year ago, I was searching the Internet for something rare and valuable: a human kidney. In August 2004, I learned I had end-stage renal disease and would need a transplant. At the time, my prospects for a donation from family or friends looked bleak, and I would soon have to begin dialysis. I would be hooked up to a machine three days a week for four hours at a time. This would continue for at least five years—the time

it would take for a kidney from a deceased donor to become available. Even with dialysis, the kidneys of many sick people deteriorate so quickly that time runs out. An average of 11 Americans die each day waiting for a renal transplant.

Waiting for a kidney from a deceased donor is such a risky business that some people try

surely come from an executed political prisoner. The desperation, as I found myself, is perfectly understandable. I have no siblings. Several friends said they would look into it—donors don't need to be genetically related—but they turned out to have disqualifying medical problems or spouses who objected, or they grew scared.

languished on dialysis for years. Indeed, when I joined the national queue in January 2005, there were about 60,000 other people ahead of me, according to the nonprofit United Network for Organ Sharing (UNOS), which maintains the list under a monopoly contract with the federal government.

Eleven Americans die each day because they can't get a kidney transplant, writes Dr. SALLY SATEL, who was one of the lucky ones who did get one. The best

way to provide more kidneys is to give donors compensation. Here's how a market in organs can meet moral objections. publicly to convince strangers to give them live organs. Some put up billboards ("I NEED A KIDNEY, CAN YOU HELP? Call...), start websites (<GordyNeedsAKidney.org>, whose opening page carries the plaintive headline, "Please Help Our Dad"), or go overseas to become "transplant tourists" on the Chinese black market with the frightful knowledge that the organ they get will almost

Last fall, I turned to a website called <MatchingDonors.com>—which "matches" mostly prospective kidney donors with recipients—and quickly found a prospective donor. But six weeks later, he changed his mind. Then my wonderful friend Virginia Postrel came along. We are both healthy after a transplant operation on March 4 at the Washington Hospital Center. If Virginia had not donated her kidney, I could have

Today, there are 67,600 people waiting for a posthumous kidney. In big cities, where the ratio of needy patients to available organs is highest, the wait—spent on dialysis, a procedure that circulates your blood through a machine that purifies it and returns it to your body—is up to eight years. Last year, only 16,470 people received kidneys; roughly half of the donors were deceased, and half were living. Meanwhile, 4,100 died waiting. By 2010, the wait will be at least ten years, exceeding the average length of time that adults on dialysis survive.

Despite decades of public education about the virtues of donating organs at death, the level of such gifts has remained disappointingly steady. Only about one-third of Americans have

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designated themselves as donors on their driver's licenses or on state-run donor registries. For the rest, the decision to donate organs will fall to family members, who about half the time deny the requests of hospitals. More important, however, is that very few of the Americans who die, perhaps 13,000 a year (or less than 1 percent of all deaths), possess organs healthy enough for transplanting—so even if every family consented, the need for thousands of kidneys would go unmet.

The chasm between the number of available kidneys and the number of people needing one will widen each year. This is due to our misplaced faith in the power of altruism. The "transplant community," as it is called-organizations that encourage funding and gifts of organs, and many surgeons and nephrologists—expects people, both living donors and loved ones of the deceased, to give a body part and to receive nothing in return. In fact, it is illegal in the United for kidneys is far States to receive money or anything of value ("valuable consideration") in exchange for an organ, a principle set down by Congress in 1984 in the National Organ Transplantation Act.

Don't get me wrong. Altruism is a beautiful thing—it's the reason I have a new kidney-but altruism alone cannot resolve the organ shortage. For that reason, more and more physicians, ethicists, economists, and legal scholars are urging the legalization of payments for organs in order to generate more kidneys for transplantation. One doesn't need to be Milton Friedman to know that a price of zero for anything virtually guarantees its shortage.

"Is it wrong for an individual...who wishes to utilize part of his body for the benefit of another [to] be provided with financial compensation that could obliterate a life of destitution for the individual and his family?" asked Dr. Richard Fine, president of the American Society of

Transplantation, in his address to the World Transplant Congress this year.

Supporters of experimenting with a market for organs encounter an array of objections, theoretical and practical. One popular argument, first advanced by Richard M. Titmuss, professor of social administration at the London School of Economics, is that altruism is the sole legitimate impulse behind organ donation. In 1971, Titmuss, a dedicated socialist and member of the Fabian Society, published The Gift Relationship: From Human Blood to Social Policy, which rapidly became a U.S. bestseller. He argued

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that altruistic acts are among the most sensitive indicators of the quality of human relationships and values

in a society. Capitalism, on the other hand, is morally bankrupt.

This ethic is very much alive among the bureaucrats that run the United Network for Organ Sharing, which manages the transplant list. "Organ transplantation is built upon altruism and public trust. If anything shakes that trust, then everyone loses," says the UNOS website. Yet the trust is already badly rattled. "The current system has

degenerated into an equal opportunity to die on the waiting list," observes nephrologist Benjamin Hippen, who advocated compensating donors (or perhaps they should be called "vendors") before the President's Council on Bioethics this summer.

Another theoretical objection to compensating donors is the notion that it will "commodify" the body and thus dehumanize the rest of us, let alone the person who gives his kidney in exchange for "valuable consideration." Yet with proper respect for donors and informed consent, it strikes me that careful engagement in financial arrangements is far less distasteful than allowing people

to suffer and die. These are not abstract people, mind you, like the ones who may well be helped by stem cell discoveries years down the road, but live humans like the 49-year-old former secretary from the Pentagon I met last summer. For four years now, every Monday, Wednesday, and Friday, she has been sitting in Chair No. 7 in the dialysis center a few blocks from our offices.

Others go so far as to reject the very premise that saving lives is a paramount goal of medicine. "If we turn organ procurement into a crusade, we make of death simply a problem to be solved rather than an event to be endured as best we can, with whatever resources of mind and spirit are available to us," says Gilbert Meilaender, professor of A large study theological ethics at in Norway found Valparaiso University and a member of no difference the President's Council on in mortality rates Bioethics. Now, it is one thing to between people

patient, but quite another to abandon treatments for renal failure under circumstances in which a well-established remedy (transplantation) already exists—a remedy whose economic cost to society is lower than the cost of the less effective alternative, dialysis.

question whether we should

prolong the life of a vegetative

This is a good time to point out that the live donor—or vendor—of a kidney is exposed to only minor risks, the most significant being those associated with anesthesia and surgery itself -0.03\% mortality-comparable to any other operation. Because the surgery is done using a laparoscopic approach, the visible scar is only 2 to 3 inches long. My donor, Virginia, was out of the hospital in three days and back to writing her magazine column a week later.

Long-term risks are also low. Typical is a 1997 study from Norway that followed 1,332 kidney

donors for an average of 32 years. It found no difference in mortality rates between people who give kidneys and the general population. A 25year follow-up of 70 donors conducted by the Cleveland Clinic found that the renal function is "well preserved" and that the overall incidence of hypertension was comparable to that of non-donors. The truth is that a normal person can get along perfectly well with one kidney. The risk a donor runs is that his single functioning kidney will become diseased or injured, and he'll need a transplant himself—a highly unlikely event.

Perhaps the most vocal critic of compensating donors is the National Kidney Foundation.

> It is offended by the idea that a donor might benefit in ways other than the psychic reward of pure giving. States NKF chairman Charles Fruit, "Families decide to donate the organs of a loved one for altruistic reasons. Payment is an affront to those who have already donated." Virginia, a take-no-prisoners journalist, responded pointedly to Fruit on her website, <www.dynamist.com>. "The argument that paying organ donors is 'an affront' to unpaid donors is disgusting. Are unpaid

donors giving organs to save lives or just to make themselves feel morally superior? Even in the latter case, they shouldn't care if *other* people get paid."

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population.

In the end, moral objections such as these put us at a standoff. I doubt I could change the mind of Professor Meilaender, who sincerely believes that organ donation violates what it means to be human. And there's nothing he can say to dissuade me from believing that free, informed, and willing individuals should be able to participate in a regulated exchange involving valuable consideration. Thus, the meaningful question becomes how both sides can honor their moral commitments.

The best answer is by creating a market arrangement to exist in parallel with altruistic

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giving. Within such a framework, any medical center or physician who objects to the practice of compensating donors can simply opt out of performing transplants that use such organs. Recipients on the list are free to turn down a paid-for organ and wait for one given altruistically. Choice for all—donors, recipients, and physicians—is enhanced. And it is choice in the greater service of diminishing sickness and death. Paradoxically, the current system based on altruismor-else undermines the individual autonomy that is at the heart of the most widely held values in bioethics.

Not all objections to donor compensation, however, are abstract. A common concern is the potential for exploiting donors—especially low-income donors, who, as the critics reasonably claim, will be the most likely to find incentives attractive. Without question, protecting donors is enormously important. That is why any plan for compensation should be regulated. Potential donors must receive education about what

must receive education about what it means to donate a kidney and the risks they run. They must undergo careful medical and psychological screening and receive quality follow-up care.

Critics often point to the horror stories from transplant black markets overseas and hold them up as cautionary tales. But the catastrophists have it exactly backward. It is when payment is not an above-board part of the medical system that black markets lead to minimal education of prospective donors, poor post-operative and follow-up care, and failure to honor agreements for payment.

Finally, some critics argue we have no evidence that an incentive system would work. True. So we need experimentation. Frankly, I don't know what the perfect kidney market would look like, but let's assume that Congress makes a bold and common-sense move and amends current law to permit the exchange of money or something of value for a kidney. Here are several alternative market systems:

A Forward Market for Cadaver Organs:

• Economist Lloyd Cohen proposed one of the first market-based models to increase the number of cadaver organs. Potential donors would either (1) be paid a small amount today by the government or insurance companies to join the current donor registry, or (2) register today in return for the possibility of a much larger payment to their estates should the organs be used at death.

The advantage of such a forward-looking approach is that the decision-making burden is taken off family members at a painful time—when they are sitting in the emergency room learning that someone they love is now braindead. And, of course, there is no worry of exploiting the donor. A forward market could also help satisfy the 23,000 people waiting for livers, hearts, and lungs.

But deceased donors cannot

meet the need for kidneys. In addition, kidneys from live donors are healthier than those obtained after death and survive, typically, for 10 to 20 years (or one-third longer). Thus, to mitigate the shortage of kidneys, we must consider offering incentives to people amenable to relinquishing one while they are alive.

The Centralized Single Compensator: In this approach, the federal government or a designated agency acts as the only authority with the power to buy and allocate organs for transplants. As is currently the case with cadaver organs, kidneys obtained through compensated donors would be matched with the next best candidate waiting on the national list.

Under this scheme, Medicare would underwrite

the incentives in light of the fact that it already pays for dialysis treatment under the 1972 End Stage Renal Disease (ESRD) amendment to the Social Security Act. This entitlement provides care for Americans with terminal renal failure regardless of age if they have met required work credits for Social Security. Last year, the ESRD program spent about \$16 billion on dialysis, or about \$66,000 per patient annually. Since a 35-year-old spends about nine years on dialysis, the total cost is around \$600,000; for a 64-yearold, about four years at \$300,000. Compare these expenses with the cost of a transplant operation—approximately \$75,000 in all for the one-time cost of the surgeries and hospital stays of the donor and re-

ospital stays of the donor and recipient, plus the first year of follow-up medical care (including medicine).

In most cases, these savings would easily pay for

savings would easily pay for a lifetime supply of the expensive immunosuppressant drugs to prevent rejection of the new kidney. The drugs cost \$15,000 to \$20,000 a year, and every recipient must take them every day for life. Medi-

care pays for transplant surgery but stops reimbursing for the drugs, at 80 percent of full price, three years post-transplant if the patient goes back to work.

What kinds of compensation should be offered? A reasonable case could be made for an outright payment—after all, it is hard to argue that an individual is competent enough to sell an organ yet unfit to manage the money he receives in exchange for it—but I am partial to a compromise approach in order to defuse those who say that people will sell their organs for quick cash or use it to buy something frivolous. For example, the donor could choose from

a menu of options, including a deposit to a 401(k) retirement plan, tax credits, tuition vouchers for the donor's children, long-term nursing care, family health coverage, life and nonfatal injury insurance, a charitable contribution in the donor's name, or cash payments stretched over time.

Donor protection is the lynchpin of any compensation model. Standard guidelines for physical and psychological screening, donor education, and informed consent could be formulated by a medical organization, such as the American Society of Transplant Surgeons, or another entity designated by the federal Department of Health and Human Services. A "waiting period" of three to six months could be built in to ensure the prospective donor has ample time to think it through. Monitoring donor health post-trans-Compensation? plant is important as well. It could be tax One idea is to provide credits, tuition lifetime health insurance, through Medicare or a vouchers for private insurer for the children, or family donor. He would rehealth coverage. ceive annual physicals, routine medical screen-

> up in addition to standard health coverage. A federally sponsored registry of donors could help us study long-term outcomes for donors and vendors and take steps to remedy physical or psychological difficulties that arise.

ing, and long-term follow-

Multiple Compensators: In this scheme, donors, compensators (that is, the entities that pay for the transplants), and medical centers (that perform them) would be coordinated with one another through an intermediary broker. Medicare would be one of several possible compensators, along with private insurers, charitable foundations, or a fund established perhaps through a surcharge added to the cost paid by insurers and foundations.

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Private Contracts: The easiest way to start 4. a market for organs is simply to change the law to allow someone who needs an organ and someone who wants to sell one to make their own arrangements through contract—as infertile couples currently do with surrogate mothers. But such a system would inevitably attract criticism because it appears to favor well-off sick people over poor.

While private contracts may seem unfair because only those with means will be able to purchase directly, poor people who need kidneys would be no worse off-and, very likely, considerably better off—than under the current system. First, a stranger interested in selling a kidney is unlikely to give it away for free to the next person on the list (only 88 donors last year made such anonymous gifts); thus, few poor people would be deprived of kidneys they would otherwise have gotten voluntarily. Second, anyone who gets a kidney by contract is removed from the waiting list, and everyone behind him benefits by moving up. Third, private charities could offer to help subsidize the cost for a needy patient or pay outright.

Under an enforceable but private contract, a compensated donor would be treated no differently from an altruistic one. There would still be federal or state regulation. The donor would undergo rigorous medical and psychological screening at an established transplant center, receive guidance on informed consent, and have both a waiting period and the opportunity to drop out of the process at any point. No transplant center would dream of risking its reputation or loss of Medicare funding by not performing quality screening. (As for the converse argument that, despite all the safeguards, poor people will be tempted by money to sell a kidney they really want to keep—why not simply bar anyone with an income under \$35,000 a year from giving a kidney? Another version of this approach, suggested by Virginia's economist husband, would be to give a one-year tax holiday to donors. That way, the rich would have a far bigger incentive to donate an organ than the poor.)

These broad proposals, and variants on them, need considerable elaboration. Many questions remain: How would prices be determined? Would each available kidney be allotted to the next well-matched person on the list? Or should living organs be preferentially allocated to the healthiest people on the list—that is, those who will get the most "life" out of the organ? Could noncitizens be paid donors? Also, could people have a say in who would receive their kidneys? As it currently stands, most living donors give altruistically because they are trying to help a friend or relative, not a stranger. But it is surely possible that the decision of an ambivalent friend could tip in the direction of giving with the promise of compensation. And since each patient on dialysis is functionally "attached" to a Medicare entitlement, perhaps the recipient could direct a portion of "his" Medicare allotment to his friend as payment.

There is no denying the political and practical challenges that come with introducing payment into a 20-year-old scheme built on the premise that generosity is the only legitimate motive for giving. Yet as death and suffering mount, constructing a market-based incentive program to increase the supply of transplantable organs has become a moral imperative. Its architects must give serious consideration to principled reservations and to concerns about donor safety, but repugnance and caution are not in themselves arguments against innovation. They are only reasons for vigilance and care.

For an annotated version of this article—with links to the relevant research—please visit our web site: www.tamagazine.com

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