

The Effect of Increased Private Health Insurance Coverage on Victorian Public Hospitals

NEIL POWERS, VIJAYA SUNDARARAJAN,
STEVE GILLETT AND RIC MARSHALL

Neil Powers and Steve Gillett are policy advisers and Vijaya Sundararajan is an epidemiologist in the Victorian Department of Human Services. Ric Marshall is Manager, Health Information in the Department. The opinions expressed are those of the authors and do not necessarily represent the views of the Department.

Abstract

It was anticipated that the recent reforms to private health insurance arrangements would reduce the demand pressures on Australian public hospitals. However, this has not been demonstrated by trends in elective surgery waiting lists in Victorian public hospitals. Moreover, it appears that the increased caseload assumed by Victorian private hospitals since the reforms took effect mainly reflects an increase in low cost same day episodes.

Hanning (2002) has argued that, although the full effect could not be determined until all 2001-02 data were available, the increased uptake of private health insurance (PHI) had the effect of significantly reducing demand on the public hospital surgical waiting lists in Victoria. The purpose of this communication is to comment on this assertion in the light of more recent data.

We do not consider that the data presented by Hanning demonstrate that the increased uptake of private health insurance (PHI) which occurred about mid 2000 reduced the number of cases added to public hospital waiting lists compared to those projected to be so added in the absence of this increased uptake. Furthermore, we would seriously question the logic of using a notional reduction in projected waiting list additions to measure the effect of the PHI uptake on public hospital demand.

Hanning presents 12 month rolling cumulative sums of waiting list additions from the June 1999 quarter to the March 2002 quarter. This statistical measure was an attempt to adjust for fluctuations in cases added and treated due to factors such as seasonal variations and industrial action. It shows a steady decrease from 152,840 in June 1999 to 132,732 in September 2001, followed by a slight but inconsistent increase in the two following quarters to March 2002.

Hanning also shows that, after a long and steady decrease, the percentage of Victorians covered by PHI increased markedly from 30.4% in December 1999 to 42.1% in June 2000 followed by a smaller increase to 44.8% in December 2000. It is reasonable to assume, as Hanning has done, that the full impact of this on the hospital system would not be experienced until the September 2001 quarter because of the time lags associated with Pre-Existing Ailment (PEA) rules.

However, these two time series do not demonstrate a causative relationship between the increase in PHI coverage and the trend in additions to the waiting list. In fact, additions to the waiting list decreased from at least June 1999 (when PHI coverage was at an almost record low of 29.7%) to September 2001 and then tapered off just when the full effect of the increased coverage might have been expected to appear. Clearly a more careful analysis is needed before this paradox can be resolved.

Before embarking on such an analysis, it may be helpful to recast the waiting list figures on a financial year basis (the basis on which public hospitals are funded) in order to eliminate the possibility that the paradox is a statistical artefact resulting from the rolling average technique. This is done in Table 1 below.

Table 1: Elective Surgery Waiting Lists, 1998–99 to 2001–02

	1998-99	1999-2000	2000-01	2001-02
Waiting list at start	35,651	40,153	42,121	41,841
Admissions from list	124,059	117,428	110,041	112,377
Deletions from list	24,279	24,730	23,491	23,059
Additions to list	152,840	144,126	133,252	134,007
Waiting list at end	40,153	42,121	41,841	40,412

Source: Adapted from Hanning (2002, Table 2) with additional data.

Note: The ‘deletions from list’ are taken from the Department’s quarterly Hospital Services Reports and therefore include patients who were removed from waiting lists because they were not ready for care. Consequently the figures in Table 1 do not agree with those published by the Australian Institute of Health and Welfare in its annual *Australian Hospital Statistics* series, which exclude such patients.

This table gives a concise picture of waiting list dynamics over a period of four years. Briefly:

- The actual size of the waiting list increased during 1998–99 but remained fairly constant over the three following years.
- Admissions from the waiting list decreased notably during the first three years but increased slightly during 2001–02 (the first year of the full impact of increased PHI coverage).
- Additions to the waiting list also decreased notably during the first three years but increased slightly during 2001–02.
- Deletions from the waiting list remained constant during the four years, indicating that the overall results were not influenced by any administrative changes in waiting list management practices which may have occurred.

To sum up, taken in isolation the waiting list figures do not demonstrate either an increase in demand for elective surgery before the increase in PHI coverage or a reduction in demand following this increase. Hanning’s implicit assumption that growth in the private sector reflects increased demand which would otherwise have had to be met by public hospitals is uncertain. Consequently, his overall conclusions are questionable.

However, waiting list figures do not provide the main indicator of the demand for public hospital services. A more useful way to examine changes in demand is:

1. to examine changes in supply, as measured by actual separations or weighted inlier equivalent separations (WIES), and
2. to adjust this by examining any changes in untreated demand as measured by changes in waiting list dynamics.

Table 1 shows that step 2 will not yield any significant adjustment for the three years 1999–2000, 2000–01 and 2001–02. Untreated demand as measured by the waiting list at 30 June did not change significantly. Moreover, the changes in additions to or admissions from the waiting list were small (less than 10,000 in any given year) in comparison with the total supply of about one million separations per annum.

Consequently, any attempt to understand the impact of PHI coverage on the demand for public hospital services must focus on changes in actual throughput.

Table 2 below summarises the increase in public and private hospital separations reported to the Victorian Admitted Episodes Dataset (VAED) from 1999–2000 to 2001–02. This two year period has been chosen to span the phasing in of the effect of PEA rules on the use of private health insurance during 2000–01, on the assumption that these rules would have delayed the full impact of increased PHI coverage on market share until after June 2001.

Table 2: Increase in separations by category, public and private hospitals, 1999–2000 to 2001–02

Category	Public Hospitals	Private Hospitals	Total
Same day medical elective	57,288	67,829	125,117
Same day medical emergency	27,948	898	28,846
Same day surgical elective	-3,939	19,456	15,517
Same day surgical emergency	-1,716	158	-1,558
Multi day medical elective	-2,272	-1,696	-3,968
Multi day medical emergency	7,724	2,227	9,951
Multi day surgical elective	-4,928	14,984	10,056
Multi day surgical emergency	1,276	921	2,197
Total	81,381	104,776	186,157

Note:

1. Figures for 2001–02 have been adjusted by adding an estimated total of 54,185 separations which were not reported to the VAED for that year. This total includes pro rata estimates for 20 hospitals which submitted data for only part of the year and estimates based on 2000–01 figures for three hospitals which did not report at all for 2001–02. These additional separations were allocated to the eight categories in Table 2 using the proportions reported by the private hospital sector as a whole for 2000–01.
2. These figures exclude 9,787 public hospital separations and 3,512 private hospital separations for 1999–2000, and 10,971 public hospital separations and 12,919 private hospital separations for 2001–02, which were reported to the VAED but could not be allocated to any of the eight categories.

Table 2 shows that the majority of the increased workload assumed by both public and private hospitals consisted of same day medical elective separations. An analysis of the most common diagnoses reported for these cases indicates that they mainly comprise inexpensive episodes involving:

- procedures such as renal dialysis or chemotherapy;
- dental problems such as impacted teeth or dental caries;
- unspecified rehabilitation
- oesophagitis; or
- problems requiring admission for investigative reasons, such as a family history of malignant neoplasms or follow up after surgery for malignant neoplasms.

From the point of view of the efficient use of hospital services (whether public or private) this increase in same day medical elective services is rather troubling. It raises the possibility that the increase in PHI coverage, and the response by the health care industry, may be generating inappropriate expectations among both insured and uninsured consumers that hospital admission is an affordable mechanism for providing care or investigation which might be more appropriately and efficiently treated in an ambulatory setting. While this possibility requires further investigation before any definite statements can be made, it would be a quite perverse outcome of the recent reforms to PHI arrangements.

The balance of the increased workload assumed by public hospitals is accounted for by same day medical emergency cases. Again, the demand for these services is unlikely to be significantly affected by increased PHI coverage.

The remainder of the increased workload assumed by private hospitals is accounted for by elective surgery – a total of 34,440 additional episodes comprising 19,456 same day episodes and 14,984 multi day episodes. Elective surgery cases in public hospitals decreased by a total of 8,867 episodes.

It is not clear, however, that all of these changes can be attributed to increased PHI coverage. Most health insurance funds now offer plans with ‘excess cover’ requiring patients to make a copayment towards their initial claim(s) each year. The ‘excess’ is usually modest and may be of the same order as the fee for a same day episode.

In the absence of further information about the extent and use of 'excess cover', it would be prudent to assume that many fund members are in effect self-insured for the first same day episode of any given year.

On balance, therefore, the evidence is consistent with the hypothesis that the only significant impact of the increase in PHI coverage on the demand for public hospital admissions could have been in the area of elective surgery, amounting to a reduction of about 15,000 same day cases and at most 20,000 multi day cases over two years.

This conclusion is broadly consistent with the findings of a more detailed analysis of trends in public hospital analysis from 1996 to 2002 (Sundararajan et. al., 2003). This analysis found that:

- Over this six-year period the most notable changes in the private hospital fraction were in elective surgical separations (6 percentage point increase) and in emergency surgical separations (2 percentage point decrease).
- The percentage increase in private hospital separations from 1996–97 to 2001–02 was greater for private hospitals (36%) than for public hospitals (20%).
- However, the absolute increase was still greater for public hospitals (187,191 separations) than for private hospitals (163,313 separations).
- Private hospital bed days did not increase at all, whereas public hospital bed days increased by 7%, indicating that the increased private hospital activity did not flow through to a reduction in the demand for public hospital beds.
- For elective separations, there was what may have been a once only substitution effect of 25% of private hospital separations for public hospital separations in 2000–01. This effect did not recur in 2001–02.

One consequence of these findings is that a number of the assumptions on which Hanning's discussion is based cannot be accepted without further analysis.

Firstly, the preceding analysis does not support his basic assumption that changes in PHI coverage will lead to proportionate changes in demand distribution between the public and private sectors.

Secondly, in estimating the effect of PHI reform on Victorian public hospital elective surgery waiting lists, it cannot be assumed that changes in casemix would have had a relatively small effect. Table 2 shows that a disproportionate amount of the increased elective surgery work done by private hospitals in 2000–01 and 2001–02 consists of same day cases which would have made a relatively modest contribution towards reducing the public hospital elective surgery workload.

Thirdly, there is a need for more detailed analysis of the casemix of the additional elective surgery performed by private hospitals following the introduction of the PHI reforms. Unlike patients admitted to public hospitals for elective surgery, patients admitted to private hospitals are not routinely assigned to an urgency category and this may raise issues of appropriateness of care and equity of access to health services.

Some of these issues were raised by Robertson and Richardson in an analysis of coronary angiography and coronary artery revascularisation rates in public and private hospital patients after acute myocardial infarction (Robertson & Richardson, 2000). This analysis showed that, compared with public patients in public hospitals, patients who were managed in private hospitals after acute myocardial infarction were more than twice as likely to undergo coronary angiography. Once coronary angiography was undertaken, patients in private hospitals were more likely to undergo coronary artery revascularisation (angioplasty or stenting) but only marginally likely to undergo the more invasive procedure of coronary artery bypass grafting. These findings raise issues about the appropriateness of care as the debate over whether angiography with revascularisation was the optimal method of management after myocardial infarction continued during the period of evaluation of this study (Grines, 1996; Lange & Hillis, 1996).

Further analysis is also required to test another of Hanning's assumptions, which is that the total demand for elective surgery admissions in both the public and private sectors is likely to increase steadily regardless of changes in Government policy in the area of both private health insurance and public hospital demand management. No discussion of this topic can be complete without consideration of the effects of improvements in preventive services and the improved availability of non-admitted and non-surgical admitted care options in the public sector through hospital demand management and changes in clinical protocols.

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