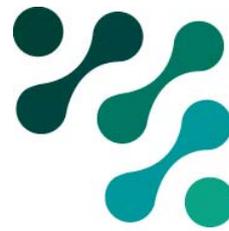




## HOSPITAL ADMISSIONS FOR AMBULATORY CARE SENSITIVE CONDITIONS — NORTH COAST AREA HEALTH SERVICE 2001 TO 2006



**HETI**  
HEALTH EDUCATION &  
TRAINING INSTITUTE  
RURAL DIRECTORATE

Thérèse Dunn, North Coast Public Health Unit  
[therese.dunn@ncahs.health.nsw.gov.au](mailto:therese.dunn@ncahs.health.nsw.gov.au)

### *Introduction*

The continued increase in hospital admissions, beyond population growth, is one of the major issues facing health services throughout NSW. Reducing avoidable hospital admissions through early intervention, preventive care and early disease management will lead to improved health outcomes and enable better management of hospital resources. This aim of this research project was to investigate multiple admissions for 7 priority ACS (ambulatory care sensitive) conditions (angina; COPD; Diabetes; Heart Failure; Pyelonephritis; Cellulitis; Asthma) in North Coast NSW over a 5 year period from 1 July 2001 to 30 June 2006.

### *Methods*

Data on all hospital admissions for all NCAHS residents from 1 July 2001 to 30 June 2006 were linked by person. A descriptive analysis of this cohort of subject was conducted.

### *Results*

There was substantial variability in the indirectly standardised rate of hospitalised persons, admission and bed days associated with ACS conditions between the selected SLAs. Of those persons with multiple ACS admissions, 60% were readmitted on separate occasions for different ACS conditions. 80% of people admitted for non-ACS conditions had no comorbidities, compared to 50% admitted for ACS conditions who had no comorbidities.

People with multiple ACS COPD admissions consumed more than 42,000 bed days, with more than one-half of those multiple admissions having a LOS of 6 days or longer. Around 75% of persons admitted with ACS Heart Failure had only one ACS admission, while around 15% had no other admissions during the five year study period. The majority of persons with ACS Heart Failure admissions (including multiple admissions) had a range of comorbidities that may have contributed to their admission. More than one-half of females admitted for ACS Asthma were older than 30 years of age while the median age for males was 8 years of age. More than one quarter of persons admitted three or more time for ACS Diabetes were less than 50 years of age, More than one-half of the female ACS Cellulitis admissions were younger than 65 years of age at their first ACS Cellulitis admission, while the median age of men was 50 year old.

### *Conclusions*

This analysis demonstrated substantial variability in the rate of ACS hospitalisation between SLAs within the NCAHS. Potentially modifiable factors associated with this wide variation include access to primary health care, admission practices including availability of resources (ie: hospital beds), and population related factors such as underlying health status.

The increased frequency of comorbidities in persons with ACS admissions compared to non-ACS admissions indicates ACS patients may have more complex clinical diagnoses requiring more intense clinical care, therefore influencing admission and contributing to the comparatively longer LOS. Comprehensive case management on the first admission may reduce the number of ACS readmissions for the same ACS condition responsible for the current admission, and may also reduce future ACS admissions for other conditions. Given that COPD consumes a substantial amount of hospital resources, strategies that can improve case management and primary health care of COPD may offer the greatest potential to reduce ACS admissions and bed days. Even small reductions in the number of persons admitted for ACS COPD, for example, may produce substantial reductions in the number of bed days used by this ACS disease category.

Improved understanding is required on how we care for people with specific ambulatory care sensitive conditions both inside and outside hospital and how this might reduce rehospitalisation. Continued investigation of these issues, using the linked hospitalisation data will strengthen the foundation for designing and providing improved patient centred care.

*For the full report on this project visit our website, follow the link to the Rural Research Capacity Building Program and click on 'view completed projects'*

Therese is the Health Information Manager with the North Coast Public Health Unit (covering both Northern NSW and Mid North Coast Local Health Districts) in Lismore. She has worked in the Public Health Unit in Lismore for more than 25 years. Therese initially worked in general administration for the Public Health Unit before obtaining her degree in Information Technology and then moving into data management and analysis. Her work focuses on turning data into health information to guide Public Health policy and planning.



[www.ruralhetti.health.nsw.gov.au](http://www.ruralhetti.health.nsw.gov.au)