#### **9. HEALTH CARE ACTIVITIES**

## Average length of stay in hospitals

The average length of stay in hospitals is often regarded as an indicator of efficiency. All else being equal, a shorter stay will reduce the cost per discharge and shift care from inpatient to less expensive post-acute settings. Longer stays can be indicative of poor-value care: inefficient hospital processes may cause delays in providing treatment; errors and poor-quality care may mean patients need further treatment or recovery time; poor care co-ordination may leave people stuck in hospital waiting for ongoing care to be arranged. At the same time, some people may be discharged too early, when staying in hospital longer could have improved their outcomes or reduced chances of readmission.

In 2015, the average length of stay in hospitals for all causes across OECD countries was about eight days (Figure 9.13). Turkey and Mexico had the shortest stays, with about four days, whereas Japan and Korea had the longest stays, with over 16 days. In most countries, the average length of stay has fallen since 2000, with reductions particularly large in Japan, Switzerland, the United Kingdom and Israel. However, the average length of stay increased in Korea and Hungary, with very slight increases in Italy, Canada and South Africa.

Focusing on specific diseases or conditions can remove some of the effect of different case mix and severity. Average length of stay following birth by normal delivery was slightly less than three days on average in 2015 (Figure 9.14). This ranged from less than two days in Mexico, Turkey, the United Kingdom, Canada, Iceland and the Netherlands, to around five days in the Slovak Republic and Hungary. In almost all OECD countries, the average length of stay following a delivery has fallen since 2000.

The average length of stay following acute myocardial infarction was 6.5 days on average in 2015. It was shortest in Scandinavian countries (Norway, Denmark and Sweden), Turkey and the Slovak Republic, at fewer than five days, and highest in Chile and Germany, at more than ten days (Figure 9.15). Average length of stay following acute myocardial infarction has fallen in all OECD countries since 2000, with reductions particularly marked in Austria, Finland and the Slovak Republic.

Beyond differences in clinical need, several factors can explain these cross-country variations. The combination of an abundant supply of beds with the structure of hospital payments may provide hospitals with incentives to keep patients longer. 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 in advance of service provision. These payment methods encourage providers to reduce the cost of each episode of care. In Switzerland, cantons which moved from per diem payments to DRG-based payments have experienced a reduction in their lengths of stay (OECD and WHO, 2011).

Strategic reductions in hospital bed numbers alongside development of community care services can also be expected to shorten average length of stay, as seen in Denmark's quality-driven reforms of the hospital sector (OECD, 2013). Other options include promoting the uptake of less invasive surgical procedures, the expansion of early discharge programmes which enable patients to return home to receive follow-up care, and support for hospitals to improve care co-ordination.

A few countries also collect data on delayed discharges – the number of days that people stay in hospital after a doctor declares them ready to be discharged or transferred. This provides a more precise measure of when a stay in a hospital is unnecessarily long. Denmark reported just under 10 additional bed days per 1 000 population in 2014, a figure that has been relatively stable over time. Norway saw a sharp drop in delayed discharges, from 28 additional bed days per 1 000 population in 2011 to about 12 in 2015. Within the United Kingdom, England saw a significant increase since 2013, reaching over 30 additional bed days per 1 000 population in 2015. In England, this increase largely reflects ongoing health or social care services not being ready to receive patients (OECD 2017).

#### 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. The data cover all inpatient cases (including not only curative/acute care cases) for most countries, with the exceptions of Canada, Japan and the Netherlands where the data refer to curative/acute care only (resulting in an under-estimation).

Healthy babies born in hospitals are excluded from hospital discharge rates in several countries (Australia, Austria, Canada, Chile, Estonia, Finland, Greece, Ireland, Luxembourg, Norway, Mexico), resulting in a slight over-estimation of the length of stay (e.g. the inclusion of healthy newborns would reduce the ALOS by 0.5 days in Canada). These comprise around 3 to 10% of all discharges.

Data for normal delivery refer to ICD-10 code O80; for AMI they refer to ICD-10 codes I21-I22.

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#### 9. HEALTH CARE ACTIVITIES

Average length of stay in hospitals



9.13. Average length of stay in hospital, 2000 and 2015 (or nearest year)

1. Data refer to average length of stay for curative (acute) care (resulting in an under-estimation). In Japan, the average length of stay for all inpatient care was 29 days in 2015 (down from 39 days in 2000). Source: OECD Health Statistics 2017.

StatLink and http://dx.doi.org/10.1787/888933605179



<sup>9.14.</sup> Average length of stay for normal delivery, 2015 (or nearest year)

# 9.15. Average length of stay for acute myocardial infarction (AMI), 2015 (or nearest year)



Source: OECD Health Statistics 2017. StatLink age http://dx.doi.org/10.1787/888933605198



StatLink 🛲 http://dx.doi.org/10.1787/888933605217



# From: Health at a Glance 2017 OECD Indicators

### Access the complete publication at: https://doi.org/10.1787/health\_glance-2017-en

#### Please cite this chapter as:

OECD (2017), "Average length of stay in hospitals", in *Health at a Glance 2017: OECD Indicators*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/health\_glance-2017-64-en

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