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Abstract

Australia has a rich public-private mix of financing and provision of healthcare. Since mid-2015, the higher growth in out of pocket costs relative to the growth in wages began to reduce the affordability of private healthcare and marked the start of the drop in private health insurance coverage. Using publicly available data, this paper describes the decline in growth in the utilisation of private hospital care before and after 2015. Growth in the use of elective surgery in private hospitals fell with some indication of increased waiting times in public hospitals, and evidence of doctors spending more of their time in public hospitals rather than in private practice. Private hospitals’ profitability declined, share prices of for-profit private hospital operators fell, and there is evidence of reduced capacity and a fall in long-term investment in the private hospital sector. In 2020, COVID-19 has accelerated these trends and the economic recession is likely to exacerbate reduced affordability of private healthcare. Policy responses should depend on how these changes influence access, cost and quality of care for patients.

JEL classification: I11, I13, H11, H44,

Keywords: market structure, public-private mix, hospitals
1. Background

The private hospital sector plays a significant role in providing specialised healthcare in Australia. The aim of this research is to examine trends in the activity and capacity of the private hospital sector, against a context of falling demand for private health insurance and reduced affordability for private healthcare. In 2017/18, around 47% of all hospitals in Australia were private, with 657 private hospitals, including 357 private freestanding day hospitals (AIHW, 2019). In 2016/17 62% of private hospitals were ‘for profit’ (ABS, 2018). The private hospital sector had around one-third (34,300 beds in 2016-17) of total hospital beds in Australia, comprised 40% (4.5 million separations in 2017-18) of total hospital separations, undertook 66% (1.49 million admissions) of all elective surgery, 33% (9.98 million patient days) of total patient days (AIHW, 2019), and had a total income of $14.3 billion (ABS, 2018). The revenue of private hospitals comes from a range of sources, with almost 80% from private health insurers that include government subsidies, 13% from federal and state governments, 3.8% direct from patients, and 2.3% from other sources (ABS, 2018).

A key issue for the healthcare sector has been the fall in the proportion of the population covered by private health insurance (PHI). After steady increases in coverage since subsidies were increased 2001, the percentage of the population having PHI hospital cover fell from 47.4% in June 2015 to 43.6% in March 2020 (the bars in Figure 1). The solid line in Figure 1 shows that the total number of insured persons also started to flatten out around the same time, peaking in the first quarter of 2017 at 11,353,517, and then falling every quarter until March 2020 (by 1.15% to 11,223,363: a net fall of 130,154 insured persons).

The net change in total number of insured persons is relatively small. The issue, however, is the composition of the change. Since March 2017, most of those dropping cover have been aged under 60 years old where the number of insured persons fell by 318,716 and increased for those aged over 60 years old by 188,562 (Figure 2). This causes a problem in insurance markets with community rated premiums where the premiums paid by the young and relatively healthy are used to subsidise the costs incurred by the older and on average less healthy members.

The reasons for the drop in PHI coverage are consumers’ increasing concerns about the value of private health care. This includes growth in out of pocket costs, including private health insurance premiums and fees for medical services provided by GPs and non-GP specialists, as well as the decline in coverage of private health insurance policies. Consumer
price indices for healthcare have grown faster than any other component of the consumer price index (Figure 3), with the medical and hospital component growing the fastest, which includes PHI premiums as well as doctors’ fees. Since July 2012, healthcare costs have also grown faster than wages, which have been growing but at a much slower rate. These trends have produced a widening gap between growth in private health costs and household incomes over time, with a cumulative effect on affordability that is associated with the fall in PHI coverage and membership from June 2015.

Figure 1. Changes in proportion of the insured population and number of insured persons with private hospital treatment insurance cover (December 2012 to March 2020)

Source: APRA. Private health insurance membership trends March 2020.

In addition, there is some evidence that consumers were getting less for their PHI premiums with reductions in what PHI policies cover and increases in consumer complaints (Senate Communit Affairs References Committee, 2017). The proportion of insured persons with a policy that includes exclusions for particular medical conditions has increased from 36% in December 2015 to 58.7% in December 2019, whilst the proportion of insured persons with a policy that has an excess or co-payment has increased from 82.8% in December 2015 to 87% in December 2019 (APRA, 2020).

These issues were documented extensively by a Senate Committee report in 2017 (Senate Communit Affairs References Committee, 2017), by the Australian Competition and Consumer Commission reports on private health insurance (Australian Competition and
Consumer Commission, 2018), by the general media\(^1\), and were also foreshadowed by profit growth warnings for publicly listed private health insurers and private hospital groups in late 2016\(^2\,^3\).

**Figure 2. Change in number of insured persons by age group (March 2017 to March 2020)**

![Figure 2](image)

Source: APRA. Private health insurance membership trends March 2020.

Following the Senate Committee report in June 2017, a package of reforms announced in October 2017 and implemented during 2019 and 2020 aimed at increasing fee transparency and PHI affordability. Policy responses have focused only on the demand side and have involved providing consumers with improved information on doctor’s fees and facilitating the choice of private health insurance policies\(^4\). A doctors’ fees price transparency website was introduced by the Department of Health in January 2019 (Department of Health, 2018) complementing similar websites already in place by some of the larger for-profit private health insurers (Medibank and BUPA). Benefit limitation periods (that impose a time period between joining an insurer and being able to claim benefits) for all hospital policies were removed from

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1. [https://www.abc.net.au/4corners/mind-the-gap/9809314](https://www.abc.net.au/4corners/mind-the-gap/9809314)
July 2018 to simplify policies for consumers\(^5\). A government website has also been developed to assist choosing between policies and facilitate comparison between companies. More standardised information was introduced (e.g. Gold, Silver, Bronze, Basic policies, and standardised clinical categories of cover) to describe policies and their coverage. Premium discounts to 18 to 29 year-olds buying PHI were also introduced.

**Figure 3. The gap between the growth in healthcare prices, the consumer price index, and wages (June 2010 to June 2020)**

More recently, PHI premium growth, with premium increases approved by the Minister for Health, have slowed (from over 6% increase in 2015 to 2.9% in 2020). Out of pocket costs have fallen slightly in 2020 due to COVID-19, the increased use of bulk-billed telehealth, and a delay in the annual PHI premium rise in 2020 of 2.9%, though wage growth has also slowed so the gap in Figure 3 may not be narrowing. Analyses of these issues to date have largely

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examined the impact on private health insurers and the implications for the private health insurance industry (Duckett and Nemet, 2019).

If these trends continue, it would not only have implications for the private health insurance and private hospital sectors, but also on access to public hospital care, as patients who might otherwise access private healthcare turn to the public sector. How to balance demand for public hospital care and potential excess capacity in the private sector is an important policy issue worthy of further examination.

2. The mechanisms through which private hospital activity has been affected

The impact of the decline in affordability of private healthcare on private hospitals depends on a number of factors. The amount of private hospital activity and revenue depends on:

i) demand and preferences of individuals: changes in the decisions of individuals about whether to seek medical care, and their choices to buy and retain private health insurance, and if they have private health insurance, whether to use it;

ii) GPs’ decisions to refer patients to a private non-GP specialist;

iii) treatment recommendations of non-GP specialists which may involve treatments or procedures in private hospital settings\(^6\), and;

iv) in the longer-term, the decisions of private and public hospital operators to increase or reduce capacity in response to changes in market conditions.

The lack of affordability affects the first factor above, but the impact on private hospital activity depends on the complex interplay of the other factors, and so it is not obvious how the utilisation of private hospitals will be affected (Cheng, 2014).

For example, a fall in number of insured persons does not mean that there will necessarily be a fall in the use of private hospitals (or an increase in the use of public hospitals).

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\(^6\) Note that non-GP specialists are not paid or employed by private hospitals. They have an agreement with the private hospital to use their facilities, but are paid fee-for-service by patients with a fixed subsidy per service from Medicare, as well as some coverage from private health insurers for in-hospital care (gap cover).
First, though those dropping health cover will reduce their use of private hospitals the net size of this effect could be relatively small since younger people are less likely to use healthcare and many may not use it at all compared to older people. Dropping cover may therefore have minimal effect on the use of private hospitals by younger people compared to if older people dropped their cover. Although more younger people are leaving private health insurance (PHI) than older people are joining, since older people on average use healthcare more than younger people, this change in the insured population mix could even result in an increase in the use of private hospitals if people who join are on average sicker than those who leave. In addition, those who purchased PHI in order to avoid the Medicare Levy Surcharge (a tax penalty for those with high income but without PHI) may never use their health insurance due to exclusions in the basic coverage policies and high out-of-pocket costs in their insurance products. If only this group dropped private cover there would be no effect on the use of private hospitals.

Second, those who retain their private health cover may reduce their use of private medical care due to rising out of pocket costs, which could also include them choosing cheaper PHI policies with less coverage. This could occur across all age groups. Finally, the impact on public hospitals will also depend on whether patients’ healthcare needs are discretionary, non-urgent or can be delayed. If so, there is less likely to be a corresponding increase in public hospital treatment or public hospital waiting times.

The decisions of doctors also play a role, as some may lower their referral, treatment or diagnostic thresholds in response to a fall in demand in order to maintain their workload and earnings. They may recommend treatment options that patients are less likely to benefit from. This behaviour is reinforced by fee-for-service payment of non-GP specialists. In addition, overdiagnosis and overtreatment are widely agreed to be key areas of waste in health care but could help maintain activity in private hospitals (Chalmers et al., 2019; Elshaug et al., 2017).

Our main hypothesis is that the reduced affordability of private healthcare since 2015/16 and the fall in PHI membership will be associated with a fall, or lower growth, in private hospital separations and therefore revenue. If this is the case, data should also show a fall in the profitability of the private hospital sector, and perhaps also show reductions in

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7 A separation is an episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute care to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care either by being discharged, dying, transferring to another hospital or changing type of care.
capacity as the sector adjusts to the fall in demand through a fall in growth in the number of beds in private hospitals and the number of private hospitals, a fall in the proportion of hours that non-GP specialists spend working in private hospitals (Cheng et al., 2018), and evidence of increasing activity or waiting times in the public hospital sector.

3. Methods

3.1. Data

Private hospitals are required to report data on separations to States and Territories (which then feed into national data collections held by AIHW and IHPA), to report data on patients treated in private hospitals to the Department of Health (Private Hospitals Data Bureau), and data on activity, costs and revenues to the ABS’s Private Hospital Survey (until 2016/17). In addition, private insurers are required to report data on all privately insured patients (in public and private hospitals) as part of the Hospital Casemix Protocol data, as well as reporting aggregate data to the Australian Prudential Regulation Authority (APRA). We also used data from the Private Health Insurance Circulars published by the Department of Health. These show changes in the eligibility of hospitals to claim private health insurance benefits, and so provide a measure of private (and public) hospitals that enter or exit the market for privately insured patients over time. Finally, non-GP specialists can choose to practice in both the public and private sector (dual practice). The National Health Workforce Dataset from the Department of Health provides data from a registration survey of all medical practitioners in Australia, that includes questions on the hours they spend working in public and private hospitals. More details of the data used are in the Data Appendix.

3.2. Analysis

The analysis is descriptive and examines aggregate trends in a range of outcomes using publicly available data. For each of the above data sources, trends and growth in a range of outcomes before 2015-16 are compared with these trends after 2015-16, when the decline in PHI membership and concerns about out-of-pocket costs began. The main analysis examines the growth in the number of hospital separations over time in total, and for selected high-volume diagnoses that have consistent definitions over time (using data from AIHW, Hospital Casemix Protocol data, and Private Hospital Data Bureau). In addition, we examine other outcomes in which we might expect to observe parallel changes including the number of entries
and exits of private hospitals (using data from AIHW and data constructed from Private Health Insurance Circulars), the profitability of the private hospital sector (using data from ABS Private Hospital Surveys, and share prices (from the Australian Securities Exchange), the proportion of hours spent working in the private sector by non-GP specialists (using data extracted from Health Workforce Data Tool), and separations and elective surgery waiting times for public hospitals (using data from AIHW). We seek to enhance the strength of the evidence through observing changes that are consistent across all datasets.

4. Trends in the number of hospital separations for privately insured patients in private hospitals

The overall number of separations for privately insured patients continue to rise although the rate of growth has slowed since 2015-16 (Figure 4)\(^8\). Growth in the number of separations in private day hospitals fell significantly from 5.8% (31,752) per year between 2010-11 and 2015-16, to 0.6% (3,875) per year between 2015-16 and 2018-19. Similarly, for private non-day hospitals across the same time periods, growth in the number of separations fell from 6.6% (150,281) per year to 2.1% (59,894) per year after 2015-16.

The fall in growth in private hospital separations was not offset by public hospitals admitting more privately insured patients. Figure 5 shows that the number of privately insured patients in public hospitals has similarly declined since 2016-17. Although there was significant growth in the number of private patients in public hospitals (10.5% (71,868) per year between 2011-12 and 2015-16), this growth had since dropped to -1.7% (-15,080) per year on average since the peak in 2016-17. This suggests that the fall in use of private hospital care is not matched by increases in private patients in public hospitals, rather it is a general issue affecting the volume of privately insured patients in both private and public hospitals.

Overall, the number of public hospital separations might increase if patients choose the public sector over the private sector. Figure 5 shows an increase in the number of public patients treated in public hospitals since well before 2015/16, though there is evidence of an upward increase in the trend since 2012/13 (from an annual average of 2.3% growth before

\(^8\) The number of separations is used rather than patient days (separations x length of stay) because the number of separations is more an indicator of demand (decisions made by patients and referring doctors) whereas as patient days also includes decisions made by hospitals around length of stay and so also reflects capacity. In any case, the trends for patient days are similar to the trends for separations.
2012/13 to 4% growth since 2012/13). Since this change in trend occurred before 2015/16, it was unlikely to be caused by the fall in demand for private healthcare which began in 2015/16.

Figure 4. Privately insured separations in private hospitals, 2010/11 to 2018/19

![Graph showing privately insured separations in private hospitals from 2010/11 to 2018/19.]

Source: The Department of Health Hospital Casemix Protocol (HCP) Annual reports 2018-19, Table 3: Privately Insured Separations - Episode/Medical/Prosthesis record completeness, 2010-11 to 2018-19.

However, if public hospitals are operating close to capacity, and given that they have caps on the volume of patients treated, an increase in demand would be reflected in increases in the number of patients added to public hospital waiting lists since 2015/16. If patients are choosing public over private, then there should be an increase in the rate at which people are added to the waiting list relative to those removed. Available data on public hospital waiting lists only included waiting lists for elective surgery and do not include waiting times for public hospital outpatient appointments. Figure 6 shows some evidence of this after 2016/17 for elective surgery. The growth in additions was 2% per year between 2011/12 and 2015/16, and increased to 2.9% per year between 2015/16 and 2018/19, whilst the trend in growth for removals increased only slightly from 2.3% per year before 2015/16 and 2.4% thereafter. Figure 7 shows the median waiting time for elective surgery rising from 37 days in 2015-16 to 41 days in 2018-19, an increase of 1.3% per year following from no change in the period before that. Waiting times for elective surgery at the 90th percentile show similar growth.
Figure 5. Number of privately insured separations and publicly funded separations in public hospitals, 2006/07 to 2018/19

Source: 2014-15 to 2018-19: AIHW admitted patient care 2018-19 Chapter 7: Costs and funding data download, Table S7.2 Separations, by all funding sources, public and private hospitals, 2014–15 to 2018–19. 2010-11 to 2013-14: AIHW admitted patient care: Australian hospital statistics 2010-11 to 2013-14. 2006-07 to 2009-10: AIHW Australian Hospital statistics 2009-10. Public patients include separations with a funding source of Health Service budget (including Health Service budget due to Reciprocal health care agreements) and Health Service budget - no charge raised due to hospital decision (in public hospitals) and Other hospital or public authority (with a Public patient election status). This excludes other funding sources such as Self-funded, Workers compensation, Motor vehicle third party personal claim, Department of Veterans' Affairs, Other compensation, Department of Defence, Correctional facilities, other hospital or public authority (without a public patient election status), other, health service budget—no charge raised due to hospital decision (in private hospitals), and not reported.

Figure 6. Number of patients added and removed from public hospital elective surgery waiting lists, 2011-12 to 2018-19

5. **Trends in the number of private hospital separations by diagnosis**

Whilst the previous section identified aggregate trends in the use of private hospitals, the aim of this section is to drill down to identify those broad diagnostic groups that were perhaps driving these changes. In doing so, there were some major changes affecting the classification of admissions for rehabilitation in 2015-16. These changes influence medical Diagnosis Related Groups (DRGs)\(^9\) more than surgical DRGs, which means we can only reliably examine trends in surgical DRGs in private hospitals where a surgical procedure was the primary diagnosis (see Data Appendix for more detail). The data below aggregate all surgical AR-DRGs to Major Diagnostic Category (MDC) level and the data are analysed by private non-day hospitals and private day hospitals.

For all surgical procedures in private non-day hospitals (accounting for 35.5% of total activity in private non-day hospitals in 2015/16), growth between 2012/13 and 2015/16 was

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\(^9\) Australian Refined Diagnosis Related Groups (AR-DRG) is an Australian classification system that allows for the number and different types of patients to be categorised according to their condition, procedure or diagnosis. DRGs provide a clinically meaningful way of relating the number and type of patients treated in a hospital (that is, its casemix) to the resources required by the hospital. Each AR-DRG represents a class of patients with similar clinical conditions requiring similar hospital services. (AIHW)
3.1% and this fell to 1% between 2015/16 and 2018/19. The 15 highest volume MDCs (by volume of surgical separations) accounted for 98% of all surgical activity. Figure 8 shows the average annual growth before and after 2015/16, ranked from left to right by the MDC that exhibited the largest fall in growth between the two time periods. Surgical procedures within all 15 MDCs experienced a fall in growth. Diseases and disorders of the female reproductive system exhibited the largest fall in growth of 5.1 percentage points between the two time periods (from 2.9% growth before 2015/16 to -2.2% growth after 2015/16). This was followed by diseases of the kidney and urinary tract, respiratory system, and nervous system. The MDCs where the fall in growth in surgical procedures was the lowest were diseases of the digestive system, pregnancy and childbirth, and diseases and disorders of the eye.

**Figure 8. Private non-day hospitals’ change in growth of surgical procedures in 15 highest (surgical) volume MDCs, before 2015/16 (2012/13 to 2015/16) and after 2015/16 (2015/16 to 2018/19)**

Source: Own calculations using Department of Health (DoH) Hospital Casemix Protocol (HCP) Annual Reports, 2012/13 to 2018/19. Note: Numbers presented are derived from aggregating privately insured separations assigned a surgical AR-DRG (4-digit) to the MDC level. Major Diagnostic Category (MDC) is the category into which the patient’s diagnosis and the associated AR-DRG falls. They correspond generally to the major organ systems of the body.

For all surgical procedures in private day hospitals (accounting for 36.6% of total activity in 2015/16), growth between 2012/13 and 2015/16 was 4.6% and this fell to 2.7%
between 2015/16 and 2018/19. Figure 9 shows MDCs with more than 1,000 annual separations in 2015/16, and the average annual growth before and after 2015/16, ranked from left to right by the MDC that exhibited the largest fall in growth between the two time periods. Most exhibited a slowing or fall in growth, except for surgery for diseases of the nervous system and pregnancy and childbirth. Separations for diseases and disorders of the digestive system experienced the largest fall in growth of 8.8 percentage points between the two time periods (from 3.5% growth before 2015/16 to -5.3% growth after 2015/16).

**Figure 9. Private day hospitals’ change in growth of surgical procedures in highest (surgical) volume MDCs, before 2015/16 (2012/13 to 2015/16) and after 2015/16 (2015/16 to 2018/19)**

Going down to DRG level, of the 170 surgical DRGs in private non-day hospitals, 67% experienced slower growth during 2015/16 to 2018/19, than between 2012/13 and 2015/16. Taking the 15 highest volume (in 2015/16) surgical DRGs in private non-day hospitals, which
accounted for 44% of all surgical activity, 11 out of 15 exhibited slower growth between 2015/16 and 2018/19, than between 2012/13 to 2015/16. Figure 10 shows that tonsillectomy and adenoidectomy exhibited the largest decline in growth, by 6.6 percentage points (from 2.4% annual growth between 2012/13 and 2015/16, to -4.2% growth between 2015/16 and 2018/19).

The next figure is for private day hospitals. From the 93 surgical DRGs in private day hospitals, 67% exhibited slower growth between 2015/16 and 2018/19, than between 2012/13 to 2015/16. Taking the 15 highest volume (in 2015/16) surgical DRGs in private day hospitals, which accounted for 90% of all surgical activity, 11 out of 15 exhibited slower growth between 2015/16 and 2018/19, than between 2012/13 and 2015/16. Figure 11 shows that growth fell most for minor dermatological procedures, by 8.4 percentage points (from 5.8% annual growth between 2012/13 and 2015/16, to -2.7% growth between 2015/16 and 2018/19). At the other extreme, the largest growth was for glaucoma and complex cataract procedures.

**Figure 10. Private non-day hospitals. Change in growth of 15 highest volume surgical DRGs, before 2015/16 (2012/13 to 2015/16) and after 2015/16 (2015/16 to 2018/19)**

Source: Own calculations using Department of Health Hospital Casemix Protocol (HCP) Annual Reports, 2012/13 to 2018/19. Note: Numbers presented are derived from aggregating privately insured separations assigned a surgical AR-DRG (4-digit) to the 3-digit (ADRG) level.
Figure 11. Private day hospitals. Change in growth of 15 highest volume surgical DRGs, before 2015/16 (2012/13 to 2015/16) and after 2015/16 (2015/16 to 2018/19)

Source: Own calculations using Department of Health Hospital Casemix Protocol (HCP) Annual Reports, 2012/13 to 2018/19. Note: Numbers presented are derived from aggregating privately insured separations assigned a surgical AR-DRG (4-digit) to the 3-digit (ADRG) level.

6. Financial performance of the private hospital sector

Whether the above slowing in growth in the utilisation of private hospitals influences the sector depends partly on the impact on revenues, costs and profits. None of the above publicly available data contain financial information nor do they enable us to distinguish between for-profit private hospitals and not-for-profit hospitals. The latter include hospital groups with religious affiliations, and the former include some hospital groups which are publicly listed on the Stock Exchange. One may expect that for-profit hospitals would respond more quickly to changes in demand, as they have stronger incentives to maximise revenues or profits.

The most detailed financial data on all private hospitals in Australia is contained in the ABS Private Hospitals Survey which had close to 100% response rate (ABS, 2018). The data include revenue and expenditures so that the gross profit of the private hospital sector as a whole can be examined. Unfortunately, this survey was discontinued by the ABS with the last year of data collection in 2016/17, and so we are only able to compare growth between 2012/13
and 2015/16, with 1 year afterwards, 2015/16 to 2016/17. It is therefore not possible to uncover any definitive changes in trend with these data.

In 2016/17, the private hospital sector as a whole made $1.63 billion in gross profit (total income minus total expenditure before tax). Between 2012/13 and 2015/16, profit grew at 15.5% per year on average, whilst growth between 2015/16 and 2016/17 had fallen to 5.6%. There were falls in growth for both revenue and expenditure (so costs were also falling), though the percentage falls in revenue growth were greater than the falls in expenditure growth. The equivalent figures for private acute and psychiatric (i.e., non-day) hospitals are 15% growth before 2015/16, and 4.3% growth the year after. For private day hospitals, profits before 2015/16 grew at 18.2% per year, and this growth slowed to 13.9% between 2015/16 and 2016/17, suggesting that the smaller private days hospitals were doing slightly better than their larger non-day counterparts.

The profit data below are adjusted for changes in the size and activity of the sector, and show that profits increased up until 2014/15 before flattening out thereafter. Between 2012/13 and 2015/16, profits per bed grew at 11.3% per year, profit per FTE grew at 11.4%, and profit per 100 separations grew 9.9%. In the year after 2015/16, profit growth had slowed to 1.6%, 1.8%, and 1.7% respectively.

**Figure 12. Profit per bed, per FTE, and per 100 separations, 2012/13 to 2016/17 (All private hospitals)**

![Graph showing profit per bed, per FTE, and per 100 separations from 2012/13 to 2016/17. The graph shows an increase up until 2014/15, followed by a flattening out thereafter.](source)

Source: ABS 4390.0 - Private Hospitals, Australia, 2016/17. Note: FTEs are employees and so exclude non-employed medical staff.
A signal of the future value of the industry is investment in capital, including gross capital expenditure on land, buildings, equipment and IT. This investment can be regarded as the level of confidence in future profit growth in the sector. This investment increased by 13.1% per year on average since 2006/07 to a peak of $1.2 billion in 2015/16. However, it fell for the first time to $865 million in 2016/17 (by 28%), suggesting a slow-down in long term investment and confidence in the sector.

The data produced by ABS split up revenue and expenditure across for-profit and not-for-profit hospitals but only for-private acute and psychiatric hospitals. In 2016-17, 80% of the profit from private acute and psychiatric hospitals was captured by the for-profit sector even though they only had 56% of the beds.

Another way to examine the financial health of the sector is to examine the share prices of the two main for-profit private hospital operators in Australia at the time, Healthscope and Ramsay Healthcare. Though there are many factors that influence share prices, and both companies have other interests apart from hospitals (e.g. pathology and overseas interests), they do give a broad indication of the market value of for-profit private hospitals that usually reflect their profitability, and whether the market value fell after 2015/16.

Figure 13. Share price of Ramsay Healthcare, July 2011 to July 2020

Both Healthscope and Ramsay exhibited falls in share prices in around the last quarter of 2016. In 2016 Ramsay Healthcare owned 71 hospitals and day surgery facilities in Australia (223 hospitals/facilities in total, with the others mainly in the UK and France). Figure 13 shows that the share price fell from a peak of just over $80 per share at the end of September 2016 to around $55 per share in late 2018, with the share price recovering during 2019. Healthscope owned 45 hospitals in Australia in 2016 (in addition to 48 medical centres, skin clinics and overseas pathology). Its share price was between $2.25 and $3 per share in 2015/16 (Figure 14). The share price fell from $3.07 per share on the 30th September 2016 to $2.21 per share on the 31st of October, and since then had traded in a range between $1.70 and $2.50 per share. In August 2017 it sold its medical centres. In June 2019 Healthscope was taken over by ANZ Hospitals Pty, a subsidiary of Brookfield Business Partners, and de-listed from the stock exchange. It continues to operate 43 hospitals.

Figure 14. Share price of Healthscope, June 2014 to June 2019


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7. Trends in the capacity of the private hospital sector

7.1. The number, entries and exits of private hospitals

Data on the number of private hospitals came from the ABS private hospitals survey, and was reported by AIHW. Since the ABS survey ended in 2018 AIHW has not reported the number of private hospitals since 2016/17. More up to date data are published in the Department of Health’s Private Health Insurance Circulars, which provide quarterly data on changes in the number of hospitals eligible to receive health insurance benefits (known as ‘declared’ hospitals). All changes to the declared status of all public and private hospitals are published in the PHI circulars. We interpret these declarations as entries and exits into the market for privately insured patients, which includes new declarations for new hospitals or hospital mergers, and for hospital which close.

Figure 15 shows the long term growth in the number of private hospitals, and that the growth appeared to have flattened after 2018. Data on entries and exits show that the number of entries exceeded the number of exits in every year since 2008 except for 2018, when there were 15 entries and 29 exits from the market for privately insured patients (Figure 16). The number of exits in 2018 and 2019 (29 and 13 respectively) were much higher than for previous years (between 0 and 9), suggesting that there have been changes in capacity.

Figure 15. The number of declared private hospitals, 2008 to 2019

Source: Own compilation using Department of Health (DoH) declared hospitals lists 2008 and 2019 and Department of Health Private Health Insurance (PHI) circulars, 2008 to 2019.
Figure 16. The number of entries and exits of declared private hospitals, 2008 to 2019

Source: Own compilation using Department of Health (DoH) declared hospitals lists 2008 and 2019 and Department of Health Private Health Insurance (PHI) circulars, 2008 to 2019. An entry is defined as when a hospital applies and becomes a ‘declared’ hospital to receive health benefits from privately health insurance companies, and an exit is when a hospital is no longer ‘declared’.

7.2. Changes in the number of hours worked in the private sector by non-GP specialists

Another measure of changes in the capacity of the private hospital sector as a response to falling utilisation are changes in the number of hours worked by medical practitioners. In particular, non-GP specialists can choose to work in both the public and private sector, or either exclusively. With a fall in utilisation one would expect a reduction in the number of hours that non-GP specialists spend in the private sector. Data from the National Health Workforce Data set are used, which includes responses to a survey completed by all doctors when they register and has close to a 100% response rate.

Figure 17 shows a general fall in the average number of clinical hours per week worked in the private sector by non-GP specialists, with this fall accelerating after 2016. Figure 17 also shows an accompanying increase in the hours in the public sector from around 2014, with a steeper increase since 2016. The proportion of total clinical hours spent in the private sector fell from 42.3% in 2013 to 38.6% in 2018.

Figure 18 shows the total number of non-GP specialists working only in private, only in public and in dual practice. The number working only in private practice fell after 2017, the
number working only in public began to increase more quickly after 2016, whilst growth for those in dual practice was constant over the period.

**Figure 17. Number of clinical hours per week in public and private sector, non-GP specialists, 2013 to 2018.**

![Graph showing the number of clinical hours per week in public and private sector, non-GP specialists, 2013 to 2018.](image)

Source: National Health Workforce Dataset, Health Workforce Data Tool. Note: this includes hours spent in clinical work in all private settings, including private hospitals and private medical practitioner’s own rooms.

**Figure 18. Number of non-GP specialists by sector, 2013 to 2018.**

![Graph showing the number of non-GP specialists by sector, 2013 to 2018.](image)

Source: National Health Workforce Dataset, Health Workforce Data Tool. Note: this includes hours spent in clinical work in all private settings, including private hospitals and private medical practitioner’s own rooms.
8. **Discussion and conclusions**

This research examines changes to the private hospital sector, and the associated changes in the public hospital sector, before and after the fall in private health insurance membership that started in June 2015. The analysis examines broad sectoral trends but also narrow down to MDC and DRG level. We further examine labour supply of doctors and the financial performance of the private hospital industry.

Results confirm that the growth in the utilisation of healthcare in private hospitals has generally fallen since 2015-16 compared to the years before. This has happened for both private day hospitals and private acute and psychiatric hospitals. There is also evidence of fall in the number of private patients in public hospitals, suggesting this is a more general effect across the whole sector. There is some evidence of a slight increase in the growth of utilisation of public hospitals since 2015/16, where we observe a slight increase in growth of additions to public hospital waiting lists for elective surgery and in elective surgery median waiting times. This suggests a weak association between a decrease in private healthcare utilisation and an increase in public hospital activity. However, the association may or may not indicate a causal effect as there are a range of factors contributing to changes in utilisation in both sectors that we cannot account for using aggregate data.

In line with the aggregate data, examining surgical separations in private hospitals confirms that growth in utilisation has been slowing since 2015/16. The largest fall in growth in private non-day hospitals was for surgical procedures for diseases and disorders of the female reproductive system. In private day hospitals, the largest fall in growth was for diseases of the skin, subcutaneous tissue, and breast, followed by diseases and disorders of the female reproductive system. More than two-thirds of the 170 3-digit surgical DRGs experienced slower growth since 2015/16, with the largest fall in growth in private non-day hospitals for tonsillectomy and adenoidectomy, and for minor skin procedures in private day hospitals.

The fall in utilisation is also associated with a fall in profit growth in the sector since 2015/16, and with a fall in share prices for the two largest private hospital operators, with one being taken over in 2019. At the same time, there is evidence of reductions in private hospital capacity, with growth in the number of private hospitals slowing in 2018 and 2019, a large fall in major capital investment after 2015/16, and non-GP specialists more likely to be spending time in the public sector. Together, the trends from different datasets provide a consistent picture of a fall in the growth in the private hospital sector.
Our analysis is limited to publicly available aggregate data. There may be changes in coding and classification of activity over time that we have not accounted for. A major change in the coding of rehabilitation prevented us from conducting a more detailed analysis of non-surgical (medical) specialties over the time period of interest. The analysis examines associations only as there are many other factors that change over time and that influence hospital activity that are not accounted for when reporting trends over time. This also makes it difficult to analyse substitution of activity between the public and private hospital sectors. With the cessation of the ABS Private Hospitals survey in 2018, there is no longer any national data about the characteristics of private hospitals including their financial performance and for-profit/not-for-profit status.

Further research is needed to examine the effect of the fall in utilisation in private hospitals on public hospital activity. There are strong reasons to think that patients who forgo private care will not necessarily end up in the public sector, and if they do, this will be with a delay and the care they receive could be different.

There are several policy implications arising from our results. First it is important to recognise that the trends examined have been accelerated in 2020 with the onset of COVID-19. The government response put in place to guarantee capacity in hospitals led to the stoppage of all non-urgent elective surgeries in March and April, and further suspensions in Victoria in July and August. The most recently published data on private patient activity during COVID from Medicare show a sharp decline in operations in April 2020 but also a reasonably fast recovery in June 2020 (Figure 19), with the number of operations already exceeding that in June 2019, presumably to clear the backlog. How the sector will fare once the backlog is cleared remains to be seen. However, in the absence of a vaccine people will remain less likely to visit a doctor because of fears of infection. In addition, an ongoing recession is likely to accelerate the widening of the gap between increasing out of pocket payments and wage growth, thus further dampening demand and utilisation of private healthcare. Even if COVID-19 comes under control, the extent of the economic downturn will continue to weigh on PHI and private healthcare in Australia.

The private sector will respond, as we have shown, by continuing to reduce capacity as well as changing the mix of services it provides. There could be consolidation of private hospitals and private specialist medical groups to reduce costs, though evidence from the US suggests that this usually increases prices and so would not solve the underlying problem of
affordability (Gaynor et al., 2015). Non-GP specialists could start to increase bulk-billing or reduce prices to attract patients – however since price transparency is in its infancy in Australia this may not occur very quickly if at all (Zhang et al., 2020). The PHI sector could use their increases in profit from COVID-19 (since the fall in demand has reduced the benefit payments whilst premiums have not changed) to keep premiums low into the future. These factors could reduce the gap between out-of-pocket costs and wage growth and help maintain demand, but only if wage growth does not also fall because of the recession.

In an incredibly tight fiscal environment, it is unlikely that government subsidies to PHI will increase and in any case these would be unlikely to be passed onto private hospitals unless the growth in the volume of patients treated rose again. Increasing the volume of patients going to the private sector requires carefully designed incentives and changes to the regulation of private health insurance, and should not be a policy objective in its own right. The policy objective should be how best to improve health and access to healthcare for the whole population. If the government does want to increase subsidies, the question then becomes how much extra to invest in either public hospitals or private healthcare, and this should depend on the additional health gains in each sector from such investment.

**Figure 19. Number of Medicare services (operations, anaesthetics, obstetrics) June 2019 to June 2020.**

![Graph showing the number of Medicare services (operations, anaesthetics, obstetrics) from June 2019 to June 2020.](http://medicarestatistics.humanservices.gov.au/statistics/mbs_group.jsp)
Making the private healthcare market more efficient and correcting any market failures are well within the purview of public policy. Though the reforms have focused on the demand side and have improved information to consumers, consumers still have no objective information on the quality of care, on public hospital outpatient waiting times, or on waiting times to see private non-GP specialists. The onus also remains on consumers to search for and make sense of this information, rather than on providers to routinely provide these data as a condition of receiving public funds. A well-functioning private healthcare market will help to allocate healthcare resources not only within the private hospital sector but also between private and public hospital sectors.

As the private sector continues to adapt to this new environment, it is important to monitor how these changes are influencing costs (to patients and governments), and quality of care. This will help ensure the delivery of value-based health care in hospitals regardless of sector, and also provide evidence to help ensure that any changes to government expenditure generate better health for patients at least cost.
References


Duckett, S., Nemet, K., 2019. The history and purposes of private health insurance, Grattan Institute, Melbourne.


Senate Communit Affairs References Committee, 2017. Value and affordability of private health insurance and out-of-pocket medical costs, Commonwealth of Australia, Canberra.

Data appendix

A1. Data sources

AIHW Admitted patient care: Australian hospital statistics report

Published yearly by the Australian Institute of Health and Welfare (AIHW). The report series uses data from AIHW's National Hospital Morbidity Database (NHMD), which contains episode-level records from admitted patient morbidity data collection systems in Australian hospitals. This suite of publications publishes aggregate information on admitted patients' demographic information, intensity of hospital use, clinical conditions and funding sources. The scope of the NHMD includes episodes of care for admitted patients in all public and private acute and psychiatric hospitals, free-standing day facilities and alcohol and drug treatment centres.

Department of Health Hospital Casemix Protocol (HCP) Annual Reports

Published yearly by the Department of Health, the HCP annual report series publishes health statistics (such as separations, length of stay, hospital charges) provided to the Department of Health by private health funds. The report not only contains statistics at the aggregate level, it also presents disaggregated information at the AR-DRG (Australian Refined Diagnosis-Related Group) level, this allows more detailed analysis on the drivers of the trends in private health care. This report series uses data from the Department of Health Hospital Casemix Protocol data collection (HCP1).

AIHW Elective surgery waiting times: Australian hospital statistics report series

Published yearly by the Australian Institute of Health and Welfare (AIHW). This report series contains health statistics such as the number of admissions and waiting times for admission from elective surgery waiting list. The information is disaggregated by patient characteristics such as age, gender, indigenous status and whether they have private health cover.

APRA Quarterly private health insurance statistics.

Published quarterly by the Australian Prudential Regulation Authority (APRA), this collection of publications uses information provided by private health insurers to present aggregate information on key financial and membership statistics in the private health insurance industry. Some publications within this collection include detailed statistics such as private health insurance membership and benefits, membership and coverage, medical gap, prostheses,
medical services statistics as well as aggregate statistical trends in the private health insurance industry.

**Department of Health declared hospitals list and PHI circulars**

Published monthly by the Private Health Insurance Branch of the Australian Government Department of Health. Private Health Insurance circulars are documents that inform private health insurers, Australian licensed private hospitals and day hospital facilities, state and territory health authorities and other stakeholders of any changes in eligibility for private health insurance benefits, as well as information on Australian Commonwealth Government legislation which governs the operation of private health insurance.

**Department of Health declared hospitals list**

Published by Department of Health, the list contains all public and private hospitals declared by the Commonwealth Health Minister (or delegate) under the Private Health Insurance Act 2007. A hospital needs to be declared to receive benefits from health insurers and indicates a hospital’s participation in the market for privately insured patients.

**ABS Private Hospitals Survey**

Published yearly by the Australian Bureau of Statistics, this annual report series uses data from ABS’s annual Private Health Establishments Collection (PHEC), which is collected through an annual census of all licensed private hospitals in Australia (including acute and psychiatric hospitals and free-standing day facilities). The report series presents aggregate information on the private hospital sector. The aggregate statistics reported include financial performance, staffing and activity levels, as well as the number of facilities across Australia. The report series started in 1992-93 and ceased in 2016/17.

**Department of Health National Health Workforce Dataset (NHWDS)**

Compiled annual by the Department of Health using data from the Australian Health Practitioner Regulation Authority (AHPRA) and the national boards. Information are collected through an annual registration renewal process and a concurrent voluntary survey of all Australian health professionals in 14 health professions. Department of Health is the current data custodian and the data are made available on DoH’s website using a table builder. This data collection contains detailed demographic and employment information on registered health professionals.
A2. Data limitations.

A2.1. Changes in ICD-10-AM/ACHI/ACS coding standard over time

This relates to the way in which admitted episodes of care are recorded by hospitals. Between 2014-15 and 2015-16, changes in the Australian Coding Standard (ACS) 2104 Rehabilitation were introduced for the 9th edition of ICD-10-AM. Prior to 1 July 2015, episodes of care involving rehabilitation activities are given the ICD-10-AM diagnosis code Z50. Care involving the use of rehabilitation procedure as the principle diagnosis (the principal diagnosis is defined as the diagnosis established after study to be chiefly responsible for occasioning the patient’s episode of care in hospital). From 1 July 2015, this diagnosis code was no longer an acceptable principle diagnosis, instead, the reason(s) for the rehabilitation was to be reported as the principle diagnosis.

This change significantly affected how admitted episodes of hospital care were coded from 2015-16 onwards. Given separation statistics at the AR-DRG level and MDC level rely on using the primary diagnosis codes given to a separation, AR-DRG and MDC level statistics are also affected by this change. This reduces the comparability of separations data before and after 2015-16 for non-surgical AR-DRGs. To ensure analyses where data are presented at the MDC or AR-DRG level reflect real changes in use of private health care, we focus on AR-DRGs where only surgery was the primary diagnosis.

A2.2. Changes in AR-DRG version over time

This relates to the way in which each admitted episode of care is grouped into AR-DRGs using ICD-10-AM/ACHI/ACS diagnosis and procedure codes. The purpose of such groupings is to more effectively determine the casemix of a hospital and the resource intensiveness of the casemix, so as to more efficiently allocate funding across hospitals. The table below shows AR-DRG versions each data set used in each year:
Table A1. AR-DRG version changes by data set, 2012/13 to 2018/19

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Major changes between AR-DRG version 6.0x and AR-DRG version 7.0:

Due to lack of comparisons between version 6.0x and version 7.0, the below presents comparison of version v6.0 to v7.0. Version 6.0x was an intermediate version between v6.0 and v7.0. It was used as a temporary measure before the release of v7.0. It already incorporated some of the changes that were to happen in v7.0. Therefore, there were fewer changes between v6.0x and v7.0 compared to changes from v6.0 to v7.0. Figure A1 below shows summary of changes from version 6.0 to 7.0.

Figure A1. Summary of changes from version 6.0 to 7.0

As shown, 80% of episodes were grouped in the same way as v6.0. Of the 20% of episodes that showed some change in the way they were grouped, very few (0.1%) episodes moved between MDCs, 17% of those that changed remained in the same ADRG and only 3.4% were categorised into a different ADRG because of the change from v6.0 to v7.0.

Table A1 shows the only data used in this research that are grouped using AR-DRG v6.0x are the 2012-13 MDC and AR-DRG level data from AIHW AR-DRG data cube, and AIHW Admitted patient care: Australian hospital statistics report. In addition, we only include ADRG level data from HCP annual reports, which is free from this change. Therefore, trends presented in this research are unlikely to be driven by changes in AR-DRG version from 6.0x to 7.0.

Major changes between AR-DRG version 7.0 and version 8.0:

The main change was the revision of the way in which ADRGs (3 digit) were split into DRGs (4 digit) by case complexity. An Episode Clinical Complexity (ECC) Model was introduced in version 8.0 to assign a score to each episode of care to represent the relative resource intensiveness within each ADRG. All our analyses were based on more aggregate categorisations (MDCs and ADRGs), so we anticipate the trends presented in this paper to remain relatively unaffected by the changes from version 7.0 to 8.0.