Submission to the ACT Legislative Assembly Standing Committee on Health, Ageing and Community Services 'Inquiry into the future sustainability of health funding in the ACT'

By

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Introduction

The Committee is inquiring into the future sustainability of health funding in the ACT. Therefore, we think it is useful for the Committee to have some data as to what may be the drivers of health expenditure into the future.

In order to understand where health expenditure might be going in the future, we first need to understand the drivers of health expenditure growth in the past.

This paper analyses the drivers of admitted patient expenditure for Australia for the period 2004-05 to 2012-13. These data can then be used to forecast health expenditure, as was done for the National Health and Hospitals Reform Commission by one of the authors of this submission. [1]

Admitted patient expenditure growth analysis

In this paper, we are focusing on admitted patient expenditure data for the period 2004-05 to 2012-13, as that is the period for which the AIHW has produced detailed data for Australia for public and private hospitals broken down by disease, age and sex. Summary data from this data base were published in 'Australian health expenditure- demographics and disease'. [2]

Admitted patient expenditure in public and private hospitals grew by 86.2% from $24.2 billion in 2004-05 to $45 billion in 2012-13, in current prices.

This is an annual average growth of 8.1%.

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[1] Goss J 2008. Projection of Australian health care expenditure by disease, 2003 to 2033. Cat. no. HWE 43.Canberra: AIHW.

[2] Australian Institute of Health and Welfare 2017, Australian health expenditure-demographics and diseases: hospital admitted patient expenditure 2004-05 to 2012-13. Health and welfare expenditure series n. 59. Cat. No. HWE 69. Canberra. AIHW.

About 72% of admitted patient expenditure was funded by Governments in 2012-13, and 74% in 2004-05. Therefore, the annual average growth of Government funded admitted patient expenditure was 7.8%.

This rate of expenditure growth is high compared to many other areas of government expenditure. It is higher than the average growth for all government expenditure of 7.0% per year and it is higher than Education which grew at 6.9% per year, and higher than public order and safety which grew at 7.0% per year (Table 1).

Table 1: Growth in General Government Expenditure by purpose, all jurisdictions, 2004-05 to 2012-13

	2004-05	**2012-13**	**2004-05 to 2012-13**
	$m	$m	Annual average growth
Public debt transactions	15,484	31,815	9.4%
Housing and community amenities	11,565	23,107	9.0%
Other economic affairs	8,424	15,494	7.9%
Admitted patient services	17,800	32,500	7.8%
Health	**57,381**	**102,191**	7.5%
General public services	19,038	33,707	7.4%
Public order and safety	14,817	25,549	7.0%
Transport and communications	17,289	29,687	7.0%
Education	46,711	79,484	6.9%
Mining, manufacturing and construction	2,640	4,479	6.8%
Social security and welfare	90,123	146,184	6.2%
Recreation and culture	8,154	12,998	6.0%
Defence	13,128	20,752	5.9%
Fuel and energy	5,526	7,397	3.7%
Agriculture, forestry and fishing	3,600	4,253	2.1%
Total Expenses	**315,068**	**541,103**	7.0%

Source: ABS Government Finance Statistics

The response of the health sector when it is pointed out that the rate of growth of health expenditure is high, is that this is because the needs are high. The ageing of the population, increasing chronic disease rates, and high rates of health price increases means that high rates of health expenditure growth are required to meet these needs. These arguments are misleading, as the following analysis of the drivers of admitted patient expenditure will show.

There are indeed good arguments for a high rate of health expenditure growth in the areas which produce significant improvements in health outcomes.

But the arguments that ageing, increasing chronic disease rates and high health price increases are the main reason we need high rates of health expenditure growth are misplaced.

In analyzing this expenditure growth, we first converted all the expenditure numbers to constant 2012-13 prices, so that the effect of general inflation is taken out of these numbers. We used the Gross National Expenditure (GNE) deflator to convert these numbers to real inflation adjusted numbers. (The GNE deflator is the best measure to use of inflation across the domestic economy. The GDP deflator is not helpful in this context, as, in the Australian context, the GDP deflator is very much influenced by export prices, and export prices are not relevant with regard to deflating domestic expenditure. The CPI is often used to deflate expenditure, but it does not cover all of domestic expenditure which the GNE deflator does).

Applying this deflator indicates that constant price admitted patient expenditure has grown by 5.1% per year in the period 2004-05 to 2012-13. (Table 2). The growth has not been consistent in this period.

Table 2: Real admitted patient expenditure, 2012-13 prices, 2004-05 to 2012-13

Year	Real admitted patient expenditure (Deflated by GNE deflator)	Change on previous year
2004-05	29,742	
2005-06	32,395	8.9%
2006-07	32,735	1.0%
2007-08	34,701	6.0%
2008-09	37,636	8.5%
2009-10	39,713	5.5%
2010-11	42,145	6.1%
2011-12	44,286	5.1%
2012-13	44,978	1.6%

The growth of admitted patient expenditure was decomposed into the following factors.

1. Excess health price inflation – the amount that growth in prices for admitted patient services exceeds general inflation.
2. Population growth – the impact of total population growth
3. Ageing – the impact of changes in the age structure
4. Real volume of services per person growth. (This factor is per person in the Australian population, not per person treated in hospitals).

The decomposition of the factors driving admitted patient expenditure growth is done using the Das Gupta method [3]. This method allocates the interaction between each of the factors according the strength of each factor, and is the best way to allocate the interaction factors.

The decomposition of admitted patient expenditure growth in the period 2004-05 to 2012-13 gives the following results as to the annual average growth of expenditure attributable to each factor. (See the top bar of Figure 1 for a pictorial representation of these numbers)

Excess health price inflation	0.5% per year	9% of total expenditure growth
Population growth	1.6% per year	30% of total expenditure growth
Ageing	0.4% per year	8% of total expenditure growth
Real volume of services per person growth	2.8% per year	53% of total expenditure growth
Total real expenditure growth	5.3% per year	100% of total expenditure growth

The results show that a mere 0.4% out of the 5.3% annual growth in expenditure is due to ageing i.e. changes in the age structure of the population. The growth in the total population of 1.6% per year is responsible for a much higher proportion of growth than ageing.

The growth in Excess health price inflation i.e. the amount by which the growth in prices for admitted patient services exceed the growth in general inflation, is only 0.5% per year. The overall inflation rate for admitted patient services (i.e. general inflation plus excess health price inflation) in this period was 3.1% per year.

The main driver of the increase in admitted patient expenditure in this period was the increase in the real volume of admitted patient services per person which grew at 2.8% per year.

This factor is the residual factor left after we take out the impact of population growth, ageing and excess health price inflation. It is not the real volume of services per person treated in hospital, but is per person in the general population.

Because we have the data on expenditure by disease group we can show how much of the expenditure increase for each factor was due to each disease group (Figure 1 and Table 3).

The data on admitted expenditure growth by disease in Figure 1 and Table 3 is not as reliable as the overall expenditure growth, as coding practices have varied over the period.

[3] Gupta, P.D. A General Method of Decomposing a Difference Between Two Rates into Several Components. Demography (1978) 15 (1): pp. 99-112. https://doi.org/10.2307/2060493

Figure 1: Drivers of admitted patient expenditure growth by disease group, 2004-05 to 2012-13, annual average growth

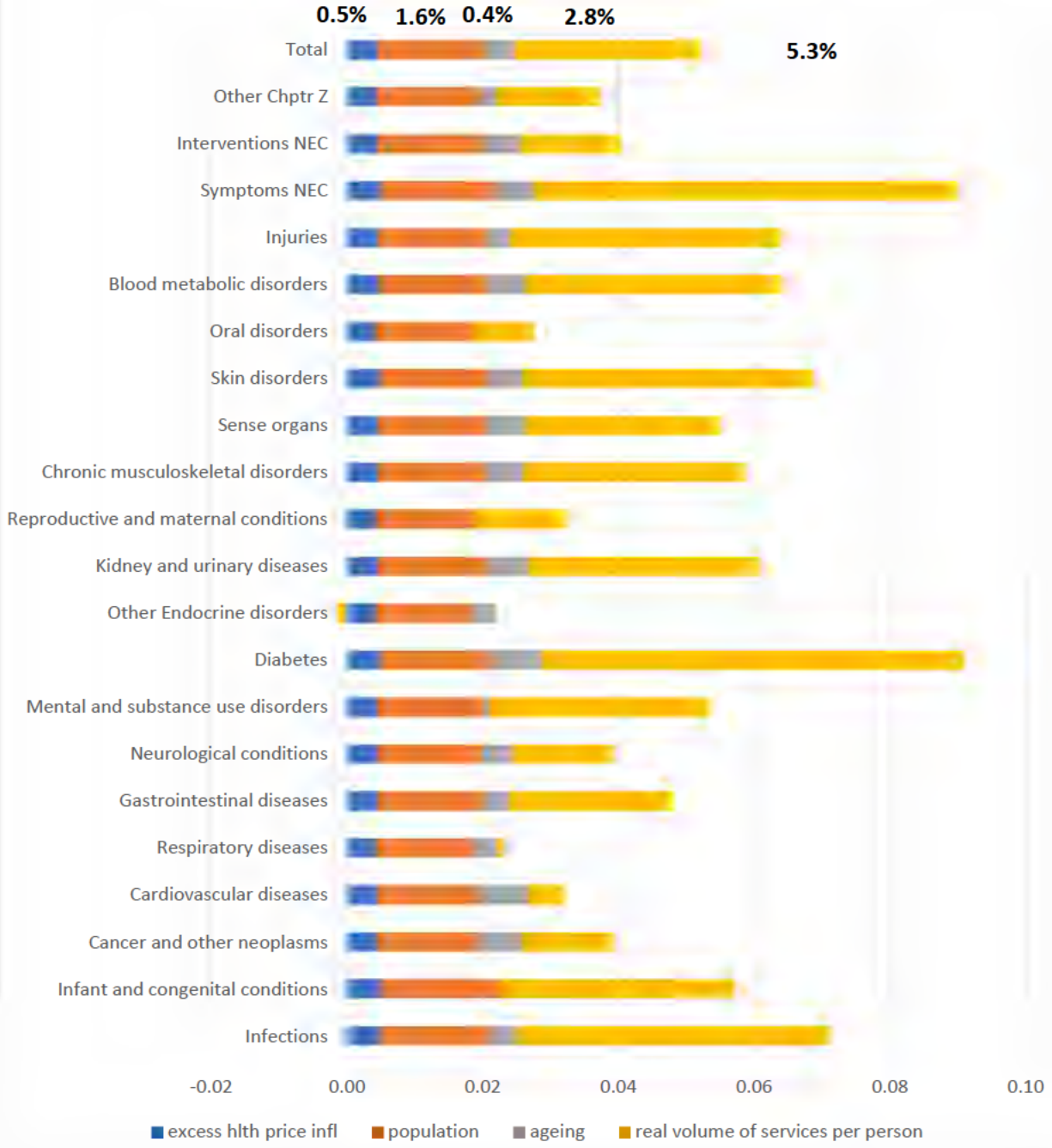

Table 3: Drivers of admitted patient expenditure growth by disease group, 2004-05 to 2012-13, annual average growth

	Excess health price inflation	Population growth	Ageing	Real volume of services per person	Total annual average growth
Infections	0.5%	1.6%	0.4%	4.6%	7.2%
Infant and congenital conditions	0.5%	1.8%	0.0%	3.4%	5.7%
Cancer and other neoplasms	0.4%	1.5%	0.6%	1.4%	4.0%
Cardiovascular diseases	0.4%	1.5%	0.7%	0.5%	3.2%
Respiratory diseases	0.4%	1.4%	0.4%	0.1%	2.3%
Gastrointestinal diseases	0.5%	1.6%	0.4%	2.4%	4.9%
Neurological conditions	0.5%	1.5%	0.5%	1.5%	4.0%
Mental and substance use disorders	0.5%	1.6%	0.1%	3.2%	5.4%
Diabetes	0.5%	1.7%	0.7%	6.2%	9.3%
Other Endocrine disorders	0.4%	1.4%	0.4%	-0.2%	2.0%
Kidney and urinary diseases	0.5%	1.6%	0.6%	3.4%	6.2%
Reproductive and maternal conditions	0.4%	1.4%	0.0%	1.4%	3.2%
Chronic musculoskeletal disorders	0.5%	1.6%	0.6%	3.3%	6.0%
Sense organs	0.5%	1.6%	0.6%	2.9%	5.6%
Skin disorders	0.5%	1.6%	0.5%	4.3%	7.0%
Oral disorders	0.4%	1.4%	0.0%	0.9%	2.7%
Blood metabolic disorders	0.5%	1.6%	0.5%	3.8%	6.5%
Injuries	0.5%	1.6%	0.3%	4.0%	6.5%
Symptoms NEC	0.5%	1.7%	0.6%	6.2%	9.2%
Interventions NEC	0.5%	1.6%	0.5%	1.5%	4.1%
Other Chapter Z	0.4%	1.5%	0.2%	1.5%	3.8%
Total	**0.5%**	**1.6%**	**0.4%**	**2.8%**	**5.3%**

The total population growth factor and the excess health price inflation factor affects each disease group almost equally.

It's a somewhat different story with regard to the ageing factor. For some diseases like neurological disorders, expenditure is more highly concentrated in the older age groups, therefore the ageing factor at 0.5% per year for this disease is higher than the 0.4% per year impact of this factor with regard to total expenditure. Likewise, for some diseases like 'Infant and congenital disorders', expenditure is more highly concentrated in the young, therefore the ageing factor has a lower impact than for total expenditure. In fact, as the negative number for the ageing factor indicates, for 'Infant and congenital disorders', the ageing of the population reduces expenditure growth.

Some of this variation in total expenditure growth rates for different diseases is due to coding changes between 2004-05 and 2012-13. For example, an unknown portion of the overall real increase in diabetes of 9.3% per year is due to changes in the rules for coding diabetes. Quite a lot of this extra expenditure in the diabetes category in 2012-13 has been taken out of the cardiovascular category, so the lower growth in cardiovascular expenditure of 3.2% per year is also partly an artefact of coding changes.

What is most remarkable about Figure 1, which graphs the data in Table 3, is the variation in the yellow line by disease. The annual growth due to the real volume of services per person factor varies from 0.1% for respiratory disorders to 4.6% for infections to 6.2% for diabetes.

This real volume of services per person factor accounts for most (53%) of the increase in expenditure, but this increase is concentrated in certain disease groups.

Table 4: $million increase in expenditure due to increase in real volume of services per person

	$m	**Percent of total**
Infections	577	7.2%
Infant and congenital conditions	270	3.4%
Cancer and other neoplasms	286	3.6%
Cardiovascular diseases	192	2.4%
Respiratory diseases	11	0.1%
Gastrointestinal diseases	564	7.0%
Neurological conditions	131	1.6%
Mental and substance use disorders	646	8.0%
Diabetes	552	6.9%
Other endocrine disorders	- 2	-0.03%
Kidney and urinary diseases	529	6.6%
Reproductive and maternal conditions	366	4.6%
Chronic musculoskeletal disorders	716	8.9%
Sense organs	189	2.4%

Skin disorders	291	3.6%
Oral disorders	26	0.3%
Blood metabolic disorders	498	6.2%
Injuries	994	12.4%
Symptoms NEC	1,090	13.6%
Interventions NEC	90	1.1%
Other Chapter Z	14	0.2%
Total	8,031	100.0%

It is notable that 8% of the increase ($646m) in real volume of services per person is for 'mental and substance use disorders'. This is surprising, given that the emphasis in mental health policy has been on increasing community mental health services, and other non-admitted patient services.

It is also noteworthy that 12% of the increase ($994m) in real volume of services per person has been in injuries.

Is an increase of 2.8% per year in this factor justified? It cannot be justified by the traditional arguments used by the health sector of ageing and high health price increases, but are there other arguments that can justify it? If there had been an increase in rates of disease, then this would be an argument for an increase in expenditure due to this factor.

Other arguments that would justify an increase in this factor include expenditure that deals with undertreatment of a disease in the past e.g. undertreatment of diabetes because it hasn't been diagnosed; expenditure that improves the quality of the outcome arising from the treatment; and expenditure for a disease where there had been a shift from outpatient to inpatient treatment.

If the above arguments do not apply, then there is a prima facie case that the 2.8% per year increase in the real volume of admitted patient services per person has been a wasteful allocation of resources.

Impact of DRG creep coding practices on large increase in Symptoms NEC chapter

14% of the increase in the real volume of services per person factor or $1,040 million is due to the Symptoms NEC chapter. The Symptoms NEC chapter is those procedures for which a diagnosis is not allocated. The AIHW have advised that much of the increase in this chapter is due to increased use of the following codes.

Table 5: ICD10 AM codes which account for much of the increase in the Symptoms NEC chapter

E86	Volume deficiency*
E876	Hypokalemia*
N179	Acute kidney failure
R32	Unspecified incontinence*
R074	Chest pain unspecified
E871	Sodium deficiency*
G819	Hemiplagia
E877	Fluid overload*
E875	Hyperkalemia*
R15	Fecal incontinence*

All of the starred codes above are codes that shift the DRG code from a DRG category without comorbidity and complication to a DRG category with comorbidity and complication. The DRG category with comorbidity and complication has a higher reimbursement.

Therefore, it is likely that the vast bulk of the **increase** in expenditure coded in the Symptoms NEC chapter does not represent a change in practice in hospitals, but is due to a change in coding practice.

But this does mean that hospitals that were paid through the DRG system, have been paid significantly more for their services in 2012-13 as compared to 2004-05 without there being any change in the number or quality of services received by the patient.

The impact of disease rate changes on expenditure

We are often told that rising chronic disease rates are imposing very high costs on the health system, so perhaps this is the main explanation for the 2.8% annual increase in the real volume of services per person. But this is unlikely.

First, the chronic diseases showing significant increases in age-standardised rates in this period are diabetes and kidney and urinary disorders. But there are other chronic diseases like cardiovascular disease where we have been spectacularly successful in reducing age-standardised rates of disease. And because we have been so successful in reducing cardiovascular disease rates[4], and we are now also starting to reduce cancer rates, the overall direction for chronic disease rates as a whole is down. Table 5 shows that the overall decline in chronic disease 'Years of healthy Life lost due to Disability' (YLD) rates between 2003 and 2011 was 6%.

There will be expenditure increases due to those diseases like diabetes and kidney and urinary disorder rates where the disease rates are increasing, but there will also be decreases in expenditure due to those areas like cardiovascular disease where disease rates are declining. Therefore, the net impact of changing disease rates on health expenditure growth is expected to be small, and may even reduce expenditure.

Table 5: Age-standardised YLD rates by disease, 2003 and 2011 and percent change

Disease	2003	2011	Percent change
Infections	1.27	1.19	-6.3%
Infant and congenital conditions	0.85	0.86	1.2%
Cancer & other neoplasms	1.96	2.08	6.1%
Cardiovascular diseases	6.38	5.41	-15.2%

[4] The age-standardised acute coronary event (heart attack) rate fell by 29% in the six years from 2007 to 2013. https://www.aihw.gov.au/reports/heart-stroke-vascular-disease/cardiovascular-health-compendium/contents/how-many-australians-have-cardiovascular-disease

Respiratory diseases	11.97	11.49	-4.0%
Gastrointestinal diseases	2.43	2.44	0.4%
Neurological conditions	6.24	6.76	8.3%
Mental & substance use disorders	23.61	23.84	1.0%
Diabetes	1.57	1.97	25.5%
Other endocrine disorders	0.08	0.08	0.0%
Kidney & urinary diseases	0.63	0.8	27.0%
Reproductive & maternal conditions	1.68	1.67	-0.6%
Musculoskeletal disorders	25.5	21.46	-15.8%
Sense organ disorders	3.93	3.97	1.0%
Skin disorders	3.17	3.22	1.6%
Oral disorders	4.23	4.22	-0.2%
Blood & metabolic disorders	0.91	0.85	-6.6%
Injuries	3.36	3.65	8.6%
Total all diseases	99.77	95.96	-3.8%
Chronic diseases	71.7	67.13	-6.4%

Source: AIHW burden of disease database

Were we getting value for money from the increase in real volume of services per person 2004-05 to 2012-13?

Were we getting value for the $8.0 billion increase (Table 4) in expenditure on this factor? As discussed earlier, arguments that would justify an increase in this factor include expenditure that deals with increasing disease rates; expenditure that deals with undertreatment of a disease in the past e.g. undertreatment of diabetes because it was not diagnosed previously; expenditure that improves the quality of the outcome arising from the treatment; and expenditure for a disease where there had been a shift from outpatient to inpatient treatment.

We are not arguing that this $8.0 billion increase in admitted patient expenditure was unnecessary. But we are asking the question as to what could be the reasons that would justify such a large increase in expenditure, given that we have adjusted for ageing, population growth and excess health price inflation, and we have shown that the net change in disease rates is unlikely to cause a large increase in expenditure.

Let us take Cancer as an example.

Table 6: Expenditure and expenditure per incident case of cancer, 2004-05 to 2012-13

	2004-05	2012-13	Increase from 2004-05 to 2012-13	Annual average increase
Real cancer expenditure	$2,183m	$2,982m	36.6%	4.0%
Incident cases of cancer	95,766	121,329	26.7%	3.0%
Real expenditure per incident case (constant 2012-13 prices, GNE deflator)	$22,799	$24,580	7.8%	0.9%
Real volume of services per incident case (constant 2012-13 prices, Hospital deflator)	$23,691	$24,580	3.8%	0.5%

Note: For some cancers, e.g. NMSC, we have data on expenditure but we don't have data on incident cases. Therefore, the expenditure per incident case in the table above is an overestimate of actual expenditure per incident case. However, the percentage increase in the period for this number will be close to the actual number.

Cancer admitted patient expenditure increased in real terms by 37% between 2004-05 and 2012-13 which is an annual average increase of 4.0%. Incident cases of cancer increased by 3.0% per year in this period.

Real expenditure per incident case increased from $22,800 to $24,600 which is an increase of 0.9% per year.

Finally, if we adjust for the impact of excess health price inflation which ran at 0.5% per year, the real volume of services per incident case increased from $23,700 to $24,600 which is an increase of 0.5% per year.

Given the much improved survival rates for cancer that have been achieved due to better treatment, it would be very hard to argue that the increase in the real volume of services per incident case of only 0.5% per year was not justified. In fact, one could argue that, given the very good outcomes that oncologists have achieved, a higher increase in expenditure per incident case was justified.

This is an example of how an increase in the real volume of services per case of disease can be justified.

Let us take another example. 'Mental and substance use disorders' expenditure grew by 5.4% per year in real terms. The real volume of services per person factor grew by 3.2% per year (Table 3). This represents an extra $646 million spent on this factor. Can this be justified?

If there was evidence that the increase in hospital treatment was due to the rectification of undertreatment in hospital of serious mental disorders in previous years, then this would justify some of the increase in expenditure.

If there was evidence that there was a higher age-standardised prevalence rate of mental illness in the period then this would justify some of the increase in expenditure. The data we have from the AIHW burden of disease analysis indicate that there was a 1% increase in the age-standardised YLD rate for mental illness. As the YLD is calculated by multiplying prevalence of the condition by the disability weight for the condition, the increase in the YLD rate is a very good proxy for the increase in the prevalence rate. Therefore, this is evidence that the prevalence of mental illness has increased and would justify some of the 3.2% per year increase in the real volume of services per person factor.

If there was evidence that extra services per case of disease had improved the health outcomes of inpatients with mental illness then this also would justify some of the increase in expenditure.

And if there was evidence that the extra expenditure on admitted patient services was necessary because there was a deficiency in community mental health services, then this also would justify some of the increase. But one would have to question why the extra money was not put into community mental health services rather than admitted patient services, given that there is general agreement that community mental health services are friendlier and more cost-effective than admitted patient services for people with mental illness.

There is no question that mental illness is a major cause of disease burden. Mental illness accounted for 24% of the non-fatal burden of disease in 2011. And it is because this disease causes so much pain and suffering, that it is important to ensure that the considerable extra resources that are provided for this disease are allocated to areas where evidence shows that the most benefit for people with mental illness accrues.

How does an analysis of Australian data relate to the ACT?

All this analysis has been done with regard to Australian admitted patient expenditure data, so the question arises as to how this relates to an inquiry into ACT health funding.

First, there is no reason to think that the factors driving the increase in ACT admitted patient expenditure in the study period are so different from the factors driving Australian admitted patient expenditure as to change the overall conclusions of this study.

For example, there is no reason why Excess health price inflation should be different between the ACT and Australia for this period.

There is a difference in population growth rates. The population for Australia grew by 14.3% in this period (1.69% per year), and for the ACT the population grew by 15.3% (1.80% per year). However, this 0.1% per year in growth rates would not have a large impact on the decomposition of the overall growth into the different factors.

There is also a difference in the changes in age structures. The percentage of the population 65 and over for Australia increased from 12.8% in June 2004 to 14.1% in June 2012 – a 1.3% percentage point increase. The increase for the ACT was from 9.1% to 10.9%- a 1.8% percentage point increase. The exact impact of this difference in the change in the age structure on the ageing factor in the admitted patient expenditure decomposition is unknown at this point.

There may be a difference in the proportion of ACT admitted patient expenditure which is for ACT residents between 2004-05 and 2012-13. We do not have data as to whether the NSW resident proportion of admitted patient expenditure across public and private hospitals has increased.

With regard to the overall growth of admitted patient expenditure for the ACT in this period, we only have data on public hospital admitted patient expenditure. Public hospital admitted patient expenditure in the ACT grew from about $296m in 2004-05 to $637m in 2012-13 in current prices. In real 2012-13 prices (GNE deflator), the increase was from $364m to $637m (an increase of 75% or 7.2% per year on average). This compares to an annual average increase for Australian real public hospital admitted patient expenditure of 51% and an annual average increase for Australian real admitted patient expenditure of 5.3%.

Therefore, if a decomposition of the growth in public hospital admitted patient expenditure for the ACT was to be undertaken, the excess health price inflation, ageing and population growth factors are unlikely to be very different to the Australian numbers for these factors.

However, because the overall real expenditure growth is almost 2 percentage points higher than the national growth, there will necessarily be a quite significant increase in the real volume of services per person factor for the ACT as compared to the national number of 2.8% per year.

When one gets to the disease decomposition of the change in expenditure, there are very likely to be differences between the ACT and Australia. This is because, as we saw earlier, a significant portion of the differences by disease are due to the way hospital specialists choose to practice, and are not due to need. As the specialists in the ACT are likely to have different practices than the national average for their specialty, it is therefore likely that the rate of growth of expenditure for each disease in the ACT will differ from the national average.

So, there are likely to be differences between the ACT and Australia in the factors driving admitted patient expenditure between 2004-05 and 2012-13. The speculations above as to the extent of the difference remain speculations until an analysis is done of the ACT data. An analysis for just the ACT could be done if resources were allocated to the task. The AIHW would be required to undertake a special analysis of their admitted patient expenditure database. The private hospital data for the ACT would need to be analysed with care, as in the ABS collection of private hospital data which is used by the AIHW in their analysis, often the NSW and ACT data is combined, and so estimates have to be made as to the ACT share of the NSW/ACT total. There may also be privacy issues with the ACT private hospital data. Once the AIHW produce their estimates of admitted patient expenditure for the ACT, the decomposition of the growth in this expenditure could then be undertaken by the University of Canberra, using the same methods as we have used for the national data.

Implications for funding of admitted patient services of the above analysis

The purpose of this analysis is not to lay blame, but to give providers of admitted patient services the tools to find out whether increases in their expenditures are achieving good health outcomes in an efficient way. The traditional justifications for increases in health expenditure have been that the population is ageing, chronic disease rates are increasing, and health prices are increasing rapidly. This analysis has shown that these factors can only account for a small proportion of the increase in expenditure we have seen in the past. Therefore, when providers are asking for extra funding, their justifications should primarily be in terms of the improvements in health outcomes that will result from the extra funding.

We propose that the funding system be changed, so that in setting the budget for the coming year for each admitted patient cost centre, that budget holders for each cost centre first receive a base level increase in funding of about 4.7% per year to account for expected general inflation increases (2.0%), excess health price inflation (0.5%), ageing (0.5%) and population growth (1.7%). (The exact base level increase in funding would depend on Treasury projections and Health Directorate estimates of excess health price inflation and the impact of ageing, and the ageing factor could be varied according to the age structure of the patients treated by that cost centre).

Anything above this base level increase in funding should be justified as New Policy Proposals which demonstrated the extra health and/or cost savings that would be achieved by the proposed expenditure.

This analysis of growth in admitted patient expenditure has demonstrated that the funding of admitted patient expenditure in the period 2004-05 to 2012-13 was not very effective, as much of the increase in expenditure went into areas for which evidence has not been provided that it was an effective use of resources.

Given that most of the funding is from taxpayers, health providers have a responsibility to the community to justify future increases in expenditure in terms of the benefits that will be delivered to the Australian public.

In some areas, like cancer, health providers will have no trouble in justifying extra funding for their patients. In other areas, under the funding system proposed above, health providers will need to cope with a lower rate of increase in funding of about 4.7% a year, until they can demonstrate that their proposals for greater expenditure deliver benefits commensurate with the greater expenditure.

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