

RECOMMENDATIONS

FEBRUARY 2022 • REALIZING THE PROMISE OF EQUITY IN THE ORGAN TRANSPLANTATION SYSTEM

Recommendations for Creating a More Equitable, Transparent, and Efficient System for Deceased Donor Organs

The committee developed each recommendation in this report with the interests of patients in mind and through the lens of equity. Based on the committee's review of the evidence and reflection on the experience of individual committee members, there is an opportunity to refocus the organ transplantation system around the patient experience of needing and seeking an organ transplant. The committee concluded that even at its best, the organ transplantation system is not accountable to all patients who need an organ transplant. A shift is needed toward policies that engender accountability to all patients in need of a transplant, whether they are on the waiting list yet or not, as well as organ donors and their families who donate the gift of life.

In crafting the recommendations in this report the committee often calls on the Department of Health and Human Services (HHS) to update the Organ Procurement and Transplantation Network (OPTN) contract to require or hold the OPTN accountable for taking specific actions. The committee realizes that the OPTN contract will come up for bid again in 2023 and that some elements of the committee's recommendations might be best incorporated in the HHS request for proposals in 2023, while others can be immediately embedded into the priorities for the OPTN.

Committee's Recommendations

The committee recommends the following actions—some near term (in the next 1–2 years) and others longer term (in the next 3–5 years)—to realize a more equitable, transparent, cost-effective, and efficient system for deceased donor organs:

- Develop national performance goals for the U.S. organ transplantation system.
- Improve the OPTN policy-making process.
- Achieve equity in the U.S. transplantation system in the next 5 years.
- Accelerate finalizing continuous distribution allocation frameworks for all organs.
- Eliminate predialysis waiting time points from the kidney allocation system.
- Study opportunities to improve equity and use of organs in allocation systems.
- Increase equity in organ allocation algorithms.
- Modernize the information technology infrastructure and data collection for deceased donor organ procurement, allocation, and distribution.
- Make it easier for transplant centers to say “yes” to organ offers.
- Increase transparency and accountability for organ offer declines, and prioritize patient engagement in decisions regarding organ offers.
- Require the establishment and use of a donor care unit for each organ procurement organization.
- Create a dashboard of standardized metrics to track performance and evaluate results in the U.S. organ transplantation system.
- Embed continuous quality improvement efforts across the fabric of the U.S. organ transplantation system.
- Align reimbursement and programs with desired behaviors and outcomes.

Achieving Equity

While all of the committee's recommendations include a focus on increasing equity, including many related to system-level improvements, the following five recommendations stand out as being squarely focused on equity:

Recommendation 3:¹ Achieve equity in the U.S. organ transplantation system in the next 5 years.

Under the direction and oversight of Congress, HHS should be held accountable for achieving equity in the transplantation system in the next 5 years. Within 1 to 2 years, HHS should identify and publish a strategy with specific proposed requirements, regulations, payment structures, and other changes for elimination of disparities. Elements of the strategy should include expanding oversight and data collection, aligning providers with the goal of equity, shared decision making with patients and public education, and elevating voices of those facing disparities.

Expanding Oversight and Data Collection

- HHS should extend its regulatory oversight of the organ transplantation system beginning, at least, at the time a patient reaches end-stage organ failure and extending beyond 1 year posttransplant.
- HHS should update the OPTN contract to require the collection of disaggregated data by race and ethnicity, gender/sex, age, as well as language and the creation of new measures of inequity in the transplant system.

Aligning Providers with the Goal of Equity

- The Centers for Medicare & Medicaid Services (CMS) should adopt payment policies that incentivize all providers—from primary and specialty care of patients with organ failure to referral for transplant, from care while awaiting a transplant to long-term posttransplant care—to improve equity in access to care and outcomes for patients.

Shared Decision Making with Patients and Public Education

- HHS should develop, implement, and evaluate rigorous approaches for transplant teams to communicate routinely with (1) potential transplant recipients about their status and remaining steps in the process of transplant evaluation; (2) wait-listed candidates about organs offered to them, including information about the benefits, risks, and alternatives to accepting different types of organs to facilitate shared decision making about whether to accept the organ; and (3) wait-listed candidates about the number of organs offered and declined.
- HHS should develop, implement, and evaluate rigorous approaches for routinely educating the public about the benefits, risks, and alternatives to organ transplantation as a treatment option for end-stage organ disease or for those needing transplantation of tissue or a functional unit.
- HHS should conduct ongoing culturally targeted public education campaigns to convey the need for organ donation to save lives, to eliminate misconceptions about organ donation and transplantation, and to increase the trustworthiness of the transplantation system.

Elevating Voices of Those Facing Disparities

- The OPTN should be required to ensure that all populations facing disparities, including persons with disabilities, are represented in the transplant policy development process.
- HHS should require and support work with OPOs to increase the diversity of their workforce to better meet the needs of donor families.

Recommendation 4: Accelerate finalizing continuous distribution allocation frameworks for all organs.

The OPTN should accelerate the development of the continuous distribution framework for all organ types with full implementation by December 31, 2024. The OPTN should set organ-specific upper bounds on the weight of “distance to the donor hospital” in the continuous distribution equation. The weights should be proportional to the effect of increased organ travel on posttransplant survival. The OPTN should regularly reevaluate the weight assigned to this factor as advances in normothermic preservation permit travel time to be extended without impairing outcomes. The OPTN should annually evaluate the effects of the continuous distribution policy and

¹ Recommendations are numbered according to their appearance in the full report.

adjust the equations for organs that are not moving toward the goals set by HHS for improved equity, organ use, and patient outcomes, as well as steady or reduced costs.

Recommendation 5: Eliminate predialysis waiting time points from the kidney allocation system.

To reduce racial and ethnic disparities in the application of kidney transplant allocation policies, the OPTN should discontinue the use of predialysis waiting time credit, or points, in the current kidney allocation system, leaving only the date that the patient began regularly administered dialysis as an end-stage renal disease patient as the basis for an individual to accumulate points based on wait time. While this committee is not recommending that access to the deceased donor kidney waiting list be limited to only those who have started dialysis, the committee is recommending that predialysis waiting time should be discontinued as a basis for accumulating waiting time points. This change would ultimately save more lives in a fairer and more equitable manner by eliminating the current preferential access to deceased donor kidneys for individuals able to gain timely access to referral for transplant and the transplant waiting list. Considerations may be necessary for pediatric transplant candidates, multiorgan transplant candidates, prior transplant recipients, and those currently listed with predialysis waiting time. The OPTN should closely monitor any unintended consequences of removing predialysis waiting time points. To avoid manipulating the system by earlier dialysis initiation, OPTN policy should include penalties for providers who engage in the premature initiation of dialysis.

Recommendation 6: Study opportunities to improve equity and use of organs in allocation systems.

HHS should require the OPTN to study the effect of changing the kidney allocation system to include a measure of survival benefit and dialysis waiting time as a method of improving access to transplant for all patients without unintended consequences for patients with disabilities, socioeconomically disadvantaged populations, and racially diverse patients. Additional endpoints for study should include patient-centered and patient-identified metrics as well as waiting list mortality, organ nonuse rates, and overall survival from the time of entry onto the waiting list.

Recommendation 7: Increase equity in organ allocation algorithms.

HHS should quickly resolve areas of inequity in current organ allocation algorithms. The committee identified numerous aspects of the current organ allocation algorithms that require revision, further study, or immediate implementation. The committee recommends that HHS do the following:

- Require the OPTN to update its prediction models (e.g., KDPI, EPTS, and MELD) using the most recent data no less frequently than every 5 years. During this time, the models themselves should be reconsidered by adding or removing predictors that will either improve predictive accuracy or increase equity (e.g., adding serum sodium to the MELD score, replacing race with scientifically valid biologic predictors in the KDPI). Statistical aspects of the prediction models themselves should also be reviewed to ensure that the best performance possible is achieved and that they are properly validated using data not used to derive the prediction models.
- Modify the MELD scoring system for liver allocation and prioritization or establish an alternative overall prioritization scheme to include a modifier based on body size or muscle mass to overcome the demonstrated disparities observed for patients of smaller size.
- Immediately implement the recommendations of the National Kidney Foundation and American Society of Nephrology joint task force to use the revised equation, which eliminates race, in calculating eGFR for all individuals and to use the revised equation for high-risk individuals that incorporates a blood test for cystatin C along with serum creatinine.
- Require the OPTN to ensure that all laboratories in the transplantation system become capable of conducting validated cystatin C tests within 12 months.
- Resolve the use of race in KDPI and other clinical equations. Within 12 months HHS should make a decision on the continued use of race in KDPI and how best to eliminate race from KDPI and other clinical equations used in organ allocation and access.
- Continue to gather data on factors that may result in disparities in access to, and outcomes of, organ transplantation (e.g., socioeconomic status, place of residence, access to health care, race and ethnicity, presence in patient or family of stressors caused by racism) and use such data to determine whether faster progression to end-stage kidney disease is experienced by patients with any particular factor or combination of factors, and if so whether this evidence should be used to establish a new threshold for listing on the transplant list and for allocation of an organ for transplantation.

Improving System Performance to Increase Reliability, Predictability, and Trustworthiness

The current organ transplantation system is unduly fragmented and inefficient. The system's component parts—physicians caring for patients with organ failure, donor hospitals, OPOs, the OPTN, transplant centers, the Scientific Registry of Transplant Recipients, CMS, and other payers, among others—do not operate as a fully integrated system. Likewise, the entities with oversight responsibilities each oversee particular components, but none monitors the performance of the system as a whole in producing predictable, consistent, and equitable results. The organ transplantation system could save additional lives and be more equitable if its component parts functioned in a more cohesive fashion and were overseen by a single entity, or by several entities operating in a coordinated fashion with common goals and unified policies and processes. Such alignment of all components and oversight responsibilities would allow the public and Congress to ascertain whether the system is fairly and efficiently maximizing the benefits provided by organ donation and transplantation. The committee offered six recommendations focused on system-level improvements.

Recommendation 1: Develop national performance goals for the U.S. organ transplantation system.

HHS should identify and substantially reduce or eliminate the existing variations among donor hospitals, OPOs and transplant centers in the rates of organ donation, DCDD procurement and transplantation, acceptance of offered organs, and nonuse of donated organs, to improve the quality of, and foster greater equity in, organ donation and transplantation. HHS should also use the proven capabilities of the highest performing donor hospitals, OPOs, and transplant centers to establish bold goals to drive national progress toward greater equity, higher rates of organ donation, procurement and transplantation of organs from donors after circulatory determination of death (DCDD), and acceptance of offered organs, along with lower rates of nonuse of donated organs, to increase the total number of organs procured and transplants performed.

These goals can inform the development and use of various levers of influence including organized programs of quality improvement, payment policies, regulations, technical assistance, and public education campaigns. The goals should be continuously reviewed (at least annually) and updated as results are obtained, and as new, higher levels of organizational performance are achieved. HHS should:

- Build on the initial Centers for Medicare & Medicaid Services (CMS) goals established in the kidney transplant collaborative, and establish a national goal for all transplant centers to reduce donated kidney nonuse rates to 5 percent or less.
- Establish new national goals to do the following:
 - Improve donation among minority populations and disadvantaged populations, and increase transplantation rates among minority and disadvantaged populations, based on the proven practices of donor hospitals, OPOs and transplant centers which have the highest rates in these areas.
 - Increase the number of organs procured from medically complex donors. In particular, increase DCDD donors to at least 45 percent of all deceased donors, with no reductions in the numbers of organs procured from donors from neurological determination of death.
 - Improve offer acceptance levels for each organ type to those achieved by the 5 to 10 percent highest-performing transplant centers for that organ type nationally.
 - Increase the number of transplants to at least 50,000 by 2026.

Recommendation 2: Improve the Organ Procurement and Transplantation Network (OPTN) policy-making process.

HHS should hold the OPTN and HRSA accountable for developing a more expedient, and responsive policy-making process including increasing racial, ethnic, professional, and gender diversity on the boards and committees responsible for developing OPTN policies. HHS should use the agreed on policy priorities established by the OPTN Policy Oversight Committee to establish contractual deadlines for completion of these policy-making priorities. HHS should consider requiring the OPTN to work with and receive support from an external organization, such as the National Quality Forum (NQF) or the National Academy of Public Administration, with expertise in guiding federal programs through unique challenges in leadership and stakeholder collaboration. HHS should require the OPTN to consider the following elements of the policy-making process:

- Proven approaches by others, such as the NQF Measure Applications Partnership, for meeting aggressive timelines with intensive, consensus-based, multistakeholder policy development processes;

- Optimal board size and stakeholder balance;
- Continuous and concurrent versus sequential policy-making processes;
- Managing strategic priorities and ensuring priority items have sufficient momentum, institutional memory, and timelines;
- Alternative governance models; and
- Appropriate tools and processes for evaluating the effectiveness of the policy-making process.

Recommendation 8: Modernize the information technology infrastructure and data collection for deceased donor organ procurement, allocation, distribution, and transplantation.

HHS should ensure that the OPTN uses a state-of-the-art information technology infrastructure that optimizes the use of new and evolving technologies to support the needs and future directions of the organ transplantation system. Toward this end, HHS should do the following:

- Within the next 1 to 2 years, evaluate how well the current IT system meets the needs of the transplant system by collecting and analyzing data from IT end users (e.g., OPOs and transplant teams) and other stakeholders.
- Using the user needs assessment and input from external IT experts, identify needed improvements in the current IT system used by the OPTN that would make it more efficient, equitable, and user-friendly.
- Assess the pros and cons of various contracting approaches to mitigate and prevent the risks of system failures if substantial changes in IT contracting are pursued.

Based on the evaluation of the current IT system, HHS should consider pursuing one of the following three noted courses of action:

- Immediately separate the IT infrastructure components from the remainder of the OPTN contract and institute a new competitive process for an IT services contractor.
or
- Incorporate the identified improvements in the next OPTN contract bidding process in 2023. This could include smart approaches to mitigate potential system failure risks, separating the IT infrastructure components from the OPTN contract to address necessary improvements, and keeping the contract intact but with updated expectations for the winning contractor.
or
- Pursue an alternative approach that would achieve the same desired outcome.

If HHS determines that separating the IT infrastructure from the current OPTN contract requires a change in the National Organ Transplant Act (NOTA), then HHS should work with Congress to revise NOTA accordingly.

Recommendation 11: Require the establishment and use of a donor care unit for each organ procurement organization.

To better serve donors and families, increase cost-effectiveness, and foster innovation in organ rehabilitation and donor intervention research, HHS should require each of the 57 OPOs to create, establish, and manage a donor care unit (DCU). Ensuring the success of donor care units at a national level will also require CMS to revise payment incentives for transplant centers such that the transplant center is neither financially punished or excessively rewarded for performing deceased donor organ management and recovery. Specific actions include:

- For each donor service area (DSA) in the United States, HHS should require the OPO and transplant center(s) to collaborate on the development of a DCU that would be designed, established, and managed by the OPO, if one does not already exist, to serve that geographic area. Because multiple models of DCUs are in practice today, the committee recommends that HHS require the following attributes for each donor care unit:
 - Dedicated beds for deceased donors in a dedicated space;
 - Dedicated operating room with trained staff, reserved specifically for organ procurement surgery;
 - Dedicated space for donor families;
 - ICU-level care;
 - Oversight by a critical care physician;

- Ability to conduct some in-house imaging and diagnostics of donors;
- Ability to conduct organ rehabilitation and therapy;
- Ability to conduct donor intervention research; and
- Reasonable distance to an airport.
- CMS should adjust current reimbursement structures that create disincentives that dampen the willingness of some transplant centers to transfer donors to an OPO DCU. Transplant centers should not be disadvantaged financially by allowing a donor to be transferred to a DCU for donor management and organ recovery. Similarly, transplant centers should not excessively gain from transferring and managing already deceased donors from another hospital for the sole purpose of organ procurement.
- HHS should require hospitals to smooth surgical scheduling so that organ donation surgical procedures for DCDD donors and donors who cannot be transferred to a DCU can take place in a timely manner all 7 days of the week.

Recommendation 12: Create a dashboard of standardized metrics to track performance and evaluate results in the U.S. organ transplantation system.

HHS should use a combination of currently collected data and new data elements specifically related to access to transplant to create a publicly available dashboard of standardized metrics to measure the performance of the organ transplantation system. The metrics in the dashboard should be developed to be meaningful to donor families, individuals with chronic disease or organ failure, transplant candidates, and individuals on the waiting list and their families, and to ensure accountability and partnership across the components of the system. The metrics should be used for quality improvement, and once they are deemed valid and reliable, they should be used for regulatory purposes. Specific actions HHS should take include the following:

- Establish standardized data collection requirements, with an emphasis on timeliness of reporting, for donor hospitals, OPOs, and transplant centers. All data points collected should reflect demographics—that is, the most updated way of capturing race, ethnicity, and language, as well as socioeconomic factors, disability status, a social deprivation index based on geography, and other factors to better document, understand, reduce, and eventually eliminate disparities.
- Require collaboration among the federal agencies with oversight of the transplantation system on data collection to ensure relevant, accurate, and timely data are available about the transplantation system.
- Collaborate with an organization like the National Quality Forum to develop consensus measures and measure specifications to evaluate and improve the performance of the organ transplantation system in a standardized way. Recommended data points needed from donor hospitals, OPOs, referring organizations, and transplant centers are detailed in Figure 7-1.
- Create a publicly available dashboard of standardized metrics to provide a complete human-centered picture of the patient experience—from patient referral for transplant evaluation, time on the waiting list, to posttransplant quality of life—managed by the Scientific Registry of Transplant Recipients (SRTR) or a similar entity.

Recommendation 13: Embed continuous quality improvement efforts across the fabric of the U.S. organ transplantation system.

HHS should take actions to reduce variations in the performance of donor hospitals, OPOs, and transplant centers and increase the reliability, predictability, and trustworthiness of the U.S. organ transplantation system through implementing and sustaining continuous quality improvement efforts across the system. HHS should hold the component parts of the organ transplantation system accountable for achieving demonstrable performance improvement. With government leadership, quality improvement efforts should create greater systemness and accountability for the highest possible performance among all donor hospitals, OPOs, and transplant centers. Special attention and focus should be given to spreading best practices in organ procurement and transplantation that reduce and eliminate inequities and disparities. The following are specific actions HHS should take in this regard:

- Sustain continuous quality improvement work on a national scale over time as a long-term investment in lifesaving transplants.
- Align quality improvement efforts with the performance goals for the U.S. organ transplantation system (see Recommendation 1). Quality improvement efforts should improve the prework that includes identifying who would possibly benefit from a transplant and also the postwork of caring for people who receive a transplant.

- Deploy quality improvement techniques that focus on behavior change tools, implementation science, nudging, and education theory to realize uptake of best practices for organ procurement, use, and transplantation across donor hospitals, OPOs, and transplant centers.
- Promote the development, systematic sharing, adaptation, and use of best practices in areas such as rapid referral and early response by donor hospitals and OPOs, increasing donation authorization rates among diverse populations, pursuit of all possible organ donors, how to have culturally sensitive conversations with all families about organ donation, intensive waiting list management, successful use of medically complex organs, and how best to communicate with patients about organ offers.
- Urge hospitals to smooth surgical scheduling to both enable organ donation surgical procedures, and to ensure the hospital's capability to accept and use organ offers, regardless of which day of the week the gift of donation occurs.
- Explore additional tools and approaches for promoting innovation in the organ transplantation system, including the following:
 - Launch a nationwide learning process improvement collaborative to address deceased organ donors, waiting list management, the acceptance of offered organs, transplant rate, and automated organ referrals.
 - Encourage preapproved controlled experiments by OPOs and transplant centers to allow experimentation with innovation and the development of evidence to support widespread adoption of best practices.
 - Incentivize transplant centers, donor hospitals and OPOs to actively participate in the kidney transplantation collaborative sponsored by CMS and HRSA.
 - Require the OPTN to implement an organized system of proactive communication or nudges in the form of special messages or brief reports aimed at calling attention to outlier performance by OPOs and transplant centers, based on SRTR data. Nudges should be sent to both high and low performers. For example, OPOs with a low percentage of DCDD donors in their deceased donor organ pool could receive a special message or brief report calling attention to their current performance in comparison to other OPOs.

Underuse of Procured Organs

While waiting lists remain long and every day many listed individuals die while awaiting an organ, too many donated organs that are procured and offered to patients at transplant centers are not accepted—leaving thousands of potentially lifesaving donated organs unused every year. Approximately 20 percent of kidneys procured from deceased donors are not used (i.e., the organs are procured for transplantation but not transplanted into individuals on the waiting list) (Israni et al., 2021; OPTN, 2021). The committee agreed that this issue of unused organs represents a critical need for system improvement. Evidence indicates that many, if not a large majority, of unused organs could be successfully transplanted and benefit patients. Two facets of the organ transplantation system are in tension. On the one hand, priority for individuals on each organ waiting list is based on formal, publicly announced policies, and organs are allocated by match-run algorithms. On the other hand, a patient's access to an organ offered depends on how the transplant professionals in the program caring for the patient exercise the discretion that the system gives them regarding when to accept or reject an organ for transplantation. This divergence—which is not transparent either to the general public or even to all patients on the waiting list—has implications for equitable treatment of all patients, for adherence to the ethical principles of autonomy and beneficence, and for trust in the system. The committee offered three recommendations focused on increasing use of organs procured from deceased donors:

Recommendation 9: Make it easier for transplant centers to say “yes” to organ offers.

The OPTN should enhance organ allocation and distribution policies and processes to reduce nonuse of deceased donor organs and make it easier for transplant centers to say “yes” to organ offers. To improve the organ offer process, the OPTN should do the following:

- Require the use of more refined filters for transplant centers to indicate their preferences for which kidneys will be accepted, if offered. The filters should especially focus on determining transplant center willingness to accept medically complex kidneys, akin to what is done in the UK’s Kidney Fast Track Scheme.
- Implement expedited placement policies, at first offer, for offered and procured kidneys at high risk of non-use to effectively direct difficult-to-place kidneys to transplant centers with a demonstrated history of using them.

- Since donations occur 7 days a week, the OPTN should require hospitals with transplant centers to smooth surgical scheduling using proven procedures in order to ensure the capability of organ procurement operations and organ transplants all 7 days of the week.
- Adapt the process of offering an organ to gradually increase the number of simultaneous offers of a given organ to save cold ischemic time and minimize herding effects.
- Review and standardize current requirements for organ quality assessments conducted by OPOs with the primary goal of helping transplant centers accept more organ offers by focusing on the following specific actions:
 - Develop evidence-based standards for organ quality assessment to be used by all OPOs prior to organ allocation. The standardized requirements for organ quality assessments should carefully consider the value of biopsies as it has been repeatedly shown that biopsy results deter organ acceptance, often inappropriately.
 - Develop clear guidelines for transplant centers to request any additional organ quality testing beyond the standardized requirements.

Recommendation 10: Increase transparency and accountability for organ offer declines and prioritize patient engagement in decisions regarding organ offers.

HHS should update the OPTN contract to require increased transparency around organ offer declines. The updated OPTN contract should do the following:

- Require transplant centers to share with a patient and their family the number and context of organ offer declines for that individual on the waiting list during a defined period (e.g., every 3 to 6 months).
- Require the collection of more reliable, specific, and patient-centered data on reasons organ offers were declined through improvements in refusal codes. For example, require transplant centers to provide additional justification for declining an offered kidney when survival benefit of the transplant is greater than staying on dialysis.
- Require investigation of approaches for shared decision making between patients and transplant teams in the organ offer process and implementation of models proven to be most useful and desirable.

HHS should update the OPTN contract to require transplant center accountability for patient engagement and partnership between transplant center professionals and patients in deciding whether to accept or reject an offered organ. The updated OPTN contract should require:

- Close monitoring of any new transplant center performance metrics to ensure the desired outcomes are achieved and unintended consequences are avoided;
- Nudges in the form of reports showing a transplant center's decisions regarding offered organs, as well as comparisons to other transplant centers, to be proactively developed from SRTR data and shared with individual transplant centers on a monthly basis; and
- Transplant programs to document shared decision making that includes a discussion of survival benefit, relative to staying on the waiting list or dialysis, before deciding to accept or reject an offered deceased donor organ.

Recommendation 14: Align reimbursement and programs with desired behaviors and outcomes.

CMS should align payment and other policies to meet the national performance goals for the organ transplantation system (see Recommendation 1). Within 2 years, CMS should:

- Continue and expand funding, as needed, for the current quality improvement initiative aimed at reducing the kidney nonuse rate, and pursuing simultaneous expansion of kidney donation by spreading the best practices of transplant centers and OPOs.
- Sustain and expand current work in the End-Stage Renal Disease program to:
 - refer more eligible patients for transplant,
 - help referred patients to get both evaluated and listed by transplant centers,
 - assist patients in fully understanding and engaging with transplant centers when organs that are offered are declined on their behalf, and
 - work with Congress to update and increase the existing and outdated dialysis withholding payment to fund ESRD quality improvement activities.

- Sustain and expand model tests and other payment policies to increase reimbursement for nephrologists and dialysis centers to educate and refer patients for transplant evaluation.
- Increase reimbursement for referral for transplant evaluation for all organ types, and in the case of kidney transplant, even before dialysis begins.
- Update the CMS Interpretive Guidelines to reflect current practices and promote a collaborative relationship between the donor hospital and OPO, and institute measurable reporting mechanisms for donor hospital data. Address this systematically as part of both CMS hospital surveys and surveys by deemed organizations such as The Joint Commission.
- Explore financial incentives and make changes to Interpretive Guidelines to make hospitals accountable for smoothing surgical scheduling to ensure the capacity to recover and transplant donated organs 7 days a week.

HHS, CMS, and other payers, should consider new opportunities to increase the use of organs. HHS, CMS, and other payers should take the following steps:

- Increase payment for improving the procurement and transplantation of all types of organs, as CMS did in the 2021 IPPS Final Rule when it created new Diagnosis Related Groups (DRGs) with higher payments for kidney transplants that required a higher level of medical care.
- Incentivize OPOs and transplant centers to learn from the organizations and centers that already make extensive use of medically complex organs, and actively work to spread the practices for obtaining and transplanting these organs have proven to be most successful and cost-effective.
- Within the next 2 years, the CMS Innovation Center should design and implement one or more model tests to assess the effects of additional increased payments to address the added costs of rehabilitating and using more organs that are medically complex and increasing equitable access to a broader pool of patients. These model tests should also measure the potential improvement in health care quality and financial savings of providing transplants more quickly to patients who would otherwise require continued extensive medical support, such as an artificial organ or hospitalization.

References

- Israni, A. K., D. Zaun, J. D. Rosendale, C. Schaffhausen, W. McKinney, and J. J. Snyder. 2021. OPTN/SRTR 2019 annual data report: Deceased organ donors. *American Journal of Transplantation* 21(S2):567–604.
 OPTN (Organ Procurement and Transplantation Network). 2021. National data. <https://optn.transplant.hrsa.gov/data/view-data-reports/national-data> (accessed November 4, 2021).

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