KIDNEYCONOMICS: THE BLACK MARKET, SCARCITY, AND THE NEED TO REALIGN THE SYSTEM OF INCENTIVES AND DISINCENTIVES IN THE LAWS GOVERNING KIDNEY DONATIONS*

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> *"A lawyer who has not studied economics…is very apt to be a public enemy"*
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> *- Justice Brandeis*

Every year, ten thousand to twelve thousand five hundred[1] Filipinos are diagnosed to have End Stage Renal Disease (ESRD), a condition of established kidney failure, in which a patient has two options: lifetime dialysis or kidney transplantation[2]. That is if you are lucky. In most cases, the only real available option is lifetime dialysis. The severe shortage in available transplantable kidneys makes transplantation an elusive alternative to dialysis. Less than ten percent of all ESRD patients actually get a transplant[3]. All the rest have to line up almost every other day for dialysis. Sixty five percent of this group will die in five years[4] waiting for the kidney that never came.

The government adheres to the policy that altruism should govern a kidney donation transaction. The Department of Health Administrative Order No. 2008-0004 states:

> 6. Altruism- Organ donation must be done first and foremost out of selflessness and philanthropy to save and ensure the quality of life of the beneficiary.[5]

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[1] Dep't. of Health Adm. Order No. 0004 (2008) (hereinafter "DOH Order").

[2] Interview with Dr. Reynaldo Lesaca, Director of the Human Organ Preservation Office of the National Kidney and Transplant Institute, Quezon City (Mar. 10, 2008).

[3] DOH Order.

[4] Benjamin Hippen, *Organ Sales and Moral Travails: Lessons from the Living Kidney Vendor Program in Iran,* 614 POLICY ANALYSIS, Mar. 20, 2008.

[5] DOH Order.

Altruism is the principle of unselfish concern for the welfare of others.[6] Undoubtedly it is an admirable trait that ought to be fostered. However, it is obvious that altruism is not enough to prevent the numerous deaths of patients with ESRD every year. The government cannot take a passive stance and allow otherwise preventable deaths to go on, and otherwise productive lives to slowly waste away.

The same situation has forced foreign governments to open themselves to explore more radical measures to increase the supply of transplantable kidneys; one such measure is to open a legalized market in kidneys, which has sparked vigorous debate internationally. In the Philippines, Bioethicist and Professor Dr. Leonardo De Castro made the initial suggestion to open a legal market in kidneys in the country, through his paper *Commodification and Exploitation: Arguments in Favor of Compensated Donation*[7] in 2003. This has sparked ethical, moral, legal and pragmatic discussions in considering the option to open a legal market in kidneys to be able to service the demand for transplants.

This paper explores the option of opening a market in kidneys in a law and economics perspective. It aims to show the economic efficiency of opening the market of kidneys through the application of basic economic principles in the interpretation and trending applied to ten years worth of data obtained from the Human Organ Preservation Effort (HOPE) Office of the National Kidney and Transplant Institute (NKTI). Using the tools of law and economics, it aims to tailor a morally acceptable legal market in kidneys that would benefit the donor and the donee, increase the supply of available transplantable kidneys, and the number of transplants for ESRD patients, and discourage or debilitate the black market in kidneys.

SCARCE RESOURCE

From the first successful kidney transplant in 1954[8], subsequent advances in medical technology and techniques have made the transplant procedure a desirable if not preferred option for people with ESRD. End Stage Renal Disease is the final stage of Chronic Kidney Disease, a condition of irreversible and progressive loss of renal function over a period of time.[9]

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[6] "Altruism." Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation (2008).

[7] Leonardo De Castro, *Commodification and Exploitation: Arguments in Favor of Compensated Donation,* 29 J. MED. ETHICS 142-46 (2003).

[8] Thomas Maugh II. "Medical Transplantation." Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation (2008).

[9] "Kidney." Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation (2008).

At the final stage of this disease, a patient has established kidney failure. In which case, the patient is required to undergo renal replacement therapy in the form of dialysis or a transplant.[10] Up until the 1970's dialysis was the way to go. The lack of reliable immunosuppressant drugs to prevent the risk of rejection by the body of a transplanted kidney significantly limited the patient's option to dialysis. Several medical advances later, the survival rate of transplant patients was raised to seventy-five percent, as opposed to the 35 percent survival rate of dialysis-dependent patients[11]. Patients started looking at transplants as a chance to achieve a longer and fuller life so that more and more ESRD patients have opted to undergo transplantation, increasing the demand for transplantable kidneys. In the Philippines alone, there are about ten thousand to twelve thousand five hundred who develop ESRD each year.[12] About fifty to sixty percent of these patients are suitable kidney transplant patients.[13]

While the demand for kidneys increases progressively, the kidneys available for transplant remain a scarce resource. In the first place, the resource is by nature scarce. Each person is born with only a pair each and the removal of one is permanent. The human body is incapable of regenerating the removed organ. Living organ donation only allows the donation of one kidney, while cadaveric donation allows the donation of both. However, only ten percent of all donations in the country are cadaveric[14].

The incapability to regenerate the donated organ alone discourages people from donating their kidney to patients in desperate need of a transplant. This is compounded by inherent logistical, monetary and physical disincentives that accompany the noble act of donating one's kidney to extend the life of another. While a person can live a normal life less one kidney[15], in the act of donation alone, the donor spends time and transportation money to undergo the pre-donation briefing, screening and tests.[16] If he passes the tests, the donor is hospitalized and is operated upon during transplantation, which in turn involves physical discomfort, lost time for work and productive endeavor, and money spent for medicines for pain management and recovery.

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[10] *Id.*
[11] Hippen, *supra* note 4.
[12] DOH Order.
[13] *Id.*
[14] *Id.*
[15] Enrique Ona, *Kidney Transplant in a Globalizing World*, *at* http://www.abs-cbnnews.com (last visited Dec. 28, 2009).
[16] Interview with Dr. Reynaldo Lesaca, *supra* note 2.

When it comes to cadaveric donations, what discourages donations is a different story altogether. This time it is culture. The disparity between cadaveric and living donor sources is telling of the Filipino culture that looks at leaving the deceased organs with the corpse as a form of respect for the dead and equates the harvest of a dead relative's organs as a form of cruelty to the bereaved family.

Because of the scarcity attending the supply of available kidneys each year, in the NKTI alone, around 12[17] ESRD patients die on the waiting list for transplantable kidneys per year.[18] This problem is not uncommon. Several legislative attempts worldwide have already been made to regulate both cadaveric and living donor kidney donations with one goal in mind: to improve the supply of transplantable kidneys. One way is to weaken, if not remove, the ability of the deceased's surviving family to veto cadaveric organ donations.[19] This, when combined with presumed consent[20] would require a person, prior to his death, to express contrary intention to the donation of his body or body parts, otherwise he is presumed to have consented, and the surviving relatives have limited or no capacity to oppose the enforcement of such presumed consent.

Another controversial strategy is to open a legal market in kidneys. While the only country that has adopted this approach is Iran,[21] it is interesting to note that Iran is now the only country without a waiting list for organ transplant. Their waiting list was eliminated eleven years after a market in organs was legalized.[22] However, despite the success of this method in solving the problem of organ scarcity, the international community remains hesitant to follow suit because of serious moral and ethical questions assailing its propriety.

THE BLACK MARKET IN KIDNEYS

A consequence of the scarcity of transplantable kidneys is a long queue of transplant candidates waiting for available kidneys. For those in the waiting list, this wait is nothing close to ordinary. It is long, painful, anxious, and desperate. Many recount that the wait for an available transplantable

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[17] Data from Human Organ Preservation Effort Office 1999-2008, received Mar. 20, 2008.

[18] *Id.*

[19] Shaun Pattinson, *Paying Living Organ Providers,* 3 WEB J. CURRENT L. ISSUES (2003)

[20] Justice Renato Corona, *The Legal Implications of Organ Donation and Transplantation Under Philippine Law,* speech delivered at the Towards a National Consensus on Living Non-Related Donor in Kidney Transplantation Symposium, Feb. 10, 2007.

[21] Hippen, *supra* note 4.

[22] *Id.*

kidney or available donor is like waiting for a miracle.[23] It is a difficult situation for both the candidate for transplant and his family. Hence, avenues for avoiding the queue become enticing to both the family and the patient. These avenues come in various forms. One is to find as related organ donor within the family. Another is to ask emotionally related persons to become donees of kidneys, when a kin is not available. Of course there is also the resort to the black market in kidneys, where a wealthy ESRD patient can buy himself a kidney for transplant, with the help of middlemen or brokers who for around twelve thousand pesos will find a suitable kidney vendor. The kidney vendor, after such transaction, find himself missing one kidney, but richer by a hundred thousand to three hundred thousand pesos.

Like the ESRD patient, whose resort to the black market is an act of desperation, the act of the kidney vendor in trading his organ for money is the same. The black market hotspots of the Philippines belong to the most depressed areas of society. Dr. Lesaca of HOPE NKTI enumerates these hotspots as Baseco (Tondo), Payatas (Quezon City), Montalban (Rizal), San Juan (Batangas) Cotabato and Siargao and Quezon.[24] When one considers that 32.9 percent[25] of Filipinos are poor[26], one is able to make sense of the reason why the Philippines has become known internationally for its black market in kidneys. In a report by Dr. Joseph Africa of the NKTI, he described the Philippines as the "hub of transplants for Saudi Arabia, United Arab Emirates, Qatar and Israel."

There is a reason why the black market is considered pernicious. While the promise of payment amounts to one hundred thousand to three hundred thousand pesos—enough to begin a small business—there are cases where the kidney vendor gets shortchanged. This is what happened to Mr. Jose Rivero, a tricycle driver in Lumban, Laguna. A certain Permito promised him three hundred thousand pesos for his kidneys but he received only sixty-six thousand pesos.[27] There are also cases where a middleman buys a kidney for a certain amount and sells it to foreigners for exorbitant

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[23] Rose Marie Rosete-Liquete, I HAVE THREE KIDNEYS: THE JOURNEY OF TRANSPLANT PATIENTS (2008).

[24] Interview with Dr. Reynaldo Lesaca, *supra* note 2.

[25] National Statistics Coordination Board, http://www.nscb.gov.ph (last updated Dec. 28, 2009)

[26] Rep. Act No. 8425 or the Social Reform and Poverty Alleviation Act defines the *poor* as individuals and families whose incomes fall below the official poverty threshold as defined by the government and/or cannot afford to provide in a sustained manner for their minimum basic needs for food, health, education, housing, and other social amenities of life.

[27] Katrice Jalbuena, *RP admits 'rampant' traffic in human organs*, Feb. 7, 2007, *available at* www.manilatimes.net (last visited Dec. 28, 2009).

prices. This situation cannot be anything other than shameless profiteering over another person's organs, which is bound to earn the public ire.

After the series of media reports exposing the thriving black market trade in kidneys in the country, public pressure geared legislation towards the curtailment of the proliferating black market in kidneys, and the prevention of the exploitation of the poor.

PHILIPPINE LAWS REGULATING KIDNEY DONATIONS AND TRANSPLANTS

a) Republic Act No. 7170

The first successful transplantation in the country was performed in 1969. The first Philippine law to govern transplantation was then more than two decades in the making. Republic Act No. 7170 (RA 7170), or the Organ Donation Act of 1991 governed the procurement of tissues and organs for transplant. It officially recognized the cessation of brain functions as a standard to determine a person's death, and not merely the cessation of the circulatory and respiratory functions. RA 7170 allowed a person to donate his organs, tissues or body, upon death, by way of legacy in his will or any document signed in the presence of two witnesses. Any person at least 18 years of age, and of sound mind may bequeath his body parts[28] to specified persons, hospital, medical school, or organ storage facility for specified reasons. Section 6 of the law provides:

> Section 6. Persons Who May Become Legatees or Donees – The following persons may become legatees or donees of human bodies or parts thereof for any of the purposes stated hereunder:
> a) Any hospital, physician or surgeon—for medical or dental education, research, advancement of medical or dental science, therapy or transplantation;
> b) Any accredited medical or dental school, college or university—for education, research, advancement of medical or dental science, or therapy;
> c) Any organ bank storage facility—for medical or dental education, research, therapy, or transplantation; and
> d) Any specified individual—for therapy or transplantation needed by him.

[28] Rep. Act No. 7170, § 3 (1991). This is the Organ Donation Act of 1991 (hereinafter "R.A. No. 7170").

Unlike the other provisions of a will, however, the legacy of a body or body parts take effect immediately upon the death of the legatee, and requires no probate before the provision in the will is able to transfer rights over the body or body parts bequeathed[29]. It is also valid and effective even when the will is declared invalid for testamentary purposes, so long as the legacy is executed in good faith[30].

If the decedent did not execute a legacy of his body parts in his will, and did not manifest contrary intentions, the following persons, in their order of priority, are allowed to donate any or all of the body parts of the decedent after or immediately before death:

> Section 4. Persons Who May Execute a Donation – x x x
> 1) Spouse;
> 2) Son or daughter of legal age;
> 3) Either parent
> 4) Brother or sister of legal age; or
> 5) Guardian over the person of the decedent at the time of his death.
>
> x x x

The donation can be made provided that there is no actual notice of opposition by a member of the immediate family of the decedent.[31] Absent the persons enumerated in Section 4 of the law, it gives authority to the physician in charge of the patient, the head of the hospital or a designated officer of the hospital who has custody of the body of the deceased, to execute a public document authorizing the removal from such body organs to be used for transplantation[32]. This is on condition that reasonable efforts have been exerted by the physician or officer to locate within 48 hours the nearest relative or guardian listed in Section 4 of the same law[33]. In 1995, this requirement was amended to give way to the procurement of corneas for transplant. For the procurement of viable corneas from a deceased whose nearest relatives cannot be found, the physician or officer shall be required only to exert reasonable efforts to locate the relatives and guardian as enumerated in Section 4, within twelve hours instead of forty-eight.

R.A. 7170 does not have penal provisions for the violations by several actors in involved in the recommended transplant procedure should there be violation of its provisions. However, the lack of penal provisions

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[29] § 8.
[30] § 8.
[31] § 4.
[32] § 9.
[33] § 9.

does not preclude administrative sanctions which can be imposed by professional associations on its members.

R.A. 7170 is designed to increase the number organs and tissues for transplantation, education, and/or the advancement of medical science, through providing for the ways in which a donation or legacy of the tissues, organs, or body parts can be made. In giving authority for the procurement of organs from cadavers whose nearest relatives or guardians cannot be found even after reasonable efforts, the law is geared towards the efficient procurement of viable organs for transplantation from the dead (rather than leave them in the body to rot and waste away) while respecting the wishes of the decedent, his nearest relatives and his guardian. While it was expected to increase the supply of organs, tissues, and other body parts for transplantation purposes, the number of cadaver donors in the Philippines remains at 1 per million population per year.[34] The following years showed a preference for living donors rather than deceased ones. Dr. Enrique T. Ona, the Executive Director of NKTI noted that it is easier to get living donors than cadaveric ones because of familial, spiritual, psychological, superstitious, economic and medical reasons.[35] Dr. Reynaldo Lesaca, the Chief of the Human Organ Preservation Effort (HOPE) Office of the NKTI notes that, Philippine culture debilitates the cadaveric donation provided by the law. In situations where there is a deceased whose organs may be used for transplantation and the immediate family is made to decide whether the deceased's body parts are to be donated, the Filipino family has several decision makers. Because the donation cannot be made when there is actual notice of an adverse decision by the immediate family or guardian, it is necessary, despite the order of priority provided in Section 4 of the law, that every one of the immediate family to, at the very least, not object to the transplantation, which either is usually not the case, or that the decision whether or not to donate is passed from person to person. When the repeated passing of decision-making from person to person happens, it happens that the brain dead cadaver, whose heart is kept beating by a heart-lung machine, goes into cardiac arrest and the organs, previously viable, cease to be so.[36] At present, cadaveric donations still account for only ten percent 10 percent of donated organs for transplant.

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[34] Enrique Ona, *A Brief History of Organ Donation in the Philippines and Overview of the Program,* speech delivered at the Towards a National Consensus on Living Non-Related Donor in Kidney Transplantation Symposium, Feb. 10, 2007.

[35] *Id.*

[36] Interview with Dr. Reynaldo Lesaca, *supra* note 2.

b) Department of Health Administrative Order No. 124 Series of 2002

In June 3, 2002, the Department of Health (DOH) adopted Administrative Order No. 124, s. 2002 (AO 124-02), entitled the National Policy on Kidney Transplantation from Living Non-Related Donors. This was meant to supplement the lack of provisions of R.A. 7170 to govern and regulate living organ donations. It was also formulated to address the abuses that were highlighted in media reports on Black Market transactions in kidneys.

AO 124-02 first classified living donors of organs into living related donors (LRDs) and living non-related donors (LNRDs). It extended the definition of living related donors to include not merely relatives in the first degree of consanguinity but also siblings, cousins, nephews, nieces and other blood relatives. It further classified LNRD's into voluntary donors and kidney vendors, where it defined the latter as:

> d. Kidney Vendors- also known as commercial donors for the reason that they offer their kidneys for a valuable consideration. They may engage the services of a broker or agent. Payment or a promise of payment is a precondition and pre-requisite to the organ donation.

The Administrative Order first enunciated that the Philippines adopts the policy that the sale and purchase of kidneys by kidney vendors is prohibited and that the donation of kidneys shall be governed by the principle of altruism. It enjoined all health and health-related facilities and professionals to not allow the trade of kidney vendors. Doing the contrary will be penalized with cancellation of license and other sanctions. It instituted the Organ Donation Program (ODP) as the body that will develop policies and programs for a national renal health care program that is rational ethical accessible and equitable. A National Transplant Ethics Committee (NTEC) was instituted for the formulation of ethical standards that will guide the projects and programs of the ODP, while a Kidney Donor Monitoring Unit is put in place under the ODP for the maintenance of the national kidney registry.

Under the AO, health and health facilities that provide services of kidney transplantation are placed under the regulating power of the Bureau of Health Facilities and Services, which shall impose the grant or revocation of the license of these entities, in relation to the compliance with or violation of the administrative order's provisions. It laid down requirements that must be met before any kidney transplant facility may be granted a license. In this

way it created separate licensure criteria for facilities that provide transplantation services from ordinary hospitals.

Health facilities were mandated to put in place an ethics committee, a Donors/Recipients' Registry Unit and an organ transplant unit, tasked to resolve ethical issues, to provide the KDMU with reports on the LNRD transplants performed in the hospital, and to take charge of advocacy activities in renal health care and promotion of voluntary donation, respectively.

Administrative Order No. 124 series of 2002 was a reaction to the media sensationalization of the proliferating black market in kidneys. Media highlighted the abuses and unethical transactions and procedures involved in the black market for kidneys. The beginning of media interest in the controversy was sparked by the TV documentary of Jessica Soho in 1999[37], which showed residents of Baseco, Tondo who sold their kidneys to enterprising brokers and got shortchanged, suffered infections, and other problems. Subsequent reports fanned the already budding paranoia of the public regarding kidney sales when reports told of kidnap-for-kidney syndicates who kidnapped people and removed their kidneys—which will then be sold to their wealthy clients.[38] Much worse are reports of syndicates who allegedly took children from the streets and butchered them for their organs.[39] The result was a general derision over the idea of an organ/kidney trade and an enormous pressure upon legislators and government in general to find ways to curb the pernicious trade. It was in this climate of public outrage that AO 124-02 was formulated. The climate was much similar to that which brought about the enactment of the 1987 National Organ Transplant Act of the United States, which also imposed a prohibition on the purchase and sale of kidneys/organs for transplantation. Accordingly, the enactment of the prohibition was drafted by a Congress shocked by the morally derisive speech of one Dr. Barry Jacobs in 1983, who proposed "buying kidneys from the indigent and selling them to whoever could afford to buy."

c) DOH Administrative Order No. 41 Series of 2003

To supplement AO 124-02 which instituted the Organ Donation Program, DOH issued Administrative Order No. 41 series of 2003 (AO 41-

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[37] *Kidney Transplants Allowed*, PHIL. DAILY INQUIRER, Sep. 4, 1999, at 20.
[38] *Kidnapping for Kidney Racket Bared*, PHIL. STAR, Sep. 2, 1999.
[39] KABAYAN, Sep. 5, 1999, at B1.

03) to provide the guidelines on how the Philippine Organ Donation Program (PODP) shall operate in coordination with the various offices and agencies. It reiterated the national policies set forth in AO 124-02 to govern the Organ Donation program of the Philippines. AO 41-03 defined the program components of PODP and the functions to be carried out under these components. To facilitate kidney procurement through non-financial means and to ensure equitable allocation of transplantable kidneys to those in need of transplants, AO 41-03 required the institution of a Donor/Recipient screening and matching system operationalized by a Screening and Matching Committee, and the maintenance of a National Donor/Recipient Registry. It also includes as a part of its program an advocacy and information education campaign, which undertakes activities to increase public awareness on organ transplantation and renal diseases.

d) Republic Act No. 9208

While the Administrative Orders expressly prohibited the purchase and sale of kidneys, it could only provide for sanctions in the form of revocation of licenses for health facilities and health professionals with the cooperation of the PRC. It could not constitutionally provide for penalties that would criminalize the activity of brokers and middlemen who are behind the black market in kidneys. The criminalization of these activities came later when Republic Act No. 9208, or the Anti-Trafficking of Persons Act, was passed in May 12, 2003. This law declares that it is a state policy to uphold and value the dignity of every human person. As such, its goal is to protect the people from the threat of violence and exploitation, and eliminate trafficking in persons. The law declares unlawful and penalizes the act of "recruiting, hiring, adopting, transporting or abducting a person, by means of threat or use of force, fraud, deceit, violence, coercion, or intimidation for the purpose of removal or sale of organs of said person"[40]. In its definition of trafficking in persons, it includes the giving or receiving of payments to recruit persons for the purpose of removal or sale of their organs. Here, the family of the ESRD patient or the ESRD patient himself may violate the law when he offers to give payment to persons in exchange for their kidney. As already stated, the law is violated by the middlemen or brokers who receive payments to recruit persons to sell their kidneys to wealthy ESRD patients in need of transplant. These acts are meted with the penalty of imprisonment of 20 years and a fine of not less than one million pesos but not more than two million pesos.

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[40] Rep. Act No. 9208, § 4(g) (2003). This is the Anti-Trafficking in Persons Act of 2003 (hereinafter "R.A. No. 9208").

The Act also enumerates circumstances, which qualify the offense of trafficking in persons. Section 6 of the Act provides:

> Section 6. *Qualified Trafficking in Persons* – The following are considered as qualified trafficking:
> (a) When the trafficked person is a child;
> (b) When the adoption is effected through Republic Act No. 8043, otherwise known as the "Inter-Country Adoption Act of 1995" and said adoption is for the purpose of prostitution, pornography, sexual, exploitation, forced labor, slavery, involuntary servitude or debt bondage;
> (c) When the crime is committed by a syndicate or in large scale. Trafficking is deemed committed by a syndicate if carried out by a group of three (3) or more persons conspiring or confederating with one another. It is deemed committed in large scale if committed against three (3) or more persons, individually or as a group;
> (d) When the offender is an ascendant, parent, sibling, guardian, or a person who exercises authority over the trafficked person or when the offense is committed by a public officer or employee.
> (e) When the trafficked person is recruited to engage in prostitution with any member of the military or law enforcement agencies;
> (f) When the offender is a member of the military or law enforcement agencies; and
> (g) When by reason or on occasion of the act of trafficking in persons, the offended party dies, becomes insane, suffers mutilation or is afflicted with Human Immunodeficiency Virus (HIV) or the Acquired Immune Deficiency Syndrome (AIDS).

Of the circumstances enumerated above, paragraphs (a), (c), (d), (f), and (g) are applicable to black market transactions in kidneys. Paragraph (d) is interesting in that when the head of the family or any family member intimidates or compels another family member into donating his kidneys for yet another family member, the law defines such act, not merely as trafficking but as qualified trafficking of persons. When trafficking in persons is qualified, it is punishable by life imprisonment and a fine of not less than two million pesos (P2,000,000.00) but not more than Five Million pesos (P5,000,000.00).The other black market actors, whose actions, which promote trafficking in persons, are also punished in this Act are: (1) those who knowingly lease or sublease, use or allow to be used any house, building or establishment for the purpose of promoting trafficking in persons; and (2) those who advertise, publish, print, broadcast or distribute, or cause the advertisement, publication, printing, broadcasting or distribution by any means, including the use of information technology and the internet, of any brochure, flyer, or any propaganda material that promotes trafficking in

persons.[41] These persons shall suffer the penalty of imprisonment of fifteen years and a fine of not less than five hundred thousand pesos but not more than five million pesos. [42]

The beauty of RA No. 9208 is that it considers the kidney vendor a victim and not a criminal, while it penalizes all the different actors that mobilize the black market in kidneys. Section 17 of the law provides that regardless of the vendor's consent to acts that constituted trafficking or constituted crimes directly related to trafficking, the vendor shall not be punished. RA 9208 institutionalizes a help system that would aid the victim of human trafficking to file cases, recover damages, and reintegrate into society. It has designated to the different departments of government different tasks designed to prevent, protect and rehabilitate trafficked persons through the provision of temporary shelter, counseling, free legal assistance, medical and psychological services, livelihood skills training, educational assistance, and protection under the witness protection program. Section 13 even grants exemption from filing fees to the trafficked person when he files a separate civil action to recover damages. For trafficked persons who are foreign nationals, the law has granted to them permission to stay in the country for as long as is necessary to effect the prosecution of offenders.

R.A. 9208 also formed an Inter-Agency Council Against Trafficking, which is mainly tasked to monitor the implementation of the law. The Council's composition and different functions are provided in Sections 20 and 21 of the law respectively.

Like the Administrative Order 124-02, the aim of RA 9208 is to curb the growing black market trade in kidneys. While admirable in the way it protects the kidney vendor from unscrupulous middlemen and brokers, the law is not without loose ends. The first loose end is the delineation between what would be construed as gratitudinal gifts as opposed to payment, which remains a gray area at present. This is because of the unique Filipino culture of "utang na loob," which is a manifestation of deep gratitude for whatever a person has done for one's self or for an immediate family member. The ways in which "utang na loob" is shown is often beyond a simple thank you and comes in various ways of reciprocating the favor that the other person has done. The weight and importance of this cultural trait to Filipinos is felt more clearly when one considers how a

[41] § 5(a),(c).
[42] § 10(b).

Filipino strives to reciprocate a favor with a deeper sense of obligation and with fear of being accused "walang utang na loob", which speaks of being, more than just ungrateful, but also of being a shameless opportunist, and user at the same time.

While the law prohibits payments given in exchange of a person's organs, it does not prohibit gratitudinal gifts, or what a kidney recipient gives to his donor to manifest his deep gratitude or "utang na loob" to the person who donated a kidney in order that he may have a second chance at life. Because the gift of a kidney is priceless to the recipient—being a gift of not merely an extension of his life but also of a life that is more productive—the gratitudinal gifts that a recipient may give to reciprocate the favor done him is limitless.

Conceptually, the difference between payment and a gratitudinal gift is clear. Any money or thing of value given is considered payment when it is a precondition to the donation of a kidney. Otherwise stated, what is given is payment when the giving of or the promise of giving money or a thing of value is a suspensive condition to a donation. Without money given, or without the promise of money or thing of value to be given, the donation of the organ will not be executed. On the other hand, when the giving of money or thing of value is a mere incident to the donation and does not constitute a suspensive condition, it is construed as a gratitudinal gift. However, the clarity ceases when one considers factual scenarios of donations where a grateful recipient gives the donor, money or any other thing of value. Payment can easily be made to appear as gratitudinal gift so long as the payment is not given prior to donation and without disclosure that a promise to give such had been required by the donor before he gave his consent to the donation. Dr. Reynaldo Lesaca of HOPE NKTI admits of the difficulty of the task of determining whether there had been an agreement of payment as a precondition to the donation, or whether that which is subsequently given after the donation is actually an expression of "utang na loob." In directed living donor donations, gratitudinal gifts are normal occurrences. Recipients may give money to his donor, provide him with means to start small business, give him property, send his donor's children to school, and countless other things of value that, had the a promise to give them been required, may be construed as payment. This would make the transaction contrary to law and the national policy. While the donor screening process is supposed to rule out sales where payment or promise of payment is required, the vendors could easily say that no payment nor promise of payment was required by them and that they were giving their organ freely for countless of reasons under the sun except for

payment. The screening process can only do so much, and the middlemen and brokers can easily take advantage of this loophole by instructing his recruited vendor what to say when he is being interviewed by the hospital officials tasked to perform the screening of prospective donors. This could be how the black market still continues to thrive despite the imposition of supposedly deterrent penalties by the law.

Another loose end in the law is in the prosecution of offenses. While RA 9208 provides for legal assistance for the victim of trafficking, and an exemption from filing fees in the event that the victim decides to file a case for the recovery of damages, no case has been filed in the courts against the black market brokers and middlemen, and the persons who secure their services up until now[43]. The victims desist to file cases even with the available support enshrined in the law for different reasons. One is that, even with such a support system, filing a case would require time, and money, at least for transportation and other miscellaneous expenses that may be unaffordable to a person who, in the first place, had so little money to begin with that he had opted to sell a kidney. There is also the possibility of losing his blue collared job because he is forced to absent himself from work to attend hearings during trial. Add to this the questionability of recovery of damages under the circumstances, and the drive to file cases disappears altogether.

To elaborate on the questionability of recovery of damages by a victim of the black market in kidneys: in the black market transaction, there can be no recovery of damages on the basis of the contract of sale of kidney because although there is consent from both parties to the contract, and with the cause of payment by the other party of a specified price, it is still null and void for the object of which is beyond the commerce of man. In the case *Beltran v. Secretary of Health*[44], the Supreme Court held that:

> …under the Civil Code of the Philippines, the human body and its organs like the heart, the kidney, and the liver are outside the commerce of man…

This nullifies the chances of recovery of damages based on the contract of sale, and more so, the possibility of enforcing the terms of payment of the nonexistent, when the victim became shortchanged.

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[43] Interview with Dr. Ernie Vera, Head of the Degenerative Diseases Office of the Nat'l Center for Disease Prevention and Control of the DOH, Manila, Mar. 10, 2009.

[44] Beltran v. Sec. of Health, G.R. No. 133640, 476 SCRA 168, Nov. 25, 2005.

The damages that can be recovered under the Civil Code for these black market transactions, if any, will have to be based on delict or on the crime of trafficking in persons. He will be allowed to recover all damages which are the natural and probable consequences of the act or omission complained of. He will be allowed to recover medical expenses incurred if these have not been paid for during the transplant operation to procure his kidney. If complications developed he will be compensated for the same in terms of medical expenses and loss of earnings. An interesting question is whether the Court will grant compensatory damages for a lost kidney, and how much could he recover for it. Since for purposes of damages, value for human life had been pegged, it would be an interesting legal phenomenon if, to determine damages for these cases, jurisprudence will start with pegging values per pound of human flesh.

As to moral damages, the Civil Code allows the recovery of the same when the crime results in physical injuries[45]. These damages include physical suffering, mental anguish, serious anxiety, wounded feelings, and similar injury[46] that the victim of the kidney black market has suffered; having lost a kidney for a promise of cash that was a fraud.

With loose ends both in detecting these transactions for their prevention, and in prosecuting the perpetrators for their deterrence, the law miserably fails to achieve its goal in curbing the black market in kidneys, because, while providing disincentives for the persons involved in the offense, these disincentives remain disincentives on paper. Hence, even with all that the law provides to achieve its goal, the black market in kidneys still exists, as Dr. Ernie Vera, the Head of the Degenerative Diseases Office of National Center for Disease Prevention and Control of the Department of Health confirmed. [47]

e) DOH Administrative Order No. 2008-04

The national policy on kidney donations was revised by DOH Administrative Order No. 2008-0004 (AO 2008-0004) or the Revised National Policy on Kidney Transplantation from Living Non-Related Organ Donor and its Implementing Structures. It covers all (1) kidney donors and recipients, (2) health and health-related professionals and individuals engaged or have any participation in the conduct of transplantation and

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[45] CIVIL CODE, art. 2219.
[46] CIVIL CODE, art. 2217.
[47] Interview with Dr. Ernie Vera, *supra* note 43.

donation, (3) offices/bureaus, including agencies and field offices of the DOH, (4) health and health-related facilities, and (5) other government non-government agencies and organizations. [48]

The Administrative Order clarifies the national policy and defined the guiding principles adhered to be the organ donation program, which have been enumerated in AO 124-02. These principles are the following:

1. Equity – Non-directed donated organs belong to the community, allocated equitably among transplant centers and recipients.
2. Justice – Criteria for allocation must be objective and independent of race, creed and social status.
3. Benevolence – Trade of kidney vendors are disallowed for transplantation.
4. Non-malfeasance – Donor and recipient must be protected from harm in the process of transplantation.
5. Solidarity – All stakeholders shall have a common and shared objective of safeguarding the health condition of both the recipient and the donor.
6. Altruism – Organ donation must arise primarily out of selflessness and philanthropy.
7. Volunteerism – Organ donation must be done out of donor's own free will, free from coercion, force, or promise of payment.[49]

AO 2008-0004 further classified donors into non-directed and directed kidney organ donors and following the principle of donor designation, the Administrative Order gives recognition to the wishes of the donor as regards his intended recipient[50]. If there is no intended recipient, the donated organ goes to the waitlisted patient which matches the donor[51].

The DOH enumerated the policies to guide the practice of kidney transplantation from living non-related donors as the following:

1. Filipino recipients shall be given priority in the donor allocation. Ability to pay should not be a deterrent for their prioritization and delivery of services.

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[48] Dep't. of Health Adm. Order No. 0004 (2008).
[49] Dep't. of Health Adm. Order No. 0004 (2008).
[50] DOH Order.
[51] *Id.*

2. The safety of both the donor and the recipient shall be given highest consideration and transparency regarding the risks to both shall be pursued rigorously.

3. Payment as precondition for kidney donation and sale and purchase of kidney organs by kidney vendors/commercial donors are strictly prohibited.

4. Kidney transplantation is not part of medical tourism.

5. All health and health-related facilities and professionals shall not allow the trade of kidney.

6. Directed and non-directed LNRDs are permitted only in cases when it is voluntarily made. All non-directed kidney organ donors should be obtained from the National Human Organ Preservation Effort (NHOPE) or its component HOPE facility. Directed kidney organ donor reported to the NHOPE or its component HOPE facility, after being favorably endorsed by the Ethics Committee of the Facility.

7. Foreign patients may receive organs from local donors subject to the guidelines and limitations formulated for this purpose by the Philippine Network for Organ Donation and Transplantation (Phil NETDAT) as approved by the Board.

8. All health and health related facilities shall implement and adopt quality standards and practices in the medical and organizational management of kidney transplantation. The DOH and PHIC, whichever is applicable, shall enforce and monitor these facilities through their licensing and accreditation rules and regulations to ensure accessibility, quality and sustainability of the services.

9. All professional societies related to organ donation and transplantation shall ensure that all their members comply with the PODTP guidelines relative to the practice of organ transplantation. The members of professional societies related to this practice shall likewise be accredited by the PHIC.

10. In no instance shall a kidney be transported or exported abroad.

11. Existing foundations involved in processing kidney donors should be an affiliate member of Phil NETDAT.

12. A Philippine Board for Organ Donation and Transplantation shall be created for this purpose to serve as overseer in the implementation policies related to organ transplantation. A national network for organ donation and transplantation shall likewise be created to serve an overall implementing body for

> organ donation and transplantation. This shall be called Philippine Network for Organ Donation and Transplantation or Phil NETDAT. PhilNETDAT may also create composite teams as necessary and appropriate to run the various aspects of the organ donation program.[52]

Violations of standards and policies as regards kidney donation and transplantation shall be a ground for suspension or revocation of license of the concerned health or health-related facility. Violations committed by professionals, such as doctors and members of the transplantation team, shall be forwarded to the DOH or to the PRC, PSN, and PSTS for appropriate sanctions, without prejudice to the filing of appropriate civil or criminal proceedings.[53]

In the Rationale of the Administrative Order, the Department of Health elaborates on the problem of scarcity and notes that there has been over the years a change in the main source of transplantable kidneys from living related to living non-related donors, and that while this is the case, the preferred modes of government are cadaveric donations and living related organ donation. The focus of the DOH has been to curb the black market in kidneys which abuses and manipulates living non-related donors, mostly from the poor, to donate their kidneys in circumstances that defy ethical and medical standards. In order to do this, it instituted an elaborate network of entities for the implementation of its guidelines and policies and provided how these entities would work together. These entities are the following:

- Phil. Board for Organ Donation and Transplantation
- Phil. Network for Organ Donation and Transplantation
- National Transplant Ethics Committee
- National Human Organ Preservation Effort
- Bureau of Health Facilities and Services
- Philippine Health Insurance Corporation
- Hospital Ethics Committee
- Human Organ Preservation Effort
- Kidney Donor Monitoring Unit
- Transplant Facility[54]

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[52] *Id.*
[53] *Id.*
[54] *Id.*

Despite this elaborate network and several safeguards that have been placed by the Administrative Order in the form of screening, inspection and license requirements, it falls short of preventing transactions in kidneys that are made to appear as gratuitous exchanges between "emotionally related" donors and donees for reasons which have already been earlier discussed.

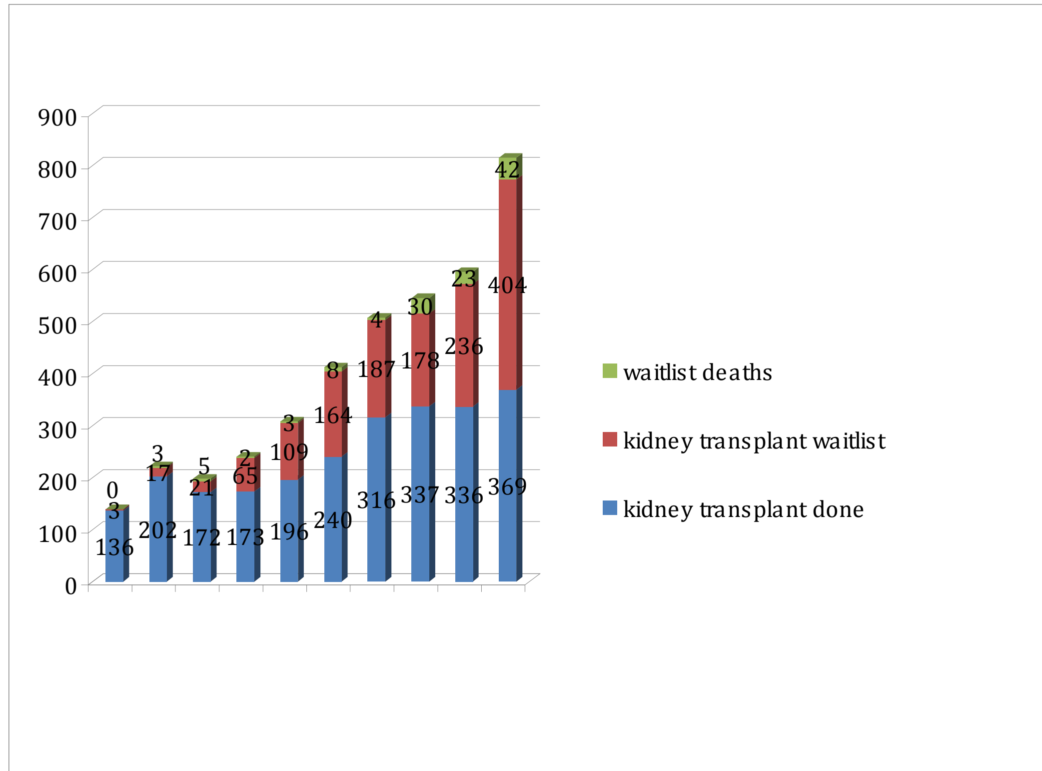
ECONOMIC ANALYSIS OF THE PROBLEM OF SCARCITY AND THE BLACK MARKET

While the Philippine laws and issuances of the Department of Health have aimed at facilitating gratuitous organ procurement and curbing illegal sales in organs, it has failed both at encouraging or eliciting enough donations to approximate the growing need for transplantable kidneys in the country, and at deterring illegal sales of organs to prevent the exploitation and abuses in the poor. The problems of scarcity and the black market remain despite the elaborate regulation put in place by these laws and issuances. The question of where government must take its next step to solve the existing problems remains a big question. In solving these problems it is helpful to view them using economic analysis.

The economics of increasing demand

There is a progressive increase demand in transplantable kidneys. According to the Philippine Renal Disease Registry, of the 10, 000 to 12,500 persons that develop End Stage Renal Disease per year, around 50 percent of these persons become candidates for transplantation. Assuming all these candidates are capable of paying for transplant procedure costs, this pegs the demand for kidneys at 5,000 to 6, 250, compounded annually as there are persons whose demand is not serviced in the previous years. From the records of the NKTI HOPE Office, the following chart, *Figure 01* shows the demand for kidneys in the years 1999-2008.

Figure 01



The total demand for kidneys in the NKTI HOPE Office from the year 1999-2000 is the following:

Figure 02

1999	139
2000	222
2001	198
2002	240
2003	308
2004	412
2005	507
2006	545
2007	595
2008	815

The increase in demand may be explained in terms of economic costs. Economic cost includes the cost of a given action in terms of money, time, emotional stress, or other undesirable consequences[55]. It includes what the other opportunity or course of action would have given you, if that had been your choice.

In the case of an End Stage Renal Disease patient, there are two available choices in order to sustain life: lifetime dialysis or transplantation. A weighing of economic costs will show that dialysis costs more than transplantation, and therefore, it is intuitive that more people will prefer to undergo transplantation rather than lifetime dialysis.

In terms of financial cost, dialysis costs 6,000 pesos per session while a transplant surgery costs 500,000 to 1,000,000 if on service basis (that the doctors who perform the transplant do not charge doctor's fees) or more if otherwise. However, dialysis is not a one-time procedure like transplant surgery[56]. It is recommended that an ESRD patient has to undergo dialysis two to three times a week[57]. This means, that the cost for the choice of dialysis in a year amounts to 576,000 to 864,000 pesos in a year. To sustain his life for ten years, a lifetime dialysis patient has to pay 5,760,000 to 8,640,000 pesos, while the ESRD patient who chose transplantation paid only 1,000,000 (service) to around 2,000,000 pesos (non-service).[58] This means a whopping 3,760,000 to 7,540,000 pesos worth of savings in ten years is lost to the persons who opt for dialysis. This counts as economic cost.

Economic cost includes physical pain involved in the choice of dialysis. Dialysis provides temporary relief for the pains that the ESRD patients experiences. In random interviews of patients lining up for dialysis in NKTI, patients describe the experience of ESRD as *"parang nauupos na kandila"* or *"panghihina na parang nilalason ang katawan"*. After dialysis, the patients are temporarily relieved of these feelings they describe but it returns after a day of two.[59] Hence, there is an economic cost of recurring weakness, and a dependence on dialysis.

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[55] STEPHEN SPURR, ECONOMIC FOUNDATIONS OF LAW 1 (2006).

[56] Transplant surgery is a one-time procedure, provided that the donated organ is not rejected.

[57] Interview with Dr. Reynaldo Lesaca, *supra* note 2.

[58] *Id.*

[59] Interview with random patients of the Dialysis Center National Kidney and Transplant Institute, Quezon City, Mar. 6, 2009.

Because of dialysis dependence, patients are normally unable to work or to go about their regular activities as they are both too weak to do them, and they have to return to the hospital for dialysis almost every other day. Therefore there is the further economic cost of loss of a job. Assuming the patient used to earn 9,000 pesos per month, this is the monthly economic cost of loss of his job in terms of money, plus loss of sense of self-fulfillment, and other negative feelings that could be attached to job loss. The recurring weakness experienced by the dialysis dependent patient also prevents him from pursuing satisfying and recreational activities which is also part of economic cost.

A weak dialysis patient would also require another member of the family or a caregiver to tend to his/her needs. Economic cost in this sense is in the amount of money paid to the caregiver instead of saved, or the money that would have been earned by the family member who stayed home rather than go to work.

There is also the economic cost of the percentage survival rate sacrificed by a person who opts for or lifetime dialysis as opposed to a transplant surgery. According to Hippen, "The median survival rate for a new dialysis-dependent patient is 35 percent after five years while that of the transplant patient is 75 percent."[60] This means that the lifetime dialysis patient pays an economic cost of a 40 percent possibility of survival.

Because all these economic costs enumerated and discussed translates into economic gains on the part of the transplant patient, and ESRD patient's preferred choice would be to undergo transplant surgery.

The story of supply

While there is progressive increase in demand, there is also increase in available supply of organs per year; however, they remain grossly insufficient to satisfy the demand. The following table, figure 03, lists the supply of kidneys per year from 1999-2008.

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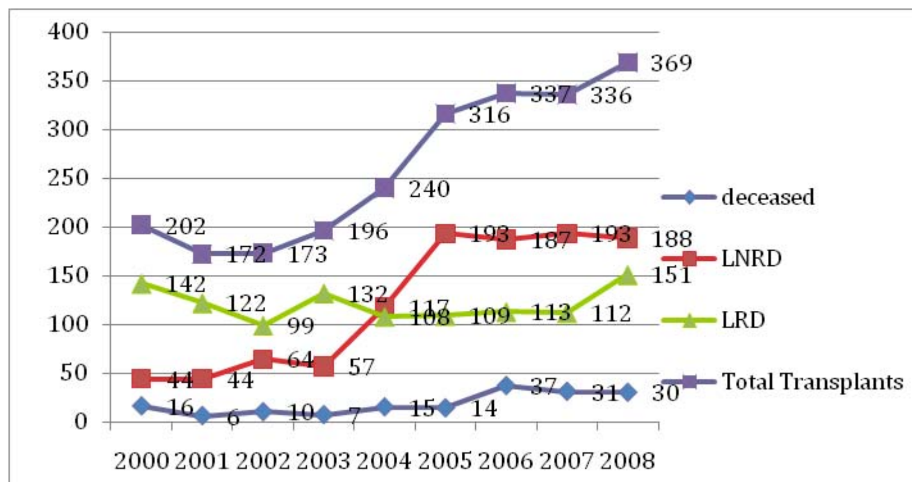
[60] Hippen, *supra* note 4.

Figure 03

Year	Donor Source								
	Deceased		Living Non-Related				Living Related		Total
			Non directed		Directed				
	No.	percent	No.	percent	No.	percent	No.	percent percent	
1999	5	3.67	25	18.38	1	0.73	105	77.2	136
2000	16	7.92	44	21.78	0	0	142	70.29	202
2001	6	3.48	44	25.58	0	0	122	70.93	172
2002	10	5.78	60	34.68	4	2.31	99	57.22	173
2003	7	3.57	56	28.57	1	0.51	132	67.43	196
2004	15	6.25	100	41.66	17	7.08	108	45	240
2005	14	4.43	115	36.39	78	24.68	109	34.49	316
2006	37	10.97	187	55.48	0	0	113	33.53	337
2007	31	9.22	193	57.44	0	0	112	33.33	336
2008	30	8.13	188	50.94	0	0	151	40.92	369
Total	**171**		**1012**		**101**		**1193**		**2376**
Percent	**7.19**		**42.59**		**4.25**		**50.21**		

The increase is better illustrated in the following graph:

Figure 04



Observing the lines for deceased, and living related donor sources, as shown in figure 04, the number variation of deceased, and living related donors is very little. Their lines are almost straight compared to the marked increase in living non related donors. These lines tell us a story. The table[61] below shows the program updates that occurred in the years 2002-2006:

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[61] Nisan Manauis, *Philippine Organ Donation Program: 3 year Experience,* speech delivered at the Towards a National Consensus on Living Non-Related Donor in Kidney Transplantation Symposium, Feb. 10, 2007.

Figure 05

2002	2003	2004	2005	2006
DOH AO 124-02 instituting the Philippine Organ Donation Program (PODP) Ethical standards by the NTEC	DOH AO 41-03 setting guidelines for the operation of the PODP Process for evaluation of walk-in donors was established Set up of national donor registry for non-directed organ donation	Memorandum of understanding between NKTI and Kidney Foundation of the Philippines (KFP) regarding shouldering costs of evaluation of walk-in donors Implementation of the modified UNOS Allocation Criteria	Establishment of the Kidney Donor Care Unit Clinical and Socio-economic profiling of LNRDs pre- and post-donation	MOA between DOH & KFP as sole foundation in charge of socio-economic evaluation of donors and financial support for post transplant care of donors.

This shows that during the changes in the program, it has been the LNRD number that is reactive. The number of cadaveric donations and living related organ donations remain more or less constant even with the changes in the program with a mean of 17.1 and 119.3 with a standard deviation of 10.92 and 16.22 respectively. Compare this with the mean of 101.2 for LNRDs, and its standards deviation of 62.93. The change in LNRD numbers may be understood in the sense that AO 124-02 and subsequent supplements were primarily concerned in regulating the LNRD sources in order to ensure that organ sales were prevented and the disguised black market transactions cannot infiltrate the system. The establishment of ethical standards clarified issues that plagued organ donations and the approval or disapproval of a transaction becomes a less difficult question. The establishment of the Organ Donation Program facilitated the sourcing of organs from donors. LNRD increased in 2002 by 20 persons. The PODP clarified in 2003 by AO41-03 through the establishment of guidelines for its operation resulted in decrease of 7. However, there is an increase of total transplants. The increase in total transplants may be attributed to the setup of the registry for non-directed donors, which facilitates more efficient matching of available donors to potential recipients in the country.

In 2004, the change was an increase of 50 persons in LNRDs when the Memorandum of Understanding with KFP was executed when the PODP realized it could not shoulder the costs of evaluation of walk-in donors. With the Understanding, KFP, helped in shouldering the costs of evaluation so that more donors were evaluated yielding a higher turnout for

accepted donors. In 2005 marked increase is seen with the establishment of the Kidney Donor Care Unit. In this year, the increase is in LNRDs is 70 persons, with LNRDs now constituting 61 percent of the total number of donors from 48 percent in 2005. From 2005 to 2008 we find a plateau in the number LNRDs per year despite the change in the program.

It is important to note that the total number of transplants is the turnout of donors who are able to follow through and pass a series of tests and screening, do not retract their consent and is successfully matched to a recipient. In a lecture[62] delivered by Ms. Nisan Manauis in 2007, she identified the factors that affect the percentage of donor turnout from potential donors. These are:

- Rejection for outright sale
- Medical unsuitability
- Disapproval by the ethics board
- Retraction of consent by the donor or failure to complete donor work-up.
- Refusal by the patient of offered donors

Potential donors are reduced by an average of 64 percent for a determination that it is an outright sale, 34.33 percent for medical unsuitability and 1.33 percent for disapproval by the ethics board. Of the total number of potential donors, 57.33 percent on average either retract their consent or fail to return. Hence the number of accepted donors after the screening process is an average of 12 percent only of the total number of potential donors. Only 63 percent of the number of accepted donors after screening shall be operated upon. The remaining 37 percent have been refused by the donee to whom it was offered. These numbers are based on data on potential living non-related donors from the HOPE Annual Report from 2004-2006 cited in the lecture of Ms. Nisan Manauis in 2007.

Charting scarcity

From the data in figure 02 and figure 03, the average demand for kidneys is 398, while the average supply is 238 units. Using the supply and demand curve in economics, the market for kidneys may be represented as follows:

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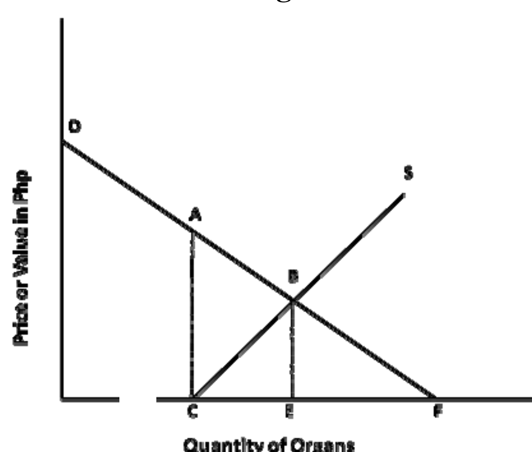
[62] *Id.*

Figure 06[63]



In this figure, point C is the supply of organs at 238 units at price 0 pesos, while point F is tl emand for kidneys at 398 units at price 0 pesos. Price is pegged at 0 pesos because of the prohibition on organ sales imposed by the law[64]. Point C, or the supply, represents the number of units the sources of kidneys are willing to produce when the price of a unit of kidney is 0 pesos. In other words, the general public is willing to give up 238 kidneys for transplantation purposes without payment in exchange. Point F or the demand represents the number of kidneys that the general public is willing to "buy" at price 0. Assuming that all persons who are candidates for transplantation and need a kidney could pay for transplant surgery expenses, then all 398 persons in need of transplant will be willing to buy a kidney for 0 pesos. Note that in this graph, the market for kidneys is isolated, and it does not represent a market for transplant, which would then consider price of transplant plus price of kidney in terms of demand and supply. Taking these in consideration, points C and F are the supply and demand of kidneys at the current regime.

Line CF represents organ shortage in the amount of 160 units. It is also representative of the number of persons in need of a kidney and willing to buy a kidney at price 0 but could not buy one due to shortage of supply. What happens to this excess demand? Unsatisfied, it manifests itself in the black market, or in the market for dialysis, or the patient who wishes to have a kidney dies. According Stephen Spurr, "the point is that competition

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[63] SPURR, *supra* note 55, at 83.

[64] Steve Calandrillo, *Cash for Kidneys? Utilizing Incentives to End America's Organ Shortage,* 13 GEORGE MASON L. REV. 69.

among buyers for the scarce commodity cannot be suppressed by law and will, without fail, find a way to express itself"[65].

The law prohibiting organ sales has the effect of a price ceiling. A price ceiling prevents the price from moving towards equilibrium point[66]. In Figure 06 equilibrium point is at point B. Point B is market equilibrium, because at the price corresponding to this point, suppliers are willing to produce the same number of units that consumers are willing to buy. Hence, there is no supply that will be wasted and no demand that will be unsatisfied. In kidney terms, at point B, where price corresponds to G pesos, E is the number of kidneys that the general public is willing to give up for transplantation, which is also the number of kidneys the kidney-needing ESRD patients will be willing to purchase at price G.

Stuck at below equilibrium point, the law in effect imposes the shortage at line CF, and pays line CE as economic cost or loss, which is the amount of kidneys that would have been produced or given up by persons, at equilibrium price. It is admitted that equilibrium point is an ideal that can only be approximated. However, the movement towards such point will lessen the economic cost, while increasing the satisfied demand, thereby increasing overall social benefit. It is important to note that overall social benefit is also increased because there is lesser excess demand that that will either manifest itself in the black market, in the market for dialysis (which means more unproductive members of society who would burden its productive members), or in the death toll. It is in this sense that the problem of the black market and scarcity in kidneys are inextricably intertwined.

REALIGNMENT OF INCENTIVES AND DISINCENTIVES

The basic economic model of the supply and demand curves is also helpful in predicting solutions for the problems of scarcity and the black market. Tweaking the economic model may give clues as to courses of action that would lead to solving the problems at hand—in this case scarcity in organs and the black market. It is, however, important to note that demand and supply curves represented by lines S and D, respectively, work on basic economic presumptions, which is the reason for their respective downward and upward slopes in relation to prices and quantities. This analysis is forced to rely on these presumptions and not actual figures or data of how the quantity demanded and quantity supplied changes in

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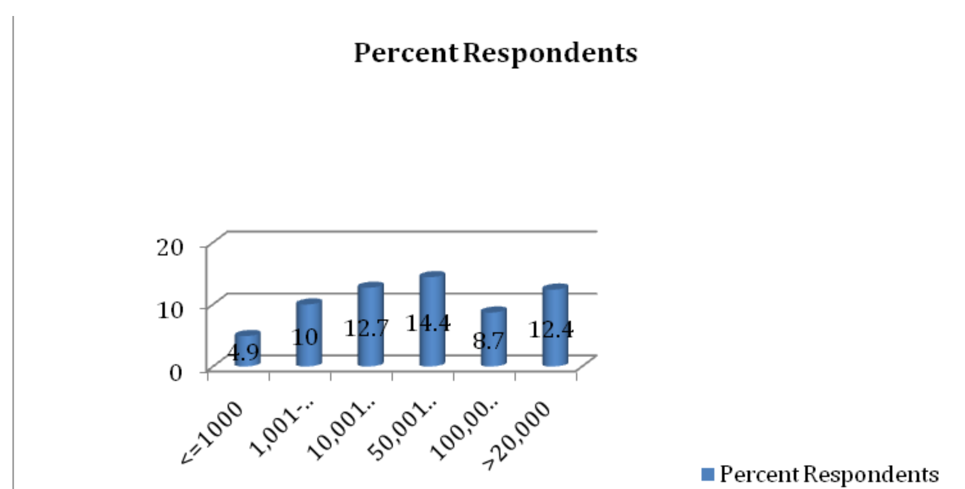
[65] SPURR, *supra* note 55, at 83.
[66] *Id.*

relation to price because, as the law has been constant in its prohibition on kidney sales, no actual data is available on this matter. It may be important to note however that there are surveys that have been conducted which asked people how much they would trade their kidney for. In the Survey on Knowledge and Opinions of Filipinos on Organ Donation conducted in 2001 and in 2005, with 2,000 and 2,140 respondents, respectively, the question posed was "What do you think is the amount that will correspond to your organ?" Of the 48 percent of the respondents who preferred to cash incentives to be given to organ donors, 2/3 specified an amount, which they perceived to be sufficient to correspond to their organs. The amount most frequently cited was 50,000 and 100,000, and the range of amount is from 200 pesos to 5,000,000 pesos.[67] The answers of the respondents may be graphically shown below (percentage basis):

Figure 07



This data is not useful to predict market supply of kidneys for the small number of respondents who gave the responses charted above. Only 2/3 of 48 percent of the total number of respondents gave these responses, which is 684.8 respondents out of 2,140.

[67] Survey on Knowledge and Opinions of Filipinos on Organ Donation (2005).

No similar survey conducted that may be predictive of demand in relation to price of kidneys, in the case of the Philippines, has been found by the author.

The presumptions of an upward slope of the supply curve and a downward slope of the demand curve are supported by existing market clues. From the black market trade, we know that more than the present amount of kidneys will be available for transplant if they are bought and sold for a price. There are kidney sources which, because of the price control imposed by law, opt to not give their kidney, which they would rather have given in exchange for a price.

On the part of the demand curve, the downward slope is presumed because the demand is always affected by the level of income of the average household. Purchasing powers of households are not equal. The same is true for persons who need a kidney. Not all of them would be able to afford to buy one at an indefinite price limit. For every person, there is a limit to the price of the good at which they would still be willing to buy it. In kidney terms, a person would be willing to buy a kidney up to a certain price. Higher than that price certain, he would not be able to afford it and he would have to settle with the alternative: dialysis. These limit prices vary in relation to the purchasing power of every person. Because only a small sector of society that that has a high purchasing power, the higher the price, the lesser the persons who will be willing to purchase a kidney, and the lower the price the greater the number of persons who will be willing to purchase a kidney.

It is important to note that since a kidney is a complimentary good to a transplant procedure, an increase in the price of one will result in the decrease in demand of the other, while a decrease in the price one will result in the increase in the demand of the other.[68]

Raising the price ceiling

Going back to the economic model of the market in kidneys in Figure 06, because of the effect of the price ceiling 0 imposed by government, there is a huge shortage in the supply of organs which can otherwise be reduced, because an increase in price would effect a movement

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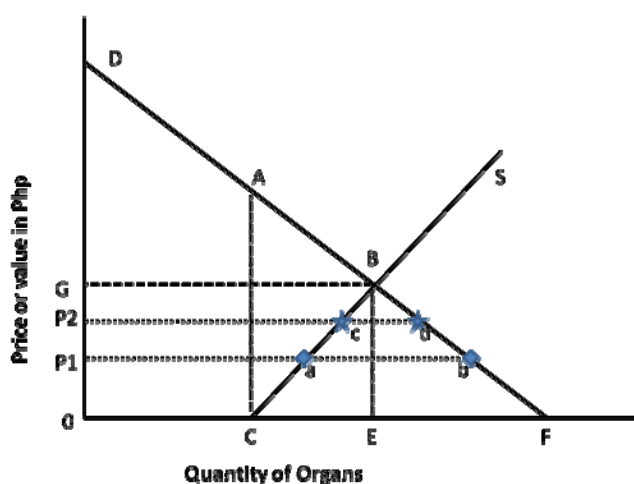
[68] ROBIN MALLOY, LAW AND ECONOMICS: A COMPARATIVE APPROACH TO THEORY AND PRACTICE 24 (1990).

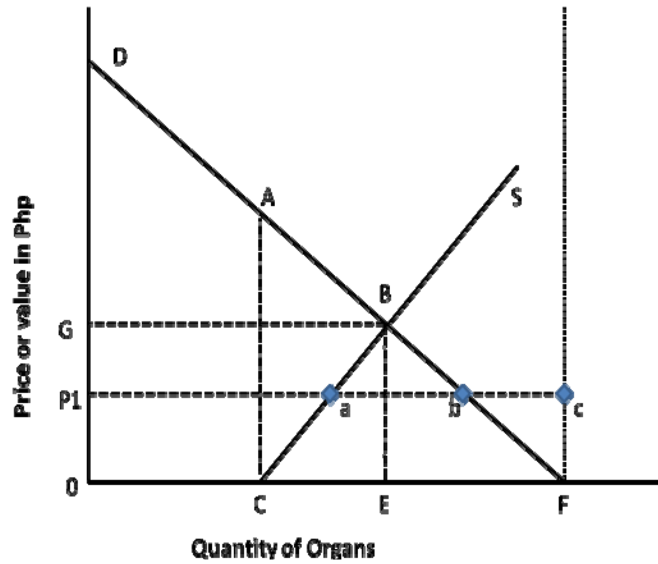
both on the demand curve and the supply cure towards equilibrium point. This is shown in the model below:

Figure 08



If the price of kidneys is pegged at P1, the supply will move up the supply curve and will increase to point a, while the demand will decrease to point b. At P2, the corresponding supply and demand will be at points c and d respectively. Notice that shortage has decreased from line CF to line ab and from line ab to line cd as the price changed from 0 to P1 to P2. The lesser the shortage, the lesser the unsatisfied demand, the lesser persons who will die, be dialysis dependent, or will resort to the black market, by virtue of the fact that the supply of kidneys had increased within the market. It is to be noted that while the demand decreases, the need for a transplant does not necessarily decrease. This needs that cannot manifest itself as a demand within the market system will manifest itself outside of the system, and inside alternative markets or markets for substitute goods, such as the market for dialysis, or the illegal market for kidneys. Further, the needs will manifest itself as demand in alternative markets together with the unsatisfied demand in the legal market for kidneys. This may be illustrated as follows:

Figure 09



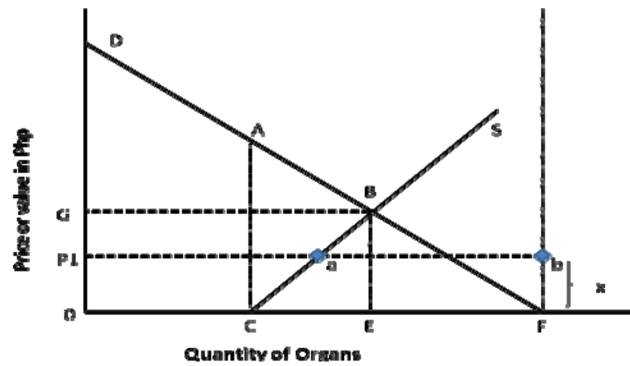
No matter the price, the need for transplantable organs remain constant at point F so that it may now be represented as a the vertical line F in Figure 09. Remember that at price 0 the presumption is that all the persons in need of a kidney for transplant could afford the transplant surgery. So that at Price 0 every one of these persons would demand a kidney, so that the demand is 398 units. Line CF is the unsatisfied demand, which will manifest itself in alternative markets including the black market. It is also the potential market for alternative markets. At price P1, point *a* is the quantity supplied and point b is the quantity demanded. Line ab represents the shortage at P1, while line *bc* represents the number of persons who would no longer be willing to buy a kidney *although they need it* because the cost is beyond that which they are willing to spend. In this graph, line ac is the possible market for alternative markets such as dialysis, and the black market, which is less than (shorter than) line CF. This shows that in P1, more organs are supplied, more demand is satisfied, and the potential market for the black market in kidneys is decreased. This is an ideal situation for solving the problem of scarcity and the black market.

Subsidies

There still remains a problem, however. Returning to Figure 08, where line *bc* represents the number of persons who would no longer be willing to buy a kidney, although they need it, because it is beyond the limit of what they can afford, the line represents the number of persons unable to make a demand because of lack of purchasing power. In this sense, ESRD patients of lower financial standing are completely denied a chance to compete in the market for kidneys. They are the ones left with no choice but to die or undergo dialysis, and die eventually for lack of money to sustain the treatment. Either that, or the black market will be forced to lower its price to address the fact that its potential market cater to those belonging to the lower income brackets, just like how pirated DVDs offer a lower price to its potential market belonging to the lower income brackets. The latter effect is good in that, being forced to lower prices, suppliers will be less willing to give up kidneys within the black market system for they will have to peg a lower price. The former effect is another story, as it is both argued to be morally offensive, and ethically impermissible. The goal this time is to achieve the ideal situation earlier described for solving scarcity and the black market, while not denying the ESRD patients coming from the poorer sectors of society a fighting chance to get a kidney. This is where subsidies come in.

A subsidy augments the purchasing power of buyers so as to enable them to make a demand, which they otherwise would not have made without it. It would give the poor power to compete in the legal market for organs. With this competition at a price ceiling, the supply remains increased from point C to point a in Figure 09, but the demand will be increased by movement along line bc of point b. The situation will then be that, from current regime at price 0, to price P1 with x subsidy, the supply is increased, the demand satisfied is increased, the potential market of black market is decreased, the potential deaths is decreased, while the demand remains constant. This is shown in Figure 10:

Figure 10



Of course the sourcing of subsidies is an entirely different question. A caveat is here to be remembered: it is to be understood that the models discussed rely on the fact that people make a rational and informed choice. Therefore, to approximate the ideal states represented in this discussions would require an efficient information campaign on both the problem of scarcity in organs, the rudiments of a transplant and a donation, and the pros and cons of dealing with the black market.

SUMMARY

Scarcity in transplantable kidneys is the result of the imposition of altruism by the law, the economic costs of dialysis that consequently increase the demand for transplant, and the resulting disincentives that a donor organ is faced with in the process of donating his organ, which are not offset by perceived benefits. The black market is a function of scarcity in that it is a manifestation of the desperation of End Stage Renal Disease Patients in their plight to prolong their lives. It is also a manifestation of the desperation of the poor man, who, faced with very limited life options, decides to sell his organ, thinking that this is the better choice, while at the same time exposing himself to abuse.

While there are already several laws and issuances on the matter of organ transplantation seeking its regulation to curb the black market in organs while facilitating the procurement of transplantable organs, organ sources have remained scarce, and the black market has continued to thrive. The reason for this is that altruism is not enough to make organ donation desirable for people who would rather have given up their kidney anyway had its price not been 0. This is the reason for the claim that the prohibition

on organ sales results in the imposition of deaths, which are otherwise necessary. As for the black market, the gap between the law and its implementation, caused by the problematic distinction in factual setting of payment from gratitudinal gifts, and also by the non-prosecution of offenses due to the desistance of victims, allows the market to proliferate despite the safeguards imposed by the law.

Economic analysis of the problem of scarcity and the black market reveals that the two are inextricably connected to each other and a regulation of one will affect the other. The use of economic tools of analysis will help in tailoring a national policy and a system of laws that will promote the interests of the ESRD patient in increasing the supply of transplantable organs, the "donor" in receiving compensation for his kidney, the government in decreasing the potential market for the illegal trade in kidney, and the public in the overall increase of social benefits primarily in the increase of more productive lives due to more transplants, lesser deaths and lesser economic costs. Allowing a regulated market in kidneys is one such system of laws that will promote all these interests. With proper regulation, a market in organs can be tailored to address its moral reprehensibility for discriminating against the poor patients of ESRD, whose purchasing power would not be able to sustain a demand for the necessity of a kidney.

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