# THE FINANCIAL AND HOSPITAL IMPACT OF ADULT HEART TRANSPLANT ALLOCATION CHANGES



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BACKGROUND

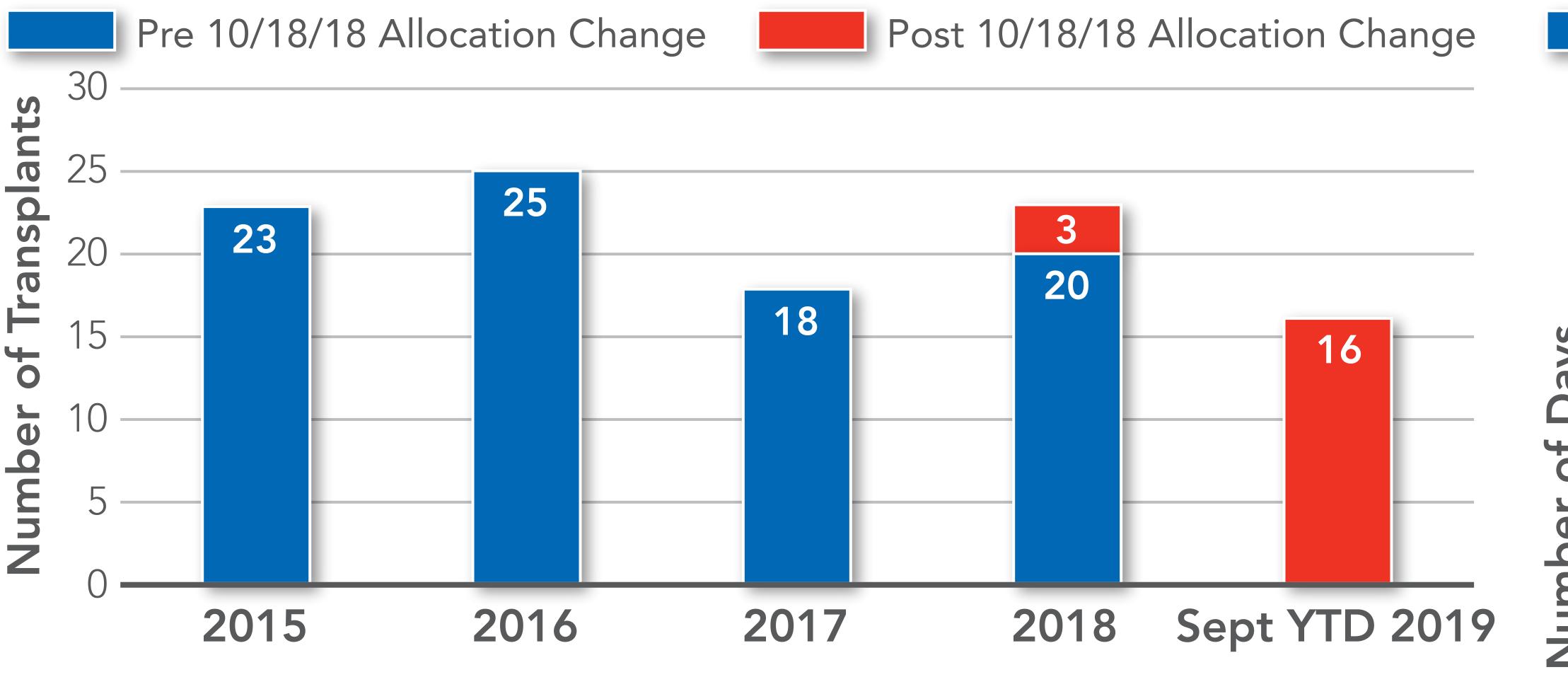
The United Network for Organ Sharing (UNOS) Adult Allocation policy recently changed the criteria for heart transplantation. As a result, patients are more likely to be matched with donors if they are hospitalized and have a non-durable surgically implanted Mechanical Circulatory Support Devices (MCSD) or Intra-Aortic Balloon Pumps (IABP). We expect to have longer Lengths of Stay (LOS) related to pre transplant phase of their stay and could incur higher costs.

# METHODS

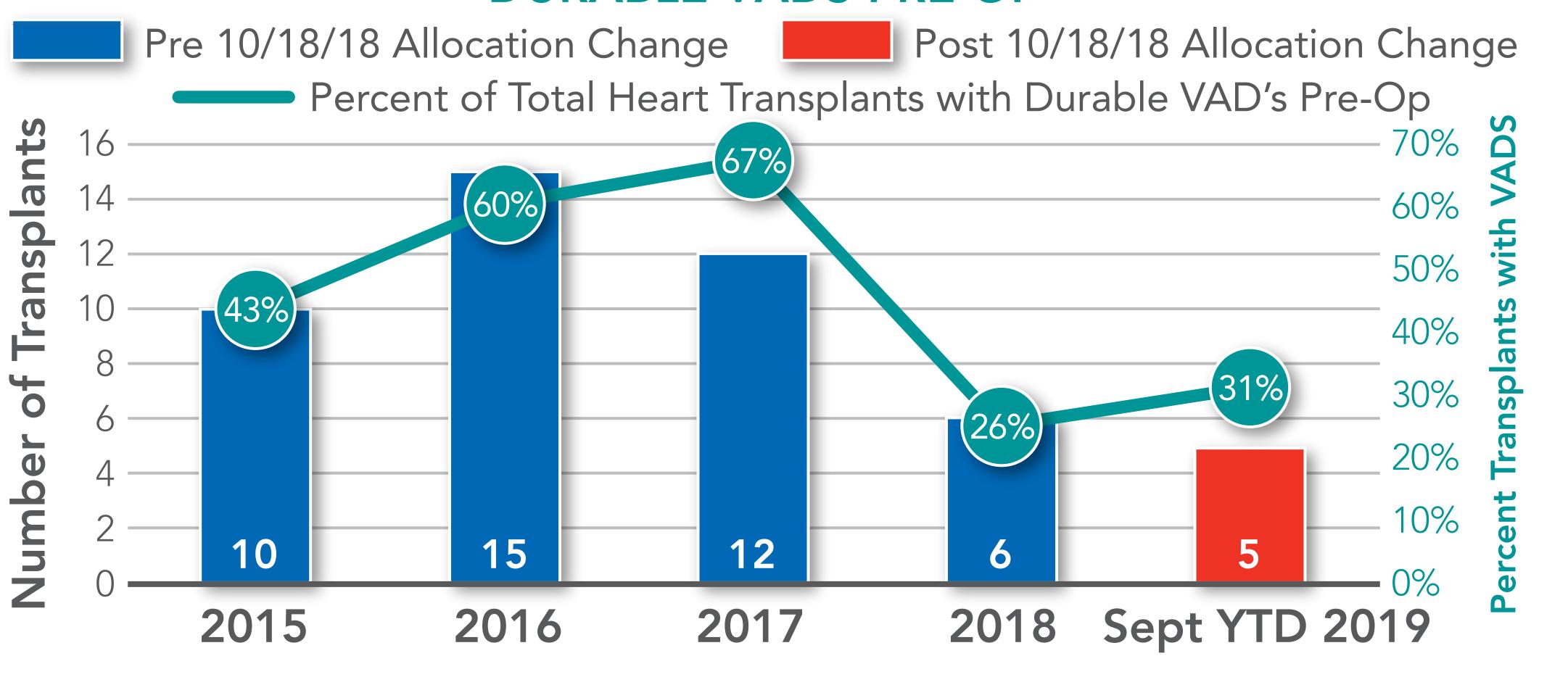
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Final billing data was analyzed for the period after the allocation changes and compared to a similar time period prior to the change. We had 19 adult heart transplants since the allocation change on 10/18/18 and 86 before the change. About 4.65% (4/86) had non-durable MCSD (Centrimag, Impella, Tandem Heart, and IABP) prior to allocation changes while 52.63% (10/19) had non-durable MCSD after the changes (Fisher's Exact P=0.001).

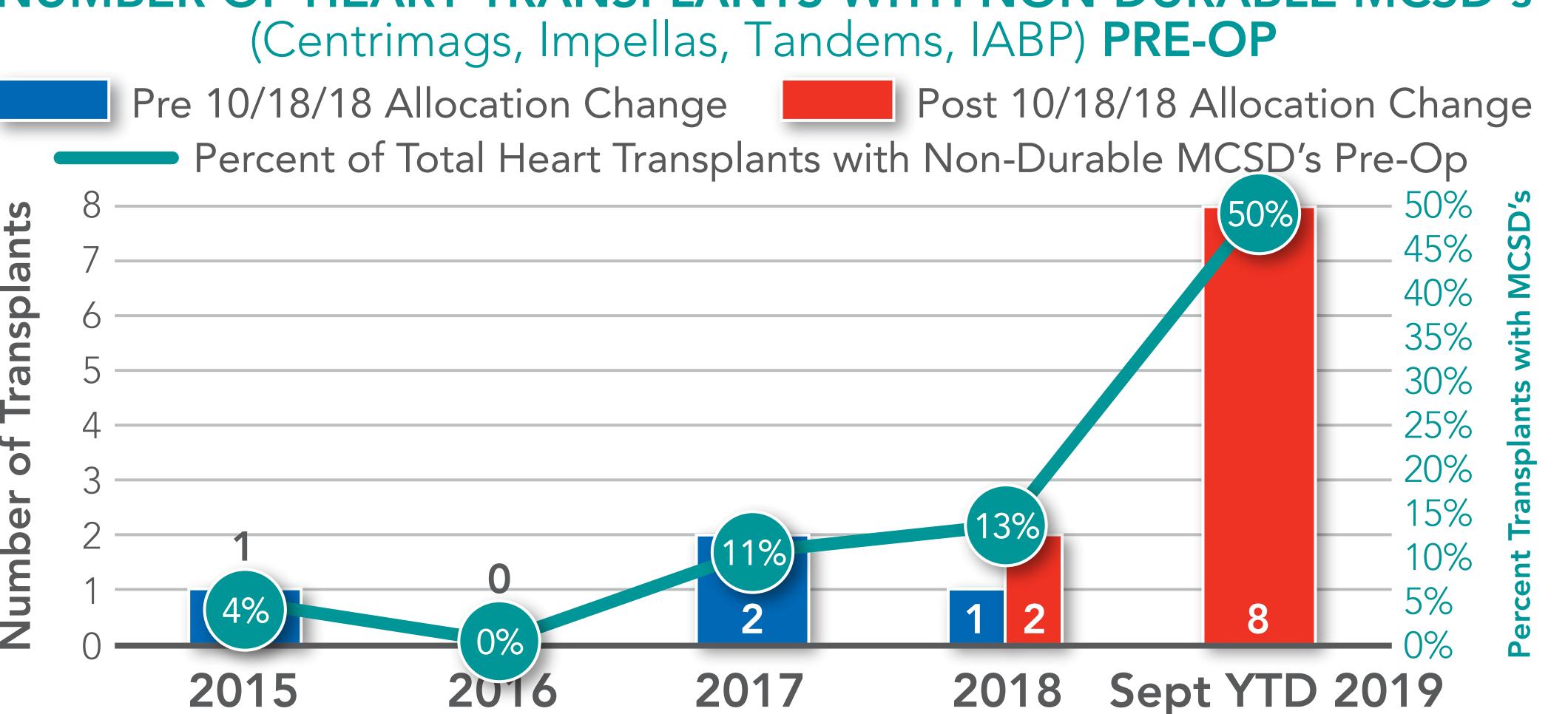




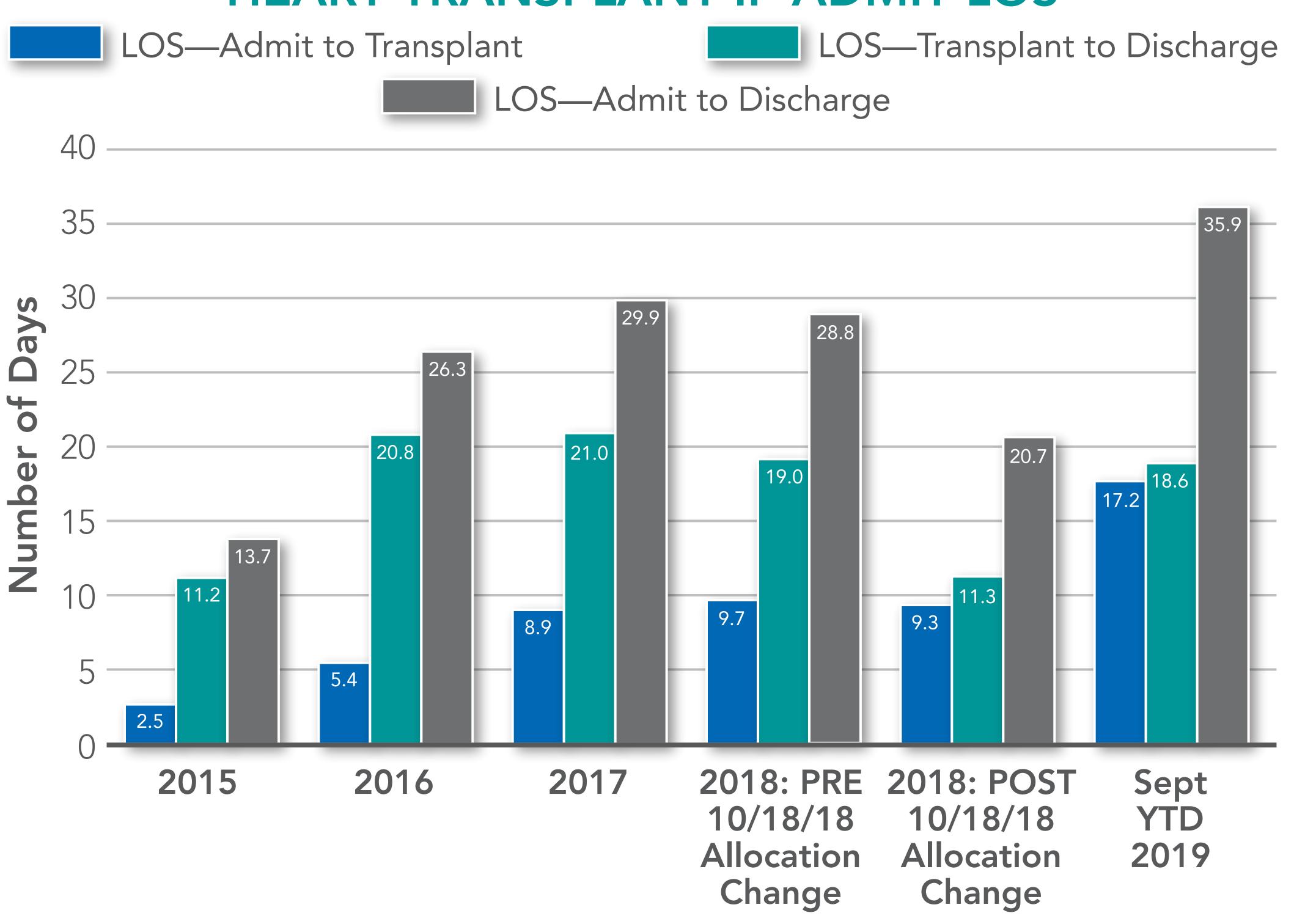
# NUMBER OF ADULT HEART ONLY TRANSPLANTS WITH DURABLE VADS PRE-OP



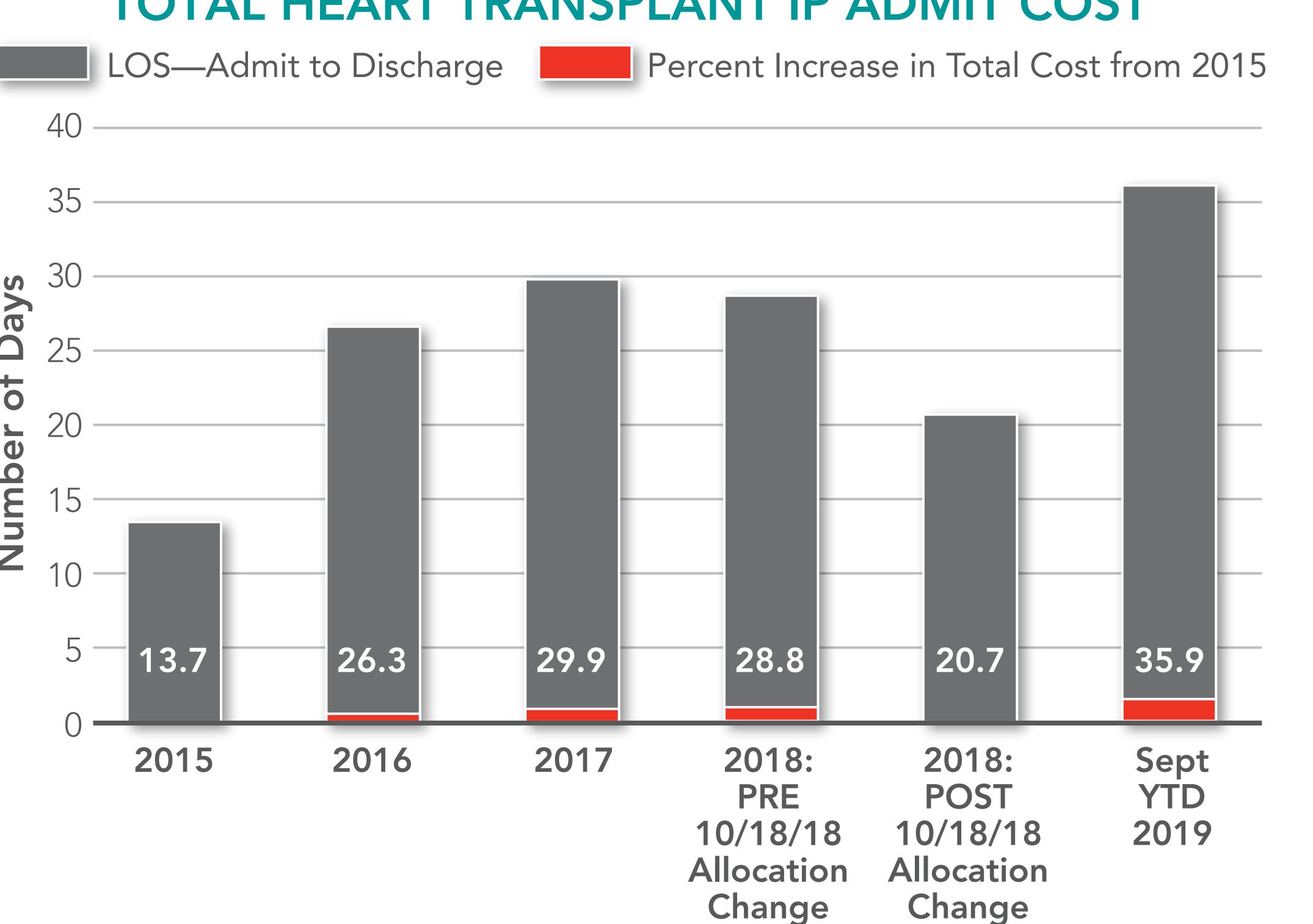
#### NUMBER OF HEART TRANSPLANTS WITH NON-DURABLE MCSD's



#### HEART TRANSPLANT IP ADMIT LOS



## TOTAL HEART TRANSPLANT IP ADMIT COST



### RESULTS

Before the UNOS change, about 4.65% of our patients were on nondurable MCSD prior to transplant. During 2019, 52.63% of our patients were on these devices prior to transplant. The average LOS from admit to transplant was 6.4 days (SD: 9.7, Median(Q1,Q3): 1 (0-9)) before the allocation change, while it was 16 days (SD: 15.2, Median(Q1,Q3): 18 (1–26)) after the change. Both T-test and Wilcoxon rank sums test indicate a statistical significance between the two distributions (p=0.015 for T-test and p=0.003 for Wilcoxon test). The average costs for heart transplant hospitalization increased due to higher

# CONCLUSIONS

Clinical outcomes with these policy changes are unknown but early experiences show a significantly longer LOS and increased cost, specially related to pre transplant phase.

# CLINICAL IMPLICATION

The new UNOS Allocation Heart policy has resulted in longer hospitalization pretransplant, increased utilization of non-durable Mechanical Circulatory Support Devices and higher cost of care.