

Impact on public hospitals if private health insurance rates in Victoria declined

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Abstract

The additional cost of treating acute care type Victorian private patients as public patients in Victorian public hospitals based on the current public sector payment model and rates was calculated, as was the loss of health fund income to public hospitals. If all private cases became public the net recurrent cost would be \$1.05 billion assuming all patients were still treated. If private health insurance (PHI) uptake had declined to 23.3% as was projected without Lifetime Health Cover and the 30% rebate, the additional operating cost and income loss would be \$385 million. This compares to the Victorian cost of the 30% rebate for acute hospital cases of \$383 million. This takes no account of capital costs and possible public sector access problems. The analysis suggests that 31 extra operating theatres would be needed in the public sector (had the transfer of surgical patients from the public sector to the private sector not occurred). This analysis suggests that without the PHI rebate the current stresses on Victorian public hospitals would be increased, not decreased.

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PRIVATE HEALTH INSURANCE (PHI) uptake declined through the 1990s. For example, the Victorian rate was 38.9% in December 1993 and 29.5% in December 1998 (PHIAC 2004a). A number of policy initiatives intended to stop and reverse the decline were introduced. A 30% tax rebate on PHI premiums and a 1% Medicare

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What is known about the topic?

There has been substantial debate about the impact of the private health insurance policy on the utilisation of public hospitals throughout Australia.

What does this paper add?

This article suggests there would be increased public hospital sector costs in Victoria if the uptake of private health insurance declined to 23.3%.

What are the implications for practitioners?

Making a contribution to the debate, this article suggests that increased private health insurance uptake in Victoria has reduced public hospital demand.

surcharge on high income earners without PHI was applied from 1 January 1999. These measures arrested the decline in PHI uptake and led to a modest increase of 30.4% for Victoria in December 1999. Lifetime Health Cover (LHC) was introduced from 1 July 2000. This increased the premiums of those who first took up PHI after the age of 30 years by 2% for each year over 30, up to a maximum of 70%. The introduction of LHC was accompanied by an intensive media campaign to encourage people to take up PHI. The overall effect was that uptake increased to 45.1% for Victoria by December 2000.

It was anticipated that increased PHI uptake would reduce some of the pressure on public hospitals because more people would be able to access treatment in private facilities. Public hospital revenue would also increase if the hospitals treated more privately insured patients.

It has been suggested that the cost of the 30% tax rebate is greater than the cost of treating, as public cases, the additional private cases arising from higher PHI uptake (Deeble 2002). The purpose of this article is to investigate whether this was the case in Victoria. The fiscal year 2001–02 was the first year in which pre-exist-

ing ailment (PEA) rules restricting the use of PHI fully expired, and, therefore, analyses based on earlier years would not show the full effect of the measures that increased PHI uptake.

Data used

Victorian PHI coverage data were obtained from the Private Health Insurance Administration Council (PHIAC) website. PHIAC data were also the basis of calculating the cost of the 30% rebate. Australian Bureau of Statistics (ABS) data were the source of Victorian population projections (ABS 2000).

Details of the Victorian Weighted Inlier Equivalent Separation (WIES) payment system and its payment rates are at www.casemix.health.vic.gov.au. In 2001–02 the ninth WIES version, WIES9, was used and is the basis of WIES calculations in this article. The WIES model and its payment rates provide the most appropriate method of calculating the financial effect of cases shifting between private and public status as it uses the actual Victorian public sector funding model. Using public sector payment rates removes the need to consider the relative financial efficiency of the public and private sectors in this analysis (Duckett & Jackson 2000). Calculating public sector savings on the basis of bed-days rather than cases does not reflect the existing Victorian funding model.

Victorian public and private hospital unit record (UR) data were obtained from the Department of Human Services Victoria (DHS-Vic). Data elements included Australian refined diagnosis related groups version 4 (ARDRGv4), care-type flag (acute, psychiatric, etc.), length of stay (LOS), a same day (SD) flag, hours of mechanical ventilation (HMF), five-year age cohort, payment class (public, private, veteran etc.) and public/private facility flag. The DHS-Vic data was totally deidentified in relation to both patients and hospitals.

The 2001–02 VAED private sector data were incomplete. In 11 742 of the 579 837 records no DRG was recorded. Care-type and payment-class data were included in most of these records and indicated 11 110 of the 11 742 (96.8%) were private acute care type cases.

The records arose from many hospitals (personal communication, 2003; J Yeo, Data Analyst, Performance Reporting and Analysis, Metropolitan and Aged Services Division, Department of Human Services, Victoria). Some private facilities had changes in ownership and/or information systems and did not report their full year caseload. DHS-Vic estimated the number of missing private sector episodes at 54 111.

A more appropriate estimate of the 'missing case' may be 45 930. This is based on extrapolating the percentage reduction in Australian Health Service Alliance (AHSA) cases at two hospitals where there were significant reductions in clinical workload. One changed from being an acute to a non-acute hospital with a marked reduction in cases, and the other was closed for much of 2001–02. The DHS-Vic estimate did not include the effect of these changes and thus overestimated the missing cases. DHS-Vic advised these problems did not affect the 2001–02 public sector VAED and data on private cases in public hospitals were unaffected (personal communication, 2003; M Gill, Manager, Health Data Standards and Systems, Metropolitan Health and Aged Care Division, Department of Human Services, Victoria).

Methods

The first step was to calculate the payment for 2001–02 Victorian private cases if they had been funded under the 2001–02 Victorian public hospital funding model and payment rates. The second was to calculate the additional cost to the public sector if some private cases in the public and private sectors became public cases. The PHI uptake scenario used in this calculation assumed that the decline in Victorian PHI uptake that occurred through the 1990s would have continued to 2001–02 if the measures to increase PHI uptake had not been introduced. The third step was to calculate the 2001–02 Victorian cost of the hospital product component of the 30% tax rebate.

WIES payments fund only acute care type cases, excluding cases in psychiatric, rehabilitation and non-theatre error DRGs, as well as

I Victorian private health insurance uptake

| Period ended | Actual | Assuming Dec 1998 PHI uptake from June 1999 onward | Assuming 1993–1998 decline continued after Dec 1998 |
|---------------------|---------------|---|--|
| Jun 93 | 40.4% | 40.4% | 40.4% |
| Dec 93 | 38.9% | 38.9% | 38.9% |
| Jun 94 | 37.3% | 37.3% | 37.3% |
| Dec 94 | 36.1% | 36.1% | 36.1% |
| Jun 95 | 34.2% | 34.2% | 34.2% |
| Dec 95 | 34.1% | 34.1% | 34.1% |
| Jun 96 | 33.3% | 33.3% | 33.3% |
| Dec 96 | 32.9% | 32.9% | 32.9% |
| Jun 97 | 31.4% | 31.4% | 31.4% |
| Dec 97 | 30.9% | 30.9% | 30.9% |
| Jun 98 | 29.6% | 29.6% | 29.6% |
| Dec 98 | 29.5% | 29.5% | 29.3% |
| Jun 99 | 29.7% | 29.5% | 28.4% |
| Dec 99 | 30.5% | 29.5% | 27.4% |
| Jun 00 | 42.1% | 29.5% | 26.4% |
| Dec 00 | 45.1% | 29.5% | 25.4% |
| Jun 01 | 44.7% | 29.5% | 24.3% |
| Dec 01 | 44.7% | 29.5% | 23.3% |
| Jun 02 | 43.8% | 29.5% | 22.3% |

Source actual coverage: www.phiac.gov.au/statistics/trends/index, Statistical trends in membership, Victorian Table

unqualified newborns. Payment classes outside public and private, such as veterans, were excluded. WIES were calculated using the table of weights and algorithms on the DHS-Vic website. The data elements ARDRGv4, LOS, SD flag and HMV were sufficient to perform the calculations to a high degree of accuracy. The WIES were converted to dollar payments by application of the appropriate payment rate.

The Victorian 2001–02 PHI uptake, assuming continuation of the 1990s trends, was estimated by linear extrapolation, providing an estimate of the PHI uptake if measures such as the rebate and LHC had not been introduced. The number of Victorians insured in each five-year age cohort was estimated in two steps. First, the percentage of insured people in each age cohort was estimated assuming the 1990s trend continued. Second, the percentage was multiplied by the ABS

age-cohort projected population to estimate the total people insured by cohort.

The change in private cases, WIES and bed-days if PHI uptake had continued to decline was estimated for each five-year age cohort. The ratio of estimated to actual people covered by PHI in 2001–02 was used to estimate the decrease for each age cohort. These estimates were summed over all five-year age cohorts to derive Victorian totals.

Results

Cost of the 30% rebate for hospital products

The Victorian 2001–02 hospital product premiums were \$1389 million (PHIAC 2004b), thus the 30% rebate cost \$416.7 million. Industry data on the proportion of hospital costs related to non-

2 Victorians covered by PHI

PHI coverage assuming overall coverage declined to 23.3% by December 2001

| Age cohort | Actual Dec 1998 | Estimated Dec 1999 | Estimated Dec 2000 | Estimated Dec 2001 | Actual Dec 2001 |
|------------|-----------------|--------------------|--------------------|--------------------|-----------------|
| 0–4 | 75 328 | 69 355 | 63 494 | 57 744 | 118 452 |
| 5–9 | 83 569 | 76 920 | 70 397 | 63 996 | 140 182 |
| 10–14 | 90 560 | 83 829 | 77 224 | 70 745 | 153 154 |
| 15–19 | 90 332 | 85 034 | 79 836 | 74 736 | 152 147 |
| 20–24 | 58 224 | 53 516 | 48 897 | 44 365 | 99 176 |
| 25–29 | 56 944 | 48 222 | 39 663 | 31 267 | 84 358 |
| 30–34 | 82 251 | 74 897 | 67 682 | 60 603 | 160 121 |
| 35–39 | 99 537 | 91 958 | 84 521 | 77 225 | 175 591 |
| 40–44 | 106 290 | 98 843 | 91 537 | 84 369 | 188 785 |
| 45–49 | 113 067 | 105 017 | 97 119 | 89 369 | 187 814 |
| 50–54 | 114 309 | 112 033 | 109 799 | 107 608 | 182 343 |
| 55–59 | 90 372 | 87 959 | 85 592 | 83 269 | 147 203 |
| 60–64 | 75 539 | 73 122 | 70 751 | 68 424 | 105 494 |
| 65–69 | 69 936 | 64 843 | 59 846 | 54 944 | 78 967 |
| 70–74 | 65 612 | 64 577 | 63 562 | 62 566 | 72 532 |
| 75–79 | 46 340 | 45 995 | 45 657 | 45 325 | 52 953 |
| 80–84 | 30 304 | 28 699 | 27 124 | 25 579 | 31 966 |
| 85+ | 25 766 | 25 567 | 25 374 | 25 182 | 29 125 |
| Total | 1 374 280 | 1 290 397 | 1 208 090 | 1 127 334 | 2 160 363 |

Source actual coverage: www.phiac.gov.au/statistics/trends/index, Statistical trends in membership, Victorian Table

acute care types is not available, but AHSA data indicated 91.9% of 2001–02 hospital product benefits were paid for acute care type cases. This suggested the 2001–02 rebate cost for Victorian acute care type cases was \$383 million.

PHI uptake in Victoria

Box 1 illustrates the percentage of Victorians with PHI from June 1993 to June 2002 in the column labelled 'Actual'. The scenario assuming the December 1998 level remained is presented in the column labelled 'Assuming Dec 1998 PHI uptake from June 1999 onward'. The scenario assuming PHI continued to decline at the rate from 1993 to 1998 is in the column labelled 'Assuming 1993–1998 decline continued after Dec 1998'. This latter scenario estimates PHI uptake based on

the assumption that measures such as the 30% rebate and LHC had not been introduced.

In Box 2 the two columns labelled 'Actual' show the number of people covered by PHI at end of 1998 and 2001. The three columns 'Estimated Dec 1999', 'Estimated Dec 2000' and 'Estimated Dec 2001' show the number of people with PHI coverage at those dates assuming the scenario where PHI uptake continued to reduce after December 1998 if measures such as the 30% rebate and LHC were never introduced. This is the scenario labelled 'Assuming 1993–1998 decline continued after Dec 1998' in Box 1.

WIES9 — private cases in private hospitals

The 467 268 acute care type cases with recorded DRGs generated 348 038 WIES9. The DRG field

3 2001–02 Victorian public sector additional payment and income loss

| Assumption | All private cases become public cases | PHI uptake 23.3% |
|--------------------------------------|--|-------------------------|
| Extra cost | | |
| WIES9 ex-private cases in private | \$950 532 867 | \$347 580 477 |
| WIES9 ex-private cases in public | \$29 997 112 | \$11 535 529 |
| Dialysis | \$1 319 835 | \$545 527 |
| Total | \$981 849 813 | \$359 661 532 |
| Health fund income lost | | |
| Private bed-days in public hospitals | \$56 683 438 | \$20 316 452 |
| Prostheses | \$11 794 917 | \$4 875 189 |
| Total | \$68 478 355 | \$25 191 642 |
| Nett effect | \$1 050 328 169 | \$384 853 174 |

was blank in 11 110 acute care type cases. These cases generated 8275 WIES9 assuming 0.7448 WIES9 per case.

AHSA estimates there were 45930 missing private sector cases in the 2001–02 data. As 83.7% of the private sector cases were private acute care type cases, it was estimated there were 37706 missing acute cases. The hospitals with missing cases did not include Victorian private hospitals with cases in highly weighted clinical areas. The exclusion of cases from these DRGs lowered the average WIES9 per missing case to 0.6744 compared with the overall average of 0.7448 WIES9 per case. It is estimated that 25429 WIES9 were generated by the ‘missing cases’, and in total it is estimated that 381742 WIES9 were generated by acute care type private cases in Victorian private hospitals in 2001–02.

WIES9 — private cases in public hospitals

There were 71783 private cases in public hospitals, 37774 of which were day cases. These cases generated 66365 WIES9 and 178575 overnight bed-days.

Payment per WIES9

The payment per WIES9 for most public cases was \$2490. This is based on the 2002–03 WIES10 payment rate of \$2515. This rate was stated to be 2.5% greater than the 2001–02 rate less a 1.5% ‘productivity’ increase (DHS-Vic

2002). That is, the initial 2002–03 rate was a net 1% higher than the 2001–02 rate. Higher WIES9 payments were made outside the Melbourne and the Geelong areas, but the \$2490 rate is assumed in all calculations.

Private cases in public hospitals were paid at \$2048 per WIES9, indicating an extra public sector cost of \$452 per WIES9 if such cases became public. In addition, if these cases went public the health fund payments to public hospitals for bed-days and prostheses would cease. The 2001–02 Victorian shared-room charge for private patients was a minimum of \$262 per day, including day cases. This figure was used as the basis for calculating the bed-day income lost if private cases in public hospitals became public cases.

Other recurrent payment issues

Dialysis cases, DRG L61Z, were partly paid by case payment, partly by an annual per capita payment of \$22 128 (DHS-Vic 2001). There were 9267 such separations from private hospitals. This equates to 59 individuals and per capita payments of \$1.3 million.

PHIAC 2001–02 data indicated health funds paid \$112 million to all Victorian hospitals to cover prostheses costs. As 10.5% of private cases were in public hospitals, the payment to public hospitals for prostheses used in private cases is estimated to be \$11.8 million.

Additional payments and income loss

Box 3 outlines the estimated additional public sector payments and lost health fund income if all private cases became public cases. These payments are presented in the column labelled 'All private cases become public cases'. The effect of PHI coverage declining to 23.3% in 2001–02 is outlined in the column headed 'PHI uptake 23.3%'. This is the scenario in Box 2 in the column labelled 'Estimated Dec 2001'. It is assumed the private workload will reduce in proportion to the reduction in PHI coverage in each 5-year age cohort between the columns labelled 'Estimated Dec 2001' and 'Actual Dec 2001' in Box 2. It is further assumed all 2001–02 cases would continue to receive the same hospital treatment.

Other public sector recurrent funding

The WIES proportion of recurrent payment for acute care type cases has varied from 63.7% in 2000–01 to 60.0% in 2001–02 and 67.1% in 2002–03 (DHS-Vic 2000; DHS-Vic 2001; DHS-Vic 2002). Specified Grants, which have been equal to at least 30% of WIES payments since 1999–2000, are paid to compensate hospitals for services which do not fall neatly into inpatient or outpatient service arrangements and for classes of hospital care which DRGs do not measure well (DHS-Vic 2002). Details of most Specified Grants are not included in policy and funding guidelines; some relate to payments for highly specialised state-wide services. It has been assumed that a marked reduction in PHI coverage will not increase the cost of Specified Grants outside those for dialysis services.

Training and development payments relate to the cost of the training, teaching and development that occurs in most hospitals, and have been equivalent to 6% to 7% of WIES costs. In addition, payments equivalent to 3% to 4% of WIES payments have been made for Quality and Hospital Demand Management in the last 2 years. Box 3 assumes these payments will not alter.

Capital funding

Box 3 does not include capital costs. Separate grants equivalent to at least 6% of WIES pay-

ments have been paid to cover capital costs, equipment and new technology costs over the last 3 years (DHS-Vic 2000; DHS-Vic 2001; DHS-Vic 2002). Current capital expenditure suggests that there are relatively few Victorian public sector overnight beds and operating theatres currently unused but able to be commissioned readily. Examples of hospitals where new beds and/or operating theatres are being constructed or have recently been constructed include Frankston and Sunshine Hospitals (DHS-Vic 2000), Austin and Repatriation Medical Centre and Northern Hospital (DHS-Vic 2001) and Royal Melbourne Hospital (DHS-Vic 2002). It is likely that very significant additional capital expenditure would be necessary to build the beds, operating theatres and other infrastructure necessary to cater for increased public sector demand if Victorian PHI uptake fell to 23.3%.

Thirty-one extra operating theatres would be needed, based on the transfer of 62 000 surgical cases from the private to the public sector and average operating theatre throughput of 2000 cases per annum. Over 1000 extra overnight beds would be needed, assuming the transfer of 306 000 private hospital overnight bed-days to the public sector and an 85% average occupancy over a 365-day year. If these beds and operating theatres were not provided, public hospitals would be unable to meet the estimated significant increase in demand.

Discussion

Cost of the 30% rebate for hospital products

PHIAC data provides information by state on premiums paid to private health funds for hospital and ancillary products. In 2001–02, hospital products premiums of \$5.12 billion were paid nationally and were 70.5% of the \$7.27 billion total premiums paid (PHIAC 2004b). Some authors have used the total rebate cost, not the portion related to hospital products, when comparing the rebate cost and public sector savings (Harper 2003). This overstates the cost of the

hospital product component of the rebate and thus understates the benefits. The cost of the ancillary product portion of the rebate is irrelevant to the costs and benefits of hospital products. There are no industry data on the portion of hospital products devoted to acute care, so AHSA data were used. The calculation of the 30% rebate cost is likely to be highly accurate.

Private sector WIES calculation

Some approximation of private sector WIES was unavoidable as a result of incomplete data. The estimates are based on a large portion of private sector cases, hence are likely to be substantially accurate. A number of elements of WIES calculation that occur infrequently were not included, such as WIES co-payments for specialised cases. Internal AHSA analysis suggested mechanical ventilation (MV) hours are not always fully recorded, hence the private sector MV co-payment WIES are probably underestimated. This suggests that private sector WIES have been underestimated by a small amount.

WIES payment rate

The metropolitan WIES9 payment rate has been assumed. If PHI rates declined markedly, extra public cases paid at higher rates would occur in rural and regional hospitals. A small increase to WIES payments in Box 3 would result.

Other costs

Some further costs may be incurred, especially in relation to capital, training and development, and quality and demand management. The cost of these programs is over 16% of WIES payments. There may also be added costs associated with Specified Grants and expanding public sector capacity. Each 1% increase in costs due to these factors equates to \$3.8 million extra public sector costs.

The additional public sector cost resulting from private cases becoming public cases has been based on WIES costs. These are about 60% of the recurrent cost of acute cases and ignore capital costs. This calculation indicates short-run marginal cost.

2001–02 Victorian PHI uptake without the rebate and LHC

The calculations in Box 2 and Box 3 reflect an extrapolation of Victorian PHI coverage trends. Different estimates of 2001–02 PHI uptake, assuming the rebate and LHC were not introduced, arise from the different assumptions. These estimates can be above or below 23.3% depending on the assumptions used.

Given the declining PHI uptake to December 1998, the effect of measures to increase PHI uptake should be analysed assuming PHI uptake would have continued to decline after December 1998 without their introduction. Box 1 shows the increasing difference between Victorian PHI uptake scenarios assuming no decline after December 1998 and the decline to 23.3% by December 2001. Analyses assuming December 1998 PHI uptake would have continued indefinitely are unrealistic and will underestimate the beneficial effects of the measures that increased PHI uptake. It is probable the decline would stop before coverage became 0%. Access Economics suggests that this level might be at about 13.9% of the population (Access 2002).

The estimates in Box 3 suggest that the measures to increase PHI uptake have led to a saving in Victorian public sector cost slightly greater than the cost of the 30% rebate for PHI. This assumes 23.3% PHI coverage, no change in 2001–02 patients treated, and the age standardised reduction in private cases. The saving is \$2 million based on comparing the rebate cost of \$383 million to the \$385 million savings arising from reduced public sector costs and increased income from health funds. The public sector cost saving is probably underestimated due to factors previously discussed.

It is probable that those most likely to utilise PHI would retain PHI in disproportionately high numbers if PHI uptake fell significantly. This is reflected in Box 3. The smallest differences between actual and estimated December 2001 uptake are in the age cohorts 70–74 and above. Eighty-seven per cent of the projected drop in

WIES occurs within the age cohorts under 70. This suggests age standardisation substantially removes any effect of differential retention based on perceived or actual clinical need.

The relative cost of the 30% hospital product rebate and all private cases becoming public

The additional cost to the Victorian public sector of all private cases becoming public is at least \$1.05 billion, assuming all such cases are treated. The Victorian cost of the hospital product rebate is \$385 million, hence the total saving is 2.7 times the rebate. This saving is different in magnitude to the result of other analyses that compare the cost of marginal changes in private hospital activity to the cost of the rebate.

Harper noted the rebate cost \$2.2 billion in 2001–02 and suggested private hospital cases would have otherwise cost public hospitals \$4.3 billion. Savings were twice the cost of the rebate (Harper 2003). This calculation underestimates the financial benefits of the rebate because it is based on the total rebate cost not the hospital product portion. It also excludes the loss of public hospital income from treating private patients. Hospital product premiums were \$5.12 billion in 2001–02, hence the hospital product rebate cost \$1.54 billion (PHIAC 2004b). Adjusting Harper's calculation to include only the hospital product rebate suggests savings were 2.8 times cost. Econotech has also suggested the savings were twice the cost of the rebate but appears to use the same basis as Harper, thus underestimating this ratio (Econotech 2004b).

What would happen to the PHI uptake rate if the 30% rebate was abolished?

Access Economics has suggested that PHI uptake is price sensitive as it relates to relative affordability (Access 2002). The basis of Access Economics' conclusions have been criticised, and it has been stated that "If the correct technique is used the association almost completely disappears" (Deeble 2003a). Deeble also states "... private insurance membership is relatively insensitive to price"

but acknowledges that there were other factors leading to lowered PHI uptake (Deeble 2003b).

Another view is that most of the increase in PHI uptake was due to the LHC premium loadings and associated promotional activity, and it is now unclear how sensitive PHI uptake is to price changes (Butler 2002). Butler's views are based on the observation that PHI uptake rose to a relatively small extent when the 30% rebate was introduced but to a much larger extent when LHC premium loadings were nearing introduction and receiving extensive publicity. Butler's observation is also consistent with the alternative hypothesis that the large increase in PHI coverage around June 2000 was due to the synergistic effects of the 30% rebate, the LHC premium loadings and the extensive media campaign, not LHC alone. Another view is that national PHI uptake would be 27% in 2006–07 if the rebate and LHC loadings were now abolished (Econotech 2004a).

A further view is that of TQA Research, an organisation that conducts regular surveys of consumer attitudes to PHI. TQA Research has stated that "for every 1% increase in the price of PHI, a corresponding proportion of consumers are 'very likely' to drop their private health cover" (Quint 2002). This is consistent with TQA Research's findings in the 1990s that suggested that cost was the reason the majority of people dropped PHI, and that cost and the payment gap were the major reasons people did not purchase PHI.

The most recent ABS Health Insurance survey is consistent with the TQA view. Sixty-five per cent of those surveyed without PHI and 69% of those who had dropped PHI within the previous 2 years identified cost as the reason for withdrawing from PHI (ABS 1999). It is unclear whether a repeat survey after the introduction of LHC would produce the same findings.

If TQA Research is correct, the June 2002 43.8% coverage would reduce to 25.4% as removal of the 30% rebate would increase the price of PHI by 42%. If those least likely to use PHI drop it, as suggested by differential changes by 5-year age cohorts in Box 2, the average claims cost per adult insured will rise. The 48% reduc-

tion in people covered in Dec 2001 illustrated in Box 2 leads to a 36% reduction in WIES payments. This would suggest a second round 23% premium increase and a further decrease in Victorian PHI coverage to 19.6%.

The compound effect of removing the rebate and a 23% second round increase is a net 75% premium increase in less than 2 years. The effect could be higher or lower, but it would be surprising if a substantial reduction in PHI did not occur.

What would be the effect on Victorian public hospital access if the 30% rebate was now abolished?

The 2001–02 Victorian hospital product rebate for acute care cost \$389 million. It will be assumed that these funds become available as a net increase in public sector acute hospital funding. The additional public sector cost of patients moving from private to public will depend on the degree by which PHI uptake reduces. It will be assumed all Victorian hospital admissions are clinically appropriate. If the estimated additional public sector admissions can not all be admitted into public hospitals, overall hospital access will have been reduced as a result of abolishing the rebate.

If there are access problems, these are likely to lead to some patients currently being treated in both the public and private sectors spending significant time on waiting lists or no longer being treated. Assuming that priority of admission will continue to be based on relative clinical need, the majority of such patients are likely to be non-urgent and semi-urgent elective cases currently being undertaken in both public and private hospitals and include patients currently in both public and private payment classes.

If there were no change in PHI coverage, public hospitals would have a \$389 million increase in budget without any transfer of private workload. It is difficult to envisage access problems arising in this situation. If PHI uptake fell to zero, public hospitals would have \$389 million to pay for work conservatively costing \$1050 million. In this scenario the public sector would face substantial additional costs and be most unlikely to have the resources necessary to meet the increased demand.

The effects would be likely to include substantially increased waiting lists and many people no longer attempting to access treatment.

If the PHI coverage rate had fallen to 23.3% in December 2001 the extra recurrent cost would have been \$385 million. This is just beyond the point where the cost of the rebate and the costs saved by the public sector are equal, without considering non-WIES recurrent funding and capital funding. The amount of money needed to treat such patients would be available. Whether the public sector facilities would have the capacity to treat such extra cases is doubtful. It is likely that significant access problems would arise and only be alleviated by completion of a substantial capital works program. This also assumes additional appropriately qualified staff would be recruited and this may prove to be a significant challenge.

Other effects of decreased PHI uptake

There are other effects which may disadvantage public hospitals if PHI uptake were reduced. These are difficult to quantify but may cause additional public sector expense.

Media reports state that public hospitals had significant deficits in 2001–02 suggesting that the 2001–02 WIES payment level may have been insufficient to meet public hospital costs (Tinkler & Riley 2003). Additional public sector cases may increase these losses.

The private practice income of specialists would reduce if PHI uptake fell, and they may seek significant increases in public sector payments to offset this reduction. The specialists would be in a position to negotiate successfully, given the significant increases in public sector cases necessary to maintain overall case numbers. In 2001, specialists negotiated significant pay increases to offset changes to the fringe benefits tax treatment of public hospital salaries that would have otherwise reduced their net income.

Prosthetic devices charges are significantly higher in the private sector. For example, the charge for a drug eluting coronary artery stent is about \$2400 in the public sector and about \$3750 in the private sector. If private sector activity reduced markedly it is possible prostheses

suppliers would seek to increase charges to the public sector to avoid reduction in revenue.

Conclusion

Increased Victorian PHI uptake has significantly reduced demand on public hospitals. If the Victorian PHI uptake declined to 23.3%, the extra public sector cost would just exceed the hospital product rebates cost without considering non-WIES recurrent costs and capital costs. It is possible there would be insufficient available beds and operating theatres in the Victorian public sector to cater for the additional workload. Many patients currently treated in Victorian hospitals would then have to go on waiting lists or give up waiting for treatment.

Suggestions that the stresses on public hospitals will be alleviated by abolishing the hospital table rebate and redirecting equivalent funds to the public hospitals may well be misplaced. The main uncertainties relate to what would have happened if the measures to increase PHI uptake had never been introduced and what would happen if the rebate was now abolished. The analysis in this article suggests that abolishing the tax rebate would decrease PHI uptake and not alleviate the stresses on public hospitals.

Competing interests

Brian Hanning is employed by the Australian Health Service Alliance, a body which is involved in negotiating contracts between private hospitals and health funds.

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