

# ORGAN DONATION: OPPORTUNITIES FOR ACTION

Beginning in 1954, with the first successful organ transplantation in humans, transplanted organs have given hundreds of thousands of people the chance for longer, more productive lives. In 2005 alone, slightly over 28,000 solid organs (kidney, liver, lung, heart, pancreas, and intestine) were transplanted in the United States, up from approximately 12,600 organ transplants in 1988. As organ transplantation has grown increasingly safe and effective, the demand for transplants has grown far faster than the supply of available organs (Figure 1). Since 1988, the number of people on the U.S. waiting list has increased more than five-fold, from 16,000 to its current total of more than 90,000. Each year approximately 40,000 people are added to the transplant waiting list.

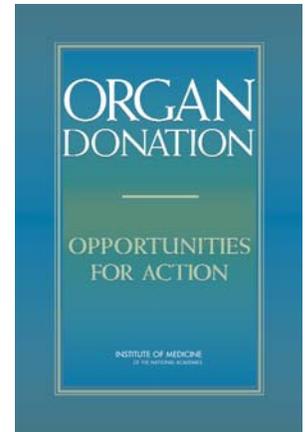
Organ transplantation offers a challenge unlike any other in medicine. While most medical procedures are decided upon between doctor and patient, a transplant requires the involvement of a third party—the organ donor. This creates a set of medical, ethical, and institutional issues that are unique to organ transplantation and that are still being ironed out today, more than fifty years after the first successful transplant.

In 2004 the Health Resources and Services Administration (HRSA) and The Greenwall Foundation asked the Institute of Medicine to study the issues surrounding organ donation and, in particular, to look at various suggestions that have been made for how to boost the rates of organ donation. The resulting report, *Organ Donation: Opportunities for Action*, concludes that the current system can be greatly improved and makes a number of specific recommendations that should help increase the supply of transplantable organs, saving lives and improving the quality of life for many people who need new organs.

## IMPROVING THE SYSTEM

A gap between supply and demand can be diminished either by increasing supply or decreasing demand. While the focus of this report is on increasing the supply of organs, it is important to note that increased efforts at disease prevention can help reduce the demand for organs by preventing or at least delaying many cases of organ failure.

Increasing the supply of donated organs can begin with a focus on the organ procurement system itself. Statistics show, for example, that there is wide variation in the success of organ donation efforts among



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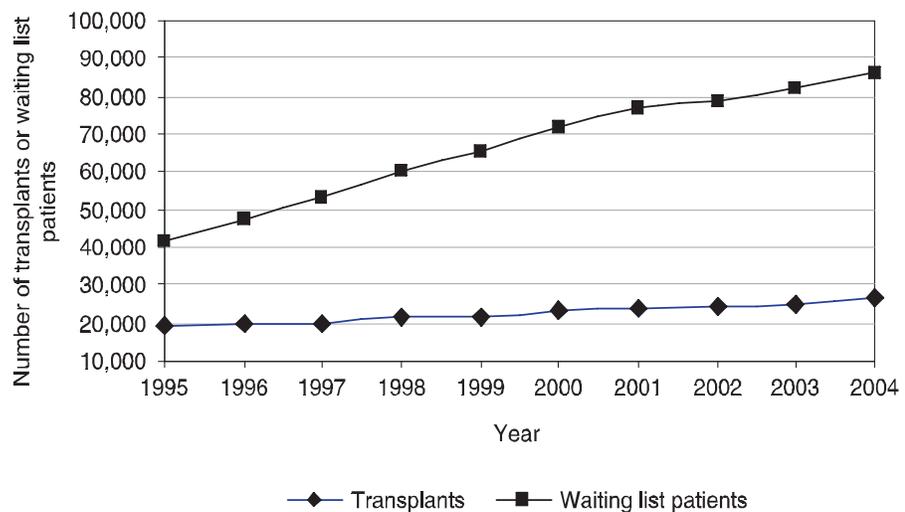
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organ procurement organizations and transplant centers. In some institutions, consent for deceased organ donation is obtained from more than 70 percent of potential donors or their families, while in others the consent rate is less than 30 percent. Bringing consent rates up will be crucial to the effort to increase organ donations.

Efforts by HRSA, through a series of Organ Donation Breakthrough Collaboratives, are galvanizing hospitals and organ procurement organizations to develop and implement continuous quality improvement methods that create changes in policies, practices, and structures. These efforts are promising and should be continued, along with other quality-improvement efforts, such as identifying best practices and disseminating them among the institutions in the organ-procurement and transplantation system. There should also be research aimed at identifying new ways to improve the system and increase donation rates. Finally, organ donation should be integrated into quality end-of-life care. Patients and their families should be offered the opportunity to donate as standard end-of-life care, and information on organ donation processes should be an integral part of the many other decisions that are faced at that time.

### INCREASING DONATIONS FROM CARDIAC-ARREST DEATHS

The vast majority of organs from deceased donors come from people who have died in hospitals and been pronounced dead according to neurologic criteria—that is, when meaningful brain activity has ceased. In such cases it is generally easier to get timely consent and do what is necessary to keep the donated organs viable after the donor’s death. But far more people in the United States are pronounced dead each year according to circulatory criteria—when the heart stops beating—and these people offer a largely untapped source of potential organ donations. According to one estimate, at least 22,000 people each year who die of cardiac arrest outside of a hospital could be potential organ donors. Before this potential can be realized, a number of ethical and practical issues will have to be addressed. For instance, how best to work with family members whose loved one has just died unexpectedly, or how to recover organs effectively when the death has not occurred inside a hospital. Efforts to solve these issues should start now.



**FIGURE 1.** Growth in the number of transplants and in the number of candidates on the transplant waiting list.

SOURCE: HRSA and SRTR (2006).

## CHANGING THE SOCIAL CLIMATE

Ultimately, every organ donation results from a choice made by the donor or the donor's family, so the best hope for closing the transplant organ gap lies in changing attitudes toward and awareness of organ donation. The first step in this direction should be educational: relieving people of their fears and misconceptions about organ donation and transplantation and making the point that, since all of us are potential organ recipients as well as potential organ donors, everyone has a stake in the system. At the same time, more attention should be paid to giving people a variety of opportunities to register as organ donors, such as during driver's education and licensing, during advance-care planning, and in connection with work-, faith-, school-, and community-based initiatives. Furthermore, state governments should work with organ procurement organizations and HRSA to improve state donor registries and to seamlessly provide national access to a system that is updated daily and that can be quickly and easily accessed 24 hours a day by relevant healthcare professionals.

Some observers have suggested that organ donation rates might be increased through incentives—either financial incentives such as paying for funeral costs or nonfinancial incentives such as preferential access to donated organs. The report recommends against offering such incentives at this time for a variety of reasons. Financial incentives might disproportionately affect the poor or other marginalized groups, and might also cause a drop in donations for altruistic reasons if people see donated organs as goods with a certain market value. And nonfinancial incentives, such as reciprocity agreements, might disadvantage those who are less informed about organ donation and therefore increase existing social inequality.

Instead, the goal should be to move toward a society where people see organ donation as a social responsibility. In such a society, donating organs would be accepted as a normal part of dying, and in cases where a person died without recording a specific choice about donating his or her organs, the surviving family members would be comfortable giving permission.

Such attitude-changing efforts should precede any legislative moves aimed at increasing organ donations, the report urges. Now is not the time, to enact a policy of mandated choice, which would require people to choose whether or not to be an organ donor. Nor should there be any attempt at this time to put into place a presumed-consent policy that would require individuals to specifically opt out of the transplant system if they did not wish to donate their organs. On the other hand, the long-term goal should be to create a society so committed to organ donation that such a presumed-consent policy would be acceptable.

## CARE FOR LIVING DONORS

Although the report focuses mainly on deceased donors, it touches also on living donors, who in 2005 provided nearly 7,000 transplanted organs, the vast majority of them kidneys. Although such donations certainly help those who receive them, they raise serious ethical issues. The transplantation of organs from living donors seems to violate the traditional first rule of medicine—*primum non nocere* (above all, do no harm)—because it involves the removal of a healthy organ from one person for implantation into another person. The report recommends that there be a careful review and assessment of living donation. In the meantime, hospitals that perform transplantations using living donors should provide each such donor with an independent advocacy team to make sure that he or she is making an informed and voluntary decision, and registries of living donors should be set up so that healthcare professionals and medical researchers can more easily study the short- and long-term medical and other outcomes of living donation.

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### **FOR MORE INFORMATION...**

Copies of *Organ Donation: Opportunities for Action* are available from the National Academies Press, 500 Fifth Street, N.W., Lockbox 285, Washington, DC 20055; (800) 624-6242 or (202) 334-3313 (in the Washington metropolitan area); Internet, <http://www.nap.edu>. The full text of this report is available at <http://www.nap.edu>.

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