

## 4. HEALTH CARE ACTIVITIES

### 4.8. Treatment of renal failure (dialysis and kidney transplants)

End-stage renal failure (ESRF) is a condition in which the kidneys are permanently impaired and can no longer function normally. Some of the main risk factors for end-stage renal failure include diabetes and hypertension, two conditions which are becoming more prevalent in OECD countries. In the United States, diabetes and hypertension alone accounted for over 60% of the primary diagnoses for all ESRF patients (37% for diabetes and 24% for hypertension) (USRDS, 2008). When patients reach end-stage renal failure, they require treatment either in the form of dialysis or through kidney transplants. Treatment through dialysis tends to be more costly and results in a poorer quality of life for patients than a successful kidney transplant, because of its recurrent nature.

Taking into account both types of treatment, the proportion of people treated for end-stage renal failure has increased at a rate of over 5% per year on average across OECD countries over the past two decades. This means that the prevalence of treatment for ESRF has more than doubled since 1990. Japan and the United States have the highest rates, with 190 and 180 ESRF patients per 100 000 population respectively (Figure 4.8.1). They are followed by Portugal which has registered one of the highest growth rates since 1990. It is not clear why these countries report such high rates of treatment, but it does not seem to be solely related to a higher prevalence of diabetes, which is not particularly higher in these countries compared with other OECD countries (see Indicator 1.10 “Diabetes prevalence and incidence”).

In most OECD countries, a majority of ESRF patients are being treated through dialysis as opposed to receiving a kidney transplant. This is because while the prevalence of people suffering from end-stage renal failure has strongly increased, the number of transplants is limited by the number of donors. The exceptions are Finland, Iceland, the Netherlands and Ireland, where most ESRF patients have received a kidney transplant.

The proportion of people undergoing dialysis is much higher in Japan and the United States (Figure 4.8.2). In Japan, nearly all ESRF patients are treated through dialysis, with very low rates of kidney transplants. In all countries, there has been a large rise in the number of persons undergoing dialysis over the past 20 years, with the OECD average more than doubling.

Given the supply constraints, kidney transplants are normally performed on patients with end-stage renal failure when these persons cannot live without difficult dialysis sessions. When successful, these transplants greatly improve quality of life, without strict diet and activity limitation. Advances in surgical techniques and the development of new drugs preventing rejection have made it possible to carry out more transplants, and to improve their rate of success, than was the case 20 years ago. The prevalence of people living with a functioning kidney transplant has steadily increased since 1990 in all countries with available data. The OECD average more than doubled, rising from 15 to 36 people per 100 000 population between 1990 and 2009 (Figure 4.8.3). In 2009, Portugal, the United States, the Netherlands and Austria reported the highest rates of people with a functioning kidney transplant. On the other hand, the proportion of people having received a kidney transplant was the lowest in Japan, followed by the Slovak Republic, Greece and Korea.

In many countries, waiting lists to receive a kidney transplant have increased, as the demand for transplants has greatly outpaced the number of donors. The rate of transplants is also affected by cultural factors and traditions; transplants may still be less accepted in certain countries such as Japan.

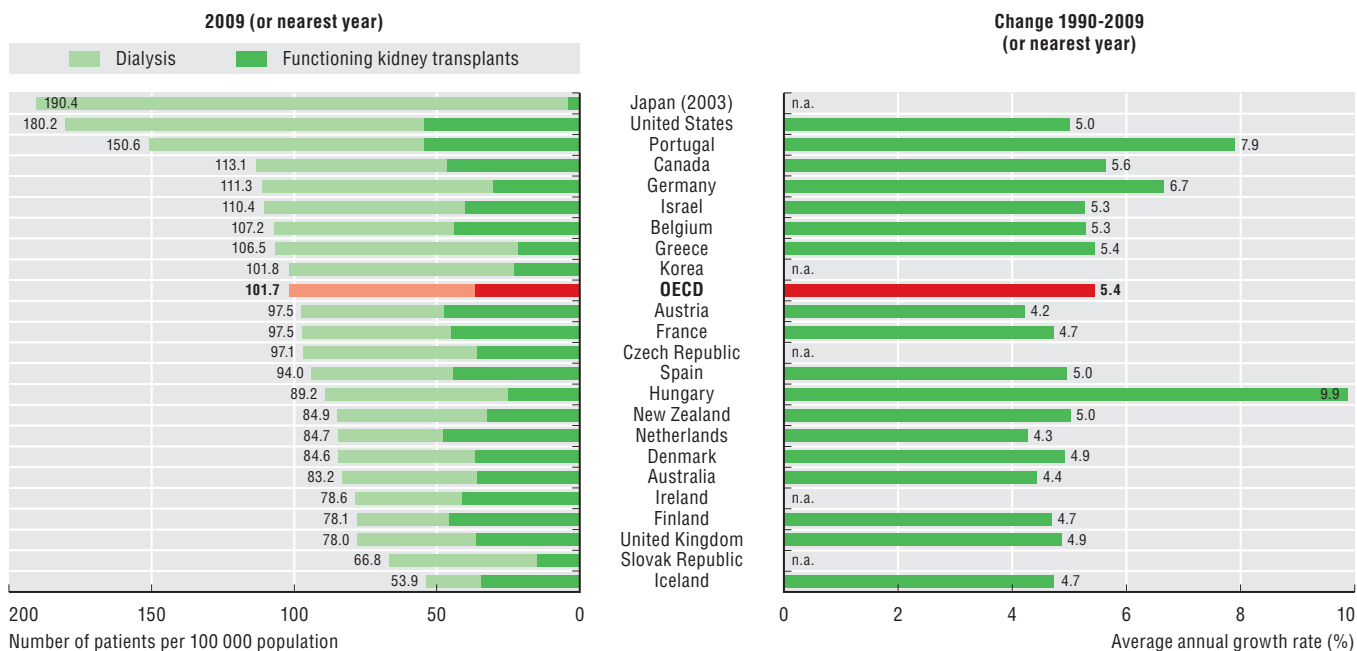
#### **Definition and comparability**

The number of patients treated for end-stage renal failure (ESRF) refers to the number of patients who are receiving different forms of renal replacement therapy: haemodialysis/haemofiltration, intermittent peritoneal dialysis, continuous ambulatory peritoneal dialysis, continuous cyclical peritoneal dialysis, or living with a functioning kidney transplant.

Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

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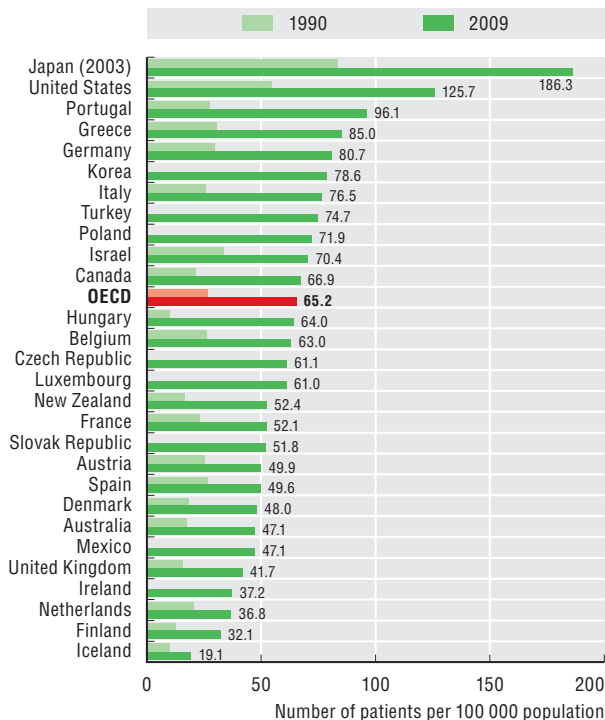
4.8.1 Prevalence of patients treated for end-stage renal failure, 2009 and change between 1990 and 2009



Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932524830>

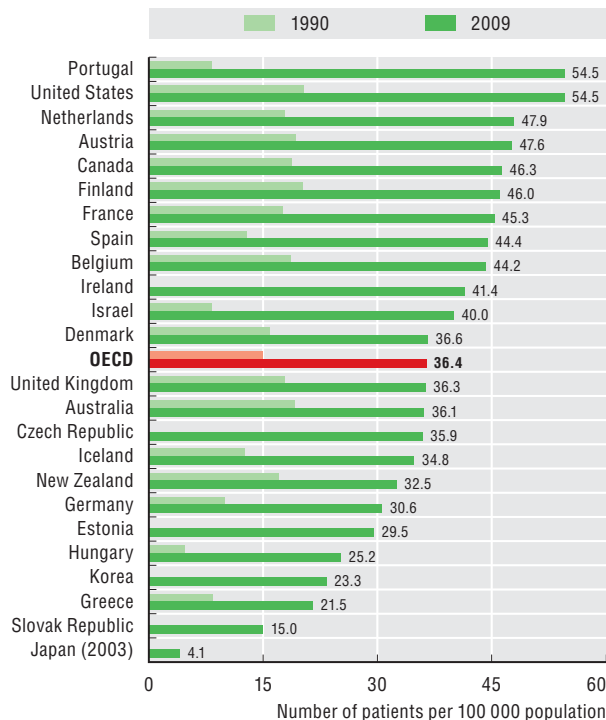
4.8.2 Prevalence of patients undergoing dialysis, 1990 and 2009 (or nearest year)



Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932524849>

4.8.3 Prevalence of patients living with a functioning kidney transplant, 1990 and 2009 (or nearest year)



Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932524868>



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