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HIV AND ORGAN DONATION: ILLINOIS' SOLUTION TO ORGAN DONATION SHORTAGES

Amy Vandenbroucke

I. INTRODUCTION

The survival of more than 90,000 Americans depends completely on someone else's decision regarding organ donation. On an average day, 110 people are added to this national wait list for organ transplants while 18 people die waiting for an organ. Hundreds of thousands of patients wait for donated tissues (bone, cardiovascular tissues, skin, corneas, etc.). It is ironic that, fifty years after the first successful transplant, organ transplantation has become a victim of its own success; there are no longer enough organs for all who need them. This shortage challenges the medical and legal community to develop new ideas to meet the growing demand for organs.

The number of Americans waiting for organ donations includes patients with Human Immunodeficiency Virus, or HIV. While it is commonly known that HIV can be transmitted through solid organs and some forms of tissue transplantation, it is less well-known that health care workers already perform organ transplants on HIV-positive individuals because they are eligible to receive transplants from HIV-negative individuals. There is a growing need among HIV-infected

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individuals for kidney and liver organ transplants because, with new advancements in medicine, these individuals are living longer and at risk for kidney and liver failure because of HIV itself, long-term effects of medication, or other non-HIV related causes. Approximately one third of HIV-positive individuals are infected with Hepatitis C, which often progresses to potentially fatal liver disease. This situation, having both HIV positive and negative individuals vying for the same organs, creates a conflict, specifically regarding kidneys and livers. While research on HIV is improving daily, it is still a disease, and donating healthy organs to someone with HIV, as opposed to a healthy individual without HIV, seems counterproductive to saving a life.

In an attempt to alleviate the competition, Illinois, in July 2004, became the first state to enact a law allowing for the transplant of solid organs from “an HIV infected donor to a person who has tested positive for exposure to HIV or any other identified causative agent of AIDS.” The law, however, limits this procedure to a recipient who “is in immediate threat of death unless the transplant is performed.” Organ donors may be either “a deceased donor with HIV or a living donor known to be infected with HIV.” The legislation applies “only to organ donation, not blood donations or bone marrow transplants.”

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9 Banks, supra note 5, at 45.

10 “Solid organ transplant means the surgical transplantation of internal organs including, but not limited to, the liver, kidney pancreas, lungs or heart. Solid organ transplant does not mean bone marrow based transplant or a blood transfusion.” 20 ILL. COMP. STAT. 2310/2310-330 (c-5) (2004).

11 Id. “HIV infected donor means a deceased donor who was infected with HIV or a living donor known to be infected with HIV and who is willing to donate a part or all of one or more of his organs. A determination of the donor’s HIV infection is made by the donor’s medical history or by specific tests that document HIV infection, such as HIV RNA or DNA, or by antibodies to HIV.” Id.

12 Id.

13 Id.

In spite of these restrictions, "the new law will provide an expanded base of available organs and allow people with HIV or AIDS to qualify for transplantation with organs from HIV-infected donors."\textsuperscript{15}

The new Illinois HIV organ donor law, in spite of procedural uncertainty and safety questions, is a good step towards alleviating the shortage of organ donations. Although this step may conflict with the National Organ Transplant Act (NOTA) or policies established for organ donation by the United Network for Organ Sharing, an organization established under NOTA, it increases the pool of donors, which is a necessity for the 90,000 plus people waiting for their lives to be saved. Part II of this paper provides a background on organ donation, including the process, incentives and current medical advancements. Part III will discuss the emergency of HIV, the new Illinois HIV law, its impact on organ donation, and other related developments. Part IV examines the various other obstacles the Illinois law faces, including the National Organ Donation Act.

II. BACKGROUND OF ORGAN DONATION

There are two kinds of donations: organ and tissue.\textsuperscript{16} Organ donation involves solid organ donations, including heart, lungs, liver, pancreas and kidneys; tissue donations involve non-living body parts including, skin, heart valves, ligaments, tendons, bones and veins.\textsuperscript{17} “Most organ donors are also eligible to donate tissues.”\textsuperscript{18} Tissue donations can potentially benefit 50 people.\textsuperscript{19} There are approximately thirty transplantable parts in a human body.\textsuperscript{20} Current state and national law permits “both the donation and sale of regenerative tissue such as blood, sperm, ovum, cells, hair, and other such body parts...non-regenerative solid body organs...can only be transferred by participation in the existing volunteer organ donation system.”\textsuperscript{21}
is no question that the scarcity of human organs drives laws, such as this one, to be enacted.\textsuperscript{22}

There are both living and deceased organ donors. Deceased donors have been declared dead before their organs are transplanted.\textsuperscript{23} Living donors donate portions of their organs to the recipient.\textsuperscript{24} Living donors are generally blood relatives, but transplants can be given and/or received from unrelated donors.\textsuperscript{25} Kidneys are the most frequent type of living organ donation, although living donors also donate segments of the liver, pancreas, lungs and intestine.\textsuperscript{26} Transplants from living donors are usually more successful because tissues are able to be better matched.\textsuperscript{27}

**A. Organ Donation Sources**

Organ donation has always been a difficult decision, and historically, a voluntary one.\textsuperscript{28} If one person donated their organs and tissues without restriction, a deceased organ donor could help more than 25 individuals.\textsuperscript{29} The process is relatively simple, but the reward is life. Organ transplants have become an established medical procedure since the 1970s.\textsuperscript{30} In 1984, the National Organ Transplant Act (NOTA) was

\textsuperscript{22} Id. at 46.
\textsuperscript{23} The Organ Procurement and Transplantation Network, Donation and Transplantation/About Donation/Living Donation, http://www.optn.org/about/donation/livingdonation.asp (last visited Feb. 2, 2006) [hereinafter OPTN].
\textsuperscript{24} Id.
\textsuperscript{25} Jarvis, supra note 2. Additionally, "in order to qualify as a living donor, an individual must be physically fit, in good general health, and free from high blood pressure, diabetes, cancer, kidney disease, and heart disease. Individuals considered for living donation are usually between 18-60 years of age. Gender and race are not factors in determining a successful match." OPTN, supra note 23.
\textsuperscript{26} Jarvis, supra note 2; see OPTN, supra note 23.
\textsuperscript{27} OPTN, supra note 23.
\textsuperscript{28} Banks, supra note 5, at 64.
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passed, providing structure and specific policies with respect to organ transplantation.\(^3\)

All healthcare facilities that perform transplants are members of the United Network for Organ Sharing (UNOS), a private not-for-profit organization that receives partial funding from the federal government, and funding from its members.\(^3\) A physician determines a patient needs an organ by following a standardized evaluation at a transplant hospital, ensuring the patient meets the hospital’s criteria.\(^3\) UNOS is contacted to place that patient on the national waiting list.\(^3\) The patients are not ranked, but are placed in a pool of potential recipients.\(^3\)

State law governs postmortem organ donations under the Uniform Anatomical Gift Act of 1987 (UAGA)\(^3\), a national act adopted at least in part by all states, sets the standards for donors, streamlined the process of completing the necessary documents for organ donation and mandated that hospitals and emergency personnel develop procedures to ask about organ donation at a patient’s death.\(^3\) UAGA allows individuals 18 years or older to donate organs and/or tissues for transplantation.\(^3\) Additionally, if a person dies without

\(^{33}\) Sirico, supra note 32, at 5.
\(^{34}\) Id.
\(^{36}\) UNIF. ANATOMICAL GIFT ACT (1987), 8A U.L.A. 30 (2003). There was also a Uniform Gift Act of 1968. UNIF. ANATOMICAL GIFT ACT (1968), 8A U.L.A. 63 (2003). This act gave "competent adults the right to donate their bodies or bodily organs for use upon their death and to do so, as indicated in a comment, without subsequent veto by others." Adam J. Kolber A Matter of Priority: Transplanting Organs Preferentially to Registered Donors, 55 RUTGERS L. REVIEW 671, 679 (2003). The law clarified the "confusing mixture of old common law" and the mishmash of state statutes passed to provide guidance on the procedures involved in donating organs. Id. When the UAGA was amended in 1987, it provided further guidelines and a more streamlined process. Id.
\(^{38}\) The Organ Procurement and Transplantation Network, Donation and Transplantation/About Donation/Who Can Be a Donor,
deciding to donate, the UAGA provides guidelines for who may consent on behalf of the deceased individual to donate their organs and/or tissues.\(^{39}\) Physicians will declare a person deceased when there is either brain death or when the heart stops beating.\(^{40}\) Upon the pronouncement of death, the organs are harvested for donation.

The organ transplantation system strives to ensure that organs go to patients who can most benefit from them.\(^{41}\) When an organ becomes available for donation, UNOS then takes patients from the potential pool and ranks them based on who medically matches the organ, considering factors as age, the size of the organ, and blood type.\(^{42}\) Health of the recipient patient, however, is the most important factor.\(^{43}\) UNOS does not allow social, economical or emotional factors into determining which patient receives the organ.\(^{44}\) Additionally, if an organ is time-sensitive and needs to immediately be transplanted, UNOS factors in geographic distance between the organ and patient.\(^{45}\) Because this geographic factor plays a role, some patients opt to be registered at multiple hospitals, in different regions of the country.\(^{46}\) NOTA created Organ Procurement Organizations (OPOs), members of UNOS, help coordinate transplants at the regional level and an Organ Procurement and Transplantation Network (OPTN) to help OPOs in distributing organs that cannot be used within the OPO’s geographic region.\(^{47}\)


39 Id. The priority order is as follows: spouse, adult son/daughter, either parent, adult brother/sister, grandparent, legal guardian. Id.
40 Id. Brain death is defined when blood is unable to reach the brain, thus denying it of oxygen. Id.
41 Ornstein, supra note 35.
42 Sirico, supra note 32, at 5.
43 Id.
44 Transplant Awareness, supra note 35.
45 Sirico, supra note 32, at 5. “Organs may be transported hundreds or thousands of miles to reach recipients waiting in transplant centers, thanks to advances in medical technology and improved preservation techniques.” Gift of Hope FAQs, supra note 1. For example, heart/lung preservation time is 4-6 hours; liver - up to 24 hours; kidneys - 48-72 hours. Id.
46 OPTN, supra note 23. Each hospital has its own policy on multiple listings so patients need to check them before registering at multiple places. Id.
Unfortunately, the supply of organs from cadavers is decreasing. So although UNOS remains one legal way to receive organs, patients needing organs are finding other ways to get organs. One example is for patients to seek out living donors, usually family members, close friends or individuals responding to public appeals at churches, schools or jobs, who are willing to donate a kidney or part of a liver or lung. This type of attempt potentially gives the affluent, educated or computer-literate patients an edge in finding an organ. It may also lead to discrimination. For example, living donors may choose to donate only to patients with a similar religious affiliation or of the same race, rather than on the patient with the greatest need. Another example is through the internet. Online, websites have attracted controversy by charging fees to connect living donors with those in need of organ transplants. In charging fees, companies flirt with the UAGA’s explicit prohibition of the sale of human organs. Although these websites may not outright sell organs, there is a subtle deceit critics are concerned about because legally recipients may reimburse donors for medical bills and other associated costs which may be inflated, making it difficult for authorities to draw a clear line. Critics are also concerned that patients who meet their donors may expose themselves to potential extortion. In the end, the absence of regulation of the organ donation process through websites or other

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48 Megan Garvey, Some Jumping the Line on Organ Transplants, L.A. TIMES, Oct. 24, 2005, at B1. “Only 2% of deceased people are even eligible to donate [their organs] and half of families who are asked decline.” Id.
49 Rob Stein, Search for Transplant Organs Becomes A Web Free-for-All, WASH. POST, Sept. 23, 2005, at A01, available at http://www.washingtonpost.com/wp-dyn/content/article/2005/09/22/AR2005092201901.html?sub=AR (last visited Feb. 2, 2006). In order to find organs, more patients are taking out ads in newspapers, blitzing neighborhoods with leaflets, buying billboard spaces to advertise their need or turning to the internet. Id.
50 Id.
51 Id.
52 Id.
53 On www.matchingdonors.com, there is a $595 fee for unlimited access or a $295 a month fee. Id.
54 See generally 42 U.S.C.A. § 274e(a) (2003). “(a) Prohibition. It shall be unlawful for any person to knowingly acquire, receive or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce.” Id.
55 Stein, supra note 49.
56 Id.
personalized advertisements may harm the patient, rather than helping them obtain an organ more quickly.\ citation {57}

There is also an underground market for organs, usually kidneys from living donors.\ citation {58} People needing kidneys may travel to other countries and purchase a kidney, even if the sale of organs is illegal, and then return to the US for post-transplantation care.\ citation {59} This strategy presents tremendous risks. First, the majority of kidneys are from poor living donors who need the money.\ citation {60} Therefore, their organs may not meet health standards established in the United States.\ citation {61} Second, the transplant operations themselves are less successful, resulting in either death or a failed graft.\ citation {62} Although some people needing organ transplants are desperate to resort to illegal measures, the associated risks may decrease their chances for survival.

B. Nature of Organ Donation

Transplants are usually successful. After a year, 95 percent of recipients of a cadaveric kidney survive; after 5 years, over 81 percent survive.\ citation {63} A successful transplant does not mean that the recipient patient returns to perfect health, but he or she usually has better health than they have had for a very long time.\ citation {64}

After the organ donation, the patient still must cope with many additional concerns, including organ rejection, medication, follow-up care, living with a weakened immune system, and the psychological stress of knowing that, at some point, the donated organ will fail.\ citation {65} However, prospective organ recipients need to consider all these factors

\begin{footnotes}
\item[57] Id.
\item[58] Sirico, supra note 32, at 6.
\item[59] Id.
\item[60] Id.
\item[61] Id.
\item[62] Unlike in these countries, in the United States, living kidney donors are health and screened for a variety of illnesses. Jarvis, supra note 2.
\item[63] Sirico, supra note 32, at 6. This is according to a study of British recipients of kidneys from India. Id. A failed graft is a tissue or organ transplanted from a donor to a recipient that failed to work in the recipient's body and which the body rejects by creating anti-bodies to attack the new organ. This may result in imminent death or mean that further operations have a lower chance of being successful. NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL, ETHICAL ISSUES RAISED BY ALLOCATION OF TRANSPLANT RESOURCES: ETHICAL ISSUES IN ORGAN DONATION 15 (1997).
\item[64] Id. at 9.
\item[65] Id. at 2.
\end{footnotes}
when initially deciding to have a transplant in the first place. Since the alternative to organ procurement is usually death, people usually join the wait list to attempt to receive an organ. Nevertheless, transplants are not the best course of treatment for everyone. Some patients have a serious illness that has weakened the body to the point where the surgery for the transplant might cause their death. Furthermore, other patients may have reached an advanced age, or they may have a history of alcoholism or drug addiction, which prevents them from being ideal candidates for organ transplantation. Due to the fact that transplant patients will need to follow a strict regime of medical treatment post-transplant, individuals are not considered a good candidates if they are deemed unlikely to comply with the post-transplant medical regimes. Transplants are drastic measures and a person may have a longer, more comfortable life if they choose a more conservative treatment.

C. Incentives

In 2004, organ donation in Illinois and northwest Indiana had another record-setting year, saving the lives of nearly 1,000 organ transplant recipients, but more than 250 Illinois men, women and children died waiting for a transplant. If more potential donors did become donors, they could have prevented many of these deaths. Many states have tried various tactics to increase the number of organ donors, including using celebrities to endorse the idea in advertisements. Other efforts include tax incentives and creating plot lines focused on organ donation in television dramas.

President George W. Bush signed a federal incentive on April 5, 2004. This act “authorizes $25 million in new resources for efforts to increase donation,” including:

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66 Id.
67 Id.
68 Sirico, supra note 32, at 3.
69 Id.
70 Id.
71 First Person Consent, supra note 29.
72 Id.
73 Sirico, supra note 32, at 7.
74 Id. at 7.
(1) grants for reimbursement of travel and subsistence expenses and incidental non-medical expenses incurred by individuals toward making living organ donations; (2) peer reviewed grants for studies and demonstration projects to increase organ donation and recovery rates; (3) grants to states for organ donor awareness, public education and outreach activities, and programs designed to increase the number of organ donors within the state; and (4) matching grants to qualified organ procurement organizations and hospitals to establish programs coordinating organ donation activities to increase the rate of organ donations for such hospitals. 76

There are many misconceptions about donating organs. Public education and outreach programs can potentially clarify misconceptions and encourage people to become donors.

However, since most transplant donors must be deceased to donate, many states stress that the most important thing an individual can do is to discuss their wishes with their families. 77 Although a donor may have clearly expressed his/her intent to donate their tissues and/or organs, some hospitals will not accept the donation until they have the consent of the donor’s family. 78 Sadly, “from May 2002 to April 2004, 48 families refused to let organs be taken from the bodies of family members, even though their loved ones had registered as organ donors before they died.” 79 Since each donors provides an average of four organs, these family vetoes meant 200 fewer organs were available for transplants. 80 This situation may have been partially avoided if the potential donors had discussed their organ donation wishes with their family members.

If the state recognized a “first person consent act,” the entire situation could have been avoided. This act means that the family can no longer override an individuals’ signed donor card or enrollment in a state donor registry. 81 It essentially strengthens the legal documents

76 Id.
77 Sirico, supra note 32, at 8.
78 Id.
79 Ritter, supra note 4.
80 Id.
81 First Person Consent, supra note 29. Additionally, it is an assurance for Illinoisans who want to make sure their wishes to donate their organs are honored. Other states may call it “donor rights” legislation. GiftofHope.org. First Person Consent a
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and assures the potential donor that their decision is completely binding.\textsuperscript{82} There are 43 states with first person consent legislation.\textsuperscript{83} On January 1, 2006, Illinois’ first person consent law became effective, creating the First-Person Consent Organ/Tissue Donor Registry, making a person’s decision to be an organ/tissue donor legally binding and removing a requirement that an adult donor’s next of kin must also give consent before the organs or tissues are used.\textsuperscript{84} The Gift of Hope Organ and Tissue Donor Network estimated that the new law would provide 100 additional organs each year, saving about a third of the patients on the organ wait list and providing an opportunity to save about 1,000 more lives in the next decade.\textsuperscript{85}

Other policies states may adopt to increase organ and tissue donations are “presumed consent” or “mandated choice.” Under presumed consent, the state assumes a person’s willingness to donate unless that person has specifically withdrawn consent.\textsuperscript{86} States using a mandated choice policy require an individual to expressly decide whether to donate his/her organs and/or tissues.\textsuperscript{87}

D. Medical Advancements/Consequences

In spite of all the incentives and public awareness programs, there are still more people needing transplants than there are donors. Aside from incentives, there are other medical alternatives which offer another solution to this organ shortage. Medical advancements strive to overcome the continual problem of “identifying readily available organ donors.”\textsuperscript{88} When organs from human donors are in short supply, the scientific medical community looks to other solutions to increase the available supply of organs for transplants, though this creates some

\textsuperscript{82} Id.

\textsuperscript{83} Id. In January 2006, Illinois became the forty third state to have such legislation.


\textsuperscript{85} Slife, \textit{supra} note 84; \textit{First Person Consent, supra} note 29.

\textsuperscript{86} Damon Adams, \textit{AMA Says More Data Needed on Options To Boost Organ Donations}, AMERICAN MEDICAL NEWS, July 18, 2005.

\textsuperscript{87} Id.

\textsuperscript{88} Banks, \textit{supra} note 5, at 46.
legal and ethical issues. Some potential solutions involve using mechanical or artificial devices. Other solutions involve physicians transplanting “marginal” or “extended criteria” organs, which are organs that would not have been used in the past, but whose use has increased in recent years. A more experimental option includes using animal organs and/or tissues.

The use of animal organs and/or tissues is a contentious practice. Xenotransplantation developed, in part, because the demand for human organs far exceeded the supply. Therefore, physicians began to experiment transplanting animal organs and tissues into humans. Xenotransplantation is still experimental primarily because there is the possibility of infecting patients with recognized or new infectious diseases from the animal parts used in this procedure. Since the possibility of infecting humans with infectious diseases from animals exists, the concerns with animal transplants are arguably greater than the concerns for HIV-transplants to HIV-patients. With

89 Id.
90 Id. at 54.
91 Gretchen Reynolds, Will Any Organ Do?, N.Y. TIMES, July 10, 2005, § 6, at 37. Examples given in the article include harvesting organs from an individual whose urine tested positive for marijuana and cocaine; livers transplanted from an 80 and a 93 year old donor (originally age restrictions limited organ donors to the 45 and under age range); lung donations from smokers; and hearts and kidneys from those with high blood pressure or whom had been obese. Id. There is no current national standard dictating what surgeons need to tell their patients about the organs they are about to receive, other than kidneys. Id.
92 Banks, supra note 5, at 54.
93 “Xenotransplantation is any procedure that involves the transplantation, implantation, or infusion into a human recipient of either (a) live cells, tissues, or organs from a nonhuman animal source, or (b) human body fluids, cells, tissues or organs that have had ex vivo contact with live nonhuman animal cells, tissues or organs.” Federal Drug and Food Administration, Xenotransplantation Action Plan, http://www.fda.gov/cber/xap/xap.htm.
94 Transplantation of Organs from Animals to Humans Could Soon Be A Reality, MEDICAL SCIENCES NEWS, Sept. 10, 2005, available at http://www.news-medical.net/print_article.asp?id=13072. “With the increasing shortage of donors for organ transplants, the use of animal organs may be the only hope for many suffering from problems such as kidney, heart or lung failure.” Id.
95 “Prior to the 1990s, most xenotransplantation attempts involved the use of whole organs and were largely unsuccessful.” HHS Guidelines for Xenotransplantation Safety, supra note 30.
96 Id. “Today, the Food and Drug Administration (FDA) regulates xenotransplantation procedures because they are still considered experimental.” Id.
97 Diseases that can be transmitted from baboons (one type of animal tissue used) to humans through organ and/or tissue donations include fungal infections, viruses that
animal transplants, there is a possibility patients could “receive a previously unknown microbe along with their transplants,” and unleash a medical disaster, as in the case of HIV/AIDS. If society encouraged animal transplants, with the potential to release another AIDS-like epidemic on the human race- or worse, then society should consider doing organ transplants with those already diagnosed with HIV a safer alternative.

It is important to remember that even the current system is not perfect. Several diseases may fall through the cracks under the current system of evaluating organs for transplant. These include West Nile virus, hepatitis B, hepatitis C, Trypanosoma cruzi (a parasite trigger leukemia, and retroviruses (same kind of organism that gives rise to AIDS). Christine Gorman, Are Animal Organs Safe for People?, TIME, Jan. 15, 1996, at 58. However, there is not way to screen animals for all possible pathogens, nor is there anyway of knowing how many other baboon viruses medical science has not yet discovered. Id. Therefore, scientists prefer to work with pigs, cows and deer, although they are further removed biologically from the human species, they are less likely to transmit fatal viruses. Id.

Also consider, “when viruses or bacteria have made the jump from animals to humans in the past, they have often proved exceedingly virulent: HIV, which causes AIDS; Ebola virus; and hantavirus are all chilling precedents.” Id. “Even the most rigorous screening methods cannot guarantee human safety, however. At least two potentially worrisome baboon viruses, for example, do not show up on any existing commercial tests. Although neither one bothers baboons, they are both retroviruses, the same kind of organism that gives rise to AIDS. If the microbes really are dangerous to humans, it is conceivable that they could spread to many victims before revealing their deadly nature. That scenario appears to have already happened once: many scientist believe it did with HIV, which apparently originated in monkeys and then somehow jumped the barrier to people.” Id.

West Nile virus is transmitted through a mosquito bite. Generally humans have either no symptoms or mild-flu like symptoms but it can develop into an inflammation of the brain, or the membranes of the brain or spinal cord called encephalitis, meningitis or meningoencephalitis, respectively, which may lead to death. Centers for Disease Control, Overview of West Nile Virus, http://www.cdc.gov/niosh/topics/westnile (last visited Aug. 21, 2005). The Centers for Disease Control found four patients who were infected with west nile virus from a single donor. Three of the four then developed encephalitis. Kathy Dix, Infection from Organ Donors: Exploring the Risks of Accepting Life, INFECTION CONTROL TODAY, Feb. 1, 2003, available at http://www.infectioncontroltoday.com/articles/321feat2.html (last visited Aug. 21, 2005).

Hepatitis is a virus transmitted through unprotected sex with an infected person or through blood or other bodily fluids. There is a vaccine for it. 30% of those infected do not have any symptoms, those infected may have abdominal pain, jaundice, fatigue, joint pain, nausea or loss of appetite. Centers for Disease Control, Viral Hepatitis B, http://www.cdc.gov/ncidod/diseases/hepatitis/b/fact.htm. “Hepatitis is
that causes Chagas disease), cytomegalovirus, Epstein-Barr virus, toxoplasma and syphilis. For many of these diseases, however, ubiquitous in some pockets of the world. For Taiwan in particular, hepatitis B virus (HBV) infection is hyperendemic. Because HBV is so widespread, there is a severe shortage of organs from donors who do not carry the virus." Scientists have starting using combination drug therapy to prevent infected organs from infecting the recipients and have had some success. Dix, supra note 99.

101 Hepatitis C is a liver disease transmitted through infected blood or body fluids, sharing needles or from an infected mother. 80% of infected people have no symptoms, but 55-85% will develop chronic liver infections, 70% of which will develop into liver disease, of which 1-5% of them will die from. Being infected with hepatitis C is the leading indication for a liver transplant. There is no cure, but there are some treatments available. Centers for Disease Control, Viral Hepatitis C, http://www.cdc.gov/ncidod/diseases/hepatitis/c/fact.htm (last visited Aug. 21, 2005).


102 Chagas disease is an infection cause by a parasite. It is typically found in South America and is transmitted through triatomine bugs, which live in cracks and holes of substandard housing. It can cause serious illness, while symptoms may begin within a few days of infection, most people do not have symptoms until the chronic stage of infection, 10 to 30-40 years later. Centers for Disease Control, Chagas Disease, http://www.cdc.gov/ncidod/dpd/parasites/chagasdisease/factsht_chagas_disease.htm (last visited Aug. 21, 2005). The pathogen for the disease was found in 3 organ recipients in 2001, two of which died (one from unrelated causes). The third recovered and had no other signs of the disease. The US current does not have a policy to screen for this disease; it is endemic in Latin America. Dix, supra note 99.

103 Cytomegalovirus is a member of the herpesvirus groups (which includes Epstein Barr- which causes mononucleosis) and is found in between 50-85% of adult Americans by the age of 40. It can be transmitted through bodily fluids of an infected person, including blood, tears, semen, and breast milk. Generally, there are no symptoms or long-term consequences but, to high-risk groups, such as organ transplant recipients, it can cause pneumonia, retinitis (inflammation of the eyes) and gastrointestinal disease. Centers for Disease Control, Cytomegalovirus, http://www.cdc.gov/ncidod/diseases/cmv.htm (last visited Aug. 21, 2005).

104 Toxoplasma, or toxoplasmosis, is caused by a parasite found throughout the world. The parasite can be found in cat feces, contaminated water, contaminated food or receiving an infected organ. Most healthy people are symptomless, but high-risk groups who contract the parasite may become blind or develop mental retardation. Centers for Disease Control, Toxoplasmosis, http://www.cdc.gov/ncidod/dpd/parasites/toxoplasmosis/factsht_toxoplasmosis.htm (last visited Aug. 21, 2005).

105 Syphilis is transmitted by bacteria, usually through unprotected sex. The symptoms are unclear because so many are indistinguishable from other diseases. Many people do not have symptoms for years but eventually develop sores, rashes, sore throats, hair loss, headaches, weight loss, etc. and then may lead into damage to
not enough is known about them, or their transmission, "to support a change in existing screening and testing practices for organ or blood donors." In the southwest U.S., July 2004, "the Center of Disease Control and Prevention announced the first reported cases of rabies transmission through solid organ transplantation." Four people died within a week from organs donated from two different donors who, upon admittance to the hospital, had shown no sign of the disease. This incident represents the first transmission of rabies from a solid organ transplant in the world, although there have been eight other known cases of rabies being transmitted through a cornea transplant. Donors are not screened for rabies because the test takes longer to give results than some transplantable organs last. In New England, May 2005, three people died from lymphocytic choriomeningitis virus, a rare illness transmitted from hamster-like rodents to humans, after receiving organs from a single infected individual. In October 2005, a single donor in New York City infected three people with West Nile virus; this is only the second known case in the US of West Nile being transmitted by organ transplant. Two of the patients were comatose for weeks after being infected. Each OPO is certified by the federal government and are highly regulated to ensure that they are following the strict national standards set by UNOS. However, most professionals claim it is inefficient, both administratively and financially, to test all donors for many of the "one-in-a-lifetime disease" that may be transmitted through an organ or tissue donation. Transplant professionals take great precautions to avoid disease transmission, but understand that the risk is always present and that

internal organs (including brain, nerves, liver, eyes, heart, bones) and even to paralysis, blindness and dementia. Centers for Disease Control, Syphilis, http://www.cdc.gov/std/Syphilis/STDFact-Syphilis.htm (last visited Aug. 21, 2005). Dix, supra note 99.


Id.

Id. "One case was in the U.S. and the [7] others were in Thailand, India, Iran, and France." Id.

Id.

Reynolds, supra note 91.


Id.

Rare Rabies, supra note 107.

Reynolds, supra note 91.
“the only way to completely eliminate the risk of disease transmission is to never perform a transplant.” However, with respect to the West Nile Virus, since it is becoming increasingly more common in the US, physicians are suggesting that better tests be developed for the virus so that it becomes a routine test in organ transplants, like HIV, hepatitis and the Epstein-Barr virus.

Organ donation still presents a risk of HIV infection. The “most effective FDA licensed test for HIV may only detect the virus” within some window period, usually 6 months. There are other, more accurate tests, but even these tests take longer to evaluate than organs will survive for transplantation. Therefore, many hospitals will ask questions to determine if the organ donor falls into a “high-risk” category for transmitting HIV, including specific questions about sexual behavior and drug use. This information relies on patient honesty and, if the patient has already died, then the medical information the patient passed onto his/her family members and their honesty. If the patient appears to have a questionable history, their organs will not be used. However, the benefits of transplantation far outweigh the small risk that a disease will be transmitted through the

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116 Rare Rabies, supra note 107.
117 Perez-Pena, supra note 112. Most people are unaffected by the West Nile virus. However, transplant recipients not only have weakened immune systems from age, disease or drugs, their systems are further compromised through drugs taken to suppress what remains of their immune system to prevent their bodies from rejecting their new organ(s). This makes West Nile potentially deadly to them, since the virus can cause encephalitis or meningitis. Overall, transplant patients are forty times more likely to develop a serious brain disease from West Nile than an ordinary person. Id.
118 Blood donations are still not foolproof either, in preventing the transmission of HIV. In 2002, “Two patients in Florida developed HIV after receiving blood products from an HIV-infected individual who donated blood in the 7 to 10 day window of time before the virus can be detected by currently available laboratory tests. ... Transfusion is still one of the safest procedures in medicine, and the risk for HIV is about 1 in 2 million, but it's not zero.” Two Patients in Florida Develop HIV After Receiving Blood Transfusions, TRANSPLANT NEWS, Aug. 12, 2002, available at 2002 WLNR 4961512.
120 Id.
121 Id.
122 Id.
123 Id.
organ. Additionally, many organ and/or tissue banks will use other tests to diagnose potential diseases with rapid results, even if they are not FDA approved. These rapid tests have shown to be 99.6 percent accurate and produce a false positive result 0.2 to 1 percent of the time.

III. ILLINOIS’ NEW HIV LAW AND ITS IMPACT ON ORGAN DONATION

Traditionally, physicians have not considered people infected with HIV good candidates for solid-organ transplantation. One primary reason is that the medical community does not completely understand HIV. This generates concerns over the potential for transmission of the virus, the potential dangerous side effects of transplantation on the continued development of HIV in the patient, and how an HIV-infected patient may react to the stress of recovery. To understand the full effect of the new Illinois law, it helps to have a background of HIV.

A. Emergence of HIV

HIV is a virus that, without drug treatment, usually progresses to Acquired Immune Deficiency Syndrome, or AIDS, in an average of ten years. Although different countries have different ways of defining the point at which a person is said to have AIDS, rather than HIV, this point usually comes when the person, after years of decreasing health,
develops one of a number of particularly severe illnesses. A country may also define AIDS as the point where a person's number of immune system cells, specifically T-cells, in the body drops below a specified point. AIDS is an extremely serious condition that leaves the body with very little defense against any infection. There is no known cure for AIDS, but with appropriate care and drug treatments, most people in the US with HIV or AIDS live relatively long lives.

HIV and AIDS have been detected in the U.S. for over 20 years. It is improbable that scientists will ever know when and where the virus first emerged, other than that it was sometime during the middle of the 20th century. AIDS was first reported in June 1981 by the Centers for Disease Control (CDC); the CDC "published its first guidelines for clinical and laboratory personnel in November 1982." By its nature the CDC, and other public health services, needed to act

131 What is AIDS?, supra note 129. T-cells are a type of lymphocyte (white blood cell) and are an important part of the immune system. T-4 cells, also called "helper cells" lead the attack against infections in the body. When someone has HIV for a long period of time, T-4 cells decrease, indicating that the immune system is under attack. Anyone with less than 200 T-4 cells, or a T-4 cell percentage less than 14%, is considered to have AIDS, according to the US Centers for Disease Control. AIDS.org, T-Cell Tests, http://www.aids.org/factSheets/124-T-Cell-Tests.html (last visited Aug. 21, 2005).
134 Avert.org, United State HIV & AIDS Statistic Summary, http://www.avert.org/statsum.htm (last visited Aug. 21, 2005). It is thought that there are about a million people living with HIV in the US. Id.
quickly to "curtail the rapid spread of disease," but adopt sensible
guidelines and maintain a calm perspective of the situation. By early
November 1982, health professionals knew the AIDS virus could be
passed through blood transfusions. As a result, it was recommended
that individuals at high-risk for AIDS not donate blood. The federal
government, through the FDA, and individual states started enacting
legislation concerning blood supply, mandating testing of donated
blood, and establishing quarantine procedures for contaminated
products. Several states extended these provisions by not only
mandating the testing of blood before transfusing it into patients, but
also requiring that other donated material, including organs, were tested
as well. The sentiment was against those testing positive with HIV.
Several national public opinion polls, conducted from 1985-86, showed
28-54 percent of Americans favored quarantining people with AIDS, to
ensure public safety. Several states even tried to pass laws
authorizing the isolation of people with AIDS.

B. Obstacles to HIV Organ Donation

The misconceptions of professionals and the public in the 1980s was
outstanding in regards to HIV, especially considering the medical
advancements we have today for making HIV a manageable disease.
As a result, it is not surprising that, even a decade later, physicians
refrained from transplanting organs into people with HIV, believing
them to be poor candidates for organ donation based on their reduced
life expectancy. Physicians mistakenly thought that the drugs used
to avoid organ rejection would fatally weaken the already damaged
immune systems of individuals with HIV. However, recent medical
improvements in drug treatments have increased those infected with

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137 Id at 6.
138 Id. at Other ways of transmitting HIV include: having unprotected sexual
intercourse (including oral sex) with an infected person, contact with an infected
person’s blood, breastfeeding, using infected blood products and injecting drugs.
139 Gostin, supra note 129.
140 Id. at 11.
141 Id.
142 Id. at 11.
143 Id.
144 Davey, supra note 14.
145 Press Release, Illinois Governor Signs Historic Transplant Bill (July 10, 2004),
available at http://www.larrymckeon.com/html/pr/ILLINOIS-GOVERNOR-SIGNS-
HISTORIC-TRANSPLANT-BILL-152.asp.
HIV life expectancies.\textsuperscript{146} Additionally, physicians often excluded HIV-positive individuals from organ transplants, not only due to outdated information, but also because of the belief that people with HIV were likely to die soon anyway from AIDS, and they did not want to waste a valuable organ on them.\textsuperscript{147} Not only were people with HIV not considered organ transplant recipients, but the organs they tried to donate were destroyed, even though there was a known organ shortage.\textsuperscript{148} Pragmatically, it made sense because the medical science of the time claimed that HIV was a death sentence.\textsuperscript{149} If you gave organs to a HIV-positive individual, you were wasting them when you could be saving a HIV-negative person’s life. The advancement of technology and medical knowledge about HIV shows this morbid way of thinking no longer applies; much of this organ destruction was due to misinformation. It is clear today that HIV is no longer a death sentence.\textsuperscript{150} People with HIV have longer life expectancies and have the potential for even longer lives through organ transplants.\textsuperscript{151} A study at the University of California in San Francisco showed that in carefully selected HIV-positive patients, immune and viral post-operative issues can be controlled.\textsuperscript{152} After 30 transplants, this ongoing study has not found evidence of lower survival among HIV-positive patients.\textsuperscript{153} However, a separate study from the University of Pittsburgh School of Medicine shows that the cumulative survival rates

\textsuperscript{146} Davey, \textit{supra} note 14.
\textsuperscript{147} A 1998 article claimed paramedics were “trained to look for signs of gayness in a traffic accident or other situations where an organ will be harvested, such as rainbow bumper stickers or gay publications.” John S. James, \textit{Organ Transplants: Interview with Jeff Getty, on Ending the Exclusion of People with HIV}, AIDS \textit{TREATMENT NEWS}, February 6, 1998, available at http://www.aegis.com/pubs/atn/1998/ATN28801.html (last visited May 3, 2006).
\textsuperscript{148} \textit{Id. Organs, supra} note 15.
\textsuperscript{150} Lambda Legal Organ Transplants, \textit{supra} note 7.
\textsuperscript{152} \textit{Perspective, supra} note 127, at 75-76.
\textsuperscript{153} Crary, \textit{supra} note 8.
between HIV-positive and HIV-negative patients was significantly different, with HIV-negative patients living approximately 547 days longer after transplant. Nonetheless, any increase in lifespan through organ donation should show that it is not a "waste" to give an HIV-positive patient an organ.

Physicians have not been the only obstacle to HIV organ transplants. Insurance companies fail to pay to HIV positive recipients. OPOs, the regional centers doing organ transplants and organization which makes the final decision to perform transplants, may choose not to provide organs to HIV-positive individuals. "Given the chronic shortage of donor organs, many transplantation centers [were] reluctant to allocate this precious commodity to HIV-infected patients because of their poor prognosis." But things are changing. The education of the transplant centers has improved HIV organ transplant opportunities. OPOs and transplant hospitals are bringing in HIV experts to talk with their staff and explain how medicine’s knowledge of HIV has changed and what new information

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155 James, supra note 147.
157 HIV-Positive Patients Should have Equal Access to Donor Organs, 12 TRANSPLANT NEWS 16, Aug. 26. 2002, available at 2002 WLNR 4955631 (stating that since transplant centers were concerned with the post-transplant treatment prognosis for HIV-infected patients, they choose not to consider them in allocating organs).

A 1997 survey of kidney transplant centers revealed that 88% would not transplant an otherwise health HIV-positive patient. And only a small proportion of US transplantation centers have agreed to participate in a proposed multicenter study of transplantation in HIV-positive patients.

Id.
there is about the disease. As a result, two centers are now providing organ donations to HIV-positive patients. Furthermore, by their nature, transplant centers consider people with various life threatening conditions and offer organs to people with hepatitis C or diabetes. Since these diseases do not exclude patients from receiving transplants, and considering the current advancement of HIV post-transplant treatment, there is no reason to exclude patients with HIV, solely on the basis that they have HIV.

HIV itself has not been too great an obstacle to organ procurement. In 2002, The Miami-Herald reported that “kidney and liver transplants in HIV-positive people can work just as well as in HIV-negative people” as long as the interaction between anti-rejection and antiretroviral drugs are well managed. Additionally, “accumulated experience in North American and Europe in the last 5 years indicate[d] that 3-year survival in HIV-positive live transplant recipients is similar to that of HIV-negative recipients.” A study done at the University of California San Francisco, showed no detectable difference among new transplant recipients who had HIV but were taking anti-retroviral medications. Another study done in 2003 showed that, after one year, liver and kidney transplant patients on antiretroviral medications had survival rates similar to that of HIV-negative transplant recipients. As a result, the study’s authors concluded that, “there is no ethical justification for withholding transplantation from this population.” Therefore, for some HIV-

\[158\text{James, supra note 147.}\]
\[159\text{Id.}\]
\[160\text{Equal Access, supra note 156.}\]
\[161\text{Id. Diabetes is a disease in which blood glucose levels are above normal, meaning sugar builds up in the blood. Basics About Diabetes, Centers for Disease Control, http://www.cdc.gov/diabetes/faq/basics.htm (last visited Feb. 26, 2005). This can result in serious health conditions including, heart disease, blindness, kidney failure and lower-extremity amputations. Id. It is the 6th leading cause of death in the U.S. Id. There is no cure, but there is treatment. Id.}\]
\[164\text{Lambda Legal Organ Transplants, supra note 7.}\]
\[165\text{Id.}\]
\[166\text{Id.}\]
positive patients, HIV should no longer be a hindrance to receiving an organ.\(^{167}\)

C. Rationale for HIV Donation Law

The advancement in technology, of being able to transplant organs into patients with HIV and providing these individuals with a prognosis similar to that of an HIV-negative individual increases the competition for organs. More than 14,000 people in Illinois have AIDS.\(^{168}\) Since 1999, the first year state law required reporting of HIV cases, approximately 12,000 Illinois residents registered as being HIV-positive.\(^{169}\) The most common organ needed in this population is livers, because livers of those infected with HIV and hepatitis C fail quickly.\(^{170}\) However, waiting lists for organs can be years long, too long for those with failing livers.\(^ {171}\) HIV-positive individuals also desperately need kidneys.\(^ {172}\) Currently in 2005, the number of people awaiting a deceased donor kidney exceeded 60,000 for the first time.\(^ {173}\)

Under the previous system, the organs HIV-infected people required came from healthy donors, organs that would have gone to other healthy patients.\(^ {174}\) Illinois State Representative Larry McKeon, an HIV-positive person himself, felt a practical solution to the organ shortage would be to allow HIV-positive patients to not only to receive organs, but to donate them as well.

As discussed in the introduction, the new law allows the transplant of solid organs from HIV infected individuals, living or deceased donors, to other individuals with HIV, who have tested positive for exposure to HIV or any other causative agent of AIDS and who are in immediate threat of death without the transplant.\(^ {175}\) While the legislation is limited to organ donation, and currently excludes

\(^{167}\) See Equal Access, supra note 156.
\(^{168}\) Miller, supra note 6.
\(^{169}\) Id.
\(^{170}\) Davey, supra note 14.
\(^{171}\) Id.
\(^{172}\) Press Release, The Organ Procurement and Transplantation Network, Kidney Transplant Need Exceeds 60,000 (Nov. 14, 2004), available at http://www.optn.org/news/newsDetail.asp?id=358 (stating that for all transplants, the kidney is the most commonly transplanted and most commonly needed organ).
\(^{173}\) Id.
\(^{174}\) Transplant Medicine, supra note 149.
\(^{175}\) 20 ILL. COMP. STAT. 2310/2310-330(c-5) (2004).
blood or bone marrow transplants, it will help alleviate the kidney and liver shortages. Representative McKeon, author of the new law, claimed it would save the lives of people with HIV who are waiting for transplants, but who, as everyone with HIV is, are currently barred from receiving organs from donors with HIV. Representative McKeon introduced the bill in 2004 and it was signed by Illinois Governor Rod Blagojevich on July 15, 2004, effective immediately. Northwestern Memorial Hospital physicians “estimate that there could be between five and twelve HIV donors a year from the Chicago area.” Physicians at Northwestern are hopeful that the law will decrease the list of those requiring a transplant and that all patients waiting for organs will spend less time waiting for an organ donation. One physician at Northwestern commented, “this law will provide a safe and effective approach for expanding the organ donor pool and allow patients with HIV to receive organs that would ordinarily be discarded.” The law should decrease the competition for organs and increase the number of lives saved, by opening up more organs for transplantation.

Governor Blagojevich said he signed the legislation “because it will enable people with HIV to live longer, healthier, and more productive lives.” He added, as medical research improves to improve management of the disease the medical community needs to be willing to explore new ways to treat and care for those with HIV. However, the bill still leaves some practical application unclear, such as how the registry will work. Advocates think the bill will require a separate organ donor pool in the state for just those with HIV. The current practice of testing all donors for infection, disease, and other problems will remain in effect. Although the Secretary of State’s office was unaware of how many people with HIV are waiting for organ donations, Northwestern Memorial Hospital estimates there are

176 Davey, supra note 14.
177 Id.
179 Ritter, supra note 4.
180 Miller, supra note 6.
181 Id.
182 Id.
183 Organs, supra note 15.
184 Id.
185 Davey, supra note 14.
186 Id.
about fifteen people with HIV registered with them for an organ transplant.\footnote{Miller, supra note 6. \textit{See also} Transplant Medicine, supra note 149. Press Release, supra note 145 ("[Thirty percent] of people with HIV will have some form of liver disease, usually with infection by either hepatitis B or hepatitis C.").}

\section*{D. Safety Issues of the New Law}

The most serious questions Representative McKeon faced about the enactment of the Illinois law concerned safety.\footnote{Davey, supra note 14.} Other lawmakers raised concern about systems in place to ensure that an HIV-negative patient would not accidentally receive an HIV-positive organ.\footnote{\textit{Id.}} Even within the HIV population there were concerns about different strains of HIV and if the program would pose additional dangers to organ recipients.\footnote{\textit{Id.}} While McKeon acknowledged these fears as reasonable, he believes this law will not add any additional risk.\footnote{\textit{Id.}} Human error already exists in any organ donor situation, because of blood and tissue typing, or a misdiagnosis of a disease or an unrecognized problem.\footnote{\textit{Id.}} McKeon said these errors are no more likely in cases involving patients with HIV.\footnote{\textit{Id.}}

Having hepatitis C, like HIV, used to make an organ donor ineligible to donate.\footnote{\textit{Id.}} Now, some surgeons will accept these organs and transplant them into someone else infected with hepatitis C.\footnote{\textit{Id.}} Unfortunately, there have been cases of infected livers being transplanted into patients without the disease, but more stringent controls may prevent this.\footnote{\textit{Id.}} For the majority of patients infected with hepatitis C, however, they are given a new opportunity for life. With respect to both HIV-positive and hepatitis C infected individuals, the marginality of these organs, which are from a person who was infected

\footnote{Reynolds, supra note 91. Organs with Hepatitis C destroy the liver, which is why organs infected with it were once discarded. In fact, now surgeons will use the organs in urban areas because the virus is spread by injected drug use and is more common in patients. Ideally, surgeons will transplant these infected organs into patients already infected with Hepatitis C, but that is not always the case. \textit{Id.}}
with the same disease, is relative and depends on the condition of the recipient patient.\footnote{197}

The Organization for Transplant Professionals issued a position statement entitled \textit{HIV-Positive to HIV-Positive Organ Transplantation} that outlines the concerns of professionals who oversee the transplant process.\footnote{198} These concerns include safety concerns, including that the legislation was passed before clinical trials were done and “before the safety of HIV-positive organ donation has been sufficiently evaluated and ensured.”\footnote{199} Additionally, the professionals are concerned that the legislation permits living donation, something medically unsuitable for HIV-positive individuals.\footnote{200} And, finally, that there is a risk for a superinfection, for which the “necessary testing for viral properties of donor organs is potentially infeasible”; and “that HIV to HIV transplantation poses a health policy issue in that it has the potential to jeopardize epidemic control efforts.”\footnote{201} Other opponents are also concerned that there are not “enough controls to prevent infected organs from accidentally being given to someone who does not have HIV.”\footnote{202} A transplant surgeon at the University of Chicago stated that the practice of transplanting HIV-infected organs into an HIV-infected patient is “untested and that it might be possible for an HIV-positive person to be infected with a different strain of the virus during an organ transplant.”\footnote{203} Ultimately, most critics of Illinois’ law claim more information and medical studies are necessary to ensure the safety of the patients involved and the effectiveness of the procedure itself.

However, a professor of infectious diseases at Northwestern University commented that, “he believes that the transfer of organs from one HIV-positive person to another was safe.”\footnote{204} He added that physicians must always be careful and fully aware of their patient’s medical histories and treatments.\footnote{205} In the end, he said, “when you see

\begin{itemize}
\item \footnote{197} \textit{Id.}
\item \footnote{199} \textit{Id.}
\item \footnote{200} \textit{Id.}
\item \footnote{201} \textit{Id.}
\item \footnote{202} \textit{Transplant Medicine, supra} note 149.
\item \footnote{203} Davey, supra note 14.
\item \footnote{204} \textit{Id.}
\item \footnote{205} \textit{Id.}
\end{itemize}
someone die of liver disease you want to do anything to stop it." Using the infected organs of an HIV-positive person is a first step towards saving these patients, rather than throwing the potentially life-saving organs away.

E. HIV Strains

One major concern with HIV to HIV transplantation is a resulting supervirus. Professionals worry that when an HIV-positive patient receives an HIV-positive organ, an ideal environment is created for the recombination of viral strains which may result in changed biological properties of the HIV virus, including drug resistance or increased acceleration of the disease to AIDS, not to mention an increased rate of disease progression of the original disorder requiring the transplant. HIV-positive patients are more susceptible for getting a second HIV infection after getting a transplant because of their compromised immune system; fighting two strains of HIV may accelerate death more quickly than not receiving an organ in the first place. “If reinfection occurs in an HIV-positive transplant recipient, there is a possibility that recombination of viral strains will produce a more pathogenic superinfection.” In a worst case scenario, this potential superinfection may not be dangerous only to the patient, but to all who may come into contact with the patient and who are exposed to the virus.

About six months after Governor Blagojevich signed the bill into law, a rare strain of HIV was discovered, in February 2005 in a New York City patient. The strain of HIV was a rare, drug resistant strain that caused an “unusually rapid onset of full-fledged AIDS in the

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206 Id.
207 Id.
208 Position Statement, supra note 198 at 4.
209 Id.
210 Id.
211 Id. at 5.
212 Id.
213 Jeremy Manier, New Strain of Hardier HIV Found in New York, CHI. TRIB., Feb. 12, 2005. See generally Drug-Resistant HIV Strain in NYC Patient Similar to Treatable Canadian Cases; Debate Over Announcement Continues, MEDICAL NEWS TODAY, Feb. 24, 2005, http://www.medicalnewstoday.com/medicalnews.php?newsid=20287 (hereinafter Drug Resistant) (stating that there was also an announcement in the middle of February about a man in San Diego, CA which had a drug-resistant HIV strain similar to the New York case, however, that was found to be inaccurate).
Over the next few months, health care professionals determined that no “super-strain” of HIV emerged from the incident, that the man responded to drug therapy and that none of the man’s sexual partners were found to have the same HIV strain. It is worth noting that drug resistance rates have been increasing since new pharmaceuticals came out in the mid-1990s and that it is not uncommon for HIV patients to develop some resistance to at least one of the drugs they take for the infection. Similarly, in 2001, Canada had two HIV cases that appeared drug-resistant. However, those cases ended up being treatable using three- or four-drug combinations, “including antiretroviral medications in the same classes of drugs that the virus was resistant to in the labs,” and that the two men are in good health today. The “supervirus” that some newspapers have referred to did not erupt in Canada and even the Australian Federation of AIDS Organisation was concerned that “authorities in the US may have acted too quickly by issuing an alert about a new drug resistant strain of HIV.” Nonetheless, these incidents illustrate that the HIV virus can mutate, resulting in the concern in donating HIV-infected organs to others with HIV.

IV. OTHER OBSTACLES

Aside from safety, there are also legal concerns about the new law. As the first law of its kind in the country, the Illinois law appears to be in conflict with existing, and proposed, federal laws and rules. As of March 2005, the Illinois law is not truly effective because the legal

214 Manier, supra note 213.
215 Piller, supra note 133. Although the debate continues as to whether the New York City’s public health department’s announcement created more furor than the case actually required, the patient did have a condition which included a “frightening confluence of factors.” Id. Specifically, “the present of HIV in the patient’s blood reached high levels, and essential immune system cells were severely depleted within 20 months after he was infected, rather than the typical several years. Id. Three of the four major classes of antiretroviral drugs proved ineffective.” Id. However, experts note that rapid progression of HIV naturally occurs in a subset of individuals. Id.; see also Drug-Resistant, supra note 213.
216 Manier, supra note 213.
217 Drug-Resistant, supra note 213.
218 Id.
issue of the Illinois law’s validity needs to be determined before any HIV-positive individuals can actually donate their organs.\textsuperscript{220}

\textbf{A. The National Organ Donation Act}

NOTA was passed in 1984 to "strengthen the ability of the nation’s health care system to provide organ transplants through the development of a nationwide organ network."\textsuperscript{221} A spokesman from the Health Resources and Services Administration, part of the Department of Health and Human Services, states that NOTA additionally had the purpose of preventing the spread of HIV and AIDS and, to that end, specifically states that no organs can be donated by those with HIV.\textsuperscript{222} If this were the case, which it is not because NOTA does not mention HIV or AIDS, then the Illinois law would violate NOTA. Instead, NOTA was enacted to "develop a system to allocate donated organs equitably among transplant patients according to established medical criteria."\textsuperscript{223} Since nothing is specifically mentioned in NOTA, and no established protocols exist for specific medical inclusionary or exclusionary criteria, state and federal authorities are debating as to whether the Illinois law violates NOTA provisions.\textsuperscript{224} Attorneys for Governor Blagojevich say the Illinois law does not conflict with NOTA, although they acknowledge that Illinois physicians may need to "seek certain variances to the regulations, but said that exceptions had been granted in the past, and that this was a logical next step."\textsuperscript{225} On the other hand, federal authorities are adamant that Illinois officials will have to work with UNOS to change the federal laws prohibiting the procedure of HIV-positive individuals donating their organs before any such donation can take place.\textsuperscript{226}

\begin{footnotes}
\item[220] Telephone Interview with Senator McKeon’s Office, in Chicago, Ill. (March 8, 2005).
\item[221] Kolber, supra note 36, at 680.
\item[222] Davey, supra note 14.
\item[223] "The federal law specifically states that no organs can be donated by those with HIV,” said Kevin Ropp, a spokesman for the Health Resources and Services Administration, party of the Department of Health and Humans Services. “The purpose was to prevent the spread of HIV and AIDS.”
\item[224] Transplant Medicine, supra note 149.
\item[225] Id.
\item[227] See Position Statement, supra note 198, at 2.
\end{footnotes}
While NOTA does not specifically address the issue, UNOS, created under NOTA, does. UNOS' current policy states:

UNOS members shall not knowingly participate in the transplantation or sharing of organs from donors who are confirmed HIV positive by an FDA licensed screening test unless subsequent confirmation testing unequivocally indicates that the original test's results were falsely positive for HIV.\textsuperscript{227}

But UNOS' policy also states that each OPO "shall establish criteria defining what constitutes an acceptable deceased donor or organ for the OPO or the transplant program(s) it serves."\textsuperscript{228} Although unlikely, this broad policy arguably may allow for OPOs to follow the Illinois law and accept HIV-infected organs. Currently, the legislative history of the law is unpublished so it is unclear what, if any, debates concerning the federal legal challenges focused on. A study at Northwestern Memorial Hospital, under the direction of Dr. Lynch, has been postponed indefinitely until it is certain the Illinois law does not conflict with the federal law.\textsuperscript{229}

B. Other Governmental Regulations

On February 4, 2004, the Center for Medicare and Medicaid published a proposed rule in which the "standardized definition of organ donor potential" would exclude anyone who has a "positive serological or viral culture findings for HIV."\textsuperscript{230} This is only a proposed standard set out by the government and it even acknowledges, "many OPOs are successfully recovering transplantable organs from donors that do not


\textsuperscript{229} Telephone Interview with Laura Hadley, Representative, Senator McKeon's Office, in Chicago, Ill. (Mar. 15, 2005); see also Transplant Medicine, supra note 149.

fall with [the] proposed definition.\footnote{Id. at 6,100.} Although final comments were due by June 6, 2005, CMS has not published a final rule as of the end of 2005.\footnote{Centers for Medicare & Medicaid Services, Organ Procurement Organizations, http://new.cms.hhs.gov/CFCsAndCoPs/08_OPOs.asp (last visited Jan. 2, 2006).} If this proposed rule becomes a regulation, then it is another conflict with the Illinois law because it would exclude HIV-positive individuals from donating their organs. However, those individuals would still be eligible to receive organ transplants.

V. CONCLUSION

Many states are starting to specifically address HIV and organ transplants in their laws. In September 2005, California recently passed a law prohibiting insurers from denying coverage for organ transplants based solely on a patient’s HIV status; this is the first law of its kind in the US.\footnote{Crary, supra note 8; see Swan, supra note 156.} In Arizona, a judge recently ruled that the state’s Medicaid program cannot deny a liver transplant to an HIV-positive woman solely on the basis of her HIV status.\footnote{Crary, supra note 8.} These laws, and the Illinois law, are significant steps towards ensuring HIV-positive individuals the same access as HIV-negative individuals to kidney and liver transplants.\footnote{Id.}

The new Illinois law is a natural next step towards abating the national organ shortage, particularly with respect to kidney and liver organs. The Illinois legislature took a first step towards saving the lives of the 90,000 plus Americans whose lives depend on an organ donation. Incentives for and education about organ donations help address the shortage by increasing the number of donors, as do medical advancements like stem-cell research and xenotransplantation, but adding an entire new population to the organ donation process is a greater step towards addressing the problem and can provide more organs immediately. Additionally, these are organs directed towards a specific population, those with HIV, and adding HIV-positive donors will decrease the competition with non-HIV individuals for the same organs, benefiting a greater number of patients. While it is possible that HIV can be spread through the donation process using a HIV-positive patient, that possibility already exists because of the slowness in testing for HIV, especially in time sensitive organs. However, the
risk of an HIV organ or tissue going into a non-HIV patient is minimal, and is similar to the risks of HIV being transmitted through blood transfusions. In the end, the possibility of giving someone a new chance at life is greater than the possibility of them being infected by HIV through an organ transplant. While the safety protocols need to be standardized, HIV patients already receive organ transplants, so physicians would only be adding the new factor of an HIV organ to the procedure, which does not appear to increase the safety issues for the physicians. Medical advancements in post-transplant care continue to improve as well, so the original fear of an HIV-positive person being unable to survive the post-transplant medical regime has decreased.²³⁶

The only obstacle remaining is whether the Illinois law allowing HIV individuals to donate their organs to those with HIV conflicts with the NOTA of 1984. This has yet to be determined. Other obstacles, such as proposed government regulations, may also cause conflict and prohibit the Illinois law from going into effect. This, too, has yet to be determined.

²³⁶ Perspective, supra note 127, at 74.