



## Epidemiology Section

### Data Analytics Branch

# ACT Potentially Preventable Hospitalisations: Results in Brief

Potentially Preventable Hospitalisations (PPH) are hospital admissions that may have potentially been prevented through the provision of appropriate, individualised preventative health interventions and early disease management. This is usually delivered in primary care and community-based care settings by general practitioners, dentists, nurses and allied health professionals<sup>1</sup>.

Potentially preventable hospitalisations are used as a proxy measure of the effectiveness of health care in the community, as higher rates may suggest a lack of timely, accessible and adequate primary care. They are also a performance indicator for primary and community health services in the National Healthcare Agreement and an indicator of health system effectiveness under the Australian Health Performance Framework <sup>2</sup>.

There are 22 conditions included and these are grouped into three categories: vaccine-preventable, acute and chronic.

## Key messages

- The ACT has the lowest rates of potentially preventable hospitalisations (PPH) of all Australian states and territories.
- The leading PPH for ACT males were cellulitis, dental conditions and congestive cardiac failure, whereas for females the leading reasons were urinary tract infections, cellulitis and dental conditions.
- Older people were more likely to experience PPH. Close to half of PPH for ACT residents were for those aged 65 years and older, with a slightly higher proportion of females compared with males.
- Conditions that are projected to increase over time are urinary tract infections, cellulitis, convulsions and epilepsy, hypertension and bronchiectasis.

## Overview

The ACT had the lowest age-standardised rates of potentially preventable hospitalisations (PPH) of all states and territories, over the period 2012/13 to 2017/18. The average length of stay for potentially preventable categories was similar between the ACT and Australia, as were the percentages of PPH that were admitted and discharged on the same day for the broader PPH categories.

From 2018/19 to 2020/21, 28,016 hospitalisations (6.4% of all hospitalisations and 8.1% of all bed days) in ACT hospitals (public and private) were classified as potentially preventable, with an average length of stay of 4.0 days (3.1 for non-preventable hospitalisations). When restricting to ACT residents only, 22,822 hospitalisations (6.5% of all hospitalisations and 8.2% of all bed days) were classified as PPH with an average length of stay of 3.0 days. Close to half (42.9%) of PPH for ACT residents were for those aged 65 years and older, with a slightly higher proportion of females (54.6%) compared with males.

The leading reasons for hospitalisation for ACT males were cellulitis, dental conditions and congestive cardiac failure (for the period 2018/19 to 2020/21), whereas for females the leading reasons were urinary tract infections, cellulitis and dental conditions.

## Trends

The number of PPH for ACT residents has increased overall over the period 2000/01 to 2020/21, however only the increase for acute PPH (conditions that theoretically do not result in hospitalisation if timely and adequate care was received in the community) was statistically significant.

Urinary tract infections (including pyelonephritis), iron deficiency anaemia, cellulitis, hypertension, vaccine preventable pneumonia and influenza, bronchiectasis, and convulsions all increased between 2000/01 and 2020/21. Hospitalisations for angina and pelvic inflammatory disease decreased during this period.

Table 1 lists selected PPH disease/conditions that significantly changed over time (for the period 2000/01 to 2020/21).

Conditions for which PPH are projected to increase are urinary tract infections (including pyelonephritis), cellulitis, convulsions and epilepsy, hypertension and bronchiectasis.

Table 1. Percentage change in the number of selected PPH for ACT residents in ACT facilities, by condition/disease, 2000/1 to 2020/21

Selected PPH disease/condition	Average annual percentage change (95% confidence intervals)
Angina	-5.7% (-6.8% to -4.5%)
Bronchiectasis	4.3% (2.8% to 5.8%)
Cellulitis	4.3% (2.6% to 6.0%)
Convulsions and Epilepsy	1.2% (0.2% to 2.1%)
Iron Deficiency Anaemia	1.4% (1.8% to 5.0%)
Hypertension	7.1% (5.3% to 8.8%)
Pelvic inflammatory disease	-4.1% (-5.2% to -3.1%)
Pneumonia and influenza (vaccine preventable)	15.4% (10.2% to 20.9%)
Urinary tract infections (including pyelonephritis)	5.5% (3.8% to 7.3%)

Source: ACT Admitted Patient Data Collection

## Projected increases

PPH conditions that are projected to increase are urinary tract infections (including pyelonephritis), cellulitis, convulsions and epilepsy, hypertension and bronchiectasis (Table 2).

Table 2. Actual and projected numbers of selected PPH for ACT residents in ACT facilities, by condition/disease, 2020/21 and 2033/34

Selected PPH disease/condition	Actual 2020/21 (count)	Projected 2033/34 (count)
Bronchiectasis	49	130
Cellulitis	815	940
Convulsions and Epilepsy	538	625
Hypertension	181	440
Urinary tract infections (including pyelonephritis)	1,180	1,546

Source: ACT Admitted Patient Data Collection

## Conclusion

Potentially preventable hospitalisations (PPH) are an important health system indicator to monitor. They provide an indication of whether primary care in the community is timely, accessible and adequate. Overall, the ACT had the lowest age-standardised rates of PPH of all states and territories. However, over a 20-year period rates of acute PPH increased, particularly for urinary tract infections and cellulitis. People experiencing PPH were more likely to be aged over 65 years. There are, however, limitations of the PPH indicator. PPH includes some hospitalisations that may not be avoidable, such as those for chronically ill patients who have received adequate primary care but have a complex illness, or patients having procedures as a follow up to primary care. PPH are also influenced by health system factors such as changes in hospital coding standards, diagnostic practices, policy, disease prevalence and health behaviours.

## References

1 Australian Institute of Health and Welfare 2020. Disparities in potentially preventable hospitalisations across Australia, 2012–13 to 2017–18. Canberra: AIHW.

2 Australian Institute of Health and Welfare 2021. Australia's health performance framework. Available from <https://www.aihw.gov.au/reports-data/australias-health-performance/australias-health-performance-framework>. Last updated December 2021



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