

THE ETHICS OF NATIONAL AND INTERNATIONAL ORGAN MARKETS

Sigrid Fry-Revere* and Bahar Bastani**

Abstract

Ethical considerations in determining whether a human organ market could exist without causing exploitation of vulnerable populations may depend on the size of the market. Some ethical and religious considerations are culture dependent; others require legal structures to protect fundamental human rights. Both these factors suggest that an ethical market in human organs may be feasible, but not necessarily in every country or across national borders.

Keywords

Human Organs, Transplantation, Organ Trafficking, Global Market in Human Organs, Ethics, kidney shortage, bioethics, medical ethics, medical anthropology, social policy, comparative religion, cultural ethnography.

Citation

Fry-Revere, Sigrid; Bastani, Bahar; The Ethics of National and International Organ Markets; (April, 2014); Journal of Social Sciences (COES&RJ-JSS), Vol. 3, No. 2, pp: 286-300.

* JD, PhD, Founder and President, Center for Ethical Solutions. Former Associate Professor of Healthcare Law and Ethics, University of Virginia Center for Biomedical Ethics. She is also author of *THE KIDNEY SELLERS: A JOURNEY OF DISCOVERY IN IRAN* (Carolina Academic Press, 2014).

**²MD, Professor of Internal Medicine, Division of Nephrology, Saint Louis University School of Medicine. Medical director of kidney transplantation, Saint Louis University School of Medicine.

Introduction

This essay explores whether a market in human organs could exist without exploitation. Promoting freedom of choice and saving lives are both social goods, and allowing individuals to sell their organs would serve both these social ends. However, when dealing with questions of international policy, the most difficult ethical issue is not whether selling body parts is moral, but whether it is possible to ethically administer a global market in organs, given the current context of unpredictable and inequitable informed consent and contract enforcement regimes. Not all problems shared by nations have international solutions. Solving the human organ shortage is one of them. While compensating living kidney donors might serve as a good national policy if implemented correctly, a global market in kidneys is currently unethical given the unpredictability of enforcement of such contracts on the international level.

Part I: The Organ Shortage and Organ Sales

The Developing Crisis

Over a million people worldwide are waiting for kidneys.¹ 45 percent of all transplanted kidneys (30 percent in the United States) come from living donors, mainly relatives or close friends.² There are, however, a growing number of kidneys on the black market. Illegal sales constitute ten percent of all kidney transplants, or approximately 6,800 sales a year.³

There is little doubt that in the long run, the answer to the kidney shortage includes reducing causes of renal failure, in particular diabetes and hypertension. Other potential solutions include developing a better artificial kidney (dialysis machines haven't significantly changed in fifty years and only remove approximately 10 percent of the toxins removed by a healthy kidney), improving xenotransplantation, and finding cures for renal disease, primarily through stem cell research. All of these solutions are worth pursuing, but no breakthrough seems imminent. By 2025, the need for kidneys in the United States alone is expected to reach nearly 150,000.⁴

More immediate solutions include finding ways to increase donation, improving transplant maintenance, and boosting the efficiency of organ retrieval, distribution and preservation. In developing countries, improving follow-up care and creating an effective infrastructure for procuring and distributing organs should be a top priority, but in developed countries where the level of patient care and efficiency is already very high, anything short of a revolutionary change in current practices will have a minimal impact on the supply of organs.

The most immediate way to ease the organ shortage is to increase donation. Increasing cadaver donations seems like the logical short-term solution, but even if one were to harvest every potential deceased organ, the kidney shortage would remain acute because not enough people die under conditions that produce organs suitable for transplantation.⁵ Increasing non-related altruistic donation also seems promising, but studies in the United States show that over 90 percent of those who attempt to donate a kidney to a stranger are disqualified for physical or psychological reasons.⁶ While "paired donations," "donor swaps," and other innovative programs may slightly increase the number of donations, the demand for kidneys continues to far outstrip the supply.

The only proven means of increasing the organ supply to eliminate at least the kidney shortage is to legalize compensated donation. The only country in the world with a government-sanctioned system of incentivized kidney donation is Iran.

*Selling Kidneys*⁷

It is not markets, but rather governments that fail to protect their citizens from unfair dealings, which create an environment rife for exploitation. Authors professing the horrors of kidney selling in developing countries are describing the lawless black markets.⁸ For example, in a recent article on the situation in Pakistan, authors describe how the poor are trapped in a feudal system whereby debt turns into bondage, and those who try to escape by selling a kidney are routinely cheated.⁹ In another recent study, authors found that out of the 239 Pakistani kidney vendors interviewed, “**none** received the promised amount of money” (emphasis added).¹⁰ Those who advocate a total ban on kidney sales repeatedly point to the sense of hopelessness felt by destitute kidney vendors, a sense of hopelessness most likely due to their abject poverty, rather than the fact that they sold a kidney.¹¹ Other troubling conditions include inadequate pre-donation screenings, a high rate of donor complications, and poor follow-up care, all of which are endemic to underprivileged populations worldwide. It is these concerns that led nearly 100 transplant societies worldwide to endorse the 2008 Istanbul Declaration condemning organ sales.¹² However, it is important to understand that compensating kidney donors per se do not cause the nefarious predicaments inherent in lawless poverty; it only highlights misfortunes because it is impossible to protect anyone’s rights, let alone the interests of the poor when the only avenue for compensated donation is the black market.

Long-term improvement in the lives of kidney vendors is possible only if there is adequate pre-operative and post-operative care, if payment promises are enforced, and if vendors and their families are afforded opportunities to invest in education, business ventures and job training. If any of these necessary elements are missing, as they often are in poverty-stricken regions, then vendors can hope for little more than temporary relief from the predicaments that motivated them to sell their kidneys in the first place.

Iran is the only country that has an extensive history of government-sanctioned living kidney donor incentives.¹³ (Some other countries have experimented with incentivized kidney donation but with less success.¹⁴) In Iran, organ sales were never illegal and present in Iran for at least 30 years, with the last fifteen years marked by the creation of government subsidies and increasingly stringent regulations. As a result, Iran is arguably the only country in the world without either a black market in kidneys or a kidney shortage.¹⁵

The Iranian Model

Understanding the Iranian system of organ procurement is complicated by regional differences as well as twenty years of regulatory developments. General laws and guidelines governing compensated kidney donation are nationally determined, but many variations exist within individual provinces, ranging from Shiraz, where sales are strongly discouraged in favor of the use of cadaver organs, to Tehran, where in 2008 when we were there potentially transplantable cadaver kidneys were routinely discarded because there was no demand for them. When we were there at the end of 2008, incentives ranged from the basic package paid for by the national government, including one year of government

healthcare coverage, exemption from military service and IR 10,000,000 (an amount with the approximate buying power of USD 2,200) for the donor, to more extensive healthcare coverage for donors and their families, and an additional financial compensation by the recipients of around IR 40,000,000 to 50,000,000 (an amount with the approximate buying power of USD 11,000-20,000 in 2008). The easiest way to understand the monetary part of the compensation package is in terms of U.S. spending power is that IR 50,000,000 is equivalent to six month's wages for a registered nurse in Tehran.* According to the U.S. Bureau of Labor Statistics in 2008 the average six month wage for a registered nurse in the United States was \$32,565.¹⁶ Also it is worth noting when considering the buying power of compensation, that in Iran, like in the United States and elsewhere, the cost of living varies from region to region. In Iran the cost of living in Tehran is twice that of what it is in other areas of Iran.¹⁷

In addition to the benefits described above recipients, charities, and local governments often also provide material support in the form of food, housing, jobs, business loans, job counseling, and educational benefits. The average benefits package for the 211 kidney donations for which we collected data (based on first-hand interviews with either donors or recipients) had approximately equivalent value/buying power of \$45,000 or more in U.S. dollars.¹⁸

The *Anjomans*—here used as shorthand for all the differently named charitable NGOs licensed to do kidney donor-recipient matches in Iran—are staffed primarily by volunteers who themselves are kidney disease (dialysis or transplant) patients and on occasion even a kidney donor. The *Anjoman* staff, which includes a doctor, social workers, nurses, someone in charge of public education, and clerical workers, help recipients and donors consider their options. Kidney disease patients can choose to undergo dialysis, sign up to wait for a cadaver organ, or start the matching process for a paid living donor. The government covers all dialysis and transplant-related costs, except for the gifts or compensation donors usually expect above the IR 10,000,000 the national government provides. A living donor transplant is generally the preferred treatment, and while in some regions patients wait for a free cadaver organ, most, with the help of charity, end up going the route of using a compensated kidney donor. The average wait we found, including the time to find a donor match and complete all preliminary testing, was 16 months. The process could go as fast as one or two months, but sometimes donors failed at various stages of the screening process and the matching protocol would need to start over. On occasion, wait times were extended if the recipient experienced health issues that needed to be resolved before the transplant could proceed. Even with all these considerations, the average wait time of 16 months is much shorter than the U.S. average of five-years.

While protections for donors in Iran could be stronger – for example, better informed consent – donors are in a much better bargaining position than compensated donors in

* The exchange rate in 2008 for IR 50,000,000 was approximately USD 5,000, but when adjusted for purchasing power parity based on the International Monetary Fund World Economic Outlook Index for 2008, IR 50,000,000 was equivalent to approximately USD 9413 – 11,787. The current going rate (in 2008) for a kidney of IR 50,000,000 was the equivalent of six month's salary for a registered nurse in Tehran. Personal communication with Ahad J. Ghods, M.D., F.A.C.P., Chief, Division of Nephrology, Department of Medicine, Iran University of Medical Sciences (1979 to the present).

other parts of the world. All *Anjomans* require donors to undergo a psychological evaluation, usually conducted by a social worker. All donors must also obtain either their spouse's consent (if married) or their parents' consent (if unmarried). Both donors and recipients are required to produce documentation proving Iranian citizenship. In Shiraz, the *Anjoman* requires donors to sign a statement that they are not donating for money and that they will not demand anything from the recipient, but they are guaranteed the IR 10,000,000 gift provided by the national government. In other regions, *Anjoman* staff work hard to broker mutually beneficial deals, trying to match recipients who can pay with donors who have the greatest financial need. In regions other than Shiraz, the *Anjoman* collects the payment promised by the recipient's family ahead of time and keeps it in escrow until the transplant is completed. This broad range of legal incentives coupled with a well-developed regulatory system make Iran the only country in the world without hundreds, if not thousands, of people dying every year waiting for a kidney transplant.

Part II: God, Nature and Human Dignity: Personal Moral Considerations vs. National and International Policy

In the West, there is general adherence to the separation of church and state. As a consequence, religious or moral tenets generally do not become law unless they are supported by secular arguments. Universalizability is probably the most common secular argument for accepting personal moral or religious tenets into law. An example of such a universally recognized rule is the prohibition against taking a human life other than in war or self-defense. Claims are often made that a similar universal rule exists that justifies a ban on organ sales. Yet it takes no more than a superficial examination of current social practices to illustrate that there is no social or cultural consensus that damaging, risking, or giving a body part for money is an affront to God, nature, or human dignity.

Selling Kidneys Is Not Impious

First and foremost it is important to correct the misconception that there exists a religious consensus against compensated organ donation. Pope Pius XII wrote, "It is to a donor's credit if he refuses recompense, but it is not necessarily a fault to accept it."¹⁹ The late Chief Rabbi of Israel, Goren, wrote that expecting a financial reward for a kidney donation does not change the donation's positive aspects.²⁰ And in both the predominantly Sunni Saudi Arabia and predominantly Shiite Iran, Muslim clerics have condoned compensating donors with gifts or rewards.²¹ In Iran, a recipient's promise to reward the donor with a gift is enforceable by law.²² Such "rewarded gifting" or "reciprocal gifting" is not the same as "selling" because technically selling entails that both parties involved in the transaction receive equal or fair value from their own perspective. But Iranian's clergy argue that saving a life through donating a kidney is so valuable a service that no compensation could ever be sufficient. Therefore, all kidney donations, even if compensated by necessity, are altruistic gifts of life and inherently different than normal commercial transactions. There are probably other religious authorities who see nothing immoral in buying or selling kidneys, but let these examples suffice to show that there is no religious consensus that justifies a ban on compensated organ donation.

Selling Kidneys Is Not an Affront to Nature or Human Dignity

Similarly, the argument that financial compensation for organs is an affront to nature or human dignity lacks universal appeal. Such claims depend on the underlying presumption

that there is something wrong with intentionally disturbing the integrity of the human body for anything other than the most worthy of causes. According to this line of reasoning, saving a human life qualifies as a worthy enough cause, but personal financial gain does not.

Even if this axiom has some general appeal, most governments (and hence most societies) allow numerous exceptions. While making money by selling a kidney is illegal in most countries, selling blood, human reproductive gametes, and bone marrow are not. Nor is risking one's life and limb to make money in other ways considered unacceptable. Consider those who spend their lives working in coal mines or battery factories, athletes who engage in extremely dangerous sports such as boxing, or paid rescue workers, police, and military personnel.²⁵ How is a person who sells a kidney to save a life any different?

Clearly there are some differences: the person who sells a kidney willingly gives part of his or her body for money while the professionals described only put their bodies at risk for money. But it is hard to discern such a significant moral distinction between the two situations, that one should forbid the former and laud the latter. Both involve sacrificing bodily integrity with the dual intentions of contributing to the general welfare of society by saving a life while simultaneously contributing to one's own welfare by making money. In short, these examples illustrate that all societies already leave many inherently personal moral and philosophical questions of bodily integrity up to individuals. Why not add decisions about compensated kidney donation to the list? The answer is that such decisions should be for individuals to make, but with an important caveat: *Any society that truly respects the individual's choice to make difficult ethical decisions must also provide adequate safeguards to preserve the integrity of the decision-making process.*

Concerns over potential exploitation are relevant not because selling kidneys is an affront to a supreme being, nature, or human dignity, but because it is possible to easily compromise an individual's ability to make informed decisions about organ buying and selling.

Part III: Saving Lives while Helping Oneself is a Social Good

Tolerance of diverse beliefs and lifestyles is the hallmark of a free society, and arguably the state should protect the right to both compensate kidney donors and to receive compensation for donation. But there is a paradox inherent in the protection of civil liberties: it is impossible to protect freedom of choice without a government strong enough to assure fair dealings between individuals. The more dire the consequences of choice, the more important it is that governments assure that options are honestly presented, promises are kept, and unfair dealings are deterred. Allowing individuals the freedom to participate in compensated kidney donation is a choice fraught with irreversible and potentially dire consequences, making it essential that any country that allows such dealings have the legal infrastructure necessary to protect the rights of both buyers and sellers. To prevent the exploitation of either donors or recipients, it is essential for a country to have mechanisms to ensure informed consent, the writing of fair, enforceable contracts, and realistic deterrents for potential violators. "Exploitation" is used here to mean unfairly using another for one's own advantage. And "unfairness" in this context means acting dishonestly, including omitting critically important information, breaking promises, or engaging in other deceptive behavior.

Informed Consent

Informed consent is critical to preventing exploitation.²⁴ Informed consent as a matter of policy requires a practical, verifiable, and sincere approach to informing patients (both recipient/buyers and donor/sellers) and limiting undue influence. There is always room for improvement, but to help assure informed consent in living organ donation, at a minimum one must: 1) verify basic personal information such as age, personal and family medical history, 2) conduct a thorough medical assessment, including physical examination, proper laboratory tests, sonogram, and study of the donor kidney vessels by either standard selective angiography or CT angiography, 3) maintain accurate record keeping that assures continuity of identity, and most importantly, 4) ensure that at least one healthcare professional, for whom assuring informed and voluntary decision making is a priority, is involved early in the donation processes.

Contractual Fairness

Second, to prevent exploitation, mechanisms to assure the fairness of contracts must exist. Once each party clearly understands the risks and benefits of donation through effective informed consent, the next step is to work out the details of the donation agreement in such a way that the promises made on both sides are clearly articulated, understood, and kept. There must be some authority with a legal obligation to help ensure fair dealings (such as licensed brokers, recognized charities, or a designated non-governmental, non-profit organization), with the specific role of facilitating donation agreements. These professionals or organizations should have a legally enforceable fiduciary duty to help assure that the terms of the contract are fair, realistic and enforceable, and that the parties understand and freely agree to the terms of the contract.

Enforcement Mechanisms

Third, and perhaps most essential to the prevention of exploitation, is the existence of a well-developed and effective judicial system for the enforcement of contracts. Clear rules and a high likelihood that violators will face prosecution are the best deterrents for unjust behavior. It makes no difference what the recipient-buyer and donor-seller have agreed to if there is no equitably applied mechanism for seeking recourse if either party violates the agreement. Prosecutions must remain indiscriminate, readily accessible courts must exist, and authorities must uniformly enforce rulings.

It is possible to imagine a country where the conditions delineated above are usually met – a country where informed consent is routine and effective, where fair dealings and the enforceability of contracts are a priority, and where people who break their promises or violate the rights of others rarely escape justice. But it is equally clear that countries lacking the resources necessary to satisfy these conditions are ill equipped to prevent the exploitation of either kidney donors or recipients.

Part IV: A National vs. an International Organ Market

No governmental system is perfect, and it is difficult to assess at what point saving or improving the lives of end-stage renal disease patients is worth risking the potential exploitation of either donors or recipients. The more responsive and effective a

government's system for assuring informed consent, fair dealings, and the enforcement of contracts, the less chance there is of exploitation. But at what point is a system effective enough?

There is clear evidence that several nations have failed at finding a proper balance between allowing financial incentives for donation and preventing exploitation. The untenable situation in Pakistan was already discussed, but from some accounts the situation is just as bad, or worse, in India and the Philippines.²⁵ Before 1999, India had a thriving market in organs, but also widespread exploitation.²⁶ There were no effective mechanisms in place to address the grievances of either recipients or donors, and abuses were common.²⁷ Some organ procurement brokers lured donors with promises of financial rewards that never materialized, or promised recipients healthy organs that turned out to be infected with hepatitis or HIV.²⁸ In 1999, the Indian Parliament outlawed the sale of organs, but the market in organs has not disappeared, only gone underground, leaving those who violate the ban just as, if not more vulnerable than before, driving the market in organs underground. However, it failed to improve the situation for either recipients or donors. The Philippines faces a similar situation and the government is currently considering outlawing the sale of kidneys.²⁹

The only country to have found an acceptable balance is Iran. While the Iranian system is far from perfect and accusations of exploitation persist, it is clear that their kidney shortage, if one exists at all, is far less severe than anywhere else in the world.³⁰ Likewise, while some claim there is still a black market for organs in Iran, it also seems evident that any residual lawless trading of organs for money is relatively slight compared to countries where the practice is banned.³¹ By way of analogy, consider the United States during and after prohibition. Drinking alcohol and the dangers caused by intoxicated behavior existed whether or not the sale of alcohol was legal, but after prohibition, the government exercised some control over the quality and circumstances under which alcohol was sold, and consequently the gangster-run black market in alcohol disappeared.

The tragedy inherent in countries with an underdeveloped rule of law is that they may lack both the resources to establish an equitable system of donor compensation and the resources to prevent an inequitable one. Thus, in countries like Pakistan, India and the Philippines, the poor may remain gravely imperiled either way: if organ sales are legalized, the government infrastructure is not developed enough to protect donors or recipients; but if sales are illegal, policing and judicial resources are stretched too thinly to prevent a thriving black market. Corruption compounds the situation.³² The first step in such countries is to develop an improved legal infrastructure for the enforcement of contracts.

The question each country needs to answer is whether it can legalize financial incentives for organ donation in such a way that the benefits of such a system are maximized without incurring too many social costs. One way to minimize the potential for exploitation is to limit the buying and selling of organs to citizens living within a nation's borders.

Part V: A Global Market in Organs Remains Unethical

Ethics involves both personal morality and social justice. A global market in human organs may or may not be ethical from a personal perspective, but from a social perspective it remains unethical because it is impossible to prevent exploitation.

In 1984, Dr. H. Barry Jacobs presented the U.S. Congress with a plan to import living kidney donors from developing countries, pay them a pittance for their kidneys, and then ship them back home.³³ Horrified lawmakers reacted by passing the National Organ Transplant Act, which prohibits “knowingly acquir[ing], receiv[ing] or otherwise transfer[ring] any human organ for valuable consideration for use in human transplantation.”³⁴ The donors under Dr. Jacobs’ plan would come from great distances, speak a different language, and have vastly different cultural perspectives. Under such circumstances, it would be extremely difficult, if not impossible, to obtain informed consent even once a potential donor arrived in the United States, let alone assure such consent before the donor arrived. Who would enforce an international contract for organ donation (sales), let alone make sure that participants understood what they were signing? If a recipient refused to pay, what recourse would the donor (seller) have? Or worse, what if some aspect of the contract required enforcement abroad? Various contract provisions could raise difficult questions that entail international enforcement, such as the promise of follow-up care, an education, extended healthcare coverage, several payments over a period of time, or other benefits. Donors (sellers) from other countries may not have the education or the financial means to file claims in a U.S. court or effectively avail themselves of their own country’s enforcement mechanisms.

When the National Organ Transplant Act passed in 1984, Congress was concerned that citizens of other countries might fall prey to exploitation. Yet, in Iran, policy makers also voiced concerns over a different form of exploitation.³⁵ If Iran emerged as the world’s source of live kidneys, it would run the risk of depletion. Rising prices were also threatening to make live-kidney transplants less affordable for Iran’s own citizens. These concerns and others regarding the ability to maintain a manageable procurement system at first led policy makers to discourage and subsequently to ban the sale of kidneys to foreigners in Iran. In fact, in April 2008, the Iranian Ministry of Health closed a transplant unit in Tehran when it was discovered that foreigners had received transplants there using kidneys purchased from Iranian citizens. Moreover, in the case of near 2 million Iraqi and Afghani refugees that lived in Iran, and generally lived in poor socioeconomic conditions, the Iranians were not allowed to buy kidney from them. Each ethnicity could only buy a kidney from their own group.

Even if a world market in kidneys would result in the highest potential financial benefit for donors (sellers) – which is doubtful because an international trade in kidneys without the extra expense of brokers is unlikely – it could not possibly result in a system where anyone involved in the process could feel reasonably sure that either sellers or buyers would be well informed or that the contractual conditions of the sale would be enforced. While such a global market might prove possible at some point in the future, currently most countries don’t even have a sufficiently developed medical, legal, and regulatory infrastructure to assure the fairness of kidney sales within their own borders, let alone on an international scale.

On the one hand, although Iran’s compensated system of organ procurement is not without problems, it suggests the feasibility of creating an ethical system for financial

incentives for organ donation at a national level. On the other hand, the abuses evident in Pakistan, India and the Philippines, along with the inherent dangers in opening up a market where there is no effective mechanism for enforcing contracts, make this the wrong time in history to consider a global market in human organs.

¹ The statistics in this section are very hard to verify, because for much of the world the data simply isn't available. Figures are extrapolated from data found on three websites: World Health Organization (WHO), <http://www.who.int>; United Network for Organ Sharing (UNOS), <http://www.unos.org>; Organ Procurement and Transplantation Network (OPTN), <http://optn.transplant.hrsa.gov/organDataSource.Lucy>.

² D. Horvat, Salimah Z. Shariff and Amit X. Garg, "Global trends in the rate of living kidney donations," *Kidney International* no. 75 (2009): 1088-1098. The authors report that there are 27,000 legal living donor kidney transplants worldwide each year, which represents 39% of all kidney transplants. However, this report includes only legally performed transplants.

³ The World Health Organization estimates that in 2007 there were 68,300 kidney transplants, and that 10% of all kidney transplants are done with illegally purchased kidneys. WHO EHT CPR, "GKT1 Activity and Practices," <http://www.who.int/transplantation/gkt/statistics/en>. Samlee Plianbangchang, "Message from Dr Samlee Plian-bangchang, Regional Director, WHO South-East Asia Region," *WHO Guiding Principles on Organ, Tissue and Cells Transplantation, Jaipur, India, 2-5 February 2009* (2009) at http://www.searo.who.int/LinkFiles/BCT_RD_message_2-5Feb09.pdf.

⁴ We could not find any projections for either the world or U.S. need in the future, but with the help of Alison Economy we did a regression calculation and came up with the 150,000 number based on data available through OPTN. The last 10 years: Additions to the wait list = $10932\ln(x) + 4468.3$; The last 18 years: Additions to the wait list = $-14.752(x^2) + 1417.2x + 15961$. In both cases, x =years since 1995. So by 2025, 41,650 will be added according to the first equation or 45,200 according to the second. "Waiting List Additions By Year." *OPTN: Organ Procurement and Transplantation Network*. Health Resources and Services Administration, U.S. Department of Health & Human Services, 7 March 2014. Web. 28 Feb. 2014. -I assume the statistics used may change periodically, hence the access date? <http://optn.transplant.hrsa.gov/latestData/rptData.asp>.

⁵ Roughly two million Americans die every year, but the majority of people are too old, too sick, or were deceased too long before reaching the hospital to permit the usage of their organs. Only 10,500 to 13,000 Americans die under conditions that favor organ transplantation. Even if one were to assume the higher number, that would make only 26,000 kidneys available for transplantation. Since over 60% of Americans already agree to donate their organs, the 40 percent increase created by having everyone donate would really only result in an increase of 9,500 available kidneys for transplant, a number that could be improved slightly by improving organ retrieval and storage techniques, but not enough to provide kidneys for even a third of the 79,000 people currently waiting for a kidney. HHS, Health Resources and Services Administration, www.hrsa.gov; E. Sheehy and others, "Estimating the Number of Potential Organ Donors in the United States," *NEJM* 349, no. 7 (2003): 667-74.

⁶ Arthur J. Matas, "Nondirected and Controversial Donors," in *Living Donor Organ Transplantation*, Rainer W.G. Gruessner and Enrico Benedetti, eds. (New York: McGraw Hill Medical, 2008), 57-63, 59.

⁷ The data on Iran provided in this paper was collected on a six-week fact gathering trip to Iran undertaken by Sigrid Fry-Revere and Bahar Bastani, professor of internal medicine at St. Louis University in St. Louis Missouri, from 14 November to 31 December 2008.

⁸ Jeffrey P. Kahn and Francis L. Delmonico, "Sounding Board: The Consequences of Public Policy to Buy and Sell Organs for Transplantation," *American Journal of Transplantation* no. 4 (2004): 178–180.

⁹ Moazam Farhat, Riffat M. Zaman and Aamir M. Jafarey, "Conversations with Kidney Vendors in Pakistan: An Ethnographic Study," *Hastings Center Report* 39, no. 3 (2009): 29-44. Mohammad A. Rai and Omer Afzal, "Organs in the Bazaar, The End of the Beginning?" *Politics and the Life Sciences* 26, no.1 (2007): 10-11.

¹⁰ Syed A. A. Naqvi and others, "A Socioeconomic Survey of Kidney Vendors in Pakistan," *Transplant International* 20, no. 11 (2007): 934–939, 937.

¹¹ Moazam Farhat, Riffat M. Zaman and Aamir M. Jafarey, "Conversations with Kidney Vendors in Pakistan: An Ethnographic Study," *Hastings Center Report* 39, no. 3 (2009): 34-35.

¹² Ethical, Legal and Psychological Aspects of Organ Transplantation, "The Declaration of Istanbul on Organ Trafficking and Transplant Tourism" (2008), Internet, <http://www.esot.org/Elpat/Content.aspx?item=59>. South African Renal Society, "Istanbul Declaration: [List of] Organizations Endorsing As of February 22, 2009," Internet, <http://www.sa-renalsociety.org/>.

¹³ Sigrid Fry-Revere, *THE KIDNEY SELLERS: A JOURNEY OF DISCOVERY IN IRAN*, Carolina Academic Press, 2014.

¹⁴ Saudi Arabia passed a law in October 2006 providing for a much more generous donor compensation package than that which currently exists in Iran. The Saudi initiative includes a monetary "reward" of SR 50,000 (about USD \$13,000), and lifetime health insurance for donors and their families as well as the possible option of as much as SR 110,000 (about USD \$27,000) distributed on a monthly basis for ten years. P. Garwood, "Dilemma over Live-donor Transplantation," *Bulletin of the World Health Organization* 85, no. 1 (2007): 1-5; F. A. M. Shaheen and M. Z. Souqiyeh, "Current Status of Renal Transplantation in the Kingdom of Saudi Arabia," *Transplantation Proceedings* 36 (2004): 125-127. Note we have some hesitation about the trustworthiness of this article because we found a news report about deceased kidney transplantation in Saudi Arabia that sheds some doubt on the degree of success expressed in the above article. See Khadija Habib Jeddah, "Organ donation gaining wide acceptance among Saudis," Arab News (14 April 2013) <http://www.arabnews.com/news/448090>. Also see Alex He Jingwei, Allen Lai Yu-Hung, and Leong Ching, "Living Organ Transplantation Policy Transition in Asia: towards Adaptive Policy Changes," *Global Health Governance*, Vol. III, no. 2 (Spring 2010). Note I have some hesitation about the trustworthiness of this article because I found a news report about deceased kidney transplantation in Saudi Arabia that sheds some doubt on the degree of success expressed in the above article. See Khadija Habib Jeddah, "Organ donation gaining wide acceptance among Saudis," Arab News (14 April 2013) <http://www.arabnews.com/news/448090>.

¹⁵ Sigrid Fry-Revere, *THE KIDNEY SELLERS: A JOURNEY OF DISCOVERY IN IRAN*, Carolina Academic Press, 2014.

¹⁶ U.S. Bureau of Labor Statistics, www.bls.gov.

¹⁷ Djavad, "Tyranny of numbers: Stagnant rural incomes," in *Inequality, Macroeconomy, Poverty* (May 22, 2009 <http://djavadsalehi.com/2009/05/22/the-rural-complaint/>).

¹⁸ Note that using Dr. Ghods' estimate that the average living kidney donor in in 2008 was compensated the equivalence of six months salary for a registered nurse (Personal communication with Ahad J. Ghods, M.D., F.A.C.P., Chief, Division of Nephrology, Department of Medicine, Iran University of Medical Sciences (1979 to the present), then that amount would be approximately \$32,000 (see note 18). But, that only accounts for the monetary part of the compensation package, donors also receive at least one year health insurance and sometimes much more. In the United States the Kaiser Foundation estimated that in 2009 one year of health insurance premiums for a single healthy individual averaged \$4824. So, that brings the average Iranian donor package up to a value of 36,824. But for over 80% of our donors for whom we have data there were additional non-monetary benefits: years more of health insurance for the donor and/or the donors family, dental care, and donated material goods such as household items and food. It was very hard to put a dollar amount on the added benefits received by donors. But even just coverage of one year of health insurance premiums for the whole family according to a Kaiser Foundation 2009 estimate would bring the value of the package up to \$45,375, and a few of the donors we interviewed had health insurance for themselves and/or their families that they could renew annually through the *Anjoman*. Not to mention all the other benefits it is much harder to value monetarily: dental care, and other material goods and services. We believe \$45,000 is probably a conservative estimate of the average total value of the Iranian donor benefits package in terms of purchasing power equivalence for the U.S.

¹⁹ Pius XII, "Address to the delegates of the Italian Association for Cornea Donors and the Italian Union for the Blind," on May 14, 1956, *Acta Apostolicae Sedis* 48 (1956): 465, at <http://www.ewtn.com/library/curia/pcpaheal.htm>

²⁰ Richard V. Grazi and Joel B. Wolowesky, "Jewish Medical Ethics: Monetary Compensation for Donating Kidneys," *IMAJ* 6 (2004): 185-188, Internet, <http://www.hods.org/pdf/Grazi%20and%20Wolo.pdf>.

²¹ In both countries rewarded gifting is legal and sanctioned by religious authorities. Mohammad M. Golmakani, Mohammad H. Niknam and Kamyar M. Hedayat, "Transplantation Ethics from the Islamic Point of View," *Medical Science Monitor* 11, no. 4 (2005): 105-109; Author's conversation with Ayatollah M. Damad, Tehran, Iran, 9 December 2008.

²² Mohammad M. Golmakani, Mohammad H. Niknam and Kamyar M. Hedayat, "Transplantation Ethics from the Islamic Point of View," *Medical Science Monitor* 11, no. 4 (2005): 105-109; and Author's conversation with Ayatollah M. Damad, Tehran, Iran, 9 December 2008.

²³ See Ron Athey, Internet, <http://hackingthefuture.blogspot.com/2009/02/ron-athey-at-abode-of-chaos.html>; Franco B, Internet, http://www.franko-b.com/gallery/g_performance4.htm.; Orlan, Internet, <http://www.orlan.net>; Stalking Cat, Internet, <http://www.stalkingcat.net>.

²⁴ See R. R. Faden and T. L. Beauchamp, *A History and Theory of Informed Consent* (New York: Oxford University Press, 1986), and T. L. Beauchamp and J. F. Childress, *Principles of Biomedical Ethics*, 6th ed. (New York: Oxford University Press, 2009).

²⁵ Sanjay Nagral, "The Indian Kidney Bazaar," *Combat Law* 4, no. 4. (2005), Internet, <http://www.indiatogether.org/combatalaw/vol4/issue4/organ.htm>; Thomas Schmitt, "A Pound of Flesh: Organ Trade Thrives in Indian Slums," *Spiegel Online*, (14 June 2007), Internet, <http://www.spiegel.de/international/world/0,1518,488281,00.html>.; Amihan V. Abueva, "The Philippines: Fifth Organ Trafficking Hotspot!" Power point presentation (2007). Yosuke Shimazono, "The state of the international organ trade: a provisional picture based on integration of available information," *Bulletin of the World Health Organization (BLT)* 85, no. 12, (2007): 965-962.

²⁶ Sanjay Nagral (2005).

²⁷ *Ibid.*

²⁸ D. A. Budiani-Saberi and F. L. Delmonico, "A Commentary on the Global Realities," *American Journal of Transplantation*, no. 8 (2008): 925-929. Leigh Turner, "Let's wave goodbye to 'transplant tourism,'" *British Medical Journal*, no. 336 (2008): 1377.

²⁹ Amihan V. Abueva, "The Philippines: Fifth Organ Trafficking Hotspot!" Power point presentation (2007). Yosuke Shimazono, "The state of the international organ trade: a provisional picture based on integration of available information," *Bulletin of the World Health Organization (BLT)* 85, no. 12, (2007): 965-962; Fernan Marasigan, "Tighter controls on organ donations pushed," *Business Mirror*, Internet, Sunday, 12 July 2009 at <http://businessmirror.com.ph/home/nation/13038-tighter-controls-on-organ-donationspushed.html?tmpl=component&print=1&page=>.

³⁰ D. A. Budiani-Saberi and F. L. Delmonico, "Organ Trafficking and Transplant Tourism: A Commentary on Global Realities," *American Journal of Transplantation*, no. 8 (2008): 925-929.

³¹ D. M. Tober, "Kidneys and Controversies in the Islamic Republic of Iran: The Case of Organ Sale," *Body and Society* (2007), v.13(3): 151-170.

³² Rai and Afzal argue that the Bonded Labor Abolition Act of 1992 has not stopped bonded labor in Pakistan, and that because of the loopholes in the 2007 Human Organs and Tissues Ordinances, the legal prohibition on organ sales may prove equally ineffective. Mohammad A. Rai and Omer Afzal, (2007): 10-11.

³³ National Organ Transplant Act: Hearings on H.R. 4080 Before the Subcommittee on Health and Environment of the House Committee on Energy and Commerce, 98th Congress, 1st Session 224 (1983).

³⁴ Approved 19 October 1984 and amended in 1988, 1990, and 2008: "The National Organ Transplant Act," (1984 Pub.L. 98-507), Internet, http://www.unos.org/SharedContentDocuments/NOTA_as_amended_-_Jan_2008.pdf.

³⁵ Communications with Ahad J. Ghods, M.D., F.A.C.P., Chief, Division of Nephrology, Department of Medicine, Iran University of Medical Sciences (1979 to the present); Dr. Ali Nobakht Haghighi, permanent member of the Iranian Academy of Medical Sciences (<http://www.ams.ac.ir/>), former Deputy of Treatment, Finance and Administration of Ministry of Health (1986-1993), and others the author met and interviewed on her research trip to Iran, Nov.14, 2008-Dec. 31, 2008.