

# OPTN Liver and Intestinal Organ Transplantation Committee

*Summer 2020*

# Agenda

- Recent Public Comment Proposal
- Acuity Circles Data
- Upcoming and Ongoing Projects

# Recent Public Comment Proposal

- Enhancements to the NLRB:
  - Effective August 4, 2020:
    - NLRB Scope: Reviewers should base decisions on medical urgency of candidates when no policy or guidance available
    - Clarify MMaT and MPaT update schedule, threshold for removing inactive reviewers, and process for final appeals
    - Add guidance for secondary sclerosing cholangitis (SSC) and adults with metabolic disorders, clarify guidance for portopulmonary hypertension and candidates with prior history of HCC
  - Effective pending implementation and notice:
    - Allow any candidate with hepatocellular carcinoma (HCC) meeting standardized extension criteria to be automatically approved

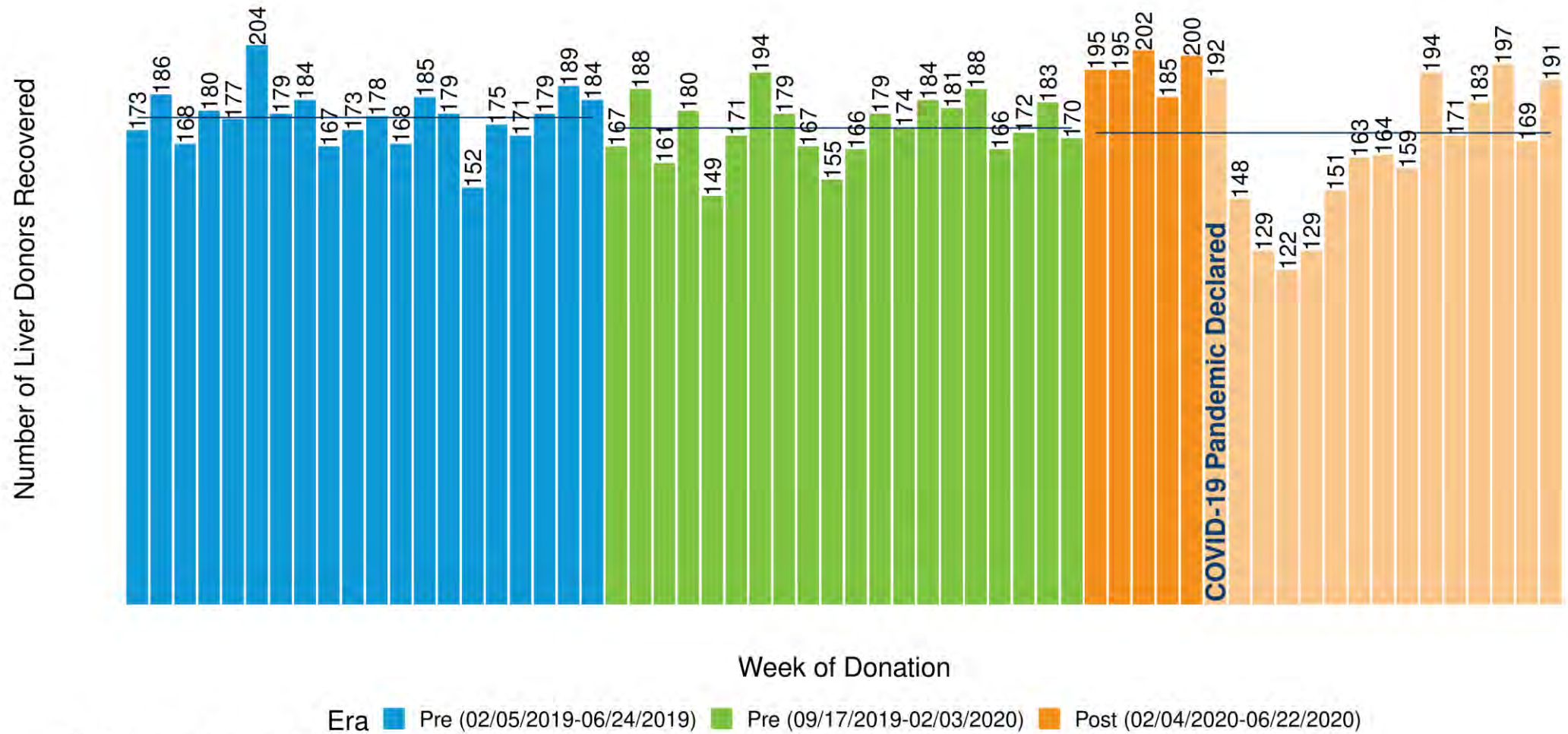
# Acuity Circles Allocation

*Monitoring Report*

# Data Cohorts

- The cohort examined contains three periods of 20 full weeks (~ 4.5 months) of data after the liver policy change, and two comparison periods.
- 2/05/2019 – 6/24/2019 : first pre-era
  - To consider seasonal changes
- 9/17/2019 – 2/03/2020: second pre-era
  - Immediately prior to policy change
  - NLRB in place
- 2/04/2020 – 6/22/2020: post-era
  - Acuity circles implementation
  - NLRB in place, changes to median MELD at transplant score definition occurred
- COVID-19 impacts post-implementation analysis

# Liver Donors Recovered by Week and Era

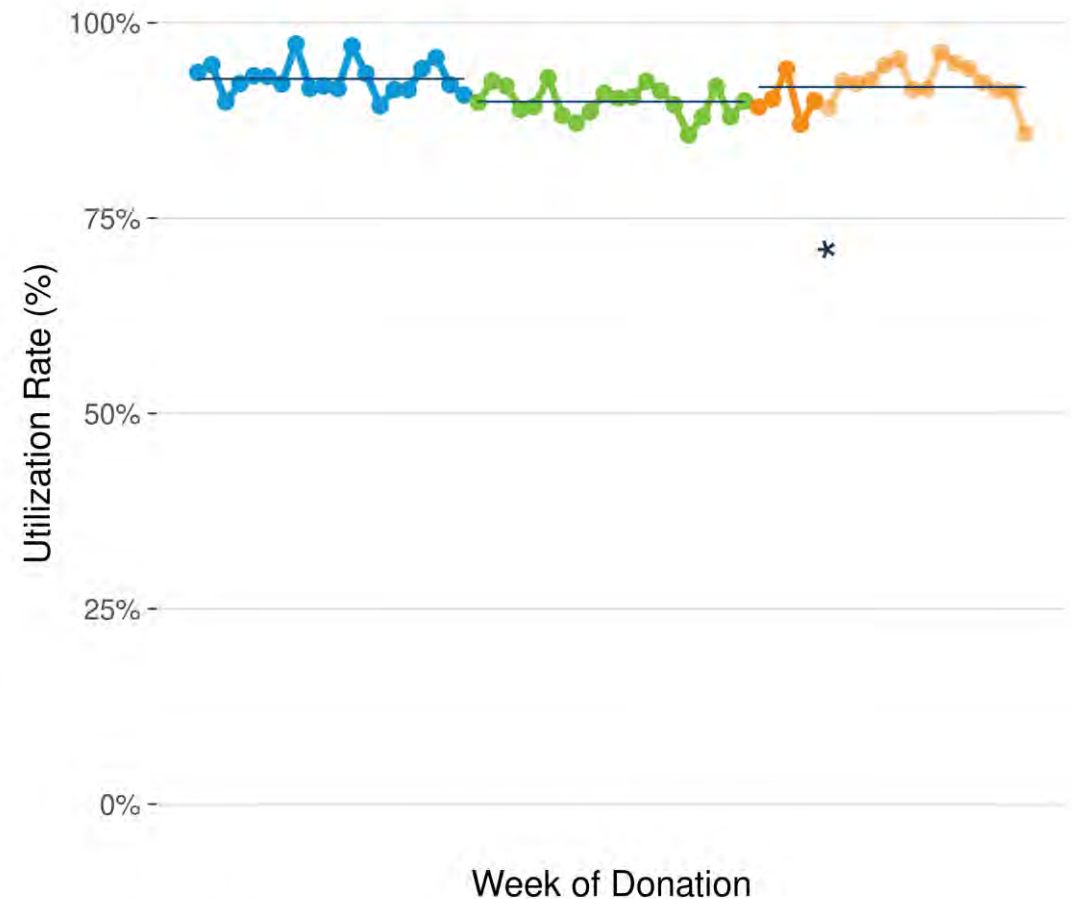
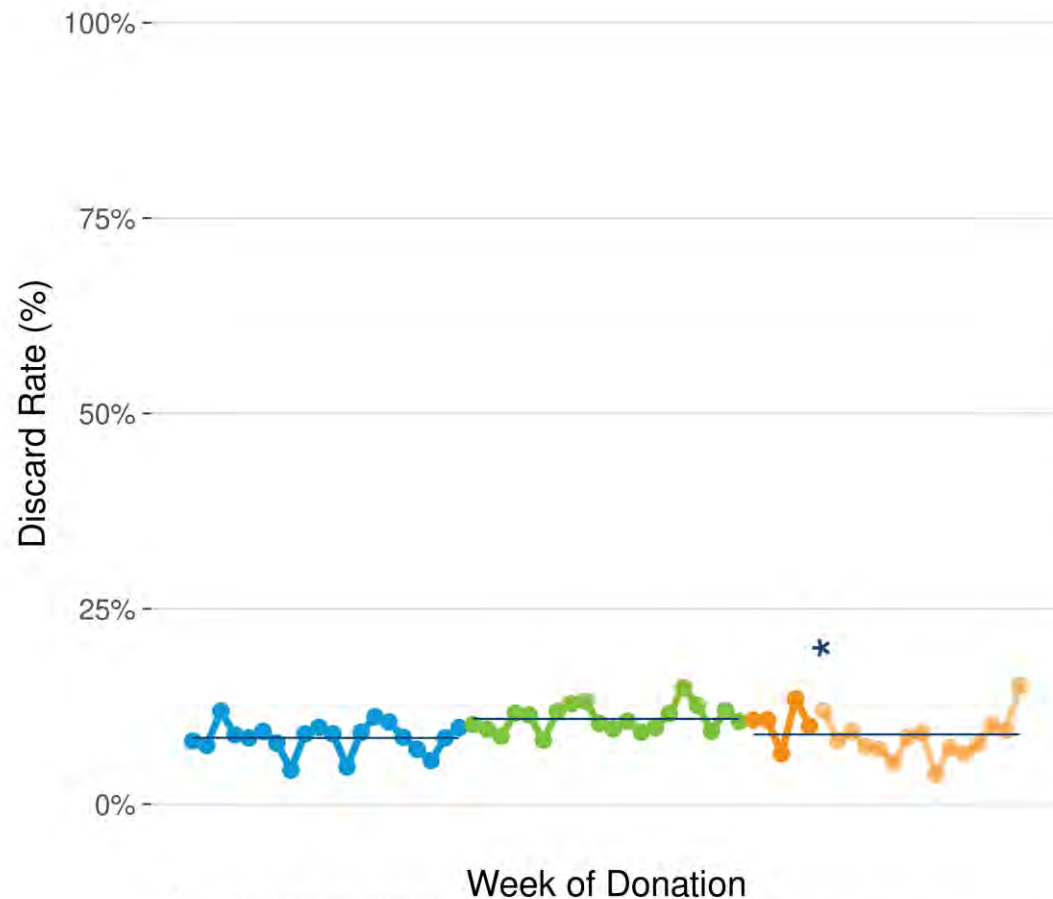


\* COVID-19 pandemic declared week of March 13, 2020.

\*\* Navy solid lines are computed by calculating the number within each week, and then averaging across all weeks in the era.

Average count of liver donors recovered was 178 for Pre (02/05/2019-06/24/2019), 174 for Pre (09/17/2019-02/03/2020) and 172 for Post (02/04/2020-06/22/2020).

# Liver Discard & Utilization Rates by Week and Era



\* COVID-19 pandemic declared week of March 13, 2020.

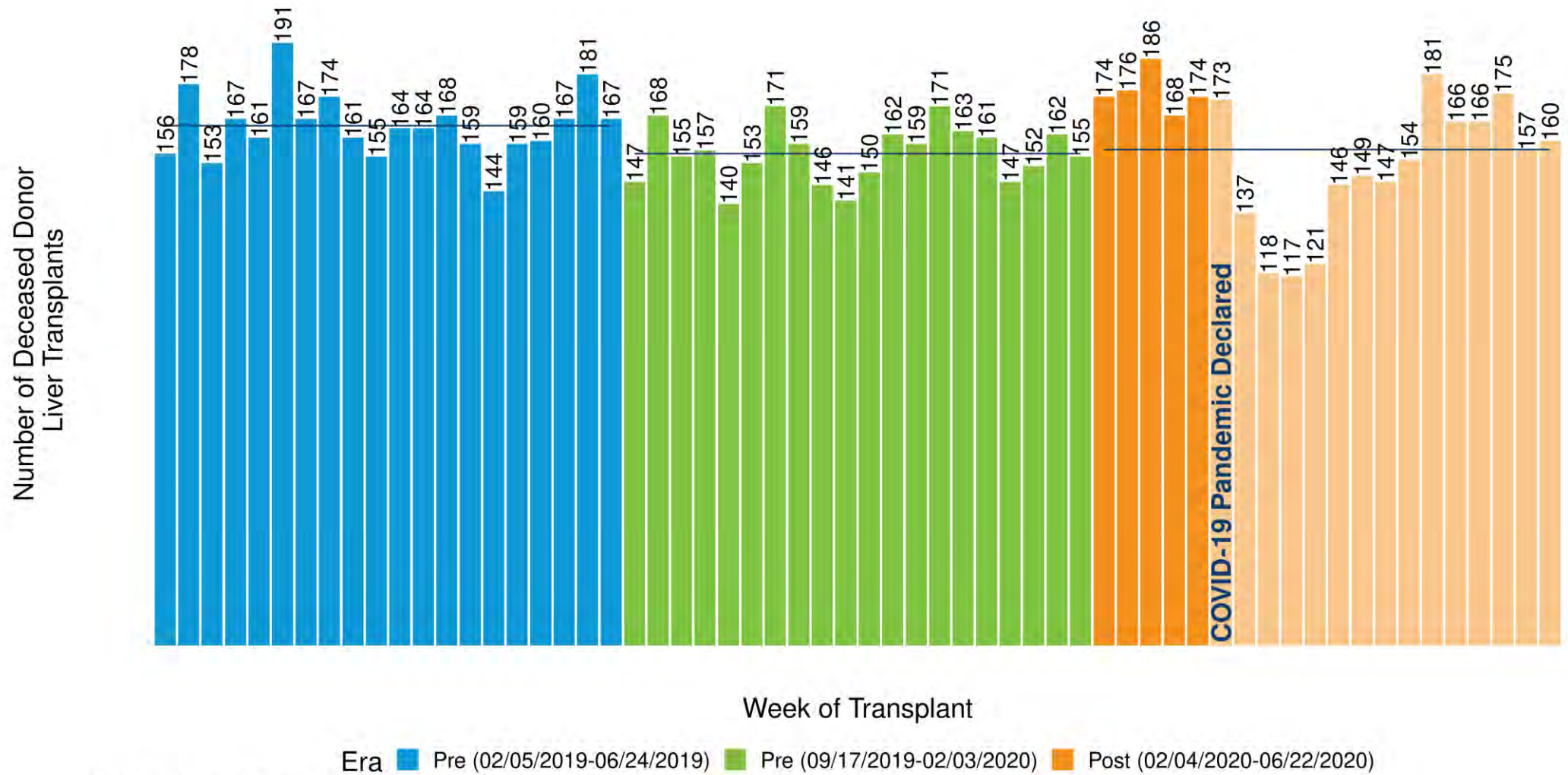
\*\* Navy solid lines are computed by calculating the discard rate within each week, and then averaging across all weeks in the era.

Average rate of livers recovered and not transplanted was 8.5% for Pre (02/05/2019-06/24/2019), 10.9% for Pre (09/17/2019-02/03/2020) and 8.9% for Post (02/04/2020-06/22/2020). Average utilization rate was 92.8% for Pre (02/05/2019-06/24/2019), 89.9% for Pre (09/17/2019-02/03/2020) and 91.8% for Post (02/04/2020-06/22/2020).

Era ● Pre (02/05/2019-06/24/2019) ● Pre (09/17/2019-02/03/2020) ● Post (02/04/2020-06/22/2020)



# Deceased Donor Liver Transplants by Week and Era



\* COVID-19 pandemic declared week of March 13, 2020.

\*\* Navy solid lines are computed by calculating the number within each week, and then averaging across all weeks in the era.

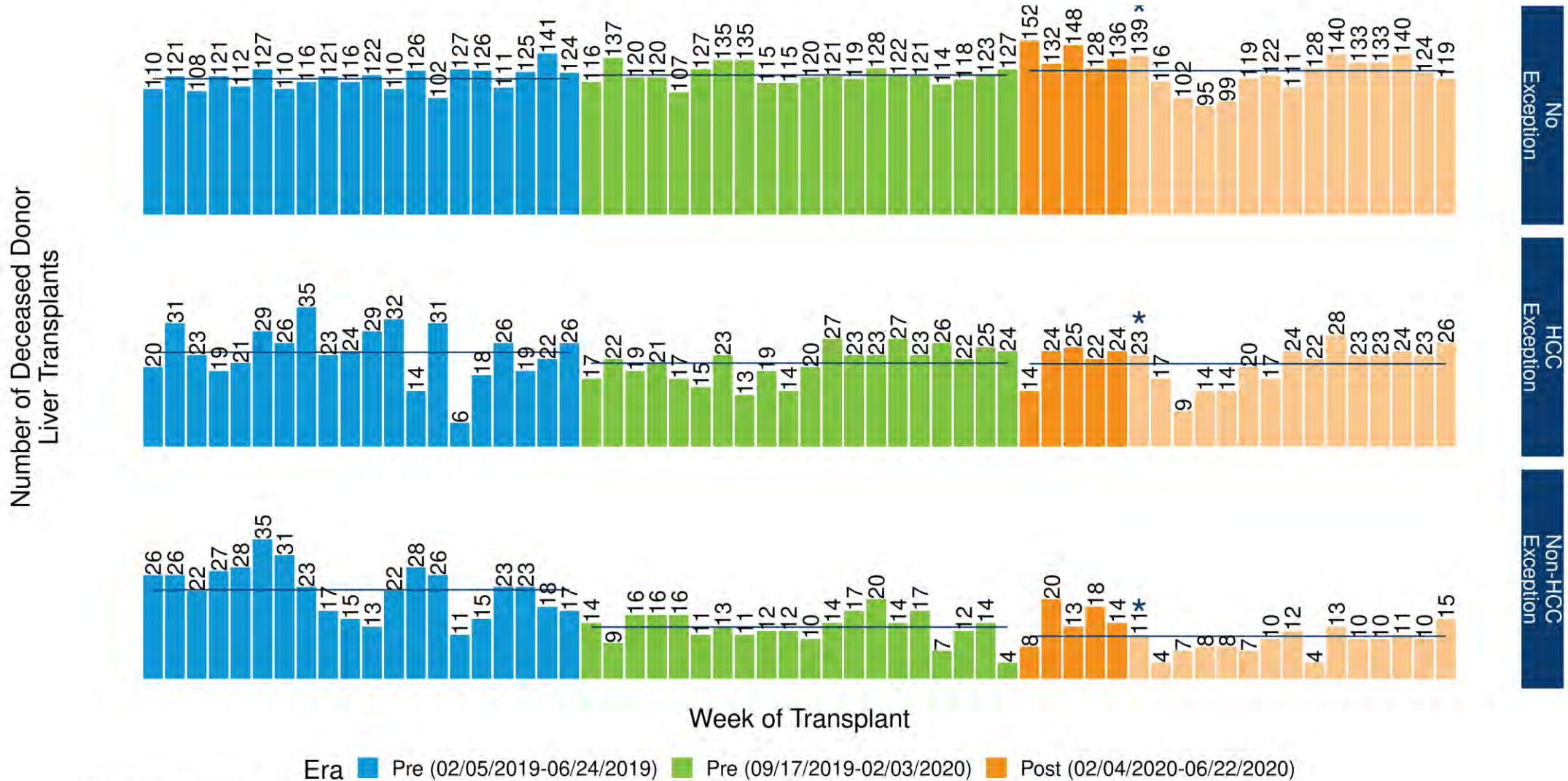
Average count of liver donors recovered was 165 for Pre (02/05/2019-06/24/2019), 156 for Pre (09/17/2019-02/03/2020) and 157 for Post (02/04/2020-06/22/2020).



# Deceased Donor Liver Transplants by Age at Transplant and Era

Age Group	Pre (02/05/2019-06/24/2019)	Pre (09/17/2019-02/03/2020)	Post (02/04/2020-06/22/2020)
Pediatric (age 0-11 years)	168 (5.1%)	117 (3.8%)	123 (3.9%)
Pediatric (age 12-17 years)	28 (0.8%)	34 (1.1%)	41 (1.3%)
Adult (age 18+ years)	3100 (94.1%)	2968 (95.2%)	2981 (94.8%)
Total	3296 (100.0%)	3119 (100.0%)	3145 (100.0%)

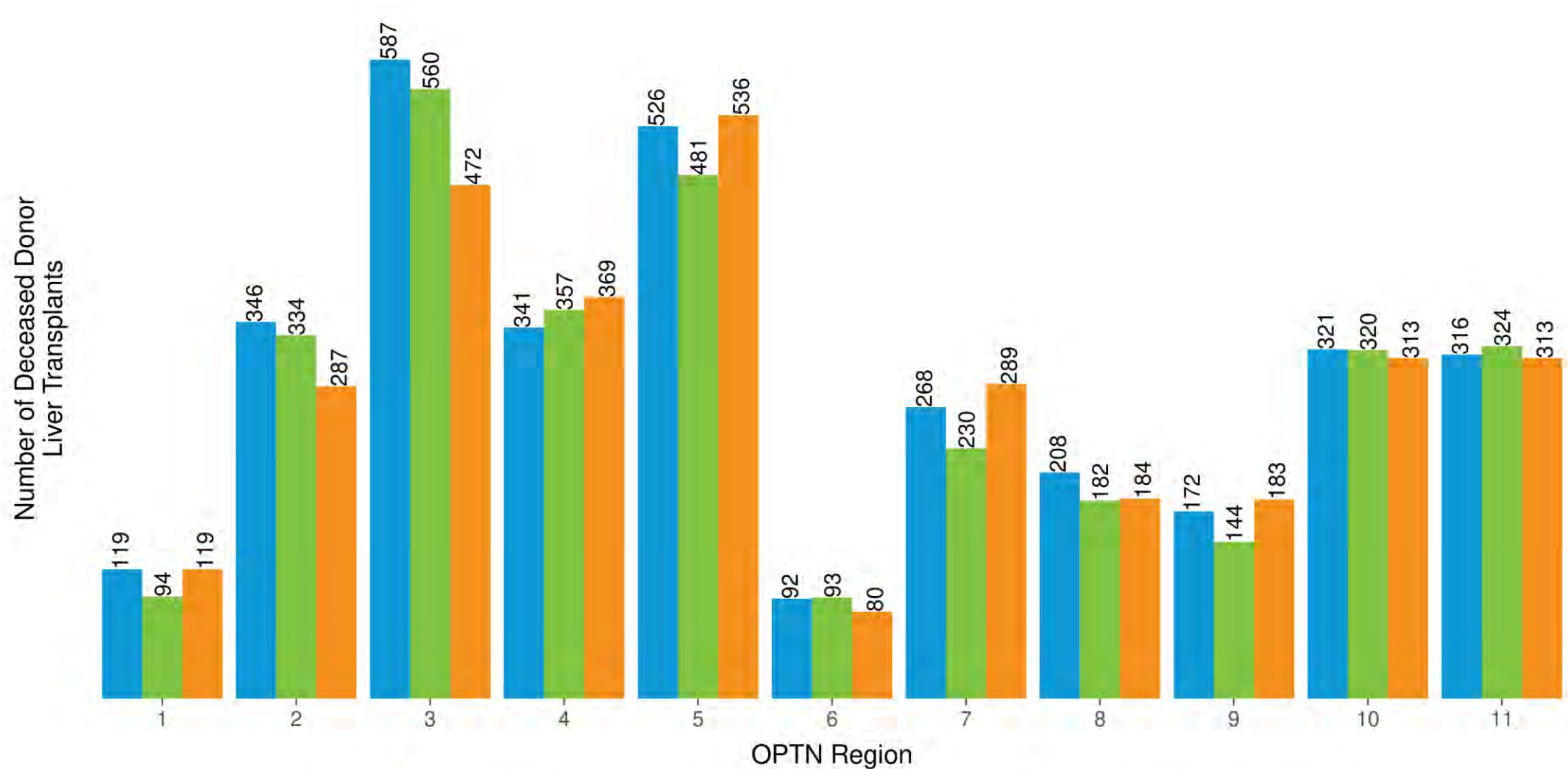
# Deceased Donor Liver Transplants by Exception Status, Week, and Era



\* COVID-19 pandemic declared week of March 13, 2020.

\*\* Navy solid lines are computed by calculating the number within each week and subgroup, and then averaging across all weeks in the era and subgroup.

# Deceased Donor Liver Transplants by OPTN Region and Era



Era ■ Pre (02/05/2019-06/24/2019) ■ Pre (09/17/2019-02/03/2020) ■ Post (02/04/2020-06/22/2020)

\* Note that the Post (02/04/2020-06/22/2020) Era contains weeks during the COVID-19 pandemic, declared the week of March 13, 2020.

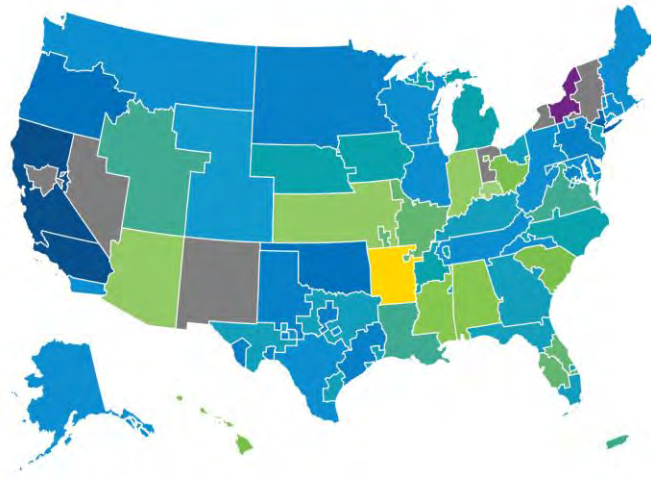
# Deceased Donor Liver Transplants by Allocation MELD or PELD Score/Status at Transplant and Era

Score or Status Group	Pre (02/05/2019-06/24/2019)	Pre (09/17/2019-02/03/2020)	Post (02/04/2020-06/22/2020)
Status 1	157 (4.8%)	149 (4.8%)	122 (3.9%)
M/P 37+	550 (16.7%)	495 (15.9%)	497 (15.8%)
M/P 33-36	389 (11.8%)	268 (8.6%)	364 (11.6%)
M/P 29-32	613 (18.6%)	504 (16.2%)	647 (20.6%)
M/P 15-28	1479 (44.9%)	1606 (51.5%)	1400 (44.5%)
M/P < 15	108 (3.3%)	97 (3.1%)	115 (3.7%)
Total	3296 (100.0%)	3119 (100.0%)	3145 (100.0%)

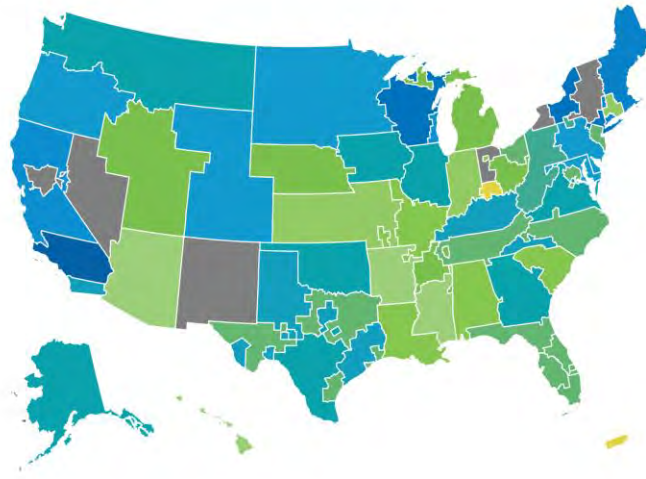


# Median Allocation MELD or PELD Score at Transplant by DSA and Era

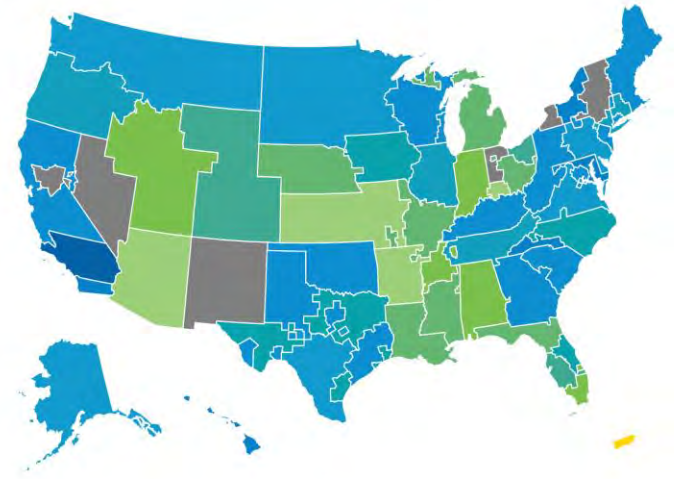
Pre (02/05/2019-06/24/2019)



Pre (09/17/2019-02/03/2020)

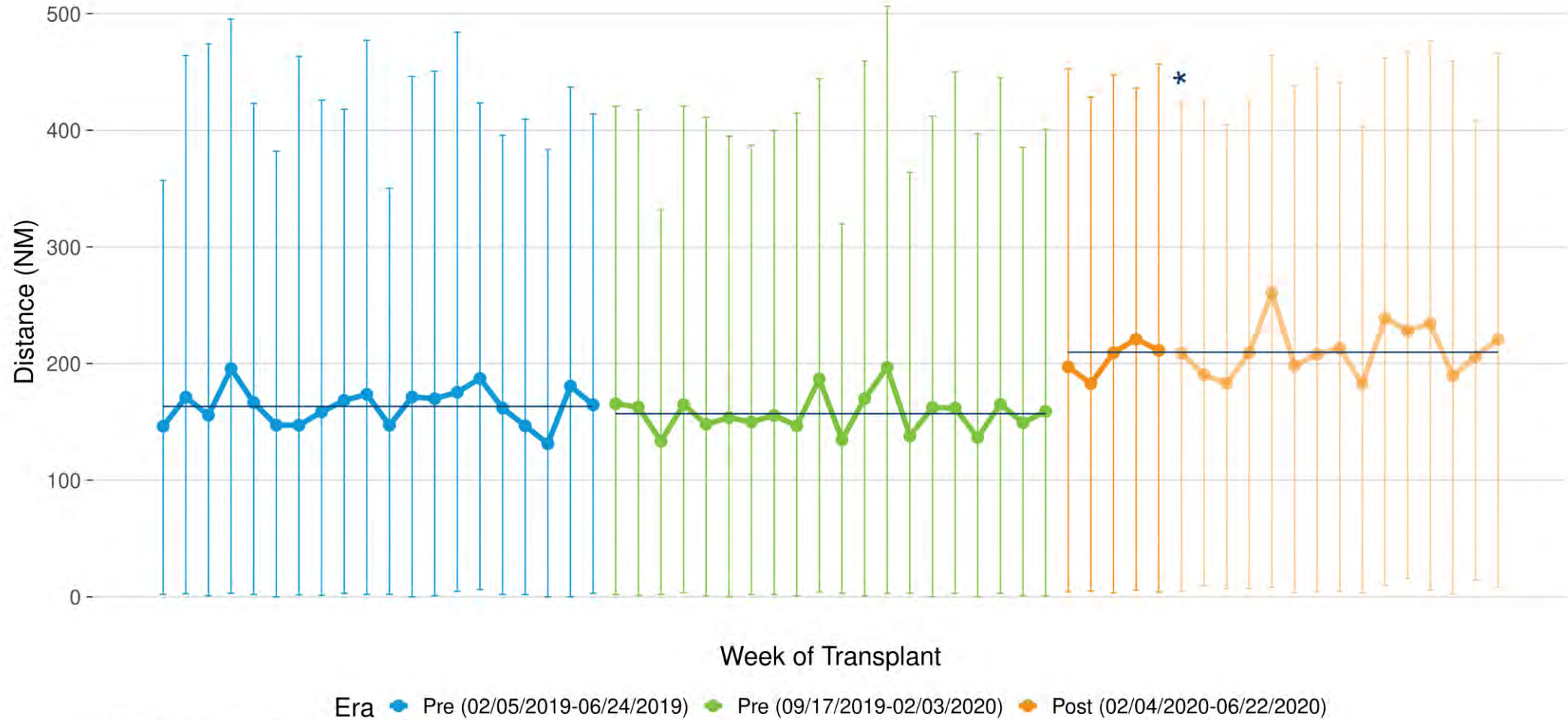


Post (02/04/2020-06/22/2020)



Median Transplant Score 18 20 22 24 26 28 30 32 34 36 38

# Distance from Donor Hospital to Transplant Center for Deceased Donor Liver Transplants by Week and Era



\* COVID-19 pandemic declared week of March 13, 2020.

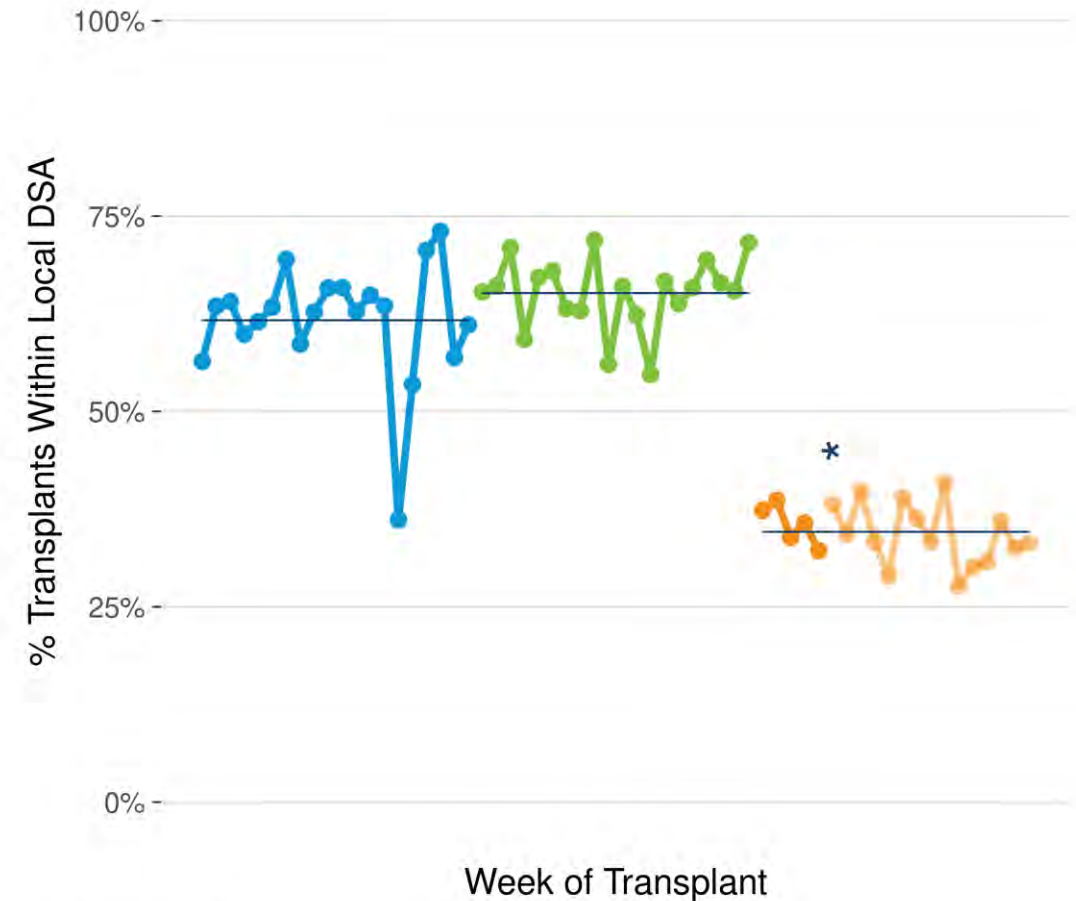
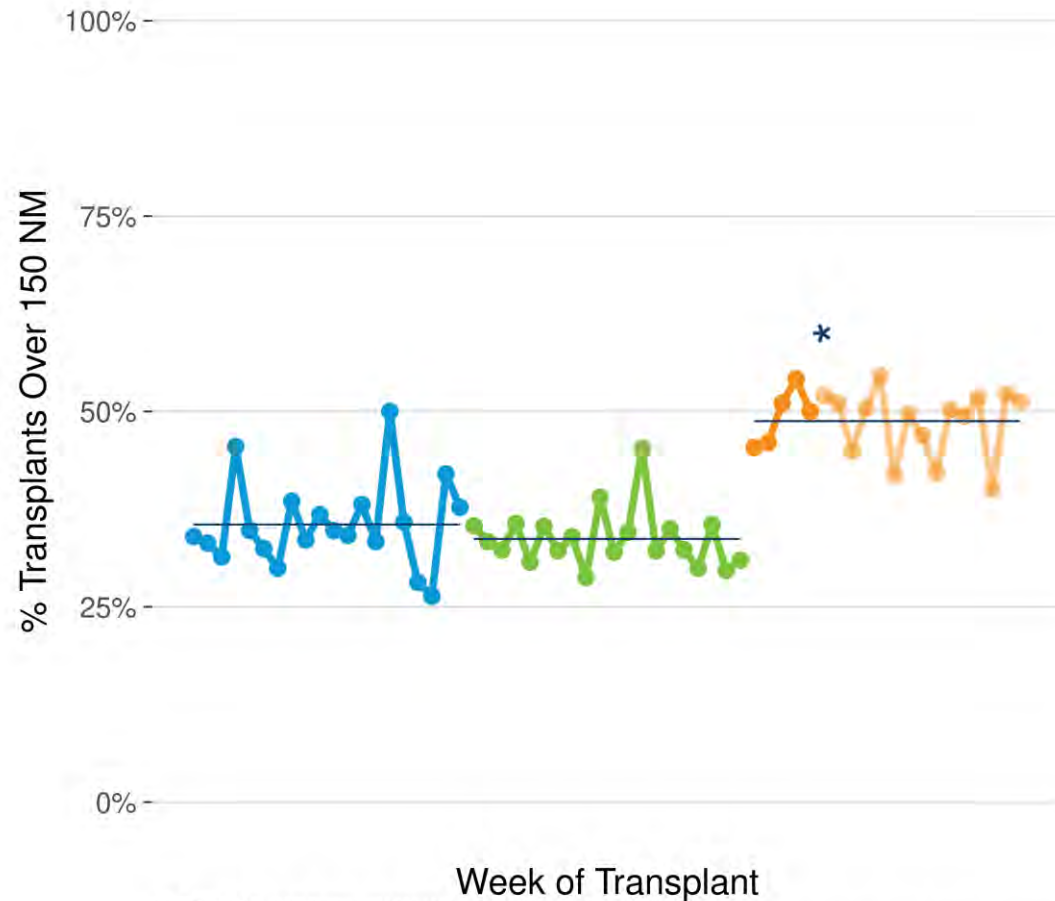
\*\* Navy solid lines are computed by calculating the mean distance within each week, and then averaging across all weeks in the era.

\*\*\* Dots indicate average distance each week. Error bars indicate the 10th and 90th percentiles of distance each week.

Average distance of livers was 163.3 NM for Pre (02/05/2019-06/24/2019), 157 NM for Pre (09/17/2019-02/03/2020) and 209.7 NM for Post (02/04/2020-06/22/2020).



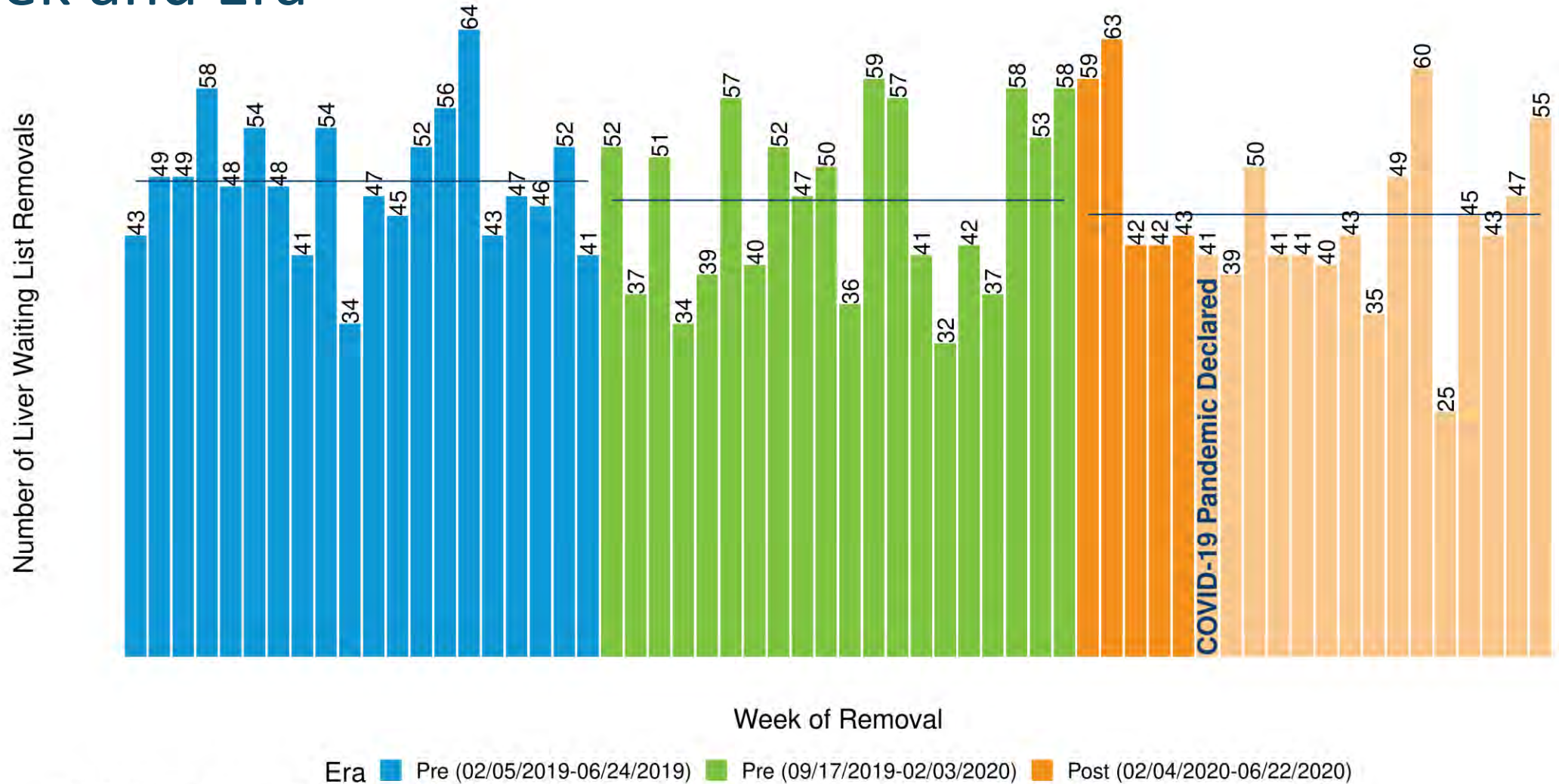
# Deceased Donor Liver Transplants Over 150 NM and Within Local DSA by Week and Era



\* COVID-19 pandemic declared week of March 13, 2020.  
 \*\* Navy solid lines are computed by calculating the percent within each week, and then averaging across all weeks in the era.  
 Average percent of deceased donor liver transplants over 150 nautical miles was 35.5% for Pre (02/05/2019-06/24/2019), 33.7% for Pre (09/17/2019-02/03/2020) and 48.8% for Post (02/04/2020-06/22/2020).  
 Average percent of local deceased donor liver transplants was 61.7% for Pre (02/05/2019-06/24/2019), 65.1% for Pre (09/17/2019-02/03/2020) and 34.6% for Post (02/04/2020-06/22/2020).

Era ● Pre (02/05/2019-06/24/2019) ● Pre (09/17/2019-02/03/2020) ● Post (02/04/2020-06/22/2020)

# Liver Waitlist Removals for Death or Too Sick to Transplant by Week and Era

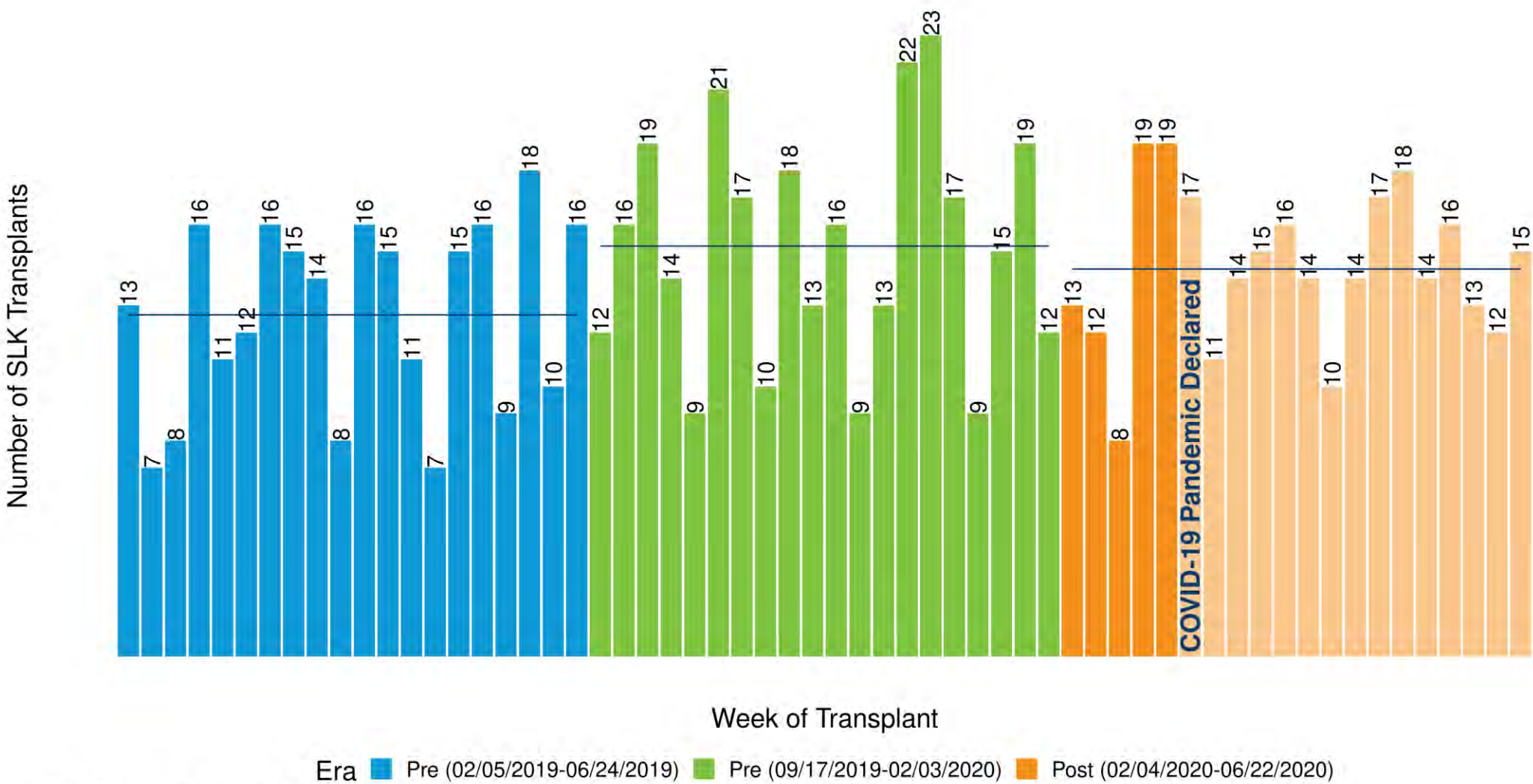


\* COVID-19 pandemic declared week of March 13, 2020.

\*\* Navy solid lines are computed by calculating the number within each week, and then averaging across all weeks in the era.

Average count of liver waitlist removals was 49 for Pre (02/05/2019-06/24/2019), 47 for Pre (09/17/2019-02/03/2020) and 45 for Post (02/04/2020-06/22/2020).

# Simultaneous Liver-Kidney Transplants by Week and Era



\* COVID-19 pandemic declared week of March 13, 2020.  
 \*\* Navy solid lines are computed by calculating the number within each week, and then averaging across all weeks in the era.  
 Average count of SLK transplants was 13 for Pre (02/05/2019-06/24/2019), 15 for Pre (09/17/2019-02/03/2020) and 14 for Post (02/04/2020-06/22/2020).

# Questions?

# Upcoming Committee Projects



# Committee Project: Sorting within Liver Allocation Classifications

- Currently, within each MELD/PELD classification, after being sorted by MELD/PELD score and blood type, candidates are ranked by waiting time at current MELD/PELD score or higher
- Concerns:
  - Exception candidates should not be ranked by time at score or higher
  - Ranking of exception vs non-exception candidates of the same MELD/PELD score
- Idea discussed:
  - Rank non-exception candidates by time at score or higher and exception candidates by time since initial approved exception



# Committee Project: Updating MMaT Calculation

- Concern: exception candidates with different MMaT/250 NM listed at transplant programs within close geographic proximity
- Idea discussed:
  - Candidate's exception score based on the MMaT of the donor hospital instead of the transplant program where the candidate is listed
  - Each donor hospital would have an MMaT based on the median (or mean, min, max) of the MMaTs of the transplant programs within 150 NM (or 250 NM if no programs within 150 NM).
  - All exception candidates on the match would be assigned an exception score relative to the MMaT for that donor hospital
- Initial data only represents a short time frame after implementation and is complicated by COVID-19

# Committee Project: PELD/Status 1B Criteria

- **Goals:**
  - Reduce pediatric liver waitlist mortality
  - Assure equitable access for all pediatric liver patients on the waitlist
  - Increase efficiency and decrease arbitrary nature of non-standard exception process
- **Anticipated outcomes:**
  - Proposal for revision to PELD score and standard criteria for Status 1B
- **Anticipated public comment: August 2021**

# Questions?