# Queensland Hospitals against their interstate public peers

## Introduction

In our first paper (Queensland’s Health Challenge) we determined that the financial trajectory of the Queensland hospital system was unsustainable and that changes would need to be made, potentially including tax increases, restriction of services, patient co-payments, or efficiency gains.

Of all of these options efficiency gains are the most attractive as they involve no reduction in services, availability or price, and in fact may involve more services for more people at less cost to the taxpayer.

They may even result in higher staff pay.

To start to explore the question of efficiency we decided to compare the Queensland hospital system to its interstate counterparts.

## Executive Summary

The Australian hospital system is broken. In a properly functioning federal system the various state and territory hospital systems would learn from each other and tend to converge on best practice.

Our analysis of the different state systems shows that in almost all categories New South Wales outperforms its peers. This appears to be a result of three factors that give it significantly better efficiency than any other hospital system. These are a relatively high percentage of medical staff who are on contract, rather than salaried (Visiting Medical Officers or VMOs); treating more patients without admitting them; and having more medium-sized hospitals and fewer mega hospitals than the average.

The Queensland hospital system is significantly less efficient than New South Wales. If it ran at the same level of efficiency, it could treat the same number of patients for two-thirds the cost, or alternatively treat 50% more patients for the same cost.

In reality Queensland would be able to cut costs and increase the number of patients seen (thus reducing waiting lists). These improvements could reduce the strain on the budget, and also reward staff with higher pay to reflect the increase in efficiency.

The mystery is why, with the vastly superior performance of New South Wales on almost all counts, the other states and territories have not moved to copy it. It is beyond the scope of this study to examine that in detail, but there is an obvious failure of the federal health system, and also probably of local hospital management.

In the first place, with states providing most of the funding for hospitals, there should be an incentive for them to introduce efficiencies to either extend their services at no extra cost, or to maintain services at the same level at a lower cost.

With the crisis in funding identified in our first paper this should be being addressed urgently.

Second, hospital administrators in a properly functioning system should be on the lookout for efficiencies for their own hospitals. With a major reason for efficiency being the higher proportion of doctors who are VMOs, it should be an easy thing for a properly run hospital to change their staff mix and reap the benefits.

However, in Queensland, hospital administrations don’t have real decision-making powers and staffing is essentially determined centrally by the Health Department, no doubt with significant union input.

There is an urgent need for both Commonwealth and Queensland governments to review and radically rethink the way they fund and administer hospitals so that competition can be restored between and within hospital systems.

## Basis of our analysis

Our analysis is based on an examination of the relative performance of each of the state hospital systems over a number of areas. This is not an exhaustive analysis, but we believe we have covered the most significant areas which impact on the efficiency and performance of the various state and territory health systems.

We have also tended to put most weight on comparisons of Victoria, New South Wales and Queensland as these are the three largest hospital systems and have more in common with each other than they do with the three other states and the two territories.

While Western Australia and South Australia are geographically large states, they have small populations and most of their populations live in the capital city. Tasmania is an even smaller state but is slightly more decentralised. Canberra is not much more than a city and is nested within New South Wales. The Northern Territory is the smallest administrative unit and is significantly different with a large rural and indigenous population. Its performance tends to be an outlier on just about every measure.

The metrics that we examine are:

* Physical capacity
	+ Beds per 1,000 population
	+ Private and public beds per 1,000 population
	+ Separations per 1,000 population
	+ Decentralisation of the system (number and size of hospitals)
	+ Visiting medical officers
	+ Hospital staff per 1,000 population
	+ Staff per 1,000 separations
	+ Staff to staff ratios
	+ Separations by state
* Financial
	+ Cost per separation
	+ Cost per staff member by classification
* Other
	+ Waiting times
	+ Ambulance ramping
	+ Separations with an adverse event
	+ Unplanned readmissions

## Comparative population-wide health outcomes

Queensland achieves comparable health outcomes on a population basis to the rest of the country. What this means across the whole is that no matter how much a state or territory does, or doesn’t, spend on hospitals, the outcomes are similar. Spending more doesn’t produce a better outcome, and spending less doesn’t produce a worse outcome.

The best way to measure health outcomes is by comparing life expectancy. While comparative measures are available for treatment of various diseases in hospitals using these would ignore the possibility of confounding factors and that hospitals are part of an entire health system, so judging them on a standalone basis would be misleading. It also becomes very complex because of the number of variables and is prone to cherry-picking. Life expectancy is a single number which measures the indicator that is personally most important to most people.

However, it should also be noted that there has been a decline in life expectancy over the last year which needs to be investigated but is outside the scope of this report.

**Sources:**

AIP Calculation

*Australian Bureau of Statistics. (2024). Life Expectancy. Retrieved from*[*https://www.abs.gov.au/statistics/people/population/life-expectancy/latest-release*](https://www.abs.gov.au/statistics/people/population/life-expectancy/latest-release)

Australia is ranked number 10 in the world for life expectancy.[[1]](#endnote-2) The differences between the states are small and are probably explained by the percentage of rural and regional populations in each state, and the percentage of the population from lower socio-demographic groups, including indigenous.

The area with the lowest life expectancy at birth is the Northern Territory, and with the highest the ACT. Victoria is less decentralised than New South Wales and Queensland more decentralised again. Western Australia, while a large state has an overwhelming majority of its population living in the capital city, as does South Australia.

Queensland has an average income slightly less than that of Victoria and New South Wales. Western Australia has the highest average income, followed closely by the ACT.

Income counts when it comes to life expectancy. The only anomaly here is the Northern Territory which has a high *per capita* income.[[2]](#endnote-3) Our assumption is that high incomes in the mining industry and Darwin drag the average income up, but the high percentage of indigenous drags the health outcomes down.

So, for the purposes of this analysis we are going to assume that the health outcomes of the various hospital systems are so similar as to make only a marginal difference.

## Physical capacity

In this section we compare the capacities of the various health systems in terms of infrastructure and labour.

### Beds per 1,000 population

Source: *AIHW, Hospital Resources Table (2020-21) and Hospital Resources Table (2021-22): Australian Hospital Statistics. Sheet 4.6. Retrieved from* [*https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx*](https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx) *on November 23, 2023.*

At 2.51 beds per thousand Queensland has slightly more beds per capita than the Australian average and has maintained that for the period between 2016-17 and 2021-22. During the same time the Australian average has come down driven by decreases in beds per thousand in both New South Wales and Victoria. New South Wales still has more beds per capita than the Australian average, and also Queensland, but Victoria is approximately 10% lower.

### Private and public beds per 1,000 population

To ensure the picture was not distorted by the greater use of private hospitals in any particular jurisdiction we accessed information showing public hospital beds per thousand in 2017-18 and private hospital beds per thousand in 2016-17.

Source: *AIHW Resources Table 2017-18 Sheet 4.14. Retrieved August 7, 2024* [*https://www.aihw.gov.au/reports/hospitals/hospital-resources-2017-18-ahs/data*](https://www.aihw.gov.au/reports/hospitals/hospital-resources-2017-18-ahs/data)

Data wasn’t available for all states. New South Wales has the smallest penetration of private hospital beds and Western Australia the highest, but New South still has more beds per thousand in total than the other states for which we have data.

However, beds per thousand is only half of the story. A more efficient hospital system may be able to perform better, or the same, using fewer beds per thousand, or they may have much greater throughput with the same number of beds per thousand.

The graph in the next section tends to confirm that this might be the case. While New South Wales has slightly more beds per thousand than Queensland, it handles 52% more separations per thousand, and a similar number of separations per thousand to the ACT.

### Separations per 1,000 population

**Sources:**

*Australian Bureau of Statistics. National, state and territory population. Retrieved January 19, 2024, from* [*https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population*](https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population)

*Australian Institute of Health and Welfare.  Admitted patient care. Retrieved October 3, 2023, from* [*https://www.aihw.gov.au/reports-data/myhospitals/content/out-the-data*](https://www.aihw.gov.au/reports-data/myhospitals/content/about-the-data)

“Separations” is a figure which represents every time a person leaves a hospital. It can differ from state to state for a number of reasons, including the level of illness or accident in the state – factors which disproportionately affect the NT. Or it might reflect the fact that the hospital system is dealing with a higher proportion of the population than the private sector. Of the mainland states New South Wales has more separations per thousand than any other, followed by Queensland which is one-third lower.

Using the number of separations per thousand we can make judgments on how efficient the various hospital systems are. As discussed above, Queensland and New South Wales have very similar bed numbers per capita, but New South Wales is obviously getting more use out of theirs and using their resources more efficiently.

This can be demonstrated by plotting separations against beds.

**Source:**

*Australian Institute of Health and Welfare. (2024). Hospital Resources 2020–21 Table 4.6. Retrieved from*[*https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx*](https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx)

*Australian Institute of Health and Welfare. (2024). Non-Admitted Patient Care 2020–21: Table S1.1: . Retrieved from h*[*https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx*](https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx)

*Australian Institute of Health and Welfare. (2024). Non-Admitted Patient Care 2020–21: Table S3.7 Retrieved from*[*https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx*](https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx)

How does New South Wales in particular achieve this higher efficiency? There may be efficiencies within each hospital that affect this – such as discharging patients sooner rather than later – but these are not measured by the statistics.

However, one way that the statistics do measure is how many patients actually make it to beds in the first place. As the graph below shows, the secret of New South Wales’ success appears to lie in the large number of non-admitted separations.

Sources:

*Australian Institute of Health and Welfare. (2024). Non-Admitted Patient Care 2020–21: Table S1.1: Non-admitted patient service events and estimated proportion of service events reported at the episode-level, states and territories, 2020–21. Retrieved from*[*https://www.aihw.gov.au/reports-data/myhospitals/sectors/non-admitted-patients*](https://www.aihw.gov.au/reports-data/myhospitals/sectors/non-admitted-patients)

*Australian Institute of Health and Welfare. (2024).  Admitted Patient Care 2020–21: Table S3.7: Separations, by Indigenous status, public and private hospitals, states and territories, 2020–21. Retrieved from*[*https://www.aihw.gov.au/reports-data/myhospitals/sectors/admitted-patients*](https://www.aihw.gov.au/reports-data/myhospitals/sectors/admitted-patients)

### Decentralisation of the system (how many hospitals offer what level of service)

Source: *Australian Institute of Health and Welfare. (2017). Australia’s hospitals 2016–17 at a glance: Data insights [PDF]. Table 1 . Public hospitals, states and territories, 2016–17.*

Another possible factor in the efficiency of New South Wales might be the fact that it has more hospitals than average in the range of 10 beds to 500, with the heaviest weighting at the bottom of that range, and it is underweight the national average on hospitals with over 500 beds.

This suggests there may be diminishing economies of scale in the hospital system and that smaller hospitals may be better placed to use their assets more efficiently – perhaps because comparatively smaller hospitals have fewer layers of management and can be more responsive to the needs of their publics.

Further study needs to be undertaken in this area.

### Visiting medical officers

There are two types of medical officers – salaried and visiting. The visiting medical officers (VMOs) are contractors and are paid per procedure. New South Wales makes the greatest use of them.

There are no official statistics for the Full-time Equivalent hours worked by VMOs, which complicates analysing staff ratios.

We estimate that the FTE number of VMOs in New South Wales is in the order of 2,440. We know that in 2011 the average VMO in New South Wales was paid $119,000, but we don’t know how many hours they worked. We also know that staff specialist remuneration in the same year was in a range of $198,212 to $390,528 per annum, excluding additional payments such as overtime.

In 2021 dollars the top of the range for salaried doctors would be $477,467. On the assumption that VMOs are likely to be paid at, or above, the top of the range on an FTE basis, on a conservative basis there were 2,044 VMO FTEs at $477,467 against a total medical workforce of 17,087, representing 12%[[3]](#footnote-2). We calculate this by dividing the total payments to VMOs by the top of the range salary.

**Source:**

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21: Table 2.6*. Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

The graph below tracks separations per thousand against the percentage of VMOs and we find there is a correlation of 0.76 between the cost per separation and the employment of VMOs. This is statistically very significant.

*Source:*

*AIP VMO Estimates*

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21: Table 2.6*. Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Payments to VMOs range from 24% of total medical payrolls in New South Wales to 1% in Tasmania. New South Wales has the lowest cost per separation, and Tasmania the highest. In this context Queensland is an outlier with a very small proportion of VMOs but a relatively low cost per separation.

### Hospital staff per 1,000 population

Source: Australian Institute of Health and Welfare. (2021). Table 3.2: Average full-time equivalent staff(a), by staffing category, public hospital services, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Another factor in efficiency is how many staff there are per 1,000 population. On this measure South Australia performs the best. Queensland is less efficient than the Australian average while New South Wales is effectively on the average.

However the official statistics do not take account of VMOs. We have added our estimates to the graph below which shows a small increase as a result.

Source:

Australian Institute of Health and Welfare. (2021). Table 3.2: Average full-time equivalent staff(a), by staffing category, public hospital services, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

### Staff per separations

The following graph takes the above information and measures staff per separations. New South Wales and the ACT are similarly efficient. Victoria and Tasmania are the least efficient. On average a staff member in New South Wales or the ACT deals with two-thirds more patients than Queensland, and more than twice as many as Victoria, WA or Tasmania.

The New South Wales figure reflects the fact noted above that it has many more separations that are not admitted than any other state.

**Source:**

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21: Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2020–21*. Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

**Source:**

1. AIP Estimate for VMOs
2. Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21: Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2020–21*. Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

### Staff ratios – admin to other staff

**Source**

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

These are the figures without VMOs, while the graph below contains our estimate of VMOs. They only make a difference to the ratio of admin to doctors. While New South Wales looks to be the most over-staffed with administrators versus doctors, it comes closer to the average after adjustment below.

 **Source**

AIP Calculation for VMOs

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Each hospital system has different ratios of administrative staff to frontline staff. Interestingly the most efficient system in terms of throughput, New South Wales, has a higher staff to salaried medical officer ratio than any other state bar Western Australia.

### Staff ratios – nurses to doctors

**Source:**

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

This graph gives some idea of the efficiency of nurses by comparing them to the number of doctors as a ratio. However, as it does not allow for visiting medical officers, it is misleading. We have adjusted the figures below with our estimates of VMO numbers.

Source:

AIP Calculation of VMO’s estimate

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Both these graphs demonstrate that Queensland’s nursing workforce is quite productive compared to the other states, and that Western Australia appears to have the most efficient.

### Staff ratios – doctors and nurses per 1000 population

**Source:**

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Another measure of efficiency is how many staff the hospitals have per 1000 of population. This is also affected by the underlying need in the state. This graph measures nurses and doctors. We have adjusted it below for our estimates of VMOs.

**Source:**

AIP estimate of VMOs

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

### Staff ratios - doctors and nurses per 1000 separations

**Source:**

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Australian Institute of Health and Welfare. (2024). *Non-Admitted Patient Care 2020–21:* Table S1.1: Non-admitted patient service events and estimated proportion of service events reported at the episode-level, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/reports-data/myhospitals/sectors/non-admitted-patients>

Australian Institute of Health and Welfare. (2024).  *Admitted Patient Care 2020–21:* Table S3.7: Separations, by Indigenous status, public and private hospitals, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/reports-data/myhospitals/sectors/admitted-patients>

Perhaps the best measure of efficiency is staff per 1,000 separations as it looks at the average throughput. New South Wales’ throughput is startlingly better than anywhere else’s. Queensland is slightly worse than average, but better than Victoria, Western Australia, South Australia and Tasmania.

As with the other graphs, this lacks figures for the VMOs, who are included, using our estimates, in the following graph.

**Source:**

AIP estimation of VMOs

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Australian Institute of Health and Welfare. (2024). *Non-Admitted Patient Care 2020–21:* Table S1.1: Non-admitted patient service events and estimated proportion of service events reported at the episode-level, states and territories, 2020–21. Retrieved <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Australian Institute of Health and Welfare. (2024).  *Admitted Patient Care 2020–21:* Table S3.7: Separations, by Indigenous status, public and private hospitals, states and territories, 2020–21. Retrieved <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

### Separations by state – 2021

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **(in 000)**  |  **NSW**  |  **Vic**  |  **Qld**  |  **WA**  |  **SA**  |  **Tas**  |  **ACT**  |  **NT**  |  **Total**  |
|  **Total admitted patient**  | 1,898.96 | 1,822.04 | 1,685.36 | 644.48 | 466.25 | 140.19 | 129.55 | 182.37 | 6,837.10 |
|  **Total non-admitted patient service events(b)**  | 19,874.94 | 6,250.58 | 7,646.35 | 3,119.59 | 2,275.51 | 558.38 | 1,110.11 | 665.19 | 41,482.71 |
|  **Total Separations**  | **21,773.90** | **8,072.62** | **9,331.71** | **3,764.07** | **2,741.75** | **698.57** | **1,239.66** | **847.56** | **48,319.80** |

**Sources**

Australian Institute of Health and Welfare. (2024). *Non-Admitted Patient Care 2020–21:* Table S1.1: Non-admitted patient service events and estimated proportion of service events reported at the episode-level, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/reports-data/myhospitals/sectors/non-admitted-patients>

Australian Institute of Health and Welfare. (2024).  *Admitted Patient Care 2020–21:* Table S3.7: Separations, by Indigenous status, public and private hospitals, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/reports-data/myhospitals/sectors/admitted-patients>

The differences between most of the states and New South Wales are so stark that we have included the figures for separations here. What is most striking is that New South Wales is the biggest state with 32% of the population, but the separation figures for admitted patients is similar to Victoria with 26% of the population and around 200,000 higher than Queensland that has only 21% of the population. The difference is more than made up by non-admitted patient events which is three times higher than Victoria, the state with the next highest number.

## Financial

### **Cost per separation**

 Source:

Australian Institute of Health and Welfare. (2024). *Non-Admitted Patient Care 2020–21:* Table S1.1: Non-admitted patient service events and estimated proportion of service events reported at the episode-level, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/reports-data/myhospitals/sectors/non-admitted-patients>

Australian Institute of Health and Welfare. (2024).  *Admitted Patient Care 2020–21:* Table S3.7: Separations, by Indigenous status, public and private hospitals, states and territories, 2020–21. Retrieved from <https://www.aihw.gov.au/reports-data/myhospitals/sectors/admitted-patients>

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21:* **Table 2.6: Recurrent expenditure ($’000) on public hospital services, states and territories, 2019–20.** Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

This graph combines the salaried medical officers and the VMOs using actual expenditures. The reliance of New South Wales on treating people without admitting them has an obvious effect on cost across the board.

### Average cost of staff

Source:

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21:* **Table 2.6: Recurrent expenditure ($’000) on public hospital services, states and territories, 2019–20.** Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

Australian Institute of Health and Welfare. (2024). *Hospital Resources 2020–21* *Table 3.2: Average full-time equivalent staff, by staffing category, public hospital services, states and territories, 2019–20.* Retrieved from <https://www.aihw.gov.au/getmedia/e0e946d9-3d84-48b3-954a-e97f96814c0a/Hospital-resources-tables-2020-21.xls.aspx>

New South Wales pays the lowest salaries in all but one category. This obviously has an effect on the cost per separation, and explains some, but not all, of the difference between the New South Wales figure and that of the other states.

Queensland has above average wages in every classification apart from admin and clerical staff where it is $698 below the average.

New South Wales has a markedly low payment for salaried medical officers which is 26% below the next cheapest and 22% below the average (which it has dragged down). We surmise this is because of the heavy use of VMOs leaving less-experienced doctors to fill the positions of salaried medical officers at lower-than-average rates of pay. Queensland nurses are the best paid of the states.

## Other

To date our analysis has concentrated on financial and physical indicators without taking the outcomes into account. In this section we look at factors that indicate the quality of the work, rather than the cost. New South Wales looks like it has by far the most efficient financial outcomes, but how does it rate on performance? Queensland is generally above average on financial performance, but what about other outcomes?

### Waiting lists

### Australian Institute of Health and Welfare. Admitted patient care. Table 5.1: Emergency presentation waiting time statistics, states and territories, 2017–18 to 2021–22. Retrieved October 3, 2023, from

<https://www.aihw.gov.au/reports-data/myhospitals/sectors/emergency-department-care>

 Waiting times provide a guide as to how efficiently resources are being used. A shorter waiting time indicates either more capacity or faster throughput. When it comes to waiting times, New South Wales is again a clear leader. Queensland comes next. Some of this is explained by the number of hospital beds in New South Wales, particularly as it treats a large number of patients without admitting them. And some of it by more efficient use of the beds that it does have.

However the Queensland performance has been deteriorating since 2019-20 while New South Wales has continued to improve.

### Ambulance ramping



 **Target:** Average transfer time of 25 minutes

- **In 2020-21**: Average transfer time was 30.6 minutes for all NT hospitals and 35.2 minutes for Royal Darwin Hospital

**In 2020-21**: Only 65.2% of patients were transferred within 30 minutes

- **Has not met the target for 7 years**

 **ACT**

**Target**: 90% of patients transferred within 30 minutes

**In 2020-21:** Only 62.3% were transferred within 30 minutes

**Target:** 90% of patients transferred within 30 minutes

**In 2020-21:** Only 84.8% were transferred within 30 minutes

**Target**: 90% of patients transferred within 30 minutes

**In 2020-21**: Only 54.1% were transferred within 30 minutes

**Target**: 90% of patients transferred within 30 minutes

**In December 2020** reporting period: Only 62.7% transferred within 30 minutes

**Ambulances spent** 52,439.9 ramping hours outside hospitals in 2021, nearly double the 25,902.1 hours in 2020

**Target:** 90% of patients transferred within 40 minutes

**In 2020-21**: Only 72.7% were transferred within 40 minutes

|  |
| --- |
| **Target:** 100% of patients transferred within 30 minutes  |
|  In 2020-21: Only 79.6% were transferred within 30 minutes |

|  |  |  |
| --- | --- | --- |
| State | Target | Status |
| New South Wales | 90% of patients transferred within 30 minutes | In 2020-21: Only 84.8% were transferred within 30 minutes |
| Victoria | 90% of patients transferred within 40 minutes | In 2020-21: Only 72.7% were transferred within 40 minutes |
| Queensland | No specific target mentioned | In 2020-21: Only 65.2% of patients were transferred within 30 minutes |
|  |  | Has not met the target for 7 years |
| Western Australia | 90% of patients transferred within 30 minutes | In December 2020: Only 62.7% transferred within 30 minutes |
| South Australia | 90% of patients transferred within 30 minutes | In 2020-21: Only 54.1% were transferred within 30 minutes |
| Tasmania | 100% of patients transferred within 30 minutes | In 2020-21: Only 79.6% were transferred within 30 minutes |
| Australian Capital Territory | 90% of patients transferred within 30 minutes | In 2020-21: Only 62.3% were transferred within 30 minutes |
| Northern Territory | Average transfer time of 25 minutes | In 2020-21: Average transfer time was 30.6 minutes for all NT hospitals |
| In 2020-21: Average transfer time was 35.2 minutes for Royal Darwin Hospital |

Victorian Government Department of Health. (2015, May). *Improving ambulance transfer performance* [Fact sheet]. <https://www.health.vic.gov.au/sites/default/files/migrated/files/collections/factsheets/i/improving-ambulance-transfer-performance---fact-sheet---may-2015---pdf.pdf>

Victorian Government Department of Health. (n.d.). *Improving patient transfer from ambulance to emergency department*. <https://www.health.vic.gov.au/patient-care/improving-patient-transfer-from-ambulance-to-emergency-department>

Krause, J. (2022, May 16). *All states, territories failing on ramping targets*. Tasmanian Times. <https://tasmaniantimes.com/2022/05/all-states-territories-failing-on-ramping-targets/>

Australian Medical Association. (2023). *2023 ambulance ramping report card*. https://www.ama.com.au/articles/2023-ambulance-ramping-report-card

Australian Medical Association. (2022, May). *Ambulance ramping report card* [PDF]. [https://www.ama.com.au/sites/default/files/2022-05/ambulance-ramping-report-card.pd](https://www.ama.com.au/sites/default/files/2022-05/ambulance-ramping-report-card.pdf)

Ambulance ramping provides another guide to efficiency. Waiting times are for procedures that are planned, and ambulance ramping is an indication of what happens when unplanned events occur. The table above shows that New South Wales is again on top. 84.8% of patients in ambulances were admitted within 30 minutes of arrival in New South Wales, but that figure drops to 65.2% for Queensland.

### **Separations with an adverse event**

These are figures for people leaving hospitals who have an adverse event. It won’t necessarily be a result of hospitalisation. On this measure Queensland is third lowest with New South Wales fourth highest – a mark in favour of Queensland and against NSW.

Source: AIHW (unpublished) *National Hospital Morbidity Database.*

Queensland also scores well for falls in hospital, while New South Wales is the second worst.

**Australian Institute of Health and Welfare**. (2021). Australia's health performance framework. AIHW. <https://www.aihw.gov.au/reports-data/australias-health-performance/australias-health-performance-framework/national/all-australia/safety/safety/2_2_1>

### Unplanned readmissions

Source: Australian Institute of Health and Welfare. (n.d.). Health system: Australia's health performance framework. Retrieved January 25, 2024, from <https://www.aihw.gov.au/reports-data/australias-health-performance/australias-health-performance-framework/national/all-australia/continuity>

This category covers people who need to return to hospital because the procedure has been unsuccessful. This may be because the doctor or the hospital was at fault, but it can also be for a number of other reasons. However it provides some measure of the quality in the various systems because the other reasons could be expected to be randomly spread within systems, while those arising from systemic issues wouldn’t be.

On this metric New South Wales does rather well, although its performance has declined since 2013-14. It is second best, behind Victoria, and only just ahead of the ACT. Queensland does the worst and has rapidly declined over the 5 year period, It has a rate around 50% higher than New South Wales, and 35% worse than the national average.

## Analysis

This paper sets out to situate Queensland with respect to best practice in the health system. On the basis of the various metrics considered here, New South Wales is the clear leader in Australia in terms of efficiency and cost.

We find that it has:

* more beds per thousand population than its two closest states, Victoria and Queensland
* more than twice as many separations per thousand of population than Victoria, and half as many more separations per thousand as Queensland
* 70% more separations per bed than Victoria and 30% more than Queensland
* fewer hospitals with more than 500 beds than Queensland and Victoria, and fewer hospitals with 10 or fewer beds, but a heavier concentration than either of hospitals with a range of 10 to 50 beds
* the highest percentage of its payroll going to VMOs (26%) compared to Victoria 6% and Queensland 3%
* more staff per 1,000 population than the Australian average, less than Queensland, and more than Victoria
* 40% fewer staff per separation than Queensland and 54% fewer than Victoria
* higher admin to staff ratios compared to Queensland and Victoria for doctors, nurses and personal care staff, while fewer than Queensland for Health Professionals, but slightly more than Victoria for the same classification
* the same nurse to doctor ratio as Victoria and higher than Queensland
* fewer doctors and nurses per capita than Victoria or Queensland
* drastically fewer doctors and nurses per separation than Queensland or Victoria
* the lowest costs per separation for doctors and nurses in the country (60% for doctors and 63% for nurses)
* the lowest salaries for medical officers and nurses in the country
* the shortest waiting times
* the least ambulance ramping
* higher percentages of separations per thousand with an adverse event than Queensland (+23%) or Victoria (+15%), and higher than the Australian average
* higher percentages of falls in hospitals than Queensland (+49%) and Victoria (+71%)
* more unplanned readmissions than Victoria (+14%) but much fewer than Queensland (-31%)

This makes it the clear leader in terms of numbers of patients cared for in terms of the use of the physical infrastructure, staff and finances. There appear to be some quality control issues in terms of accidents in hospitals, with a higher number of falls than Queensland and Victoria, adverse events, and the quality of surgery. While there are significant shortcomings in these quality control issues, the numbers are small in absolute terms, being generally less than one per cent.

Two factors stand out as contributing to the massively larger throughput for New South Wales than almost any other state – the use of visiting medical officers, and treating many more patients without admitting them. The correlation is a strong 0.76 for the use of VMOs and the relationship with non-admitted patients clear from the use ratios.

A third factor which may contribute is that New South Wales has more smaller and medium hospitals than its other two most comparative states, and fewer mega hospitals of 500+ beds.

## Conclusion

The Queensland hospital system is operating below par in terms of most financial and staffing indicators, as well as wait times and ambulance ramping. New South Wales is the state with the best record in most areas, and Queensland health needs to look at what they are doing.

In particular it needs to drastically increase the number of visiting medical officers, and determine how New South Wales is able to treat so many people without admitting them.

It should also look at how its hospitals are structured and run. That the benefits of the New South Wales system have been either ignored, or are unknown, indicates a hospital system which is unresponsive to financial concerns and the needs of patients for treatment.

Reorganising the system would provide taxpayers with a better return on their taxes, as well as dramatically increasing staff productivity which should lead to pay increases. It should be noted that New South Wales has the lowest paid hospital staff in the country, showing that even though a system is more efficient, the benefits are not necessarily shared with the staff.

There is an opportunity for the NPAQ to lobby for improved efficiency in Queensland’s hospital system, in return for a greater share of the health budget for their members. Given the efficiencies that New South Wales is able to achieve there should be room to accommodate both staff and tax payers.

1. https://www.worldometers.info/demographics/life-expectancy/ [↑](#endnote-ref-2)
2. Australian Bureau of Statistics (May 2023), [Average Weekly Earnings, Australia](https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/average-weekly-earnings-australia/latest-release), ABS Website, accessed 29 November 2023. [↑](#endnote-ref-3)
3. Visiting medical officers and staff specialists – report by the Audit Office of New South Wales 14 December 2011. <https://www.audit.nsw.gov.au/our-work/reports/visiting-medical-officers-and-staff-specialists> [↑](#footnote-ref-2)