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Distributive Injustice and Organ Transplant Waitlists

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Distributive Injustice and Organ Transplant Waitlists

by HUMA ZARIF*

I. Introduction	76
II. Background	78
A. The Uniform Anatomical Gift Act	78
B. National Organ Transplant Act.....	79
III. Waitlisting & Allocation Decisions.....	81
A. The Dreaded Waitlist.....	81
B. Multiple Listing Quandary	83
C. Allocation Enigma.....	85
IV. National Distribution	89
V. Reducing the Waitlist.....	91
A. HIV Organ Policy Equity Act	91
B. Opt-in versus Opt-out	91
C. Compensation for Donation.....	92
VI. Conclusion.....	95

If the distribution of organs becomes subject to the success of individual publicity campaigns, with organs going to those who hire the best PR firms and lawyers, who on the waiting list would remain confident that their priority would be decided on the merits . . . [a]nd who would agree to donate organs to a system supposedly based on rational, humane, and fair selection criteria but that would actually be determined by the assets of the highest bidder?¹

* University of California, Hastings College of the Law, J.D. Candidate, 2015. Special thanks to Professor Robert Schwartz for his insight and guidance.

1. Brett Norman, *Will Girl's Transplant Hurt System?*, POLITICO (June 12, 2013, 08:06 PM), <http://www.politico.com/story/2013/06/sarah-murnaghan-organ-transplant-policy-92694.html> (quoting Daniel Wikler, medical ethics expert at Harvard).

I. Introduction

You have been diagnosed with organ failure and told you need an organ transplant to live. You are placed on the transplant waiting list knowing that there is a real risk you may die prior to receiving an organ transplant, your last hope for survival. You hear the story of a millionaire receiving an organ transplant in a state far from his home shortly after being listed . . . and two children being placed on an adult list to receive lung transplants . . . you think, how can that be? Can I be placed on additional waitlists to increase my options and chances of obtaining an organ transplant?

Organ transplantation has been a life-saving treatment option for many who require this intervention due to organ failure. However, there are many legal and ethical considerations regarding allocation of this limited resource. Some of these issues were brought to the forefront in the highly publicized cases of Steve Jobs, Sarah Murnaghan, and Javier Acosta.² These were instances where it appeared that in getting their transplants, these individuals obtained an unfair advantage over others on the waitlist. When a resource is as scarce as an organ for transplantation, equitable distribution policies are integral to a just allocation system.

The late Steve Jobs obtained a liver transplant in Tennessee, despite being a resident of California.³ Jobs was able to obtain a transplant in Tennessee because the transplant policies allow individuals to join multiple waitlists.⁴ However, not everyone has the same ability to access multiple waitlists due to the financial burden of going through an evaluation at each transplant center, and the inability to travel far distances at a moment's notice.⁵

In the case of the children, Sarah Murnaghan and Javier Acosta, both were suffering from end-stage cystic fibrosis and required lung transplants in order to survive.⁶ Since the availability of adult organs far exceeds the

2. Kaja Whitehouse, *Jobs Doctor's House Deal Raises Eyebrows*, NEW YORK POST (Dec. 10, 2013, 1:26 AM), <http://nypost.com/2013/12/10/house-deal-by-steve-jobs-doctor-raises-eyebrows/>; Luran Neergaard, *Challenging the Transplant System: Ruling That Allows Dying Child to Jump Waiting List Stirs National Debate*, NATIONAL POST (June 7, 2013, 2:44 PM), <http://news.nationalpost.com/2013/06/07/sarah-murnaghan-and-javier-acosta-organ-transplant-rulings-stir-debate/>.

3. Whitehouse, *supra* note 2, at 1.

4. See *OPTN Policies § 3.4G*, DEP'T OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf#nameddest=Policy_5_Organ_Offers_Acceptanc.

5. See *infra* Part III.B. See also William Saletan, *How Did Steve Jobs Get His Liver?*, SLATE (Jan. 19, 2011 8:55 AM), http://www.slate.com/articles/health_and_science/human_nature/2011/01/how_did_steve_jobs_get_his_liver.html.

6. Michelle Castillo, *Bronx Boy Who Challenged Child Lung Transplant Rules Receives Organs*, CBSNEWS.COM (Dec. 31, 2013, 1:38 PM), <http://www.cbsnews.com/news/bronx-boy-who-challenged-child-lung-transplant-rules-receives-organs/>.

availability of pediatric organs⁷ by as much as fifty times more,⁸ the parents of these children sought to set aside the United Network of Organ Sharing (UNOS) prohibition against children being placed on the adult transplant waitlist.⁹ Through judicial intervention, these children were able to obtain a temporary restraining order (TRO) against the UNOS “under age twelve rule” so that they could be considered for adult lungs based on the medical urgency of their cases.¹⁰ In granting the TROs for these children, Judge Baylson held that the under twelve rule “discriminates against children and serves no purpose, is arbitrary, capricious, and an abuse of discretion.”¹¹ Ultimately both children received adult lungs that they may not have otherwise received.¹² The cases of these children received much publicity and ultimately led to a temporary policy change at the Organ Procurement and Transplantation Network (OPTN).¹³ The policy change is due to expire July 2014 but is being considered for permanent adoption.¹⁴

The public sentiment was that any parent would do the same if faced with the circumstances Sarah Murnaghan and Javier Acosta’s parents were.¹⁵ However, as Secretary Sebelius of the Department of Health and Human Services (DHHS) stated at the time, it was an “incredibly agonizing situation where someone lives and someone dies.”¹⁶ Sebelius also noted that there

7. Ryan Jaslow, *Children Added to Adult Lung Transplant List Amid Outcry a Dilemma for Doctors*, CBSNEWS.COM (July 8, 2013), <http://www.cbsnews.com/news/children-added-to-adult-lung-transplant-list-amid-outcry-a-dilemma-for-doctors/> (Marlie Hall presenting) (reporting that in 2012 there were twenty lung donors under the age of twelve while there were 1700 adult lung donors).

8. *Janet & Francis Murnaghan v. U.S. Dep’t Health & Human Servs.*, No. 13-3083 (E.D. Pa. June 5, 2013) (order granting temporary restraining order); *Janet & Francis Murnaghan v. U.S. Dep’t Health & Human Servs.*, No. 13-3083 (E.D. Pa. June 5, 2013) (supplemental memo); *Milagros Martinez v. U.S. Dep’t Health & Human Servs.*, No. 13-3119 (E.D. Pa. June 6, 2013) (order granting temporary restraining order).

9. *E.g.*, Norman, *supra* note 1.

10. *Murnaghan TRO*, *supra* note 8; *Martinez*, *supra* note 8.

11. *Id.*

12. *Id.* See also *Murnaghan* supplemental memo, *supra* note 8.

13. *At-a-Glance: Proposal for Adolescent Classification Exception for Pediatric Lung Candidates*, HEALTH RES. & SERVS. ADMIN., available at http://optn.transplant.hrsa.gov/PublicComment/pubcommentPropSub_345.pdf (last visited Mar. 30, 2014).

14. See *infra* Part III.C. See also *At-a-Glance: Proposal for Adolescent Classification Exception for Pediatric Lung Candidates*, *supra* note 13.

15. Bethany Mandel, *Organ Allocation Should be Done by Doctors, Not Judges*, COMMENTARY (June 12, 2013 7:00 AM), <http://www.commentarymagazine.com/2013/06/13/organ-allocation-should-be-done-by-doctors-not-judges/> (stating “One cannot help but feel the utmost sympathy for families like the Murnaghans as they watch, helplessly, as their child suffers.”).

16. *Sebelius Rejects 10-Year-Old Girl’s Appeal for Life-Saving Waiver From Federal Regulation*, GRABIEN, <https://grabien.com/file.php?id=5990&searchorder=summary> (last visited Mar. 30, 2014).

were three other children in the same hospital under similar life-and-death circumstances¹⁷ and that there were forty others on the highest-acuity list in Pennsylvania at the time.¹⁸ As Dr. Stuart Sweet, medical director of the world's largest pediatric lung transplant program in St. Louis stated, "the organ allocation system is designed to offer organs as fairly as possible for every patient waiting for organs"¹⁹ and if the system is changed for one patient's advantage, then there is another patient who will be at a disadvantage.²⁰

This note will address the inequities of the current organ transplant waitlist system. Section II will begin with a review of the history of the organ transplant system in the United States. Section III will examine the transplant waitlist process and organ allocation systems. Sections IV and V will discuss options to consider in pursuit of achieving a more equitable organ transplant system.

II. Background

A. The Uniform Anatomical Gift Act

The current mechanism for organ donation in the United States is through an anatomical gift.²¹ Prior to 1968, organ donation was handled at the state level and systems varied significantly from state-to-state.²² The Uniform Anatomical Gift Act (UAGA) promulgated in 1968 by the National Conference of Commissioners on Uniform State Laws was the first piece of legislation regarding organ transplantation in the United States, creating the power that was not yet recognized at common law to donate organs, eyes, and tissue as a gift.²³ The UAGA was revised in 1987 and again in 2006.²⁴

17. Mandel, *supra* note 15.

18. *Sebelius Rejects 10-Year-Old Girl's Appeal for Life-Saving Waiver From Federal Regulation*, *supra* note 16.

19. Robing Young and Jeremy Hobson, *Dying Girl Sparks Debate Over Organ Transplants*, NPR Here & Now, (May 30, 2013) available at <http://hereandnow.wbur.org/2013/05/30/pediatric-organ-transplants>.

20. Allahpundit, *Sebelius: I can't suspend the lung-transplant rules for a dying 10-year-old*, HOT AIR (June 4, 2013 8:01 PM), <http://hotair.com/archives/2013/06/04/sebelius-i-cant-suspend-the-lung-transplant-rules-for-a-dying-10-year-old/>.

21. *ANATOMICAL GIFT ACT (2006) Summary*, Unif. Law Comm'n, [http://uniformlaws.org/ActSummary.aspx?title=Anatomical Gift Act \(2006\)](http://uniformlaws.org/ActSummary.aspx?title=Anatomical%20Gift%20Act%20(2006)) (last visited Mar. 30, 2014).

22. *Legislative*, ASSOCIATION OF ORGAN PROCUREMENT ORGANIZATIONS, <http://www.aopo.org/legislative-a33> (last visited Mar. 30, 2014).

23. *Timeline of Historical Events Significant Milestones in Organ Donation and Transplantation*, DEP'T OF HEALTH & HUMAN SERVS., <http://www.organdonor.gov/legislation/timeline.html> (last visited Mar. 30, 2014); *Legislative*, *supra* note 22.

24. *Id.*

All states had adopted the 1968 UAGA, but only twenty-six states enacted the 1987 revision resulting in non-uniformity amongst the states.²⁵ The diversity in the law amongst the states was considered an impediment to transplantation.²⁶ Thus, the 2006 revision was an attempt to increase efficiency of the organ transplant system by resolving perceived inconsistencies in the system and is limited in scope to donations from deceased donors.²⁷ The 2006 revision has been adopted in every state except Delaware, New York, Florida, and Pennsylvania where it has been introduced for consideration this year.²⁸

The UAGA has three goals in mind including: (1) encouraging individuals to make anatomical gifts; (2) respecting the autonomy of individuals in deciding whether or not to make an anatomical gift; and (3) prohibiting the sale and purchase of organs.²⁹

B. National Organ Transplant Act

In 1984 the National Organ Transplant Act (NOTA) was passed by Congress.³⁰ NOTA prohibits the sale of human organs, established the Organ Procurement and Transplantation Network (OPTN) to ensure fair and equitable allocation of donated organs, and provided grants to establish and expand organ procurement organizations (OPOs).³¹ The OPTN organizes the procurement, distribution, and transplantation of organs and is managed by a private non-profit organization, United Network for Organ Sharing (UNOS).³² OPTN is managed by UNOS through contract with the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services (DHHS) and has been the only organization managing

25. *ANATOMICAL GIFT ACT*, *supra* note 21.

26. Unif. Anatomical Gift Act (2006) Prefatory Note 1, *available at* http://www.giftofhope.org/about_donation/pdf/2006_Revised_UAGA.pdf.

27. *ANATOMICAL GIFT ACT*, *supra* note 21.

28. *ANATOMICAL GIFT ACT (2006)*, Enactment Map, Unif. Law Comm'n, [http://uniformlaws.org/Act.aspx?title=Anatomical+Gift+Act+\(2006\)](http://uniformlaws.org/Act.aspx?title=Anatomical+Gift+Act+(2006)) (last visited Mar. 30, 2014).

29. Unif. Anatomical Gift Act (2006), *supra* note 26 at 2. *See* Verheijde, Rady & McGregor, *The United States Revised Uniform Anatomical Gift Act (2006): New Challenges to Balancing Patient Rights and Physician Responsibilities*, PHILOSOPHY, ETHICS, AND HUMANITIES IN MEDICINE (Sept. 12, 2007), <http://www.peh-med.com/content/2/1/19#B7> (discussing the tension between the revised UAGA encouraging continued medical intervention to ensure suitability of organs for transplantation and the wishes of the deceased as indicated in advanced directives).

30. *Timeline of Historical Events*, *supra* note 23.

31. *Id.*; *Selected Statutory and Regulatory History of Organ Transplantation*, DEP'T OF HEALTH & HUMAN SERVS., <http://www.organdonor.gov/legislation/legislationhistory.html> (last visited Mar. 30, 2014).

32. Furrow, Greaney, Johnson, Jost & Schwartz, *Health Law: Cases, Materials and Problems* 1487 (7th ed. 2013).

the OPTN since 1986 when it was first awarded the contract by DHHS.³³ UNOS and OPTN have a shared board of directors that includes medical professionals, regional representatives, and general public representatives.³⁴ Specifically, the OPTN board must include fifty-percent transplant surgeons and physicians and at least twenty-five percent transplant candidates, transplant recipients, organ donors, and family members.³⁵ The OPTN committees and its board of directors develop policies while UNOS coordinates committee and board actions.³⁶

OPTN is charged with establishing: (1) a national list of individuals in need of organs, either through regional centers or in one location; (2) a national system of organ matching; and (3) criteria for allocation of organs.³⁷ OPTN must also assist OPOs in equitable distribution of organs among transplant patients nationwide and work actively to increase the supply of donated organs.³⁸

All OPOs must participate in the OPTN³⁹ and be certified by the Centers for Medicare and Medicaid (CMS).⁴⁰ Additionally, all OPOs are members of the Association of Organ Procurement Organizations.⁴¹ Fifty-eight OPOs exist in the United States and are responsible for increasing the number of registered donors and coordinating the donation process when actual donors become available within their designated service area.⁴² Some states like Hawaii and Alabama have one OPO, while other states such as New York and Ohio have up to five OPOs.⁴³ CMS conditions of participation require that any hospital involved in the procurement of organs must be a member of an OPO while a hospital that performs organ transplants must be a

33. *Id.*; OPTN, UNOS, <http://www.unos.org/donation/index.php?topic=optn> (last visited Mar. 30, 2014); *Organ Donation and Transplantation Save Lives*, ORGANDONOR.GOV, <http://www.organdonor.gov/about/index.html> (last visited Mar. 30, 2014).

34. *OPTN/UNOS Board of Directors*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/members/boardOfDirectors.asp> (last visited Mar. 30, 2014).

35. 42 C.F.R. § 121.3 (2014).

36. *Policy Management*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/policiesAndBylaws/> (last visited Mar. 30, 2014).

37. 42 U.S.C. § 274 (2014). *See id.* for a full listing of OPTN duties and responsibilities.

38. *Id.*

39. 42 U.S.C. § 273 (2014).

40. *Organ Procurement Organizations*, ORGANDONOR.GOV, <http://organdonor.gov/materialsresources/materialsolist.html> (last visited Mar. 30, 2014).

41. *Id.*; *Members*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/members/> (last visited Mar. 30, 2014).

42. *Id.*

43. *See id.*

member of the OPTN.⁴⁴ These conditions of participation apply to heart, heart-lung, intestine, kidney, liver, lung, and pancreas centers.⁴⁵

The nation has been divided into eleven geographic regions by OPTN to facilitate transplantation.⁴⁶

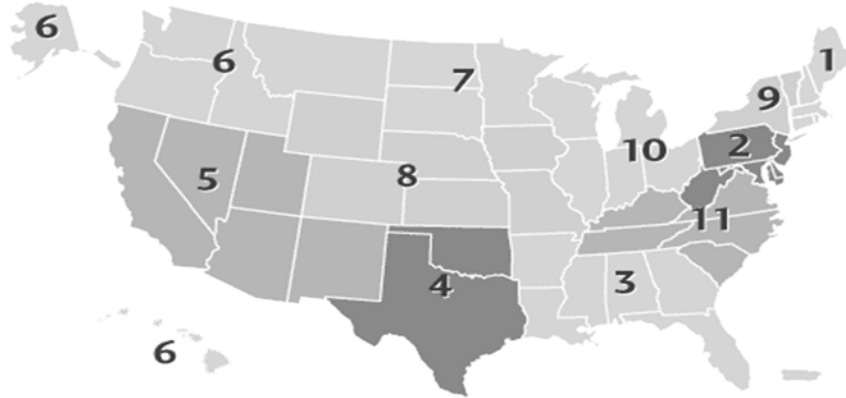


Figure 1 *Regions*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/converge/members/regions.asp>.

Each region is represented on the OPTN/UNOS Board of Directors.⁴⁷ These regions are further delineated into donation service areas (DSA) defined as “[t]he geographic area designated by the Centers for Medicare and Medicaid Services (CMS) that is served by one organ procurement organization (OPO), one or more transplant hospitals, and one or more donor hospitals.”⁴⁸

III. Waitlisting & Allocation Decisions

A. The Dreaded Waitlist

Despite the OPTN and OPOs being charged to increase the supply of donated organs, the gap between individuals in need of transplant and donors is widening.⁴⁹

44. 42 C.F.R. § 482.45 (2014); 42 C.F.R. § 482.72 (2014). See 42 C.F.R. § 482.104 for additional requirements for kidney transplant centers.

45. 42 C.F.R. § 482.68 (2014).

46. *Members*, *supra* note 41.

47. *Id.*

48. See, OPTN Policies § 1.2, *Definitions*, available at http://optn.transplant.hrsa.gov/Content/Documents/OPTN_Policies.pdf#nameddest=Policy_8_Allocation_of_Kidneys (last updated Mar. 7, 2014).

49. *The Need is Real: Data*, ORGAN DONOR.GOV, <http://www.organdonor.gov/about/data.html> (last visited Mar. 30, 2014).

There are over 120,000 candidates awaiting transplant⁵⁰ and although an average of seventy-nine transplants are conducted daily, another eighteen individuals die due to organ shortages.⁵¹ Of those currently waiting for transplant, over 99,000 are waiting for kidneys.⁵² Transplant candidates are only placed on the waiting list for an organ at a transplant program if the transplant program has current OPTN transplant program approval for that organ type.⁵³

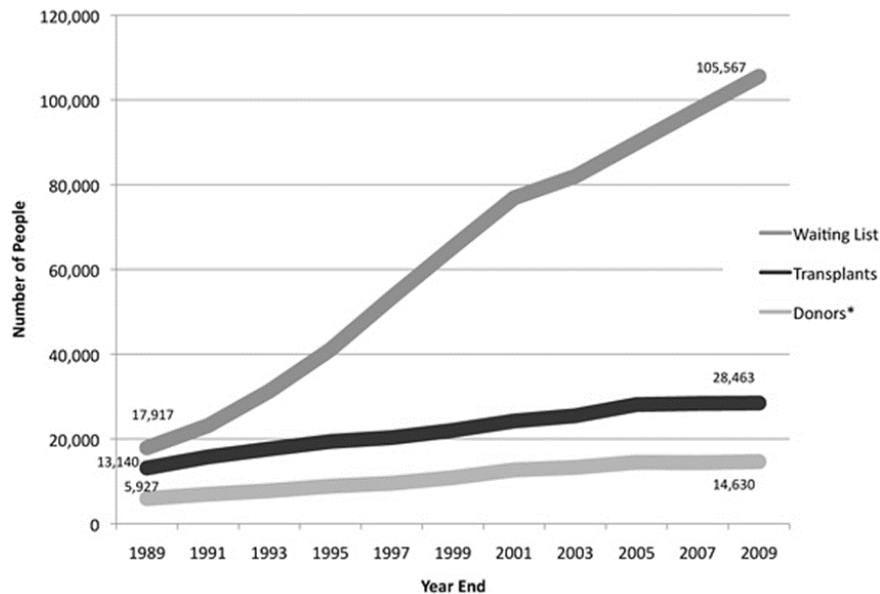


Figure 2 *The Need is Real: Data*, ORGANDONOR.GOV, <http://www.organdonor.gov/about/data.html>.

Currently there are 244 transplant centers nationwide.⁵⁴ Determining whether an individual is a candidate for transplant at a given time varies amongst transplant centers across the country.⁵⁵ That is because discretion is left to the medical professionals and individual hospitals in deciding when

50. *Data*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/data/> (last visited Mar. 30, 2014).

51. *The Need is Real: Data*, *supra* note 49.

52. *Data*, *supra* note 50.

53. OPTN Policies § 3.4.B, *Approved Transplant Program Requirement*, available at http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf#nameddest=Policy_8_Allocation_of_Kidneys (last updated Mar. 7, 2014).

54. *Members*, *supra* note 41.

55. Furrow et al., *supra* note 32 at 1489.

to add a candidate to the list.⁵⁶ Each center has its own criteria for listing transplant candidates.⁵⁷ When an individual is referred to a transplant center for evaluation and placement on the transplant list the “transplant center runs a number of tests and considers the patient’s mental and physical health, as well as his or her social support system[.]” prior to accepting or rejecting the individual for placement on the list.⁵⁸ Transplant centers also ask about an individual’s financial situation, including insurance or other resources to pay for the surgery and immunosuppressant medication following transplantation.⁵⁹ This means that an individual may be rejected for listing at one transplant center but accepted and placed on the list at another transplant center.

B. Multiple Listing Quandary

Transplant candidates are explicitly allowed to register at multiple transplant sites for the same organ.⁶⁰

Candidates may be registered for an organ at multiple transplant programs within the same Donation Service Area (DSA) or different DSAs. A transplant program may choose whether or not to accept a candidate seeking multiple registrations for an organ. Transplant hospitals may access a report from the OPTN Contractor that identifies any candidates that have multiple registrations for the same organ. This report will not include the identities of the other hospitals where the candidates are registered.⁶¹

It is this policy that allowed the late Steve Jobs to be placed on multiple lists for his liver transplant. Similarly, the TRO that both Sarah Murnaghan and Javier Acosta obtained allowing them to be placed on the adult waitlist while still on the pediatric list was consistent with this policy.

Much of the controversy surrounding multiple listing is that transplant centers do not have similar access to organs—“not all OPOs are created equal.”⁶² It is well established that hospitals vary widely in the number of

56. *Id.*; *How the Transplant System Works: Matching Donors and Recipients*, UNOS, http://www.unos.org/donation/index.php?topic=fact_sheet_1 (last visited Mar. 30, 2014).

57. *Frequently Asked Questions*, Transplant Living, <http://www.transplantliving.org/community/patient-resources/frequently-asked-questions/#donAwarenessHelp> (last visited Mar. 30, 2014).

58. *How the Transplant System Works: Matching Donors and Recipients*, UNOS, http://www.unos.org/donation/index.php?topic=fact_sheet_1 (last visited Mar. 29, 2014).

59. *What Every Patient Needs to Know*, United Network for Organ Sharing 7 (2013), <https://www.unos.org/docs/WEPNTK.pdf>.

60. OPTN Policy § 3.4G, DEP’T OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf.

61. *Id.*

62. Chad J. Wilson, Note, *Working the System: Should Patients in Need of an Organ Transplant Be Able to Join Multiple Waitlists?*, 8 IND. HEALTH L. REV. 229, 242 (2011).

transplants they perform and that OPOs vary widely in the number and types of donors they receive each year.⁶³ Some consider multiple listing as “gaming the system.”⁶⁴ Not everyone can access multiple lists because

[f]irst you have to show up for an extensive in-person evaluation. Then you have to be available for a transplant in the area within hours of an organ becoming available. And while one jurisdiction might accept you as a charity case, if you want to play the field you’ll have to prove you can pay for the transplant yourself. You also get priority points for being able to guarantee follow-up medical care, since this assures transplant allocators that the organ will be well cared for.^{65, 66}

The American Medical Association (AMA) Council on Ethical and Judicial Affairs (CEJA) finds multiple listing problematic because “reliance on criteria of questionable ethical value may lead to inherently unfair or unjust allocation decisions” and “the different interpretations and valuations assigned to each criterion by different decision makers can result in inconsistent decisions across institutional lines.”⁶⁷ Instead CEJA recommends five factors that should be considered in allocation of scarce resources such as organs including:

- (1) the likelihood of benefit to the patient
- (2) the impact of treatment in improving the quality of the patient’s life
- (3) the duration of benefit
- (4) the urgency of the patient’s condition (i.e., how close the patient is to death), and
- (5) the amount of resources required for successful treatment.⁶⁸

These recommendations have yet to be fully considered, embraced, or implemented by UNOS.

63. *About Transplantation: Transplant Process*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/learn/about-transplantation/transplant-process/> (last visited Oct. 19, 2014).

64. Saletan, *supra* note 5.

65. *Id.* See also, *Family Sues Insurer Who Denied Teen Transplant*, NBC News (Dec. 21, 2007 6:05 PM) http://www.nbcnews.com/id/22357873/ns/health-health_care/t/family-sues-insurer-who-denied-teen-transplant/#.Uzoso8tOWM8 (discussing case of teen who died prior to obtaining insurance approval for coverage of transplant).

66. *E.g.*, *Study Shows ‘Gaming’ in Heart Transplant System*, Science Daily (Mar. 9, 2004), <http://www.sciencedaily.com/releases/2004/03/040309072201.htm>. Another type of gaming is transplant centers exaggerating the severity of a potential recipient’s symptoms to increase the chances of obtaining an organ for transplantation. *See id.*

67. *Ethical Considerations in the Allocation of Organs and Other Scarce Medical Resources Among Patients*, Am. Med. Ass’n (1993), <http://www.ama-assn.org/resources/doc/code-medical-ethics/216a.pdf>.

68. *Id.*

When an individual is listed at a transplant center, he or she is generally considered for organs from a donor in that local area first.⁶⁹ If a patient is put on the list at multiple transplant centers, then he or she will be considered for donated organs that become available in multiple local areas.⁷⁰ Although the policy allows for multiple listing in the same local area, because each OPO has a defined service area⁷¹ and there is a limit to designating one OPO to each service area,⁷² there appears to be no advantage to listing at multiple centers in the same OPO.⁷³ Each region may establish regional review boards (RRBs) for specific organs to provide “confidential medical peer review of transplant candidates placed on the waiting list at a more urgent status than the standard listing criteria justifies.”⁷⁴ The RRBs may then decide whether the requested status is appropriate following a review of the justification forms submitted by the transplant center documenting the candidate’s current condition.⁷⁵ Transplant hospitals are to ensure that individuals are placed on the transplant waiting list as soon as his or her candidacy for transplantation has been determined.⁷⁶

C. Allocation Enigma

When a deceased organ donor is identified the OPO accesses the UNet system, the centralized UNOS computer network that electronically links all transplant hospitals and OPOs, which then generates a ranked list or *match run* of candidates who are suitable to receive the organ.⁷⁷

69. About Transplantation: Transplant Process, *supra* note 63.

70. *Id.*

71. 42 U.S.C. § 273 (2014).

72. 42 U.S.C. § 1320b-8 (2014).

73. Frequently Asked Questions, *supra* note 57.

74. OPTN Bylaws Article IX § 9.3, DEP’T OF HEALTH AND HUMAN SERVS. (effective as of Feb. 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Bylaws.pdf.

75. *Id.*

76. 42 C.F.R. § 121.5 (2014).

77. *Before the Transplant: About Organ Allocation*, TransplantLiving.org, <http://www.transplantliving.org/before-the-transplant/about-organ-allocation/matching-organs/> (last visited Sept. 30, 2014).

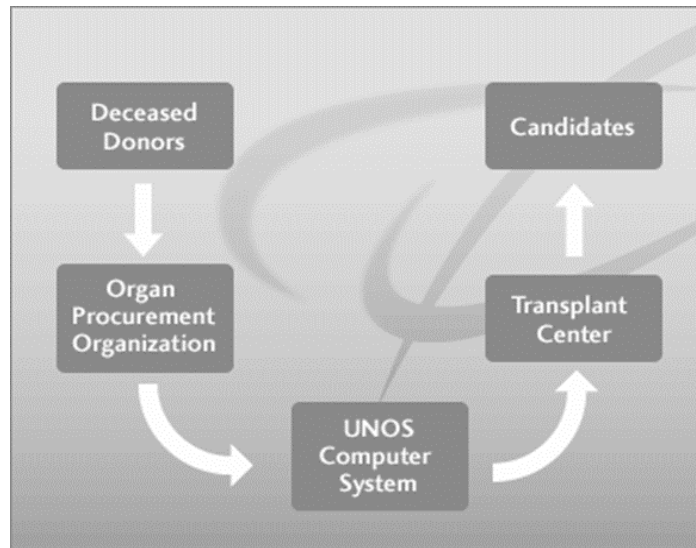


Figure 3 *Before the Transplant: About Organ Allocation*, TransplantLiving.org, <http://www.transplantliving.org/before-the-transplant/about-organ-allocation/matching-organs/>.

Factors affecting candidate ranking include tissue match, blood type, length of time on the waiting list, immune status, distance between the potential recipient and the donor, and degree of medical urgency (for heart, liver, lung and intestines).⁷⁸ OPTN is clear that for each organ that becomes available, UNet's ranking of potential recipients is based on the objective criteria specific to that organ.⁷⁹ OPTN further states that "[e]thnicity, gender, religion, and financial status are **not** part of the computer matching system."⁸⁰

UNOS has a national distribution policy for most organs, relying on medical urgency and waitlist time for allocation.⁸¹ "Prior to 2000, UNOS policy was to retain organs in the geographic area where they were recovered if a transplant candidate with the appropriate medical status was in that area, even if patients with a more urgent need or who presented better survival prospects waited in other regions."⁸² The justification for organ retention in

78. *Id.*

79. *Donor Matching System*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/learn/about-transplantation/donor-matching-system/> (last visited Oct. 18, 2014).

80. *Id.* (emphasis in original). *But see, Racial and Geographic Disparity in the Distribution of Organs for Transplantation*, DEP'T OF HEALTH AND HUMAN SERVS. Office of the Inspector Gen. OEI-01-98-00360 (June 1998), available at <http://oig.hhs.gov/oei/reports/oei-01-98-00360.pdf> (indicating that racial and geographic disparities exist in waitlist times).

81. Furrow et al., *supra* note 32, at 1488.

82. *Id.*

local geographic areas is organ viability.⁸³ The distance between the donor's hospital and the potential recipient's hospital is more important for matching hearts and lungs than it is for kidneys or livers because the heart and lungs can survive outside the body for only four to six hours while kidneys can survive up to thirty-six hours and livers up to twelve.⁸⁴

Each organ type has a specific allocation policy.⁸⁵ Distinct allocation calculators are utilized for each type of organ.⁸⁶ The allocation of hearts, livers, lungs, and kidneys all include special pediatric provisions whereas allocation of intestines and pancreas do not.⁸⁷ The allocation of kidneys, the organ in highest demand, is done "locally first, then regionally, and then nationally."⁸⁸ This clearly encourages individuals in need of a kidney transplant to engage in multiple listing to increase his or her chances of transplantation. Unfortunately, multiple listing is not a realistic option for everyone.⁸⁹ Even the purported *objective* criteria used to determine organ allocation include a level of subjectivity that may exacerbate inequities in organ distribution. For instance, the Calculated Panel Reactive Antibody (CPRA) is one of the three allocation calculators used to identify kidney candidates,⁹⁰ and is used to estimate the percentage of likely incompatible donors based on the candidates' unacceptable antigens.⁹¹ Discretion is left to the transplant centers to determine their own criteria for unacceptable antigens.⁹² Each transplant center may specify the minimum acceptance criteria for a deceased donor organ and maximum antigen mismatch.⁹³ If the transplant program specifies a mismatched antigen maximum, then the OPO will only offer organs from deceased donors with mismatched antigens equal to or less than the maximum specified.⁹⁴ Thus a potential candidate may be

83. See *Organ Matching Process*, ORGANDONOR.GOV, <http://www.organdonor.gov/about/organmatching.html> (last visited Mar. 30, 2014).

84. *Id.*

85. OPTN Policies §§ 6 - 11, DEP'T OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf.

86. *Allocation Calculators*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/converge/resources/allocationcalculators.asp> (last visited Oct. 19, 2014).

87. OPTN Policies §§ 6 - 11, *supra* note 85.

88. OPTN Policy § 8.5B, DEP'T OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf.

89. See discussion *supra* Section III.B.

90. *Allocation Calculators*, *supra* note 86.

91. *About CPRA for Professionals*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/converge/resources/allocationcalculators.asp?index=77> (last visited Oct. 19, 2014).

92. *Id.*

93. OPTN Policy § 5.2, DEP'T OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf.

94. *Id.*

determined to not be a match at one transplant center, but at another transplant center would be a match.

The lung allocation system for candidates twelve years of age and older is based upon a lung allocation score (LAS).⁹⁵ Donor lungs are offered to candidates according to their medical characteristics, directing lungs to candidates with the most urgent medical need and the greatest chance of survival, instead of relying on waitlist time.⁹⁶ The measures used to calculate the LAS are: waiting list urgency measure, or the expected number of days a candidate will live without a transplant during an additional year on the waiting list; the post-transplant survival measure, or the expected number of days a candidate will live during the first year post-transplant; the transplant benefit measure, or the difference between the post-transplant survival measure and the waiting list urgency measure; and the raw allocation score, which is the difference between transplant benefit measure and waiting list urgency measure.⁹⁷ These measures are then plugged into an equation specified by the OPTN to determine an individual's LAS.⁹⁸ Priority is given to candidates based on his or her LAS, blood type, and the geographic distance between the candidate and the donor hospital.⁹⁹ Age factors in only so far in as lungs from pediatric and adolescent donors are offered first to pediatric and adolescent transplant candidates before they are offered to adults.¹⁰⁰

Prior to June 10, 2013, lung candidates younger than twelve years old were sorted based on pediatric priority waiting time and total waiting time, longest to shortest.¹⁰¹ The pediatric candidates were assigned as priority one and priority two.¹⁰² Priority one was assigned to pediatric candidates with respiratory failure, pulmonary hypertension, or as an exception granted by the Lung Review Board (LRB).¹⁰³ All other pediatric candidates were

95. *Frequently Asked Questions About the Lung Allocation System (LAS)*, HEALTH RES. & SERVS. ADMIN., <http://optn.transplant.hrsa.gov/converge/resources/allocationcalculators.asp?index=86> (last visited Oct. 19, 2014).

96. *Id.*

97. OPTN Policy § 10.5, The LAS Calculation. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf#nameddest=Policy_8_Allocation_of_Kidneys.

98. *See id.*

99. *Frequently Asked Questions About the Lung Allocation System (LAS)*, *supra* note 95.

100. *Id.*

101. OPTN Policy § 10.4, DEP'T OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf.

102. OPTN Policy § 3.7.6.2, DEP'T OF HEALTH AND HUMAN SERVS. (old policy as of Sept. 1, 2013), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies_Old.pdf.

103. *Id.*

assigned priority two.¹⁰⁴ Within each priority blood type and then waitlist time were used to identify eligible candidates.¹⁰⁵

Following Murnaghan and Acosta's involvement of the judicial system to obtain an advantage over others on the pediatric waitlist, OPTN reevaluated its pediatric allocation policy and has temporarily approved a policy permitting pediatric lung candidates to request an exception from the LRB to be classified as an adolescent to be prioritized by LAS.¹⁰⁶ This "adolescent classification exception" is due to expire on July 1, 2014.¹⁰⁷ However, the OPTN Thoracic Committee is considering permanent implementation of the policy change as it allows for pediatric candidates who are suitable for lung offers from larger donors to apply for an exception.¹⁰⁸

Some may argue that what Murnaghan and Acosta did through judicial intervention was justified in that it spurred a change in the pediatric lung allocation policy. However, the issue still remains that the system was changed for these specific individuals to obtain an advantage for transplantation resulting in a disadvantage to another individual on the waitlist.¹⁰⁹ The stated goal is to provide equitable allocation of organs amongst potential recipients,¹¹⁰ but the question remains as to how this can best be achieved.

IV. National Distribution

The OPTN uses geographical areas for organ allocation including DSA, region, nation, and zones. Although UNet centralizes the organ transplant system, the distribution of organs is initially at a local level and then expanded to a broader geographic area if the organ is not matched or is declined in the local area.¹¹¹ Thus, although OPTN is charged with establishing a national list of individuals in need of organs,¹¹² the national list is simply the names of the individuals in need of transplantation

104. *Id.*

105. *Id.*

106. Proposal for Adolescent Classification Exception for Pediatric Lung Candidates, *supra* note 13.

107. *Id.*

108. *Id.*

109. Allahpundit, *supra* note 20.

110. 42 C.F.R. § 121.8 (2014).

111. See OPTN Policy § 2.1, DEP'T OF HEALTH AND HUMAN SERVS. (Mar. 7, 2014), http://optn.transplant.hrsa.gov/ContentDocuments/OPTN_Policies.pdf (stating "Each organ procurement organization (OPO) must establish criteria for an acceptable deceased donor or deceased donor organ for the transplant programs in its Donation Service Area (DSA). If a host OPO rejects a deceased donor, the OPO must offer the organs to OPOs that have more liberal acceptance criteria.").

112. 42 U.S.C. § 274 (2014).

nationwide. The national system that is alluded to is actually just general criteria set out by UNOS and OPTN that centers are to rely on in matching donors and candidates as well as for allocation purposes. But there is much discretion left to the OPOs and the transplant centers.

The idea of a national transplant list has been discussed as far back as when NOTA was first passed. Although Congress called for OPTN to “establish one nationwide list of individuals awaiting transplantation and a national system that would allow for donated organs to be quickly matched with medically suitable candidates on that list” national distribution was not mandated.¹¹³ Rather than establishing a national list and a national system in one central location, it specified this could occur in regional centers.¹¹⁴ For instance, transplant programs have discretion in establishing criteria for organ acceptance.¹¹⁵ Thus one transplant center may accept organs that another would decline.

The arguments against a national list include the likely increase in need for cross-country transportation of organs, prolonging ischemia times and resulting in the wastage of donated organs, increased re-transplantation rates, fewer transplanted candidates and more waitlist deaths.¹¹⁶ However, currently multiple listing is allowed requiring cross-country transportation of the individual requiring transplantation. Thus, individuals who can afford it are able to travel to a distant transplant center to obtain the donated organ. Organ survivability will likely not be affected whether it is the organ travelling from the donor hospital to the recipient hospital or the individual in need of transplant travelling across the country because the organ is outside of a human body for the same duration. Implementing a system whereby organs are distributed nationally and the organ travels from the donor hospital to the recipient hospital would be more equitable than the current system allowing for those who can afford it to be listed at multiple transplant centers.

A national system with uniform policies and standards is essential to a more equitable distribution system.¹¹⁷

113. Mark R. Yessian, *Testimony on Organ Donation*, DEP'T OF HEALTH AND HUMAN SERVS. (Apr. 8, 1998), <http://www.hhs.gov/asl/testify/t980408b.html>.

114. *Id.*

115. 42 C.F.R. § 121.6 (2014).

116. Neal R. Barshes, Carl S. Hacker, Richard B. Freeman Jr., John M. Vierling & John A. Goss, *Justice, Administrative Law and the Transplant Clinician: The Ethical and Legislative Basis of a National Policy on Donor Liver Allocation*, 23 J. CONTEMP. HEALTH L. & POL'Y 200, 218 (2007).

117. Yessian, *supra* note 114.

V. Reducing the Waitlist

A. HIV Organ Policy Equity Act

The HIV Organ Policy Equity (HOPE) Act enacted November 2013 allows for the transplantation of organs from donors infected with HIV to recipients who are infected with HIV.¹¹⁸ It is estimated that 500 individuals infected with HIV will be eligible for transplants annually.¹¹⁹ This will in turn reduce waitlists for individuals not infected with HIV.¹²⁰ OPTN has convened a workgroup to develop criteria for conducting research on organs procured from HIV-positive individuals in order to assess the feasibility, effectiveness, and safety of transplantation of HIV infected organs.¹²¹ Although this is a promising step in the right direction, the shortage of organs will not be alleviated through this measure alone.

B. Opt-in versus Opt-out

The UAGA adheres to an *opt-in* principle whereby an “individual becomes a donor only if the donor or someone acting on the donor’s behalf affirmatively makes an anatomical gift.”¹²² This is contrary to an *opt-out* standard whereby consent is presumed “rendering all persons de facto organ donors unless they choose to expressly opt-out.”¹²³ Some argue that an opt-out standard may help increase organ donation.¹²⁴ However, this does not appear to be the case in Europe, where many countries have adopted the presumed consent standard but do not have better donation rates than the United States.¹²⁵ This may be because even with the presumed consent laws, explicit approval is still required.¹²⁶ If the U.S. instituted presumed consent

118. 113 P.L. 51 codified in 42 U.S.C. § 274 (2014).

119. *New Law Offers Hope to HIV-Infected Patients Awaiting Organ Transplants*, JOHNS HOPKINS NEWS RELEASE (November 21, 2013), http://www.hopkinsmedicine.org/news/media/releases/_new_law_offers_hope_to_hiv_infected_patients_awaiting_organ_transplants.

120. *Id.*

121. *Work Group to Address OPTN Policy Relating to HIV-positive Organ Recovery*, HEALTH RES. & SERVS. ADMIN. (Mar. 27, 2014), <http://optn.transplant.hrsa.gov/news/work-group-to-address-optn-policy-relating-to-hiv-positive-organ-recovery/>.

122. Unif. Anatomical Gift Act (2006), *supra* note 26, at 2.

123. Sara Naomi Rodriguez, *Comment, No Means No, But Silence Means Yes? The Policy & Constitutionality of the Recent State Proposals for Opt-Out Organ Donation Laws*, 7 FIU L. REV. 149, 151, 156, 157 (2011). For information on a third organ procurement standard *mandated choice*, see *id.* at 156–57.

124. Furrow et al., *supra* note 32, at 1491.

125. Henry Hansmann, *Markets for Human Organs*, in A Legal Framework for Bioethics 145 (Cosimo Marco Mazzoni et al., eds., 1998).

126. *Id.*

laws, in which strictly enforced and explicitly held approval is not required, then the donor pool would potentially see an increase.

C. Compensation for Donation

United States law prohibits the sale of human organs.¹²⁷ This stems from ethical and moral values as well as fear of the poor being taken advantage of.¹²⁸ However, due to the scarcity of organs available for transplantation, those who can afford it seek solutions outside of U.S. borders.¹²⁹ The phenomenon whereby individuals who have the means go to another country where organ purchase is permitted, or at least not specifically prohibited, *transplant tourism* is on the rise due to organ shortages.¹³⁰ Some medical professionals are concerned about the substandard care the organ recipients may be receiving.¹³¹ In one case, someone who had gone to China for transplantation, returned for follow-up care to his providers in the U.S.^{132, 133} Shortly thereafter, he became septic, was hospitalized, and ultimately transplanted again in the U.S.¹³⁴ There was some disagreement amongst the transplant team whether it was morally right to provide him with a transplant, but the consensus was to proceed based on the nonjudgmental regard and beneficence principles of medical ethics.¹³⁵ Thus, not only did this individual go to another country and purchase an

127. 42 U.S.C. § 274 (2014).

128. See generally Erica D. Roberts, *When The Storehouse is Empty, Unconscionable Contracts Abound: Why Transplant Tourism Should Not be Ignored*, 52 HOW. L.J. 747 (2009).

129. See generally Robert Ainley, *Organ Transplantation: A Model Law Approach to Combat Human Trafficking & Transplant Tourism*, 13 OR. REV. INT'L L. 427 (2011); Jacqueline Bowden, *Feeling Empty? Organ Trafficking & Trade: The Black Market for Human Organs*, 8 INTERCULTURAL HUM. RTS. L. REV. 451 (2013); Jennifer M. Smith, *Dirty Pretty Things & The Law: Curing The Organ Shortage & Health Care Crises In America*, 12 CHAP. L. REV. 361 (2008).

130. Laura MacInnis, "Transplant tourism" On Rise Due to Donor Shortages, REUTERS (Mar. 30, 2007, 1:49 PM), <http://www.reuters.com/article/2007/03/30/us-transplants-idUSL3042128920070330>.

131. *Transplant Tourism Poses Ethical Dilemma for US Doctors*, SCIENCE DAILY (Jan. 27, 2010), <http://www.sciencedaily.com/releases/2010/01/100126133354.htm>.

132. *Id.*

133. For discussion on China's program harvesting organs from prisoners which is now being phased out see Michelle Castillo, *China to Stop Harvesting Organs From Executed Prisoners*, CBS NEWS (Aug. 16, 2013, 3:58 PM) <http://www.cbsnews.com/news/china-to-stop-harvesting-organs-from-executed-prisoners/>; Li Hui and Ben Blanchard, *China to Phase Out Use of Prisoners' Organs for Transplants*, REUTERS (Aug. 15, 2013, 8:28 AM), <http://www.reuters.com/article/2013/08/15/us-china-organs-idUSBRE97E09920130815>; Calum MacLeod, *Organ Harvesting Changes in China Will be Tough to Realize*, USA TODAY (Updated May 15, 2012, 9:47 AM) <http://usatoday30.usatoday.com/news/world/story/2012-05-14/china-organ-transplant-ban/54964098/1>.

134. *Transplant Tourism Poses Ethical Dilemma for US Doctors*, *supra* note 131.

135. *Id.*

organ that could have gone to someone else, when that transplant failed, he ended up requiring another transplant in the U.S.

There are also the ethical considerations regarding paid organ donors—many of whom are poor and do not receive adequate follow-up care.¹³⁶ Individuals, who sell their organs or tissue, are referred to as *vendors*.¹³⁷ One study conducted on vendors in Pakistan revealed that all but two of the thirty-four subjects had “sold a kidney to pay off debts owed to landowners, or to pay for medical expenses, burial of the dead, or dowries related to marriage.”¹³⁸ The vendors felt as though they lacked other options and turned to selling an organ, which opponents of organ sales say is a perpetuation of social and economic inequality rather than the vendor exercising the freedom to make an autonomous choice.¹³⁹ In some cases, the vendors did not even receive the promised payment that led him or her to agree to selling the organ in the first place.^{140, 141}

Iran has legalized the sale of organs.¹⁴² Living non-related donation of kidneys was legalized in 1988 and a government-organized transplantation system was established to regulate and fund the transplant process as well as compensate donors for organs.¹⁴³ The Dialysis and Transplant Patients Association, a third-party independent association, was established to arrange contact between donors and recipients and still carries out this function while staffed on a voluntary basis by end-stage renal failure patients.¹⁴⁴ It is illegal for the medical and surgical teams involved in the transplant to receive any form of payment.¹⁴⁵ The donors receive free health

136. MacInnis, *supra* note 131.

137. Caroline Helwick, *WCN 2009: Sale of Kidney Leaves Vendors Regretful, Depressed*, MEDSCAPE (May 26, 2009), <http://www.medscape.com/viewarticle/703311>.

138. *Id.*

139. *Id.*

140. See Rob Verger, *Israel's Campaign To Halt Organ Trafficking Tourism*, THE DAILY BEAST (Mar. 18, 2012), <http://www.thedailybeast.com/articles/2012/03/18/israel-s-campaign-to-halt-organ-trafficking-tourism.html>.

141. For discussion on the prolific organ purchase system in Israel see Michael Finkel, *This Little Kidney Went to Market*, NEW YORK TIMES MAGAZINE (May 27, 2001), available at <http://www.nytimes.com/2001/05/27/magazine/27ORGAN.html?pagewanted=all> (“[T]here have been instances in which a patient has elected not to accept the offer of a kidney donation from a well-matched relative. ‘Why risk harm to a family member?’ one patient told me. Instead, these patients have decided that purchasing a kidney from someone they’ve never met—in almost all cases someone who is impoverished and living in a foreign land—is a far more palatable option.”).

142. Rupert Major, *Paying Kidney Donors: Time to Follow Iran?*, MCGILL JOURNAL OF MED. Volume 11(1) 67-69 (Jan. 2008), available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2322914/#b2-mjm11_1p67.

143. *Id.*

144. *Id.*

145. *Id.*

insurance and the recipients are provided with subsidized immunosuppression.¹⁴⁶ To prevent transplant tourism, Iran has outlawed potential recipients from abroad travelling to Iran to receive a kidney donation from an Iranian.¹⁴⁷ It appears that Iran may have successfully addressed the shortage of organs with reported outcomes for recipients being favorable.¹⁴⁸ However, opponents of the Iranian system indicate that there are still substantial waiting times for organs and that the poor are still the ones being preyed upon for donations.¹⁴⁹

The U.S. prohibition on organ sales does not include “the reasonable payments associated with the removal, transportation, implantation, processing, preservation, quality control, and storage of a human organ or the expenses of travel, housing, and lost wages incurred by the donor of a human organ in connection with the donation of the organ.”¹⁵⁰ This is consistent with the view of the American Medical Association,¹⁵¹ and may actually serve to encourage living donation.¹⁵²

The concerns of the poor being forced into donation due to dire circumstances are primarily regarding living donors. However, there may be a market for cadaveric organs.¹⁵³ One idea for a cadaveric organ market is a *futures market*.¹⁵⁴ The right to harvest an individual’s organs upon the individual’s death would be purchased in advance while the individual is alive and in good health.¹⁵⁵ This could be done through health insurance companies.¹⁵⁶ The inducement would be a lower insurance premium for

146. *Id.*

147. *Id.*

148. Saeed Kamali Deghan, *Kidneys for Sale: Poor Iranians Compete to Sell Their Organs*, THE GUARDIAN (May 27, 2012, 3:00 PM), <http://www.theguardian.com/world/2012/may/27/iran-legal-trade-kidney>.

149. Major, *supra* note 143. *But see* Deghan, *supra* note 149 (“As a result, there is no shortage of the organs—but for those trying to sell a kidney, there is a lot of competition.”); Benjamin E. Hippen, *Organ Sales and Moral Travails Lessons from the Living Kidney Vendor Program in Iran*, POLICY ANALYSIS No. 614 (Mar. 20, 2008), (“[O]nly one country in the world doesn’t suffer from an organ shortage: Iran.”).

150. 42 U.S.C. § 274(e).

151. Policy E-2.15 Transplantation of Organs from Living Donors, Am. Med. Ass’n, <http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/opinion215.page?> (last visited Sept. 30, 2014).

152. The U.S. allows for compensation for blood, sperm, egg, and more recently, bone marrow donations. *See generally Flynn v. Holder*, 684 F.3d 852 (9th Cir. 2011); Doug Mataconis, *Federal Court Legalizes Compensation For Bone Marrow Donors*, OUTSIDE THE BELTWAY (Dec. 3, 2011), <http://www.outsidethebeltway.com/federal-court-legalizes-compensation-for-bone-marrow-donors/>.

153. Hansmann, *supra* note 126, at 145.

154. *Id.* at 147.

155. *Id.*

156. *See id.* at 147-49.

those who agree to donate, or alternatively a penalty for those who decline to donate.¹⁵⁷ However, it is unlikely that penalizing an individual for refusing to donate would be Constitutional as it infringes on an individual's liberty, autonomy, and privacy.¹⁵⁸ Another more realistic option is to have the state purchase the rights when an individual is obtaining or renewing a driver's license or state identification through a reduction in the fee for the license or identification.¹⁵⁹ All states have legal consent driver's license donor designation provisions.¹⁶⁰ Hence, the foundation for implementing future markets in cadaveric organs exists and only determination of price or premium reduction need be considered.¹⁶¹

VI. Conclusion

Organs are a scarce resource and as such require equitable distribution policies to ensure a just allocation system. While UNOS and OPTN are charged with oversight of the transplant system to ensure equitable distribution of the life-saving organs, much discretion is left to OPOs and transplant centers, resulting in variations in listing and distribution criteria. Allowing for multiple listing only serves to exacerbate the inequities inherent in the system.

One solution could be to fully embrace a national distribution system. Another option to reduce the waitlist includes the recently passed HOPE Act which could ultimately permit HIV-positive donor to HIV-positive recipient transplantation, resulting in reduction of the waitlist for individuals not infected with HIV. Lastly, considering compensation for both living donors modelled after the Iranian system, and cadaveric donors in a *futures market* framework may serve to reduce the ever-widening gap between donors and those in need of transplants.

157. *Id.* at 147.

158. *See generally* Rodriguez, *supra* note 124 (discussing Constitutional concerns of implementing an opt-out system as opposed to the current opt-in system in the U.S.).

159. Hansmann, *supra* note 126, at 148 n.3.

160. State Organ Donor Legislation, ORGANDONOR.GOV, http://www.organdonor.gov/legislation_micro/ (last visited Mar. 30, 2014).

161. Hansmann, *supra* note 126, at 148 n.3.