INTERNATIONAL COMPARISON OF KEY HEALTHCARE UTILISATION TRENDS

By Leslie Khoo

ABSTRACT

This report compares healthcare utilisation trends in Singapore’s acute hospitals with those of other developed countries. The comparison covers admission rate, day surgery and inpatient surgery utilisation rates, bed occupancy rate (BOR), patient days and average length of stay (ALOS) over the period 1991-2002 using available data from selected OECD and Asian countries.

**Admission Rate**

<table>
<thead>
<tr>
<th>Country</th>
<th>Admission Rate (per 1,000 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>213.0</td>
</tr>
<tr>
<td>Australia</td>
<td>168.0</td>
</tr>
<tr>
<td>UK</td>
<td>151.0</td>
</tr>
<tr>
<td>US</td>
<td>123.3</td>
</tr>
<tr>
<td>Singapore</td>
<td>105.4</td>
</tr>
<tr>
<td>Netherlands</td>
<td>102.8</td>
</tr>
<tr>
<td>Japan</td>
<td>84.0</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>176.7</td>
</tr>
</tbody>
</table>

Note: 1. For Japan, admission rate for total inpatient care is used as acute care data are not available. 2. Hong Kong’s admission rate covers only the public sector.

Singapore’s admission rate has declined steadily from 105.4 admissions per 1,000 population in 1991, to 91.2 admissions in 2002. It ranks lowest among US, Japan, Australia and France.

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2 Sources: 
   a) OECD Health Data (ISSN: 1683-6243) Occupancy Rate, Admission, Average Length of Stay and Day & Inpatient Surgery. Copyright OECD.
   b) Hospital Authority, Hong Kong
   c) Census and Statistics Department, Hong Kong

Data definitions may differ slightly from country to country.
**Day Surgery Rate**

With the growing acceptance of day surgery, Singapore day surgery rate rose from 16.0 day surgeries per 1,000 population in 1991 to 44.3 day surgeries in 2002, growing fastest from 2000 to 2002.

**Inpatient Surgery Rate**

Singapore’s inpatient surgery rate was one of the lowest compared to the selected OECD countries, almost half of US. Singapore’s inpatient surgery rate declined gradually from 53.6 inpatient surgeries per 1,000 population in Year 1991 to 45.3 inpatient surgeries in Year 2002.
This was in line with the rising popularity of day surgery, which has a substitution effect on inpatient surgery.

**Bed Occupancy Rate**

![Bed Occupancy Rate Chart](chart4.png)

Note: 1. Japan’s BOR for total inpatient care is used as acute care data are not available. 2. Hong Kong’s BOR covers only the public sector.

Singapore’s acute bed capacity was better utilised than in US, Australia and Netherlands, except for Japan and United Kingdom. Singapore’s BOR fell significantly over the period 1996-98, reflecting the fall in private sector BOR due to lower patient load. This contrasts with the rise in BOR for Hong Kong, US, UK and Australia over the same period.

**Patient Days**

![Patient Days Chart](chart5.png)

Note: 1. Australia’s patient days data include private psychiatric hospitals but not public psychiatric hospitals. 2. Hong Kong’s patient days data cover only the public sector.
Singapore’s Patient Days per 1,000 population was the shortest among the selected countries. It was close to half of that in UK. Throughout the period, Singapore’s Patient Days per 1,000 population has been coming down.

**Average Length of Stay**

[Chart 6: Average Length of Stay](#)

Note: 1. Australia’s ALOS data include private psychiatric hospitals but not public psychiatric hospitals.
2. Hong Kong’s ALOS data are for the public sector only.

Singapore’s ALOS was the shortest among the selected countries. It was almost half of that in Netherlands. Singapore maintained fairly stable ALOS for its patients throughout the 12-year period, ranging narrowly between 4.8 days and 5.1 days.

**Concluding Remarks**

Singapore has done well in the international comparison of healthcare utilization. We have lower admissions to hospital and our inpatients do not seem to overstay. One reason is that we have a younger population; young people need less hospitalisation. However, even after adjusting for the different age profile, we still did well relative to the others. This reflects the soundness of Singapore’s healthcare system, with our emphasis on co-payment. This has discouraged over-consumption and promoted the right siting of care, with patients being treated where it makes the most sense, without compromising on clinical quality. We must continue to build on the existing healthy state of affairs.

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3 After adjusting for the different age profile, Singapore’s acute admission, inpatient and day surgery rates are only higher than those of Netherlands. The rest remained lower than the other countries.
Feedback to MOH

If you have any comments or questions on the information paper, you can either email us directly at moh_info@moh.gov.sg. Alternatively, you can also fax or write to us at:

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