

## 4. HEALTH CARE ACTIVITIES

### 4.5. Average length of stay in hospitals

The average length of stay in hospitals (ALOS) is often used as an indicator of efficiency. All other things being equal, a shorter stay will reduce the cost per discharge and shift care from inpatient to less expensive post-acute settings. However, shorter stays tend to be more service intensive and more costly per day. Too short a length of stay could also cause adverse effects on health outcomes, or reduce the comfort and recovery of the patient. If this leads to a greater readmission rate, costs per episode of illness may fall only slightly, or even rise.

In 2011, ALOS for all causes across OECD countries was about eight days (Figure 4.5.1). Turkey and Mexico report the shortest stays, at less than half the OECD average, and Japan and Korea the longest stays, at more than double the OECD average. In most countries, ALOS for all causes has fallen over the past decade, from an average of 9.2 days in 2000 to 8.0 days in 2011. It fell particularly quickly in some of the countries that had relatively long stays in 2000 (e.g. Japan, Switzerland and the United Kingdom).

Focusing on ALOS for specific diagnostic groups can remove some of the effect of different case mix and severity. Figure 4.5.2 shows that ALOS following a normal delivery stood at three days on average in 2011, ranging from less than two days in Mexico, Turkey, the United Kingdom, Canada, New Zealand and Iceland, to over five days in Hungary and the Slovak Republic.

ALOS following acute myocardial infarction was around seven days on average in 2011. It was shortest in some of the Nordic countries (Denmark, Norway and Sweden), Turkey and the Slovak Republic, at fewer than five days. It was the highest in Korea and Germany, at more than ten days (Figure 4.5.3). Several factors can explain these cross-country differences. Differences in the clinical need of the patient may obviously play a role. However, clinical need may be subsumed by many other factors. It has been shown, for example, that physicians working in more than one hospital adapt the ALOS associated with their practice to match that of their peers (de Jong et al., 2006).

At the system level, factors such as practice guidelines or payments systems are relevant. The abundant supply of beds and the structure of hospital payments in Japan, for example, provide hospitals with incentives to keep patients longer (see Indicator 4.3 “Hospital beds”). A growing number of countries (France, Germany, Poland) have moved to prospective payment methods often based on diagnosis-related groups (DRGs) to set payments based on the estimated cost of hospital care for different patient groups in advance of service provision. These payment methods have the advantage of encouraging providers to reduce the

cost of each episode of care (OECD, 2010b). In Switzerland, the move from per diem payments to diagnosis-related groups (DRG) based payments has contributed to the reduction in length of stay in those cantons that have modified their payment system (OECD and WHO, 2011). In the Netherlands, the introduction of a DRG-based system in 2006 is also credited with contributing to the marked reduction in ALOS between 2000 and 2011 (Westert and Klazinga, 2011).

Most countries are seeking to reduce ALOS whilst maintaining or improving the quality of care. A diverse set of policy options at clinical, service and system level are available to achieve these twin aims (Forde, forthcoming). Strategic reductions in hospital bed numbers alongside development of community care services can be expected to shorten ALOS, such as seen in Denmark’s quality-driven reforms of the hospital sector (OECD, 2013d). Other options include promoting the uptake of less invasive surgical procedures, changes in hospital payment methods, the expansion of early discharge programmes which enable patients to return to their home to receive follow-up care, and support for hospitals to improve the co-ordination of care across diagnostic and treatment pathways (Borghans et al., 2012).

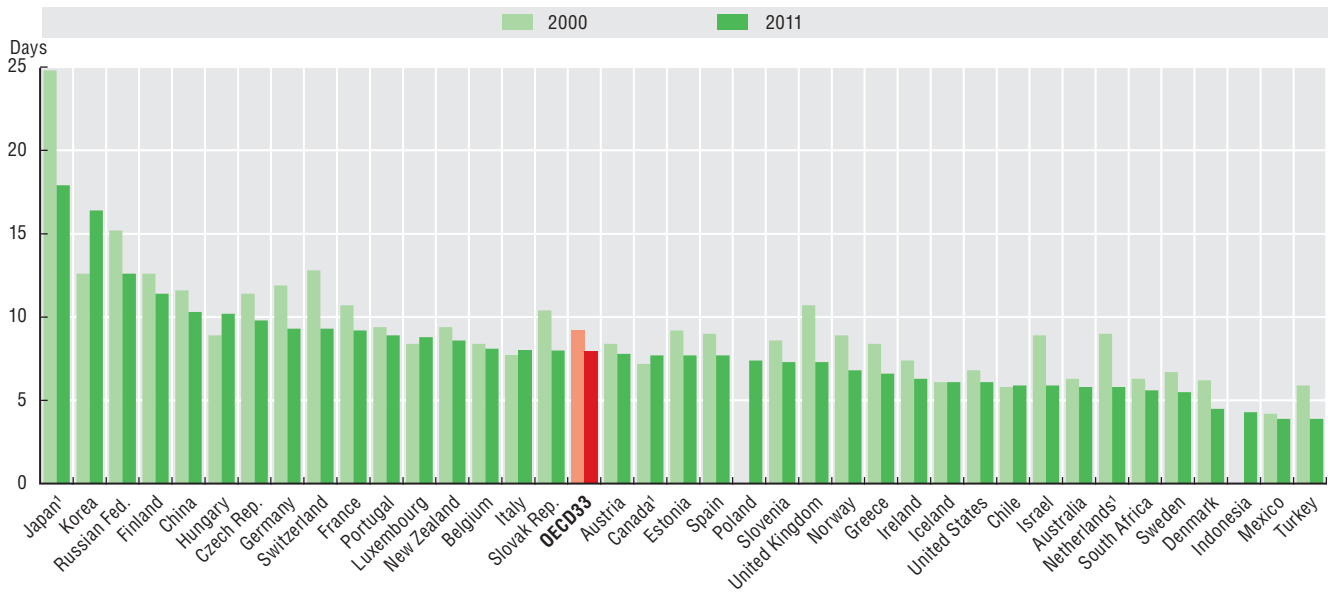
#### **Definition and comparability**

Average length of stay refers to the average number of days that patients spend in hospital. It is generally measured by dividing the total number of days stayed by all inpatients during a year by the number of admissions or discharges. Day cases are excluded.

Compared with previous editions of *Health at a Glance*, the data cover all inpatient cases (including not only curative/acute care cases) for a greater number of countries, with the exceptions of Canada, Japan and the Netherlands where the data still refer to curative/acute care only (resulting in an under-estimation).

Discharges and average length of stay of healthy babies born in hospitals are excluded in several countries (e.g. Australia, Austria, Canada, Chile, Estonia, Finland, Greece, Ireland, Luxembourg, Mexico, Spain), resulting in a slight over-estimation (e.g., the inclusion of healthy newborns would reduce the ALOS by 0.5 day in Canada).

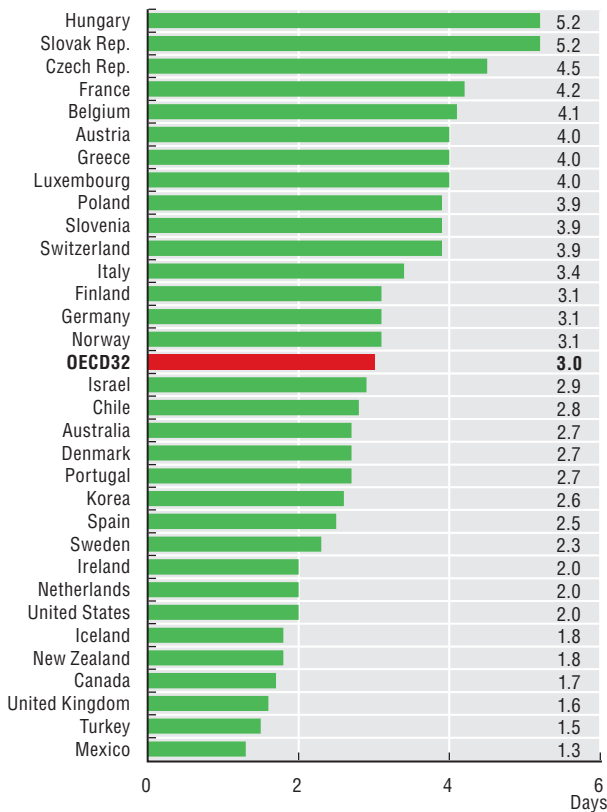
4.5.1. Average length of stay in hospital, 2000 and 2011 (or nearest year)



1. Data refer to average length of stay for curative (acute) care (resulting in an under-estimation).  
 Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>.

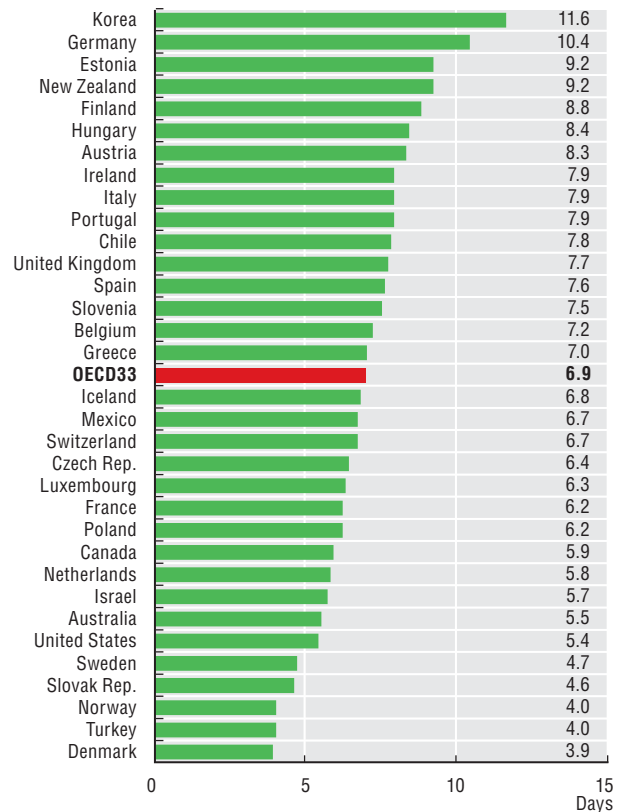
StatLink <http://dx.doi.org/10.1787/888932917446>

4.5.2. Average length of stay for normal delivery, 2011 (or nearest year)



Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>.  
 StatLink <http://dx.doi.org/10.1787/888932917465>

4.5.3. Average length of stay for acute myocardial infarction (AMI), 2011 (or nearest year)



Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>.  
 StatLink <http://dx.doi.org/10.1787/888932917484>



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