

# The 2008 Annual Report of the OPTN and SRTR

## Liver and Intestine Transplantation In the United States, 1998-2007

### Overview

- Liver transplantation numbers in the United States remained constant from 2004-2007, while the number of waiting list candidates has trended down.
- In 2007, the waiting list was its smallest since 1999, with adults  $\geq 50$  years representing the majority of candidates. Most age groups had decreased waiting list death rates, however, children  $< 1$  year had the highest death rate.
- Non-cholestatic cirrhosis was most commonly diagnosed. Hepatocellular carcinoma exceptions increased slightly.
- Use of liver allografts from donation after cardiac death donors increased in 2007. Model for End-stage Liver Disease (MELD)/Pediatric Model for End-stage Liver Disease (PELD) scores have changed very little since 2002, with MELD/PELD  $< 15$  accounting for 75% of the waiting list.
- Over the same period, the number of transplants for MELD/PELD  $< 15$  decreased from 16.4% to 9.8%.
- The intestine transplantation waiting list decreased from 2006, with the majority of candidates being children  $< 5$  years old.
- Death rates improved, but remain unacceptably high. Policy changes have been implemented to improve allocation and recovery of intestine grafts to positively impact mortality.

### Summary Figures

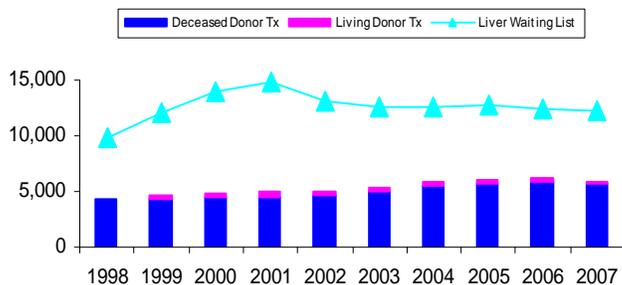
The figures on the following two pages are “dashboard” views of the state of liver and intestine transplantation. Details on the implications of these figures, and explanations of the methods used in creating them, are included in Chapter IV of this year’s report.

#### The 2008 OPTN/SRTR Annual Report

The data and analyses reported in the 2008 Annual Report of the U.S. Organ Procurement and Transplantation Network and the Scientific Registry of Transplant Recipients have been supplied by the United Network for Organ Sharing and the Arbor Research Collaborative for Health under contract with the Department of Health and Human Services. The authors alone are responsible for reporting and interpreting these data; the views expressed herein are those of the authors and not necessarily those of the U.S. Government.

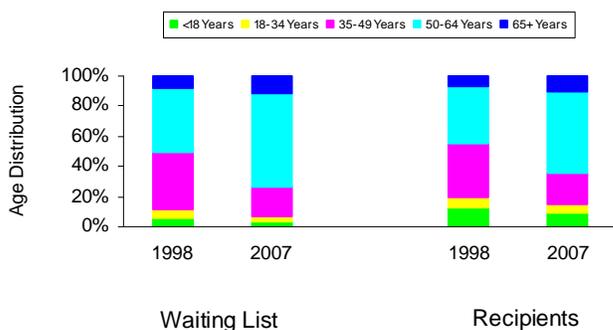
This Annual Report is a publication of the Department of Health and Human Services. It was developed by contract for the Health Resources and Services Administration, Healthcare Systems Bureau, Division of Transplantation. Suggested Citation: 2008 OPTN/SRTR Annual Report 1998-2007. HHS/HRSA/HSB/DOT; UNOS; Arbor Research Collaborative for Health. This is a U.S. government-sponsored work. There are no restrictions on its use.

## Liver Transplantation at a Glance



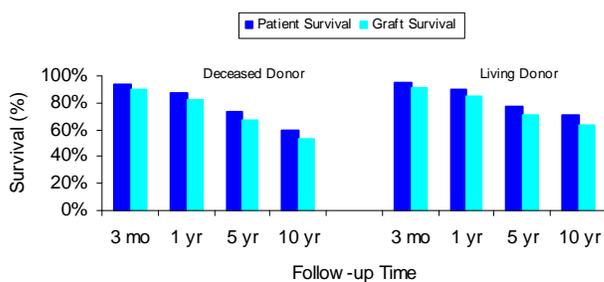
### Number of Transplants and Size of Active Waiting List.

The number of patients awaiting a liver transplant at year-end peaked in 2001; this is clearly related to the introduction of the MELD/PELD allocation system in 2002. The number who received a deceased donor liver transplant has gradually increased, reaching a peak in 2006. The gap between the numbers of candidates and recipients has been slowly shrinking since 2002. Source: 2008 OPTN/SRTR Annual Report, Tables 1.7, 9.1a, 9.1b.



### Age Distribution of Recipients and Active Waiting List.

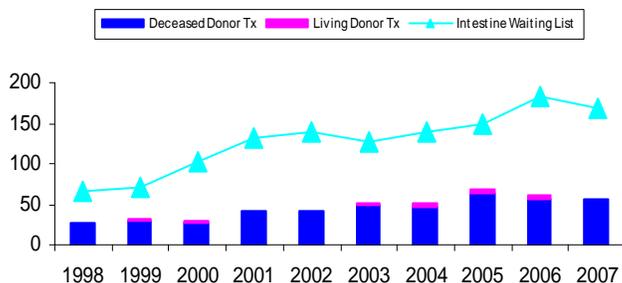
The numbers of candidates and recipients age 35-49 years remained fairly constant over the decade, but the age group's proportion by both measures declined. Recipients included transplants from both living and deceased donors. Source: 2008 OPTN/SRTR Annual Report, Tables 9.1a, 9.4a, 9.4b.



### Unadjusted Patient and Graft Survival.

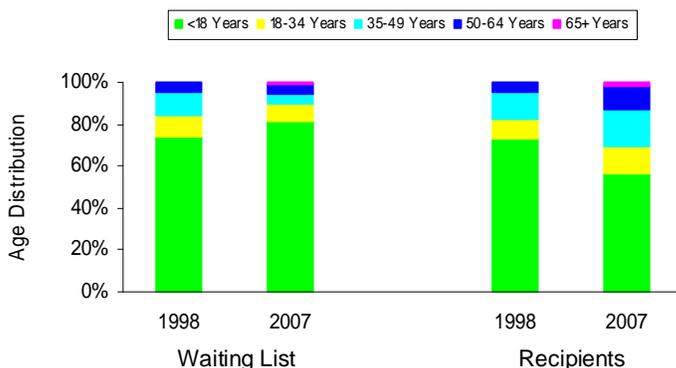
Patient survival in recent years has been improving for both deceased donors and living donors, with 73% and 77% of patients, respectively, alive five years following transplantation. Patient survival was higher than graft survival because of the opportunity for repeat liver transplantation in the event of graft failure. Source: 2008 OPTN/SRTR Annual Report, Tables 9.10a, 9.10b, 9.14a, and 9.14b.

## Intestine Transplantation at a Glance



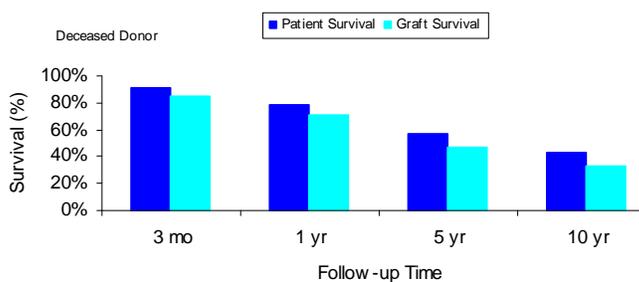
### Number of Transplants and Size of Active Waiting List.

The numbers of patients on the intestine waiting list and the number receiving a transplant both more than doubled between 1998 and 2007. The difference between the number of candidates and transplant recipients increased through the second half of the decade. Source: 2008 OPTN/SRTR Annual Report, Tables 1.7, 10.1a.



### Age Distribution of Recipients and Active Waiting List.

About 74% of intestine candidates were in the pediatric age group in 1998 compared with 81% in 2007. The small group of candidates and recipients in the age group >50 years doubled during the decade. Adults made up a greater portion of recipients than candidates. Source: 2008 OPTN/SRTR Annual Report, Tables 10.1a, 10.4.



### Unadjusted Patient and Graft Survival.

One-year patient survival was 79% in 2007. Survival at five years was 57%. Graft survival was lower, since recipients may receive parenteral alimentation or retransplantation after graft failure. Source: 2008 OPTN/SRTR Annual Report, Tables 10.10, 10.14.