

TWELVE
International
Comparisons

Let the great world spin forever
down the ringing
grooves of change.

*Alfred, Lord Tennyson,
Locksley Hall*

Incident rates have increased steadily around the world since 1989 (fig 12.1), and the United States and Japan continue to have the highest incident rates per million population—311 and 234 in 1998, respectively. These data support ongoing concerns that ESRD will provide an ever-increasing burden as a major issue of public health.

The growth in prevalent rates since 1990 (fig 12.2) may be due in part to gaps in the data available for earlier years. The United States and Japan again have the highest rates, though Japan's number of prevalent patients, 1,465 per million population in 1998, is noticeably higher than that in all other countries, including the United States. With prevalence an indication of both the incidence of disease and the amount of time patients live with that disease, this higher rate in Japan seems to reflect longer patient survival.

Peritoneal dialysis is used by more than half of the patients in New Zealand, and by approximately one-third of those in Australia and Canada. It is far less common in the United States, and is used in less than five percent of the Japanese ESRD population (fig 12.3). Around the world its use has been declining, a fact which may be related to reimbursement rates, costs of peritoneal dialysis supplies, and labor costs, as well as to early published studies reporting higher mortality rates on peritoneal dialysis compared to hemodialysis. Concerns about the increased risk of mortality may begin to diminish, as new studies continue to show that mortality rates of patients on the two modalities do not differ as greatly as first reported (Fenton et al., Vonesh et al., Collins et al.), and as more advanced statistical methods are employed to reduce the biases inherent in comparisons of the modalities.

While home hemodialysis would seem, from a patient's perspective, to be the most optimal

therapy, its use also continues to decline around the world (fig 12.4). The United States has one of the lowest rates of home hemodialysis use, while approximately one in ten Australian patients remain on this modality.

The number of first transplants is between 30 and 50 per million population in most countries. This rate has increased dramatically in Israel to a level comparable to that of the United States. In Japan, however, transplants are rarely performed, demonstrating the effect of cultural factors on treatment choices, and suggesting as well a partial explanation for Japan's lower mortality rates on hemodialysis. The healthiest patients remain on dialysis, while in countries where transplantation is a more common form of therapy these patients are removed from the prevalent dialysis cohort.

The percent of patients for whom diabetes is the cause of ESRD is highest in Singapore, New Zealand, and the United States, and lowest in Norway, Hungary, Scotland, and the Netherlands. The worldwide, continued increase in diabetic incident rates merits further investigation in terms of its causes, potential prevention, and improved approaches to providing care for diabetic ESRD patients.

The data presented here account for only a small portion of the information available from individual countries. Additional information on worldwide renal registries can be found on the website of the European Renal Association/European Dialysis and Transplant Association.

All data underlying the figures in this chapter, as well as additional related data, may be viewed & downloaded at www.usrds.org.

Included in this chapter

- ◆ Graphs of ESRD incident and prevalent rates
- ◆ Graphs showing the percent of CAPD/CCPD and home hemodialysis patients
- ◆ Graphs showing the rates of new transplants and functioning transplants, and the percent of patients with functioning grafts
- ◆ A graph showing the percent of incident patients with diabetic nephropathy

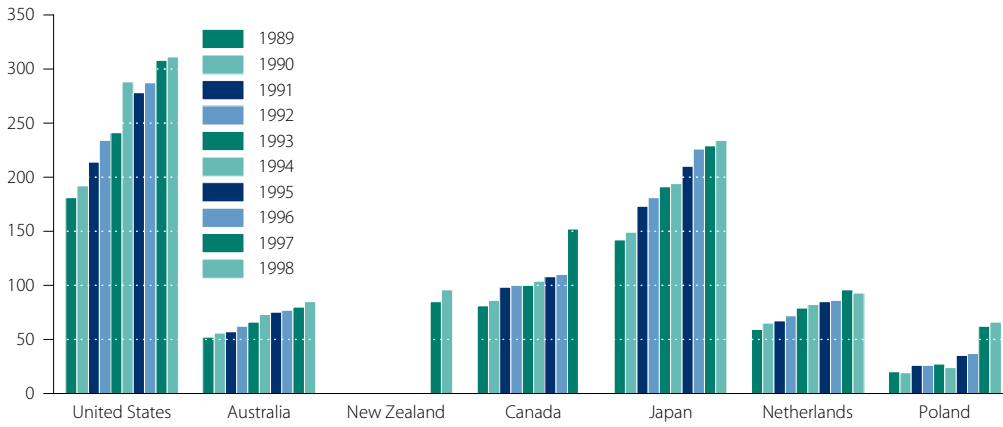


Figure 12.1
Incidence of ESRD
per million population

Incident rates for Japan include dialysis patients only.
Reference for U.S. data: [Table A.3](#).

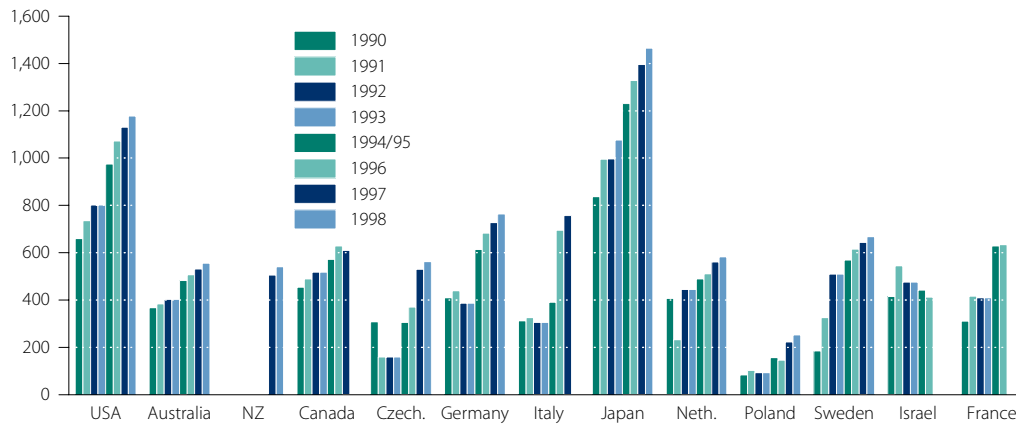


Figure 12.2
Prevalence of ESRD
per million population

1995 data are listed for the U.S. and Australia; information for other countries is from 1994.
Reference for U.S. data: [Table B.5](#).

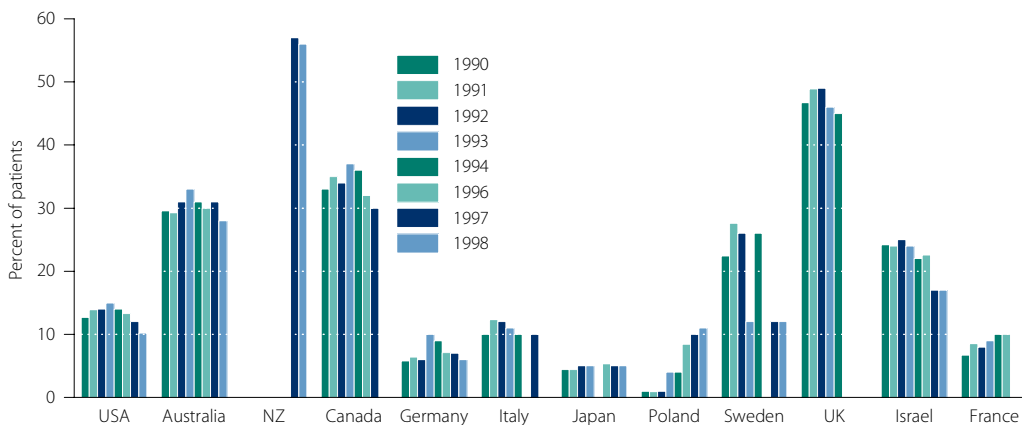


Figure 12.3
Patients on CAPD/CCPD

No data was available for 1995.
Reference for U.S. data: [Table C.1](#).

Figure 12.4
Patients on home hemodialysis

No data was available for 1995.
Reference for U.S. data: [Table C.1.](#)

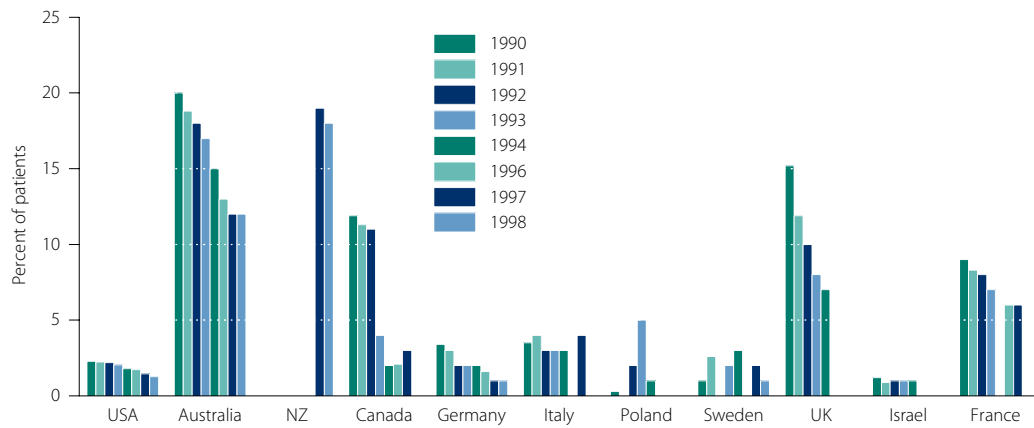


Figure 12.5
First transplant rates
per million population

Reference for U.S. data: [Tables F.1](#) and [J.1.](#)

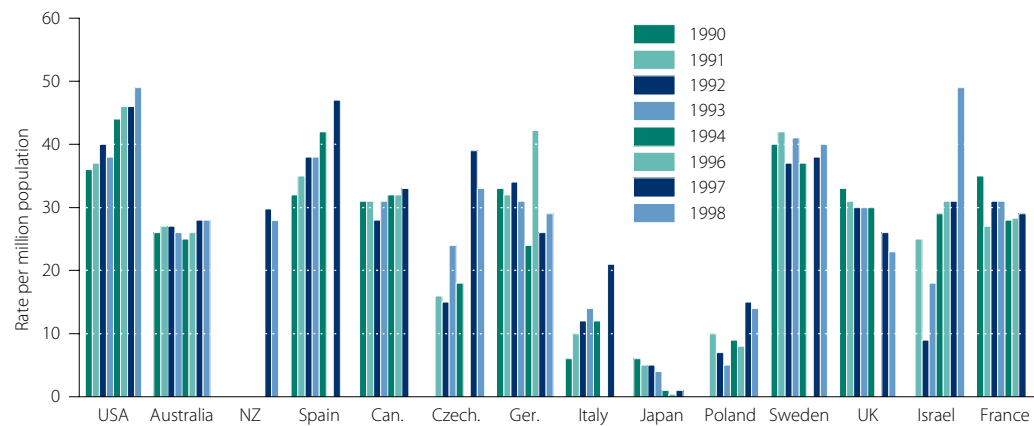
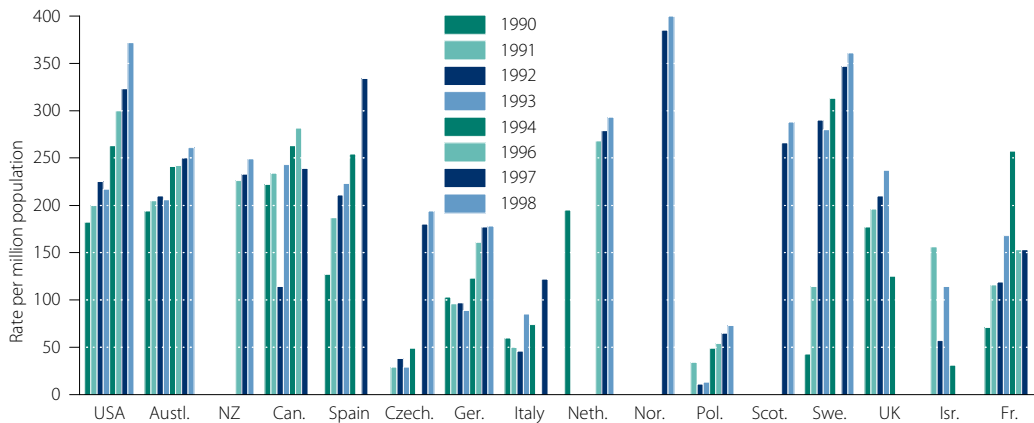


Figure 12.6
Rates of functioning renal transplants
per million population

Reference for U.S. data: [Tables C.1](#) and [J.1.](#)



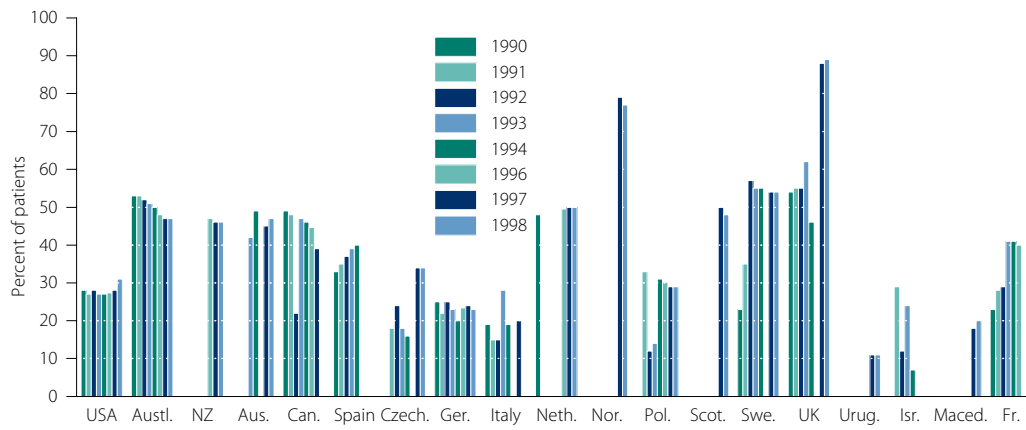


Figure 12.7
Patients with a functioning graft
prevalent ESRD patients

Reference for U.S. data: Tables B.1
and C.1.

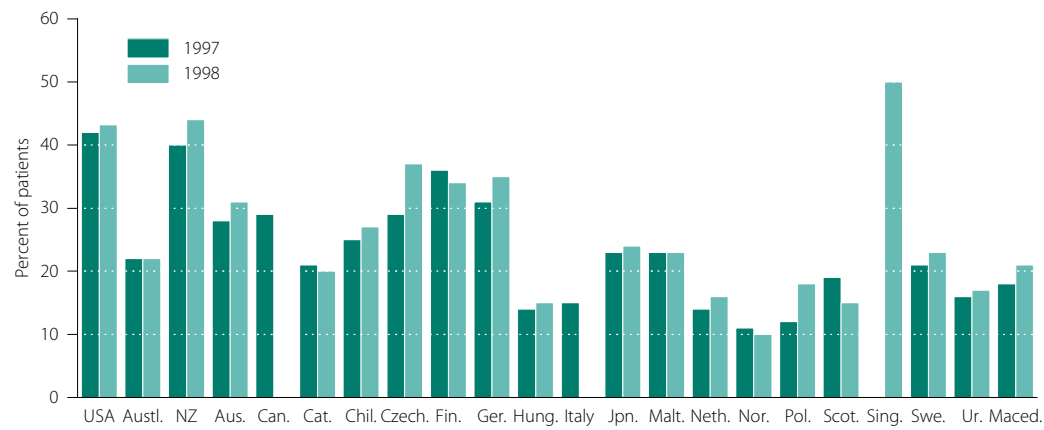


Figure 12.8
Patients with diabetic
nephropathy
incident patients

Reference for U.S. data: Table A.1.

