Kidney transplantation is an effective treatment for patients with ESRD. In 2011, nearly 17,000 kidney transplants were performed in the United States, but 94,000 patients remained on the waiting list. This discrepancy has led to an increase in waiting time to kidney transplantation from 3.3 years in 2000 to 4.72 years by 2009, increasing the cumulative time on dialysis and the mortality rate while awaiting a transplant. Furthermore, there is disparity in waiting time for a kidney transplant depending on where a patient is located geographically (Davis et al, Transplantation, 2014).

The objective of this workgroup is to study access to solid organs and allocation of available organs for transplantation. In collaboration with Industrial Engineering and the Kellogg School of Management, this group addresses issues by merging state-of-the-art methodologies with the pertinent clinical questions. Areas of interest include geographic inequity of allocation, organ shortage, and access to solid organ transplantation.

States achieve geographic disparity for all waitlisted patients. Several strategies to reduce geographic disparities have been proposed by the authors (Davis A, Medical Decision Making, 2014; Davis A, Proceedings Winter Simulation Conference 2013). Just recently this group has published a widely publicized paper on the statewide sharing in the Clinical JASN, which demonstrated that in FL and TN, the existing geographic disparities almost completely disappeared over a decade, when organs were shared within a state before regional allocation, after local allocation, basically adding an allocation step (Davis A, CJASN, 2014). This description of a natural experiment elucidates the opportunity of small changes having significant mitigating effect on the existing geographic disparity existent today.

This is particularly important as geographic disparity is presently of great national interest for liver allocation with intentions to redraw the national allocation map. Furthermore, as UNOS considers new allocation policies, understanding the models underlying the predictions is essential, especially as many models used by UNOS/SRTR are outdated. A manuscript pointing out methodological vulnerabilities will be published in January in Transplantation the product of a productive cross-institutional collaboration led by Drs. Mehrotra and Kaplan.

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Please contact Dr. Friedewald at jfriedew@nmh.org, Dr. Mehrotra at mehrotra@northwestern.edu or Dr. Ladner at dladner@nmh.org for more information or if you have ideas for further opportunities to address access and allocation in context of transplantation.