Review of the impact of the new Medicare Levy Surcharge thresholds on public hospitals
Year 3 Review Report 2012

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SHAPING THE FUTURE OF HEALTHCARE
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## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<tr>
<td>the Act</td>
<td>Tax Laws Amendment (Medicare Levy Surcharge Thresholds) Act (No. 2) 2008</td>
</tr>
<tr>
<td>AHS</td>
<td>Australian Hospital Statistics</td>
</tr>
<tr>
<td>AHS-ESWL</td>
<td>AHS reports on elective surgery waiting list activity and waiting times</td>
</tr>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>ATO</td>
<td>Australian Tax Office</td>
</tr>
<tr>
<td>AWOTE</td>
<td>Full-time adult average weekly ordinary time earnings</td>
</tr>
<tr>
<td>DRG</td>
<td>Australian Refined Diagnosis Related Group Version 5.1</td>
</tr>
<tr>
<td>DVA</td>
<td>Department of Veterans’ Affairs</td>
</tr>
<tr>
<td>ESWL</td>
<td>Elective Surgery Waiting List</td>
</tr>
<tr>
<td>NMDS</td>
<td>National Minimum Data Set</td>
</tr>
<tr>
<td>PHIAC</td>
<td>Private Health Insurance Administration Council</td>
</tr>
<tr>
<td>RP-ESWL</td>
<td>This acronym refers to the Elective Surgery Waiting List Reduction Plan reports to Australian Health Ministers’ Conference. It is not an acronym for the National Partnership Agreement Elective Surgery Waiting List Reduction Plan.</td>
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</tbody>
</table>
Summary

Purpose of the review

1.1 The Medicare Levy Surcharge (the Surcharge) is levied on taxpayers above certain income thresholds who do not hold appropriate hospital insurance. Introduced on 1 July 1997, the Surcharge was intended to encourage higher income earners to purchase private hospital insurance. The level from which the Surcharge applied was originally set at an annual taxable income of $50,000 for single people and $100,000 for families and couples. The threshold increased by $1,500 for the second and each subsequent dependent child.

1.2 These thresholds remained unchanged until amended by the Tax Laws Amendment (Medicare Levy Surcharge Thresholds) Act (No. 2) 2008 (the Act). The Act lifted the Surcharge thresholds to $70,000 for single people and $140,000 for families and couples, effective from 31 October 2008. It also introduced indexation of these thresholds which was linked to the annual increase in the Australian adult average full-time ordinary earnings (AWOTE), as reported by the Australian Bureau of Statistics (ABS) in December of each year.

1.3 The Act requires an independent review of its operation for the first three consecutive years following the changes to the Surcharge. The review is to examine the impact of the Act on public hospital activity, operating costs and elective surgery waiting lists (ESWL). KPMG was engaged to undertake this review.

Method

1.4 This report is the third report completed under the requirements of the Act. Review Report 1 was tabled in Parliament on 22 June 2010. Review Report 2 was tabled in Parliament on 5 July 2011.

1.5 Review Report 1 was primarily restricted to the analysis of public hospital and elective surgery data collected prior to the introduction of the Surcharge changes and made no findings with respect to the impact of the Surcharge changes on public hospital activity, public hospital operating costs or elective surgery waiting lists. Data collected and analysed in Review Report 1 informed the development of the final method and provided the baseline for subsequent analyses.

1.6 Review Report 2 built upon the historical trends in public hospital and elective surgery activity identified in Review Report 1. The report found no evidence that the Surcharge changes had influenced trends in public and private hospital activity. In summary it found that:

(i) Between June 2007 and June 2009 trends in relation to the number of public and private hospital separations remained unchanged following the introduction of the Surcharge changes.

(ii) The rate of growth in privately treated patients within public hospitals was higher than the growth in public activity. This is the reverse of what would be expected had the Surcharge changes resulted in increased demand on the public hospital system.

(iii) There was no indication in the mix of activity within public hospitals that suggested a shift in the types of cases treated following changes to the Surcharge.

(iv) Because there was no discernible impact from changes to the Surcharge on public hospital activity, it was concluded that they had not impacted on public hospital operating costs. Indeed, the finding of increasing private patient utilisation of public hospitals suggested an increasing proportion of public hospital operating costs were being met through private patient payments.
ESWL Reduction Plan funds appeared to have been the principal factor driving increases in elective surgery admissions and reductions in the number of patients waiting longer than the clinically recommended time.

Though there had been a recent upturn in waiting times, this was more likely to be the resumption of historical trends as the immediate impact of the national blitz funded through the ESWL Reduction Plan diminished, rather than as a result of changes to the Surcharge.

As no discernible impacts on public hospital activity were found, analysis of private hospital insurance data was not undertaken for Review Report 2.

This report has updated the analyses contained in Review Report 2 using the most recent data available at the end of November 2011. The analyses have focused on testing whether the trends identified in Review Report 2 have continued, and whether the conclusions made in that report remain valid.

Limitations

The findings provided herein are limited by the period of time covered by the data available at the time of this report.

Key findings

Impact on public hospital activity

Public and private hospital data was available to June 2010. It can be seen in Figure 1 that the trend in the annual number of public separations was almost flat for the months leading up to January 2008. This trend then turned slowly upwards from around May 2008. This timing precedes the onset of the Surcharge changes by five months, with those changes coming into effect at the end of October 2008. Following a period of steady increase, the number of public separations flattened for the period from March 2009 to the end of the available data (June 2010).
In 2008-09, there was a 3.2 per cent increase in the number of public patient separations from the previous year, with a further 3.1 per cent increase in the following year. During the same period, there was an 8.3 per cent increase followed by a 9.9 per cent increase in the number of privately treated patients in public hospitals. Private patient activity in private hospitals increased by 3.3 per cent in 2008-09 and 6.9 per cent in 2009-10 (Table 1, page 13). The higher growth in private patient activity relative to public activity is counter to what would be expected had the Surcharge changes resulted in a transfer of activity from privately to publicly treated patients.

**Impact on public hospital operating costs**

The absence of a discernible impact on public hospital activity rates suggests there has been no significant impact on public hospital operating costs. Rather, the growth in private patients treated in public hospitals suggests increased revenue contribution from private patients to public hospital operating expenditure, independent of the Surcharge changes.

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1. Note that the label for this chart has changed from that for the corresponding chart in Report Review 2 to better reflect the data analysed. The chart’s content is unchanged save for the inclusion of an additional year of data.

2. NMDS unit record data was supplied by the Department of Health and Ageing. Though the labelling of source data has changed from previous reports, the source that was used has not changed.
Stage one of the Elective Surgery Waiting List Reduction Plan (ESWL Reduction Plan) resulted in an injection of $150 million into the public hospital system in 2008 to provide a national blitz to improve access to elective surgery (Section 3.5, page 9). Stage two (2009) provided a further $150 million targeting system and infrastructure improvements to improve elective surgery performance in the long term. Stage one funding resulted in an immediate and marked increase in admissions from the elective surgery waiting list and a reduction in both the number of patients waiting for surgery and those waiting longer than the clinically recommended time for surgery. This is apparent in Figure 2.

There has been a marginal increase in waiting lists and overdue patients in 2009, followed by a decline in 2010. This suggests factors other than the Surcharge changes have influenced elective surgery performance. These include variation in expenditure on elective surgery, impact of Stage two ESWL Reduction Plan strategies to provide a system and infrastructure to better manage elective surgery, and a re-emergence of underlying demand trends.

The most current data confirms the findings from the preceding report.

Growth rates for the number of private patient separations – both in public hospitals and in private hospitals – remain unchanged since the introduction of the Surcharge changes. In contrast, public patient growth levelled off less than six months following the Surcharge changes and remained flat for the remainder of the period for which data was available.

The rate of growth in privately treated patients within public hospitals was higher than for public activity. This is the reverse of what would be expected if the Surcharge changes had resulted in increased demand on the public hospital system.
1.17 There was no indication in the mix of activity within public hospitals that suggested a shift in the types of cases treated following the changes to the Surcharge.

1.18 As there is no discernible impact from changes to the Surcharge on public hospital activity, it can be concluded that the Surcharge changes have not affected public hospital operating costs. Indeed, the finding of increasing private patient utilisation of public hospitals would suggest that an increased proportion of public hospital operating costs are being met through private patient payments.

1.19 ESWL Reduction Plan funds appear to have been the principal factor driving increases in elective surgery admissions and reductions in the number of patients waiting longer than the clinically recommended time. There is no evidence of an impact from the Surcharge changes on elective surgery activity or waiting lists.
Chapter 1 – Background to the review

2.1 This chapter provides a background to the review, articulates the purpose of the review and outlines the structure of the report.

2.2 On 31 October 2008, legislation commenced lifting the Surcharge income threshold for single people from $50,000 to $70,000 per year and from $100,000 to $140,000 per year for couples and families. As with the previous Surcharge threshold, the new threshold increases by $1,500 for the second and each subsequent dependent child. The new thresholds are indexed annually to full-time adult average weekly ordinary time earnings (AWOTE). These changes to the threshold are enacted through the Tax Laws Amendment (Medicare Levy Surcharge Thresholds) Act (No. 2) 2008 (the Act).

2.3 Section 4 of the Act requires an independent review of its operation to be undertaken every year for a period of three years:

4. Review of operation of the Act

(1) The Minister for Health and Ageing must cause an independent review of the operation of this Act to be undertaken as soon as possible after each anniversary of the commencement of this Act, for a period of three consecutive years.

(2) The review is to consider and report on the impact on public hospitals of the amendments made by this Act, including the number of episodes of care, the impact on operating costs and the impact on elective surgery waiting lists.

(3) The person undertaking this review must give the Minister a written report of the review, and the Minister must cause a copy of the report to be tabled in each House of the Parliament within 15 sitting days of receiving the report.

Findings of previous reviews

2.4 Review Report 1 was tabled in Parliament on 22 June 2010. For Review Report 1, only waiting list data and private health insurance participation data were available for a period post implementation of changes to the Surcharge. Review Report 1 identified an increase in admissions from the elective surgery waiting list and a reduction in the number of patients waiting longer than the clinically recommended time for elective surgery in the period subsequent to the Surcharge changes. This was counter to what would have been expected had the Surcharge changes resulted in a shift from privately to publicly treated patient activity.

2.5 Review Report 2 was tabled in Parliament on 5 July 2011. Review Report 2 built upon the historical trends in public hospital and elective surgery activity identified in Review Report 1 to provide key findings on public hospital data to the end of June 2009 and waiting list data to the end of June 2010. Review Report 2 found that trends in volume and mix of public and private hospital separations had remained relatively constant over the period July 2007 to June 2009, indicating no change as a result of the introduction of the Surcharge changes. As there was no discernible impact from changes to the Surcharge on public hospital activity, the report concluded that the Surcharge changes had not impacted on public hospital operating costs. The report also found no discernable impact on elective surgery waiting lists.

2.6 Review Report 3 updates the data reported in Review Report 2.

[3] Indexation is linked to the December AWOTE which comes out in the following February.
Chapter 2 – Methodology for the review

3.1 This chapter details the hypotheses tested, the approach taken and the data utilised in the review. It also presents the conceptual link between the Surcharge and hospital use, operating through the media of choices about hospital insurance and private or public treatment in hospitals. This conceptual link underpinned the development of the review methodology.

Hypotheses to be tested

3.2 The data utilised in this report will be used to address one or both of the following hypotheses:

(i) The rate of public and private hospital utilisation and public hospital waiting lists are not significantly different in the months subsequent to changes to the Surcharge to that expected, based on earlier trends. Indicators of change include:
   • increased level of public hospital utilisation
   • reduced rate of private patients in public hospitals
   • reduced rate of private hospital utilisation relative to public hospitals
   • increases in waiting time for elective surgery.

(ii) Should hypothesis (i) prove false, supplementary analysis will be undertaken to ascertain whether there is sufficient evidence to attribute this to changes in the Surcharge.

3.3 Underlying these hypotheses is the assumption that any impact on public hospital demand arising due to the Surcharge changes would result from choices about private hospital insurance and consequent choices regarding public or private hospital treatment. As a policy mechanism, the Surcharge is, in particular, meant to directly influence the level of private hospital insurance coverage in the Australian population.

Commonwealth Elective Surgery Waiting List Reduction Plan

3.4 In addition to hypothetical impacts of the Surcharge changes on public hospital activity and particularly on volume and waiting times for elective surgical activity from waiting lists, other policies may also have affected this activity. A key influence in this respect is the Commonwealth Elective Surgery Waiting List Reduction Plan (ESWL Reduction Plan), the timing of which coincided with the introduction and operation of the Surcharge changes.

3.5 Through the ESWL Reduction Plan, the Commonwealth committed $600 million to reduce the backlog of patients waiting longer than the clinically recommended time for elective surgery in all states and territories and to implement strategies to provide long-term improvements in elective surgery and waiting times.

• Under Stage 1, the Commonwealth allocated $150 million for an immediate national blitz to improve access to elective surgery in 2008.

• Under Stage 2, the Commonwealth provided $150 million between June 2008 and July 2009 to make systematic improvements in the hospital system to improve elective surgery throughput in the longer term, including construction of additional day surgery units.

• Stage 3 was implemented in 2009-10 and 2010-11. It provided up to $300 million in dividend payments to states and territories, with the aim of dramatically increasing the number of elective surgeries completed within the clinically recommended time by the end
of 2010. The ESWL Reduction Plan is now complete and new elective surgery targets have commenced as part of the National Partnership Agreement on Improving Public Hospital Services.

- As a component of the plan, each state and territory was required to report elective surgery and waiting time performance. Reports on the Australian Government’s ESWL Reduction Plan were used for this report.

**Factors influencing private health insurance coverage and public hospital utilisation**

3.6 There is a range of factors that influence the rate of private health insurance membership and mix of public and private hospital utilisation. Each of these factors may interact with changes to the Surcharge to moderate or exacerbate any impacts of the changes on both rates of insurance coverage and consequent patterns of public hospital use. These factors include:

- The potential for a decision to opt in or out of private health insurance to be delayed until after a tax return is lodged. This, and the fact that the impact on the health system will not be felt until the person requires hospital care, could stagger the effect over a number of years.

- Strategies by public hospitals to maximise the rates at which privately insured patients elect to be treated as private patients may lead to an increase in the number of private patients treated in public hospitals. A number of jurisdictions are implementing ‘no gap’ arrangements for private patients treated in public hospitals. This may lead to some patients choosing private treatment in a public hospital instead of treatment in a private hospital.

- Changes in waiting list policies and practices in states and territories and provision of additional funding to reduce elective surgery waiting lists will affect rates of treatment in public hospitals for elective surgery.

- Gap payments or out of pocket expenses for treatment in private hospitals for individuals with private health insurance may also influence the decision to be treated in a public hospital or the decision whether to take out private hospital insurance.

- Declining rates of Department of Veterans’ Affairs (DVA) coverage in the ageing population will reduce the proportion of compensable patients in the older age groups and increase apparent rates of public patient treatment in those age groups.

- The impact of Lifetime Health Cover on people from the age of 31, which is a powerful and robust driver of private health insurance membership in the 30 to 40 years age group.

- The level of community confidence in the public hospital system due to regular adverse publicity affecting public perceptions of the adequacy of the public hospital system to meet future health needs (Australian Government National Health and Hospital Reform Commission 2009).

- Health insurance fund premium increases and the overall perception of health insurance product value for money by consumers.

- The impact of further changes to private health insurance policy generally, and to the Surcharge specifically, announced in the 2009 Federal Budget.

**Overview of approach**

3.7 Overall, the review had three key components:

(i) **Primary data analysis.** This entailed analysis of National Minimum Data Set (NMDS) public hospital activity and Australian Health Ministers’ Conference elective
surgery waiting list data to determine whether there have been any significant changes in public hospital episodes of care and elective surgery waiting lists. The analysis compared public hospital and elective surgery waiting list data with historical trends, and trends in private hospital activity reported in the NMDS.

(ii) Secondary data analysis. Had the primary data analysis indicated a significant change in the volumes of public hospital activity or elective surgery waiting lists to that expected, the review would have examined ATO sample tax file data and Private Health Insurance Administration Council (PHIAC) membership and benefit data. This secondary analysis would have considered the relationship of levels of private hospital insurance participation rates with any observed changes in public hospital activity and elective surgery waiting lists. It would also have examined the relationship between private hospital insurance participation rates and broader socio economic indicators reported by the ABS. As the primary data analysis indicated no discernable impact of the Surcharge changes on trends in public hospital activity or elective surgery waiting lists, secondary data analysis was not undertaken.

(iii) Reporting. Results of the data analysis were used to update the data tables and analysis presented in the Review Report 2.

Data used in the review

3.8 The review utilised data from the following primary data sources to test hypothesis (i) (page 9):

- Australian Hospital Statistics (AHS) reporting of hospital episode data
- Australian Hospital Statistics elective surgery waiting list (AHS-ESWL) reporting of elective surgery activity
- RP-ESWL reporting of key elective surgery indicators.

3.9 The timing of data availability and associated limitations are reported with respect to each data collection.

AHS data

3.10 The Australian Department of Health and Ageing (the Department) obtains episode-level public and private hospital data within the NMDS from states and territories on an annual basis. The data is provided for each financial year (July to June). This data provides the main source of information about the profiles and patterns of public and private hospital use by insured and non-insured patients, before and after the changes to the Surcharge.

3.11 The report also utilised the aggregated NMDS, prepared and released by the Australian Institute of Health and Welfare (AIHW) in published AHS reports. The timetable for release of data is 12 months after the end of the relevant financial year. Data to 2009-10 was available for this report. Appendix 1 details the variables provided within the AHS extract used for this report.

3.12 AHS data was obtained with a view to determining:

- Trends in public hospital utilisation (separations, length of stay, undiscounted cost-weighted separations) in combination with same day and overnight status, acute flag (acute, mental health, sub-acute and non-acute), episode type (medical/surgical and procedural), admission status and payment status.
- Trends in private hospital utilisation (separations, length of stay, undiscounted cost weighted separations) in combination with same day and overnight status, acute flag (acute, mental health, sub-acute and non-acute), and episode type (medical/surgical and procedural).
**AHS-ESWL data**

3.13 The AHS also reports the number of admissions from the elective surgery list per 1,000 people and average waiting time in days for the 50th percentile (median), 90th percentile of patients and per cent of patients who waited more than 365 days between the date of addition to and removal from the waiting list. The reported admission rate is a crude rate based on the Australian estimated resident population. The 50th percentile represents the number of days within which 50 per cent of patients were admitted for the awaited procedure. The 90th percentile represents the number of days within which 90 per cent of patients were admitted. Unlike the ESWL Reduction Plan reports, the AIHW data does not report overdue patients based on clinical urgency and recommended waiting time.

3.14 Using current and historical AHS reports, the AIHW data provides a trend in the rate of admission from the waiting list and average waiting times over a period of years. For this report, data from 1 July 2000 to 30 June 2011 is used. Data for 2000-01 to 2004-05 was extracted from the AHS 2004-05, data for 2005-06 to 2008-09 was extracted from the AHS 2009-10, and data for 2009-10 and 2010-11 was extracted from AHS 2010-11.

**RP-ESWL data**

3.15 This report utilises data contained in the reports on the Australian Government’s ESWL Reduction Plan.

3.16 The Australian Government funded the ESWL Reduction Plan for the period 2008 to 2011. Each State and Territory received funding intended to improve access to, and waiting times for, elective surgery. Under this plan, states and territories were required to report quarterly data on trends in throughput for public hospital elective surgical waiting lists. Quarterly reports, which are cleared by Health Ministers, are available on the Department’s website. The most recent report (September 2010) was used to compare trends in key indicators since the baseline quarter of September 2007.

3.17 Waiting list initiatives implemented by states and territories were a confounding factor in assessing the impact of changes to the Surcharge on waiting lists. In addition to ESWL funding, state and territory governments periodically provided funding or other resources to achieve a general reduction in the waiting lists, to reduce the number or percentage of patients waiting beyond benchmark waiting times, or to provide an increase in the volume of particular types of surgery. Such funding or resources were sometimes provided on an ongoing basis and other times on a one-off basis (Queensland Government 2008; Victorian Government 2009; NSW Government 2009).

3.18 As a result, the extent to which changes in waiting list indicators were able firstly to be detected then secondly to be attributed to changes in the Surcharge is limited. Nonetheless, significant deterioration in waiting times or in rates of throughput over the period of the review, in light of these other initiatives, was not expected. As such, the analyses of the waiting list data have focused on waiting times and throughputs from the lists.
Chapter 3 – Key findings

Public hospital activity

Hospital Episode Data

4.1 The Department provided AHS data for all public and private hospitals in Australia for the years 2006-07, 2007-08, 2008-09 and 2009-10. This data was analysed to identify changes in the pattern of hospital utilisation by public and private patients that may correlate with changes to the Surcharge.

4.2 Table 1 shows year-on-year change in hospital episodes by the public or private status of the patient\(^4\) and the hospital choice (public or private hospital). This table excludes episodes where the patient’s public or private status was “other”, such as compensable patients, DVA patients and patients from correctional facilities.

Table 1: All separations by public or private status and hospital setting

<table>
<thead>
<tr>
<th>Year</th>
<th>All public patients</th>
<th>Private patients in public hospitals</th>
<th>Private patients in private hospitals</th>
<th>All private patients</th>
</tr>
</thead>
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<tr>
<td>2006-07</td>
<td>4,072,266</td>
<td>435,470</td>
<td>2,609,812</td>
<td>3,045,282</td>
</tr>
<tr>
<td>Change from previous year</td>
<td>+2.1%</td>
<td>+8.1%</td>
<td>+5.9%</td>
<td>+6.3%</td>
</tr>
<tr>
<td>2008-09</td>
<td>4,289,120</td>
<td>509,817</td>
<td>2,857,214</td>
<td>3,367,031</td>
</tr>
<tr>
<td>Change from previous year</td>
<td>+3.2%</td>
<td>+8.3%</td>
<td>+3.3%</td>
<td>+4.1%</td>
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<tr>
<td>2009-10</td>
<td>4,421,451</td>
<td>560,534</td>
<td>3,053,797</td>
<td>3,614,331</td>
</tr>
<tr>
<td>Change from previous year</td>
<td>+3.1%</td>
<td>+9.9%</td>
<td>+6.9%</td>
<td>+7.3%</td>
</tr>
</tbody>
</table>

Source: NMDS data for all hospitals (2006-07, 2007-08, 2008-09 and 2009-10).\(^5\)

\(^4\) For the purposes of this table, public and private status is defined using the following definitions, which are consistent with those used in the AIHW’s Australian Hospital Statistics publications. Public patients comprise those patients:

- with a funding source of the Australian Health Care Agreements or of reciprocal health care agreements with other countries,
- who elect to be treated publicly and for whom the funding source is contracted care through another hospital or public (health) authority, or
- with a funding source showing no charge raised and who were treated in a public acute hospital or a public psychiatric hospital.

Private patients are those patients with a funding source of private health insurance or who are self-funded.

All remaining patients are classified as “Other”. This Other group principally comprises DVA patients, compensable patients, Department of Defence patients and patients from correctional facilities.

\(^5\) See footnote 2, page 5.
4. 3 Figure 3 explores relative trends in numbers of hospital separations of patients in terms of their treatment choices, as defined by their public or private status and type of hospital chosen for treatment. It presents the underlying trend in separations by treatment choice, with each treatment choice expressed as an index relative to the 2006-07 year. As hospital separations are seasonal in nature, Figure 3 is based on 12-month moving totals of episode numbers.

4. 4 It can be seen that the trend in the annual number of public separations was almost flat for the months leading up to January 2008. This trend then turned slowly upwards from around May 2008. This timing precedes the onset of the Surcharge changes by five months, with those changes coming into effect at the end of October 2008. Following a period of steady increase, the number of public separations flattened for the period from March 2009 to the end of the available data (June 2010).

**Figure 3: Relative trends in numbers of hospital separations by treatment choice for patients with known insurance status**


4. 5 To test whether this change in trend for public separations is related to the impact of the Surcharge changes on hospital insurance coverage in the Australian population, we compared the trends in public patient separations for insured and non-insured patients. Figure 4 shows these trends, covering the period from June 2007 to June 2010. The trends are expressed as an index relative to the corresponding activity levels in the 2006-07 financial year (with the 2006-07 index set at 100). The chart shows that while the number of public patient separations for patients not insured has remained relatively stable, there has been a steady increase in the number of public patient separations for insured patients. This finding is the reverse of what would be expected if the Surcharge changes had led to an increase in public hospital usage caused by the dropping of hospital insurance. Notably, this result reinforces the findings of **Review Report 2**.

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6 See footnote 1, page 5.

7 See footnote 2, page 5.
4.6 In considering what might have contributed to this trend, other than the Surcharge changes, we analysed the patterns of planned surgical activity in Australian hospitals. This component of the analysis used the Urgency category of the episode to determine whether or not it was planned (elective) and the diagnosis related group (DRG) partition to determine whether the episode was surgical, medical or other (such as investigative or diagnostic) in nature.

4.7 Results using this method will not exactly match the elective surgery waiting list data presented later in this report, but nonetheless should be consistent with those results.

4.8 Figure 5 clearly shows the substantial increase in planned, surgical separations experienced for patients with hospital insurance electing to be treated as public patients in a public hospital. Moreover, it shows this growth to have far exceeded that for patients electing to be treated privately in either a public or a private hospital. The April 2008 timing of the rapid increase in public planned, surgical separations precedes the Surcharge changes by several months. This suggests the two events are unrelated and that the increased activity is not due to the Surcharge changes.

4.9 It is likely that this trend for increased public patient election by insured patients results from two factors. One is the increased throughput from public hospital elective surgical waiting lists due to the ESWL Reduction Plan, particularly in older age groups where insurance rates are higher than the general population. The second factor is likely to be the increased effort by public hospitals to capture and record the insurance status of their patients, leading to better identification of insured public patients. Neither of these factors is related to the Surcharge changes.

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8 See footnote 1, page 5
9 See footnote 2, page 5
10 Australian Refined Diagnosis Related Group Version 5.1
4.10 Closer examination of the trends in planned, surgical separations from public hospitals show distinctly different trends for different age groups.

4.11 Figure 6 presents trends in public patient planned surgical separations covering the period from June 2007 to June 2010. The trends are presented by age group and are relative to the corresponding activity levels in 2006-07 financial year.


11 See footnote 1, page 5.
12 See footnote 2, page 5.
13 See footnote 2, page 5.
4.12 The growth has been stronger for older age groups (65 and over, and 50 to 64) and lowest for the age groups 30 to 49 and 20 to 29. For the under 20 age group, there has been a fall in the number of planned, surgical separations as public patients since the previous report.

4.13 This pattern is consistent with more general patterns of hospital usage, with older age groups generally having higher rates of hospital treatment. With the exception of the downturn for the under 20 age group, it is also consistent with the trends observed in Review Report 2 with respect to elective surgery waiting lists.

4.14 The analysis also considered rates of same day and overnight activity, as well as medical, surgical and other types of activity to assess the possibility that high growth in same day activity in the private hospitals may be masking a shift of more complex overnight activity to the public sector (using changes in overnight activity and clinical mix as proxy indicators for changes in complexity).

4.15 Since June 2007, the proportion of public patient separations treated on a same day or overnight basis has remained relatively steady, with a very slight increase in same day activity relative to decreasing overnight activity (Figure 7). There was no detectable change as a result of changes to the Surcharge.

**Figure 7: Proportion of public patient separations by same day or overnight status**

![Figure 7](image)


4.16 There has also been little change in the relative mix of medical, surgical and other separations within public patient activity. Figure 8 shows the proportion of public patient separations by category (medical, surgical and other) all remaining relatively constant between June 2007 and June 2010.

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14 See footnote 2, page 5.
4.17 The results in this section are consistent with there being no substantive impact on public hospital activity or on the relative rates of private and public hospital utilisation, due to the 2008 changes to the Surcharge. That is, the first parts of hypothesis (i) are supported (see page 9). This finding is based on the analysis of data to the end of June 2010 which provides 20 months of data following the changes coming into effect. The results of these analyses are consistent with the findings from the previous report.

4.18 The final part of hypothesis (i), relating to waiting lists, is discussed below.

**Public hospital operating costs**

4.19 The review found that there was no discernible change in public hospital activity attributable to changes to the Surcharge.

4.20 As a component of the activity, there was no discernible change in public hospital trends in proportions of same day and overnight admissions subsequent to the Surcharge changes, nor was there a discernible change in the trends in proportions of separations classified as medical, surgical or other.

4.21 Given that the trends in these activity-based drivers of operating costs showed no discernible change over the review period, it can be concluded that the Surcharge changes have had no discernible impact on public hospital operating costs.

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15 See footnote 2, page 5.
**Elective surgery waiting lists**

4.22 ESWL Reduction Plan Progress Reports for September 2010 provide the number of admissions to hospital from the elective surgery waiting list, the number of patients still waiting and the number of overdue patients at the end of the reporting period for each quarter between September 2007 and September 2010. Figure 9 presents quarter-on-quarter comparison of these key indicators.

4.23 Apparent in the RP-ESWL data is a marked decline in the number of overdue patients subsequent to the introduction of the ESWL Reduction Plan. These improvements have been maintained despite a slight increase in the December 2009 and March 2010 quarters.

4.24 The impact of the ESWL Reduction Plan on admissions from the waiting list and total number of patients on the list has not been as pronounced. There has been an increase in the number of admissions from the list, and these have been subject to seasonal fluctuations. However, the number of patients remaining on the waiting list showed a steady increase between December 2008 and March 2010. This was followed by a decrease in the following two quarters to a level less than that prior to the commencement of the ESWL Reduction Plan.

*Figure 9: National elective surgery patient admissions, patients waiting and patients overdue at the end of the quarter, September 2007 to September 2010*


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16 Overdue patients are those patients waiting longer than the clinically recommended time based on urgency category.

17 September 2010 Year to Date National Progress Report to the Standing Council on Health (formerly Australian Health Ministers’ Conference)
4. 25 On initial examination, the flattening of the downward trend in overdue patients and the increasing number of patients on the waiting list subsequent to the introduction of the Surcharge changes appear to suggest that the Surcharge changes may have had a dampening effect on the impact of the ESWL Reduction Plan on elective surgery waiting lists. However, this interpretation is likely to be incorrect for several reasons:

- Increases in the waiting list relative to the overall increase in admissions from the list are usually observed when throughput is increased. The commonly accepted explanation for this relationship is that as clinicians are provided with increased theatre time, they accept more patients onto their waiting lists.

- The decrease in the number of patients who have been waiting an excessively long time suggests waiting times have also reduced. Increased throughput of elective surgery cases is known to generate increased admissions, as doctors and patients become aware that waiting times in the public sector are decreasing, reducing the incentive for the patient to choose private treatment.

- The hospital activity trends reported earlier are counter to what would be expected had the Surcharge changes resulted in a shift from private to public patient activity.

4. 26 To more closely test the relationship between the Surcharge changes and elective surgery waiting lists, AHS-ESWL data was examined to provide a longer timeframe for elective surgery waiting list indicators.

4. 27 Figure 10 shows the long-term trends in admissions to hospital from the waiting list, the rate of admissions per 1,000 population and median and 90th percentile waiting time relative to baseline 2000-01 data.

4. 28 From Figure 10, it is apparent that, though the number of admissions from the list has increased steadily over the 10-year period, the rate of admission per 1,000 population has changed very little. In other words, the rate of increase in admissions has largely kept track with the increasing population.

4. 29 Between 2009-10 and 2010-11, the median waiting time increased by 2.9 per cent from 35 to 36 days. During the same period, the 90th percentile waiting time increased by 2.4 per cent from 246 to 252 days and the proportion of patients waiting more than 365 days decreased by 17.1 per cent from 3.5 to 2.9 per cent of patients.18

4. 30 Increasing volumes of activity and a reasonably stable admission rate suggest that increasing waiting times are a product of an increasing proportion of the population entering the waiting list. This is a result of a combination of factors including supply driven demand, the ageing of the population, changing models of care (for example providing more procedures to a greater range of patients), patient expectations for care (more patients requesting elective surgery) and an increasing shift to the public sector for elective surgery (potentially influenced by a declining proportion of DVA eligible patients in the older population groups). It is highly likely that these factors have exerted greater influence on elective surgery waiting lists than have changes to the Surcharge.

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18 Minor variations in the data reported in this report and Review Report 2 reflect updates to the data released by AIHW.
19 AIHW (2010) has reported a fall in DVA funding between 2004-05 and 2008-09, both in real terms and as a proportion of public hospital expenditure.
Figure 10: Trends in admissions and admission rates to elective surgery waiting lists, median and 90th percentile waiting times for patients admitted from elective surgery waiting lists, and patients waiting more than 365 days


4.31 In summary, as with overall public hospital activity, the trends after the changes to the Surcharge largely reflect a continuation of trends evident prior to those changes. The introduction of the $600 million ESWL Reduction Plan and associated strategies are likely to have had greater impacts on levels of elective surgery activity and waiting times than the Surcharge changes.

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20 See footnote 1, page 5.
Chapter 4 – Findings

5.1. Trends in public and private hospital separations have remained relatively constant over the period July 2007 to June 2010, indicating no change as a result of the introduction of the October 2008 changes to the Medicare Levy Surcharge. Indeed, the rate of growth in privately treated patients within public hospitals was higher than for public activity. This is the reverse of what would be expected if the Surcharge changes had resulted in a shift from privately treated to publicly treated hospital activity. These trends are reflected in Figure 1 (page 5) and Figure 3 (page 14).

5.2. There was no indication of a shift in activity in the types of cases treated within public hospitals following changes to the Surcharge.

5.3. Because there was no discernible impact from changes to the Surcharge on public hospital activity, it can be concluded that those changes did not affect public hospital operating costs. Indeed, the finding of increasing private patient utilisation of public hospitals suggests an increased proportion of public hospital operating costs were being met through private patient payments.

5.4. ESWL Reduction Plan funds appear to have been the principal factor driving increases in elective surgery admissions and reductions in waiting longer than clinically recommended times. Trends in elective surgery admissions and waiting times are continuing the underlying trends present prior to changes to the Surcharge. Those underlying trends reflect the increasing demand for elective surgery.

5.5. As no discernible impacts on public hospital activity were found, the secondary analysis was not undertaken.

5.6. The analysis in this report has shown that the trends identified in Review Report 2 have continued, and the conclusions made in that report remain valid.
Appendix 1 – Variables within the AHS data set

The following table details the data items analysed for this review.

Table 2: Variables included in AHS data set

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>MonthOfSeparation</td>
<td>Month of separation</td>
</tr>
<tr>
<td>YearOfSeparation</td>
<td>Year of separation</td>
</tr>
<tr>
<td>StateOfHospital</td>
<td>State of hospital</td>
</tr>
<tr>
<td>EstablishmentType</td>
<td>Establishment type</td>
</tr>
<tr>
<td>CareType</td>
<td>Care type. Separations for which the care type was reported as Newborn with no qualified days, and records for Hospital boarders and Posthumous organ procurement have been excluded.</td>
</tr>
<tr>
<td>PsychiatricCareDays</td>
<td>Psychiatric care days</td>
</tr>
<tr>
<td>SamedayFlag</td>
<td>Same day flag</td>
</tr>
<tr>
<td>Age</td>
<td>Age of patient in years</td>
</tr>
<tr>
<td>Sex</td>
<td>Gender</td>
</tr>
<tr>
<td>DRGv51</td>
<td>AR-DRG v5.1</td>
</tr>
<tr>
<td>BedDays1</td>
<td>Bed days - Total bed days excluding leave days. For same day separations bed days = 1.</td>
</tr>
<tr>
<td>BedDays2</td>
<td>Bed days - Total bed days without excluding leave days. For same day separations bed days = 1.</td>
</tr>
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<td>DRGPartition</td>
<td>DRG partition</td>
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<td>Admitted patient election status</td>
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<tr>
<td>InsuranceStatus</td>
<td>Hospital insurance status</td>
</tr>
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<td>Mode of admission</td>
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<td>Funding source for hospital patient</td>
</tr>
<tr>
<td>UrgencyOfAdmission</td>
<td>Urgency of admission</td>
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</tbody>
</table>
References


Australian Bureau of Statistics 2009, *Australian Demographic Statistics*, cat. no. 3101.0, Table 7: Estimated resident population, Age groups–Australia, December.


