

UNOS MPSC Survey Response

V. Quality Assurance and Performance Improvement 1-6

Unique Clinical Aspects

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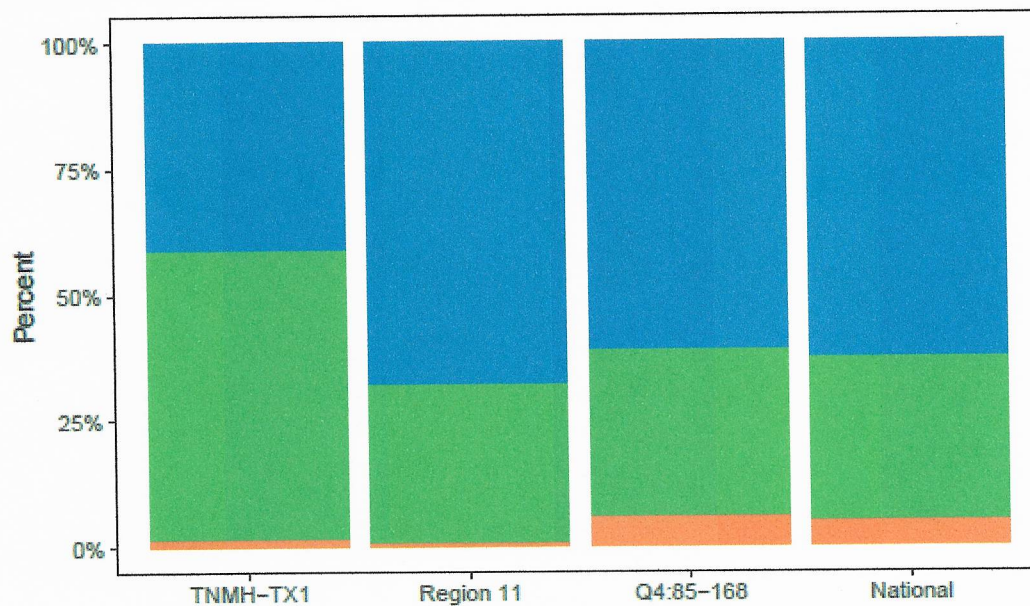
Methodist LeBonheur Transplant Institute (TNMH) is located in Memphis, TN, a large metropolitan city in the Southwest corner of the state. Memphis is the county seat of Shelby County, and is located on the fourth Chickasaw Bluff. Memphis is the biggest city on the Mississippi River, third largest in the Southeastern United States, and 23rd largest in the country. The population of Memphis in 2017 was 684,476. The Memphis Metropolitan Statistical Area (MSA) in 2010 was 1.3 million, Tennessee's largest MSA. The distribution by race in 2017 was 63.3% black and 29.4% white. (Statistical Atlas, 2018)

The City of Memphis has an overall poverty rate of 26.9%, compared to the United States rate of 14%. The poverty rate for non-Hispanic blacks is 32.3% (US 23.8%). The Memphis MSA is the poorest in the

country with a population of greater than a million people, returning in 2016 to the overall top spot in poverty, and retaining the top position in child poverty. (Delavega, 2017).

The Organ Procurement Organization (OPO) for TNMH is MidSouth Transplant Foundation (TNMS). The Donation Service Area (DSA) covered by TNMS ranks 53rd among the 58 US DSAs in deaths per 1000. The total population of the DSA is 2,020,374, 55th among the 58 DSAs in the country (SRTR, 2018). As evidenced by the graphic below, TNMH has access to fewer local organs than the national rate (UNOS, 2018).

Figure 7. Deceased Donor Geographic Allocation Type as of January 5, 2018



Share Type: Local Regional National

Allocation Type (%)

	TNMH-TX1	Region 11	Q4:85-168	National
Local	40.95	67.74	60.77	62.57
Regional	57.14	31.19	33.12	32.07
National	1.90	1.07	6.11	5.36
Total	100.00	100.00	100.00	100.00

As shown in Figure 7, most deceased donor liver transplants nationally between November 1, 2016 and October 31, 2017 were performed using a liver allocated at the local level (62.57%).

Excerpt from UNOS Benchmark Report TNMH-TX1 Liver January 2018

The philosophy of the TNMH liver transplant program is to provide every possible opportunity for transplantation to a large, poverty-burdened population. The patients in Memphis do not typically have the resources to travel to other programs, and organs are not locally available at rates approaching the

national level. The program aggressively pursues the goals encouraged by the Organ Procurement and Transplantation Network (OPTN) in its 2015-2018 strategic plan (OPTN, 2018):

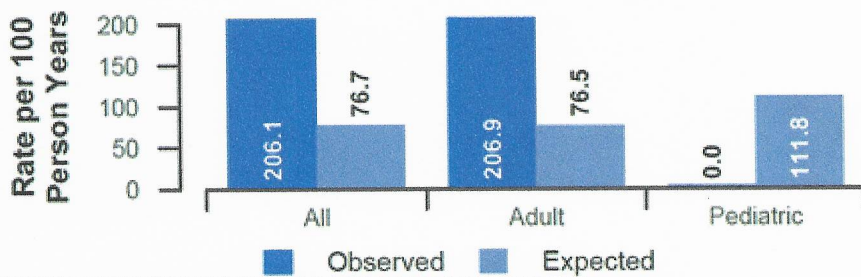
Goal 1: Increase the number of transplants

- Ensure that performance metrics for transplant centers and OPOs are aligned and promote increasing the number of effective transplants
- Measure transplant centers' ability to transplant waitlisted candidates
- ***Improve transplant program metrics to remove disincentives for transplanting marginal organs***
- Improve OPO metrics to remove disincentives for pursuing single-organ donor
- Increase community participation in, and transplants arranged through, OPTN KPD program
- Minimize financial disincentives and remove other barriers to living donation
- Use data to improve the chance of timely offers of organs to centers and candidates most likely to accept
- Develop decision analytics and support tools to guide OPOs and transplant centers
- Conduct follow-on research to deceased donor potential study to assist OPOs in identifying and recovering underutilized categories of donors
- Identify best practices for donor medical management and share with donor hospitals
- Share OPO best practices for maximizing organ utilization and minimizing organ discard rates
- ***Increase the number of DCD donors***

As evidence of the program's commitment to use all reasonable organs, including "marginal" organs, to benefit our patients, a high percentage of Donation after Cardiac Death (DCD) organs are accepted, according to the most recent report from the Scientific Registry of Transplant Recipients (SRTR). In

addition, TNMH uses a high number of organs that have been declined in at least 50 offers, as well as organs that have been identified as “Hard to Place”. Clearly, TNMH makes an effort to exhaust all reasonable possibilities to provide our patients an opportunity for life-saving transplantation. The success of that initiative is evidenced by the program’s Observed Transplant Rate, exceeding the Expected Transplant Rate in our January 2018 SRTR report, as shown below:

**Figure B1. Observed and expected transplant rates:
07/01/2015 - 06/30/2017**



Excerpt from the TNMH January 2018 Liver SRTR Report

The January 2018 SRTR Program Specific Report includes a graphical display indicating each transplant program’s organ acceptance behaviors. The following graphics indicate the trends of TNMH’s organ acceptance:

B. Waiting List Information

Figure B7. Offer acceptance: Overall

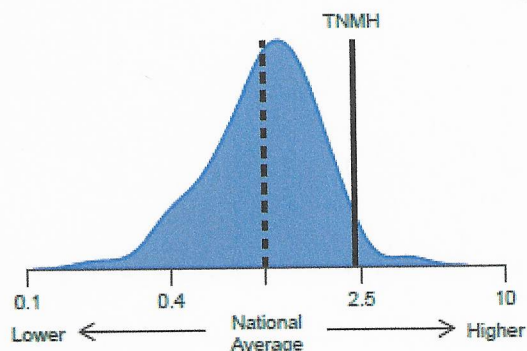


Figure B8. Offer acceptance: PHS increased infectious risk

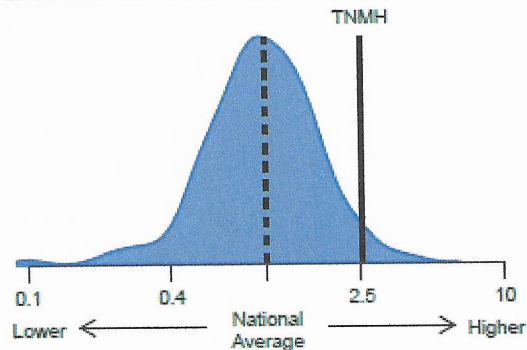


Figure B9. Offer acceptance: DCD Donor

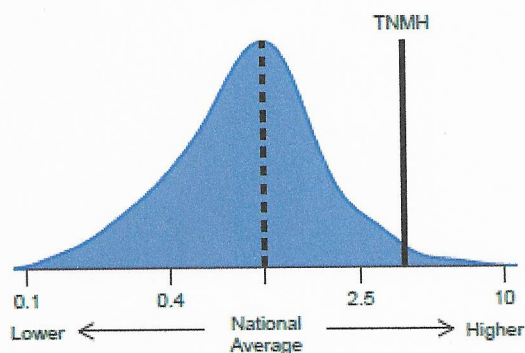


Figure B10. Offer acceptance: HCV+ Donor

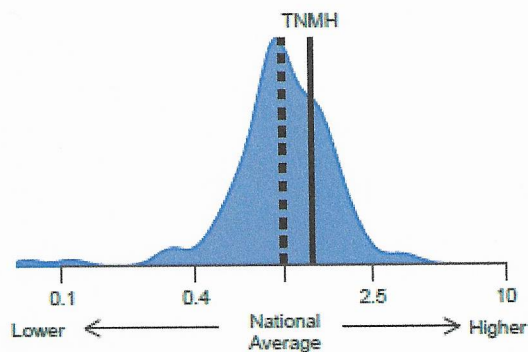


Figure B11. Offer acceptance: Offer number > 50

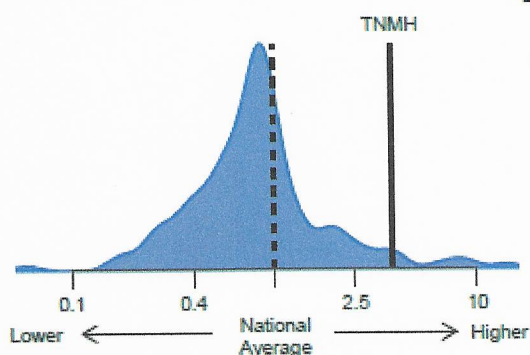
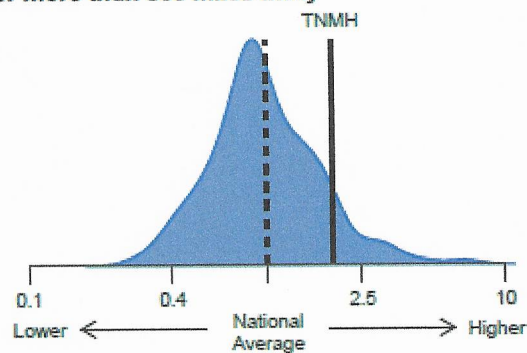
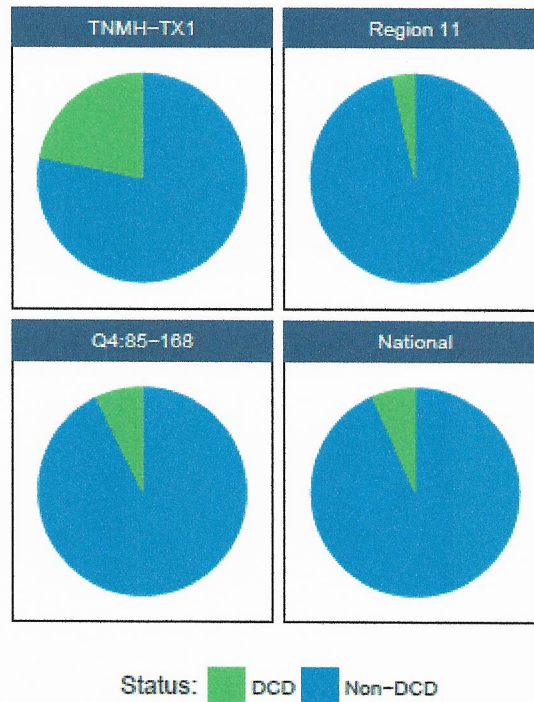


Figure B12. Offer acceptance: Donor more than 500 miles away



Excerpt from TNMH Liver SRTR Program Specific Report January 2018

Figure 13. DCD/Non-DCD Donor as of January 5, 2018



DCD/Non-DCD Donor Status (%)

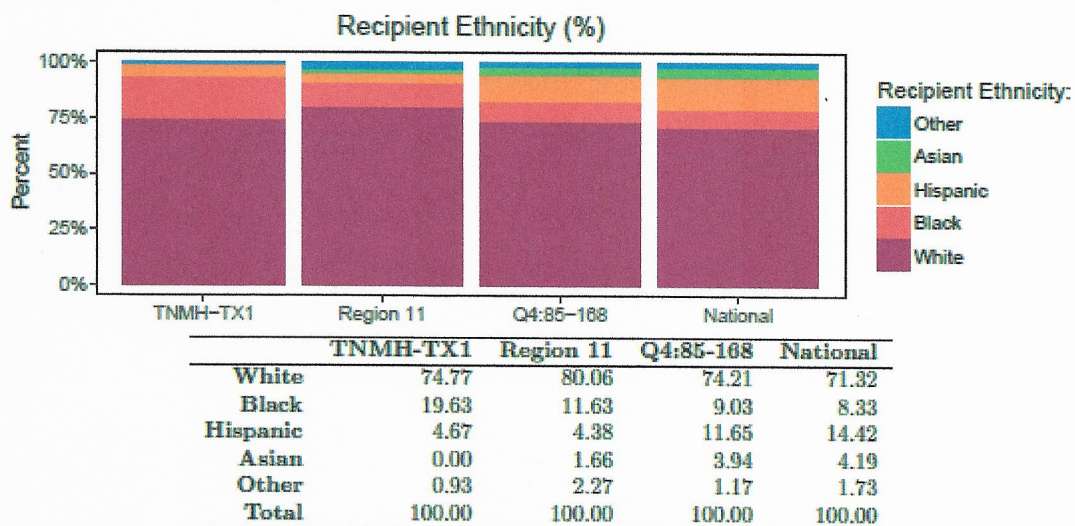
	TNMH-TX1	Region 11	Q4:85-168	National
DCD	21.90	3.52	7.33	6.77
Non-DCD	78.10	96.48	92.67	93.23
Total	100.00	100.00	100.00	100.00

As shown in Figure 13, nationally most deceased donor liver transplants between November 1, 2016 and October 31, 2017 used liver recovered from Non-DCD donors (93.23%).

Excerpt from UNOS January 2018 Liver Benchmark Report

In the current critical shortage of organs, it has been suggested that organs from DCD donors are the most likely alternative to use of Donation after Brain Death (DBD) donors; unfortunately, even though use of a DCD organ may save a life, DCD organs come with a recognized set of associated risks, including biliary complications and re-transplantation. (Tang, 2018)) In a meta-analysis by O’Neill et al (2017), significant increases were identified in DCD biliary complications (26% DCD vs 16% DBD) and ischemic

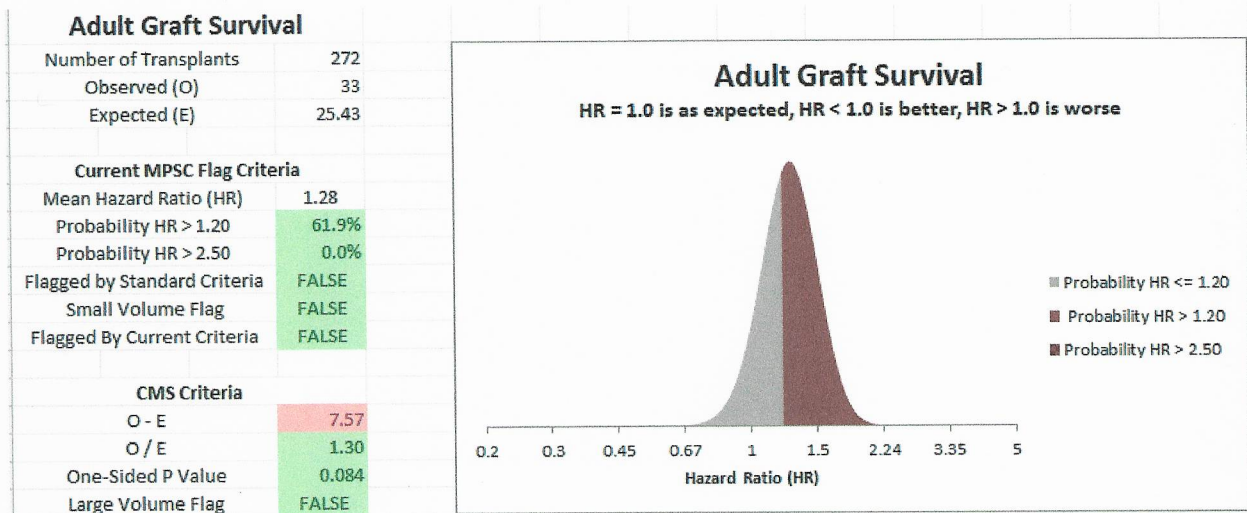
cholangiopathy (16% DCD vs 3% DBD). Significant decreases were identified in graft survival (79% DCD vs 81% DBD) and in patient survival (88% DCD vs 91% DBD). Even though the risks are known to be higher, it is TNMH's approach that those risks are a reasonable balance against the risk of candidate death on the waitlist. Use of higher risk organs represents our effort to provide care to an under-resourced patient population.



Excerpt from UNOS Benchmark Report January 2018 Liver TNMH

The program has been aware of the likelihood of crossing the MPSC outcomes noncompliance threshold since 2015. Projections using the SRTR tools and review of the monthly CUSUM data are reviewed monthly. Because of the unique needs of our patients and our inability to obtain DBD donor organs to meet those needs, DCD organs remain in consistent use. TNMH has recently gained approval for a Living Donor Liver component to add yet another resource for supporting our patients. Despite our work and diligence, the increased risk of biliary complications is challenging. Current projections indicate that TNMH will again cross MPSC noncompliance thresholds in July 2018 as well as January 2019. Note that nine of the graft loss events reported in the January 2018 cohort were associated with DCD organs. If

those nine events were excluded, the program would not have crossed graft loss noncompliance thresholds.



This represents what the TNMH January 2018 outcomes would have been if nine patients were excluded who received DCD livers, and had subsequent graft loss.

It is our respectful request that the Membership and Professional Standards Committee consider our outcomes in the framework of our efforts to make transplantation available to Memphis patients, and avoid their deaths on the waitlist. Most have no other opportunity or hope of transplantation.

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