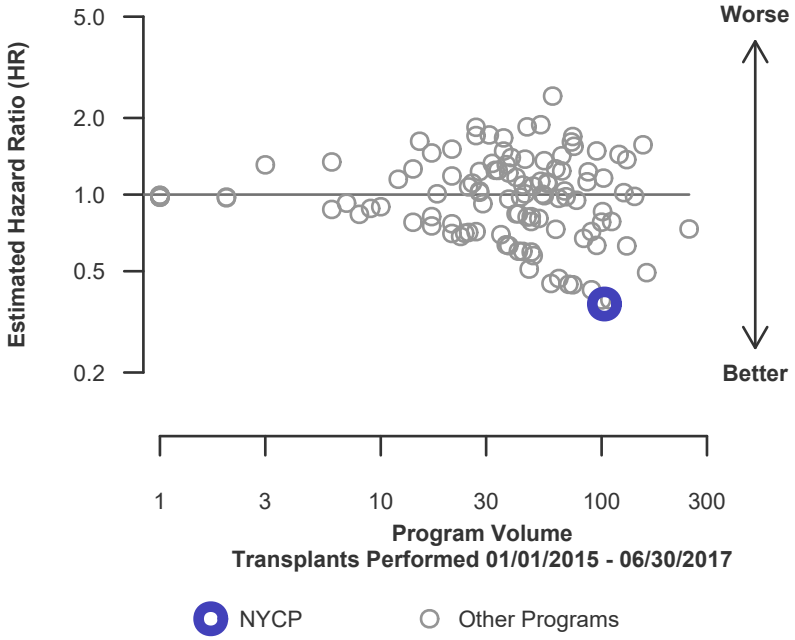


Figure C14D. Adult (18+) 1-month patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C12D. Adult (18+) 1-year patient survival (deceased donor graft recipients)
Single organ transplants performed between 01/01/2015 and 06/30/2017
Retransplants excluded

	NYCP	U.S.
Number of transplants evaluated	103	5,900
Estimated probability of surviving at 1 year (unadjusted for patient and donor characteristics)	92.32%	91.77%
Expected probability of surviving at 1 year (adjusted for patient and donor characteristics)	92.34%	--
Number of observed deaths during the first year after transplant	7	466
Number of expected deaths during the first year after transplant	7.70	--
Estimated hazard ratio*	0.93	--
95% credible interval for the hazard ratio**	[0.42, 1.62]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.42, 1.62], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 7% lower risk of patient death compared to an average program, but NYCP's performance could plausibly range from 58% reduced risk up to 62% increased risk.

Figure C15D. Adult (18+) 1-year patient death HR estimate (deceased donor grafts)

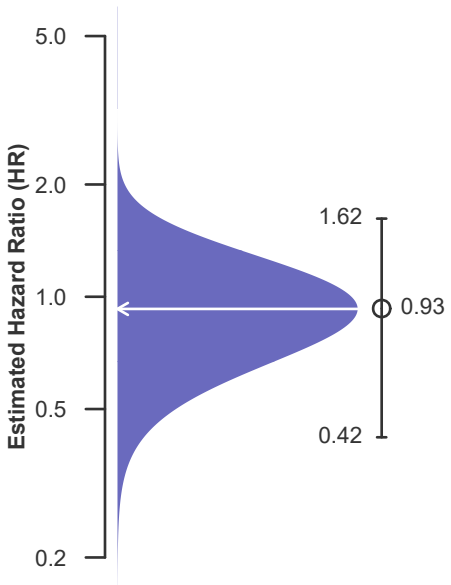
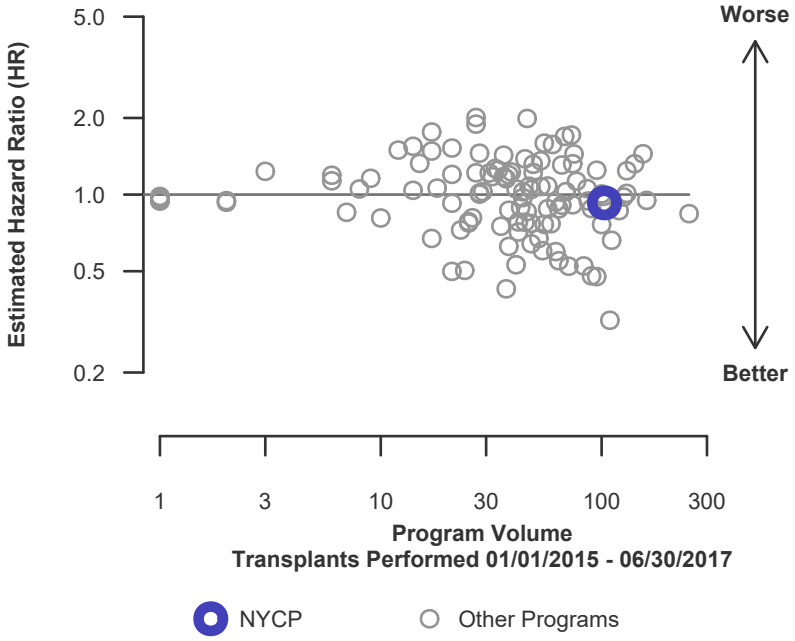


Figure C16D. Adult (18+) 1-year patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C13D. Adult (18+) 3-year patient survival (deceased donor graft recipients)
Single organ transplants performed between 07/01/2012 and 12/31/2014
Retransplants excluded

	NYCP	U.S.
Number of transplants evaluated	126	4,935
Estimated probability of surviving at 3 years (unadjusted for patient and donor characteristics)	84.13%	85.41%
Expected probability of surviving at 3 years (adjusted for patient and donor characteristics)	84.36%	--
Number of observed deaths during the first 3 years after transplant	20	720
Number of expected deaths during the first 3 years after transplant	19.45	--
Estimated hazard ratio*	1.03	--
95% credible interval for the hazard ratio**	[0.64, 1.50]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.64, 1.50], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 3% higher risk of patient death compared to an average program, but NYCP's performance could plausibly range from 36% reduced risk up to 50% increased risk.

Figure C17D. Adult (18+) 3-year patient death HR estimate (deceased donor grafts)

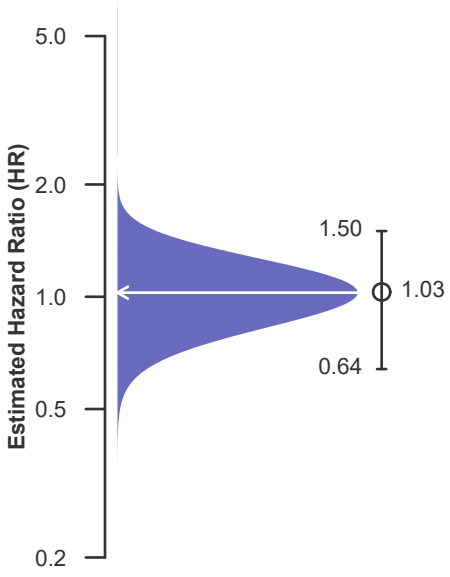
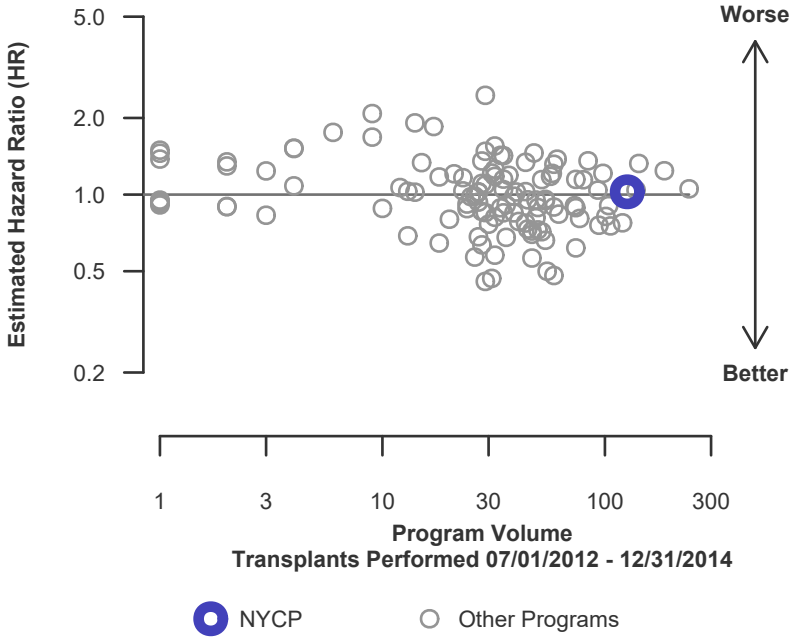


Figure C18D. Adult (18+) 3-year patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C14D. Pediatric (<18) 1-month patient survival (deceased donor graft recipients)
Single organ transplants performed between 01/01/2015 and 06/30/2017
Retransplants excluded

	NYCP	U.S.
Number of transplants evaluated	50	1,066
Estimated probability of surviving at 1 month (unadjusted for patient and donor characteristics)	100.00%	97.75%
Expected probability of surviving at 1 month (adjusted for patient and donor characteristics)	98.24%	--
Number of observed deaths during the first month after transplant	0	24
Number of expected deaths during the first month after transplant	0.89	--
Estimated hazard ratio*	0.69	--
95% credible interval for the hazard ratio**	[0.08, 1.93]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.08, 1.93], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 31% lower risk of patient death compared to an average program, but NYCP's performance could plausibly range from 92% reduced risk up to 93% increased risk.

Figure C19D. Pediatric (<18) 1-month patient death HR estimate (deceased donor grafts)

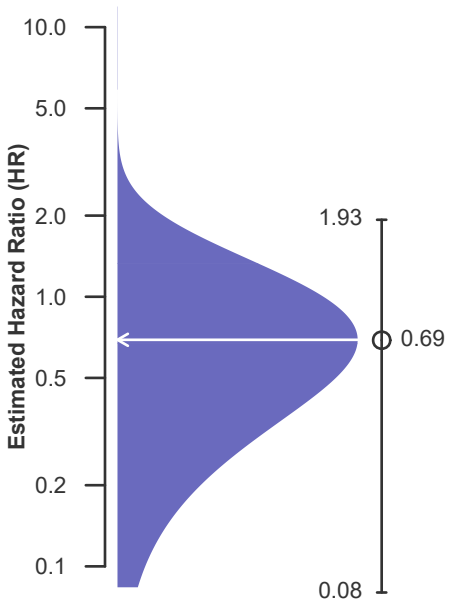
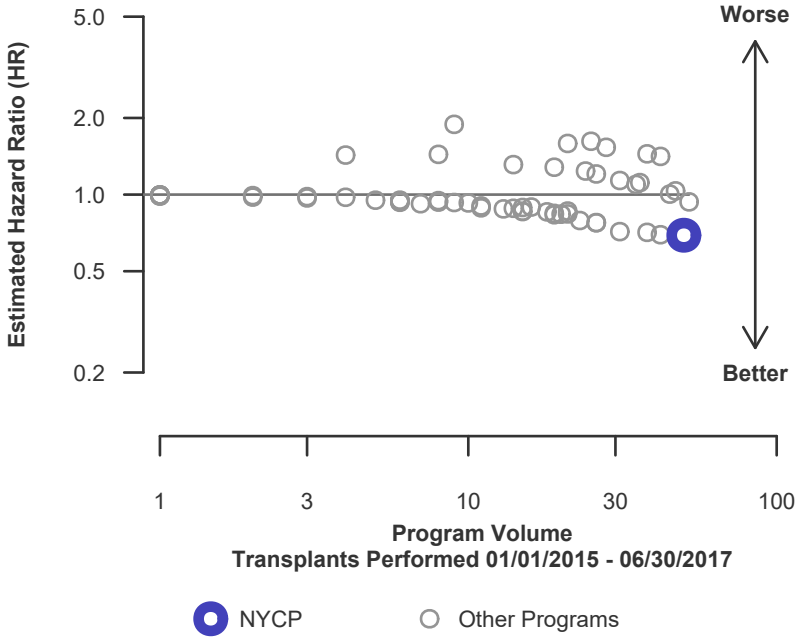


Figure C20D. Pediatric (<18) 1-month patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C15D. Pediatric (<18) 1-year patient survival (deceased donor graft recipients)
Single organ transplants performed between 01/01/2015 and 06/30/2017
Retransplants excluded

	NYCP	U.S.
Number of transplants evaluated	50	1,066
Estimated probability of surviving at 1 year (unadjusted for patient and donor characteristics)	97.37%	93.54%
Expected probability of surviving at 1 year (adjusted for patient and donor characteristics)	94.90%	--
Number of observed deaths during the first year after transplant	1	66
Number of expected deaths during the first year after transplant	2.48	--
Estimated hazard ratio*	0.67	--
95% credible interval for the hazard ratio**	[0.14, 1.61]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.14, 1.61], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 33% lower risk of patient death compared to an average program, but NYCP's performance could plausibly range from 86% reduced risk up to 61% increased risk.

Figure C21D. Pediatric (<18) 1-year patient death HR estimate (deceased donor grafts)

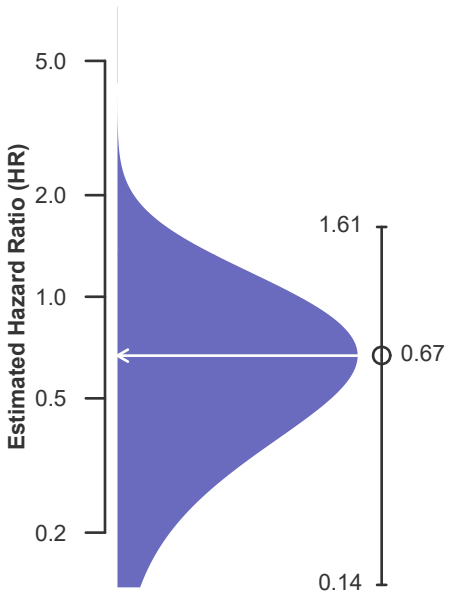
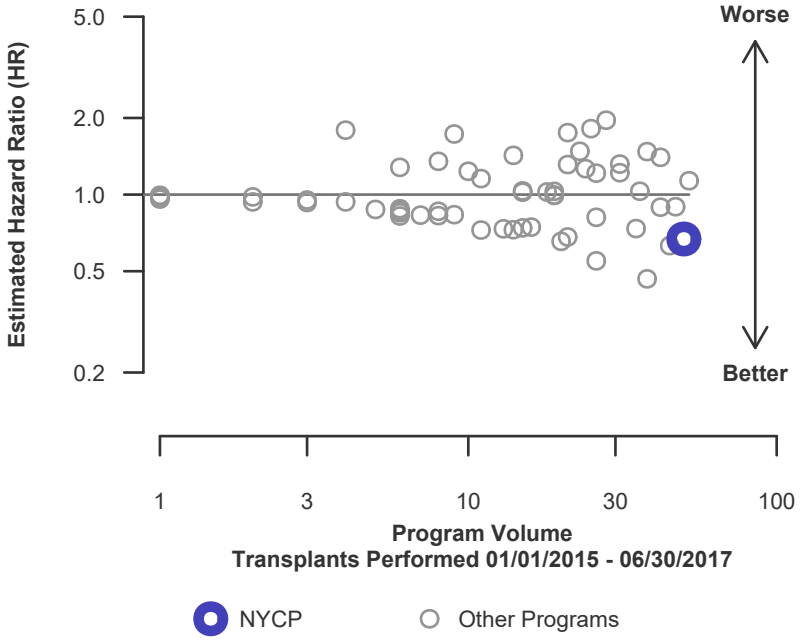


Figure C22D. Pediatric (<18) 1-year patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C16D. Pediatric (<18) 3-year patient survival (deceased donor graft recipients)
Single organ transplants performed between 07/01/2012 and 12/31/2014
Retransplants excluded

	NYCP	U.S.
Number of transplants evaluated	50	957
Estimated probability of surviving at 3 years (unadjusted for patient and donor characteristics)	94.00%	88.30%
Expected probability of surviving at 3 years (adjusted for patient and donor characteristics)	88.30%	--
Number of observed deaths during the first 3 years after transplant	3	112
Number of expected deaths during the first 3 years after transplant	6.04	--
Estimated hazard ratio*	0.62	--
95% credible interval for the hazard ratio**	[0.20, 1.27]	--

* The hazard ratio provides an estimate of how NY Presbyterian Hospital/Columbia Univ. Medical Center (NYCP)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If NYCP's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.20, 1.27], indicates the location of NYCP's true hazard ratio with 95% probability. The best estimate is 38% lower risk of patient death compared to an average program, but NYCP's performance could plausibly range from 80% reduced risk up to 27% increased risk.

Figure C23D. Pediatric (<18) 3-year patient death HR estimate (deceased donor grafts)

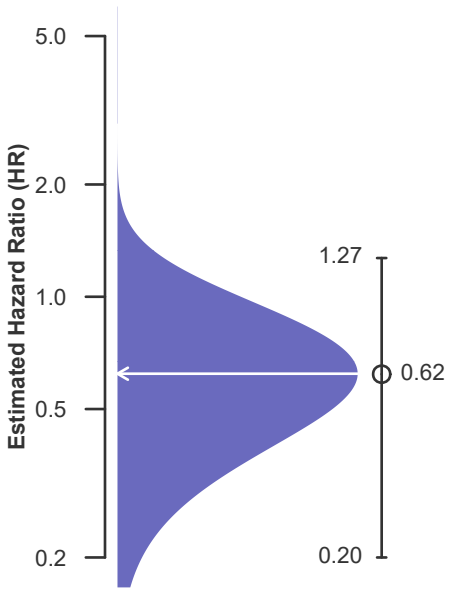
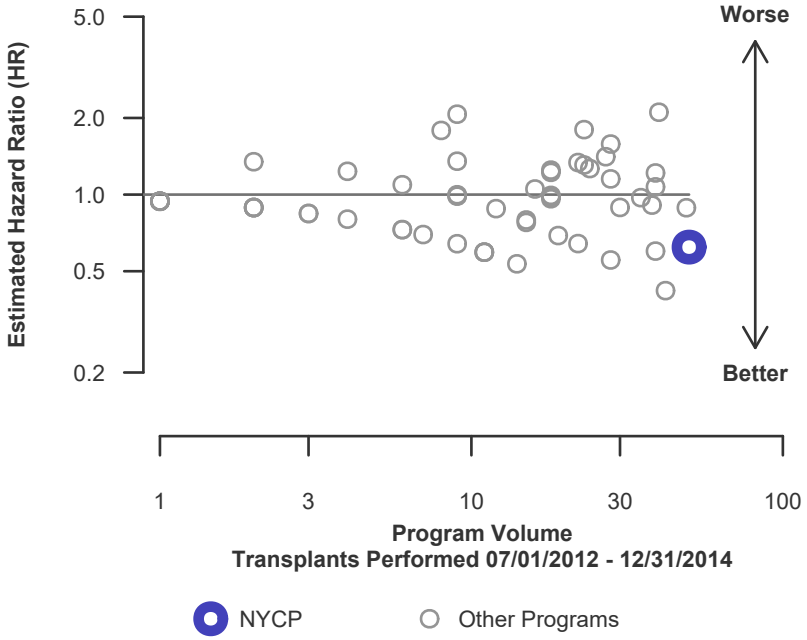


Figure C24D. Pediatric (<18) 3-year patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C17. Multi-organ transplant graft survival: 01/01/2015 - 06/30/2017

Adult (18+) Transplants

Transplant Type	Transplants Performed		First-Year Outcomes: Heart Graft Failures		First-Year Outcomes: Estimated Heart Graft Survival	
	NYCP-TX1	USA	NYCP-TX1	USA	NYCP-TX1	USA
Kidney-Heart	5	371	0	32	100.0%	90.8%
Liver-Heart	1	59	0	6	100.0%	88.8%

Pediatric (<18) Transplants

No pediatric (<18) multi-organ transplants were performed

Table C18. Multi-organ transplant patient survival: 01/01/2015 - 06/30/2017

Adult (18+) Transplants

Transplant Type	Transplants Performed		First-Year Outcomes: Patient Deaths		First-Year Outcomes: Estimated Patient Survival	
	NYCP-TX1	USA	NYCP-TX1	USA	NYCP-TX1	USA
Kidney-Heart	5	371	0	31	100.0%	91.1%
Liver-Heart	1	59	0	6	100.0%	88.8%

Pediatric (<18) Transplants

No pediatric (<18) multi-organ transplants were performed