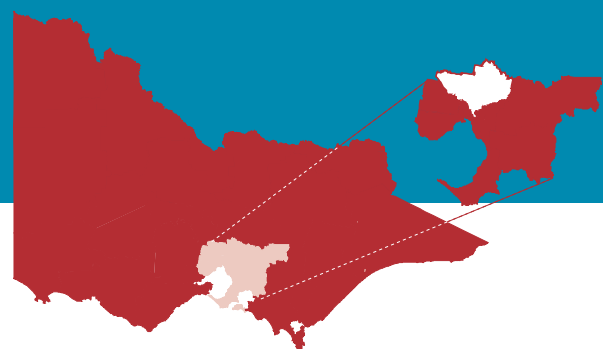


ACSC 2002–2003 Update

Northern Metropolitan Region and Primary Care Partnerships



Victorian Ambulatory Care Sensitive Conditions Study

Ambulatory care sensitive conditions (ACSCs) are those for which hospitalisation is thought to be avoidable if preventive care and early disease management are applied, usually in an ambulatory setting¹. In theory, access to timely and effective ambulatory care can reduce the risks of hospitalisation.

The Victorian Ambulatory Sensitive Conditions Study is updated annually by the Health Surveillance and Evaluation Section of the Department of Human Services (DHS). This fact sheet presents analyses of ACSCs for the DHS Northern health region as a whole and for the Primary Care Partnerships in this region, using the Victorian Admitted Episodes Dataset (VAED) from 1993–94 to 2002–03. Rates of admission were age- and sex-standardised to the Victorian population (1996) using the direct method.

Northern Metropolitan Region²

The Northern Metropolitan Region had an estimated population of 643,290 in 2003. The region covers an area of 1,560 square kilometres and includes inner urban, outer urban and semi-rural areas with a considerable diversity in population spread. It includes three Primary Care Partnerships – Hume/Moreland, Banyule/Nilumbik and North Central Metropolitan.

Variations in rates of ACSCs admissions, 1993–94 to 2002–03

There were 23,265 admissions for total ACSCs in 2002–03, with an average of 5.36 bed days. The admission rate for total ACSCs increased from 18.54 per 1,000 persons (18.22–18.86) in 1993–94 to 31.23 per 1,000 persons (30.83–31.64) in 2002–2003 (Figure 1).

Variations in rate ratios of ACSCs admissions, 1993–94 to 2002–03

Between 1993–94 and 2002–03 Northern region's admission rate ratios for total ACSCs were significantly lower than the Victorian averages (Figure 2).

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Figure 1: ACSCs admission rates, Loddon Mallee Region, 1993–94 to 2002–03

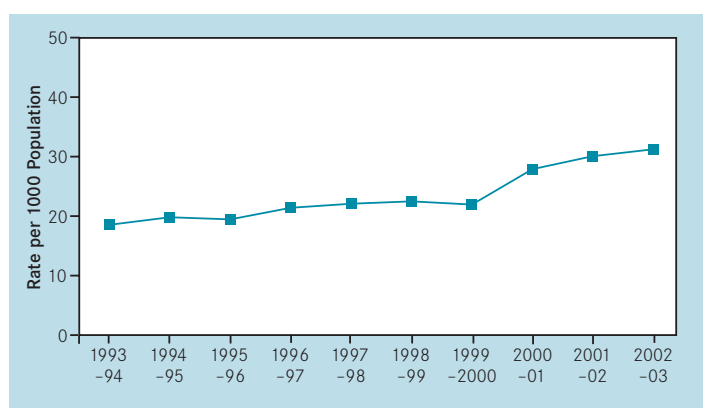
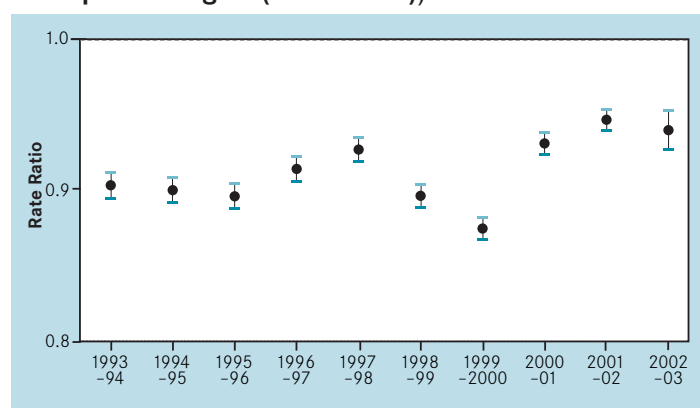


Figure 2: Total ACSCs admission rate ratios, Northern Metropolitan Region (Victoria = 1), 1993–94 to 2002–03



1 Billings J, Zeitel L, Lukomnik J, Carey T, Blank A, Newman L. Impact of socioeconomic status on hospital use in New York City. *Health Affairs*, 1993, 12, 162–173.

2 In February 2004 the Western Metropolitan Region was combined with the Northern Metropolitan Region to form the North and West Metropolitan Region. Next year's ACSC update will report findings for the North and West Metropolitan Region.



Top 10 individual ACSCs admissions, 2002–03

Table 1 summarises the admission rates and average bed days for the top 10 ACSCs in 2002–03. In addition to including chronic ACSCs, the top five also includes admissions for dehydration and gastroenteritis and pyelonephritis. The top 10 ACSCs accounted for 91.19 per cent of the total ACSCs admission in the region. The average bed days for the top 10 ACSCs was 5.42 in 2002–03.

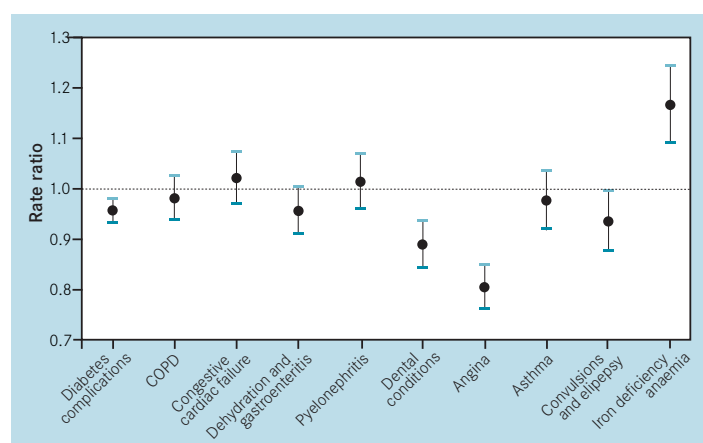
Table 1: Top 10 ACSCs in Region 1 – Northern Metropolitan, 2002–03

ACSCs	Number of admissions	Rate per 1000 persons	Lower CI	Upper CI	Average bed days	Total bed days
Diabetes complications	7,284	9.8739	9.65	10.10	8.86	64,523
Chronic obstructive pulmonary disease	2,227	3.0140	2.89	3.14	6.41	14,285
Congestive cardiac failure	1,781	2.4486	2.34	2.56	6.75	12,028
Dehydration and gastroenteritis	1,848	2.4120	2.30	2.52	2.34	4,333
Pyelonephritis	1,556	2.0830	1.98	2.19	4.24	6,604
Dental conditions	1,576	2.0829	1.98	2.19	1.22	1,930
Angina	1,489	2.0085	1.91	2.11	2.29	3,415
Asthma	1,276	1.7243	1.63	1.82	2.10	2,680
Convulsions and epilepsy	1,111	1.4607	1.38	1.55	2.99	3,324
Iron deficiency anaemia	1,067	1.4320	1.35	1.52	1.90	2,023

Admission rate ratios for top 10 ACSCs, Northern Metropolitan Region, (Victoria = 1), 2002–03

Compared with the Victorian average, the region's admission rate ratios were significantly lower for diabetes complications, dental conditions, angina and convulsions and epilepsy (Figure 3). The region's admission rate ratios (except iron deficiency anaemia) were similar to or significantly lower than the Victorian average for 2002–03. The region's highest admission rate ratio was for iron deficiency anaemia, which was 1.17 (1.09–1.24).

Figure 3: Top 10 ACSCs admission rate ratios for Northern Metropolitan Region, (Victoria = 1), 2002–03



Key findings – Northern Metropolitan Region

- Admission rates for ACSCs increased in the region over the ten-year period.
- Over the period 1993–94 to 2002–03 the region's ACSCs admission rate ratios were lower than the Victorian average.
- In addition to including chronic conditions, the top 5 ACSCs also included dehydration and gastroenteritis and pyelonephritis.
- The region's admission rate ratios for diabetes complications, dental conditions, angina and convulsions and epilepsy were significantly lower than the Victorian averages in 2002–03.
- The region's admission rate ratio for iron deficiency anaemia was significantly higher than the Victorian average.

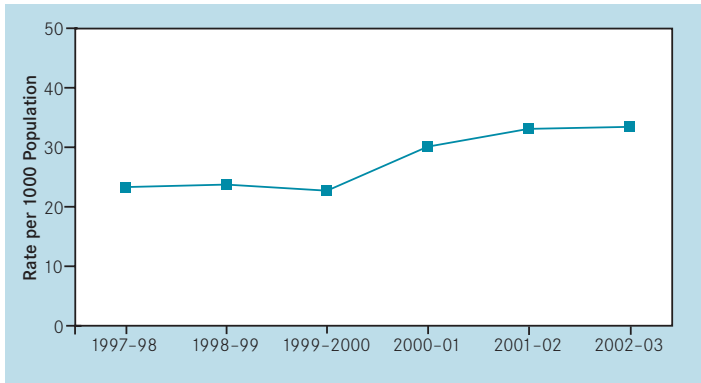


Hume/Moreland Primary Care Partnership (PCP 15)

Variations in rates of ACSCs admissions, 1997-98 to 2002-03

The Primary Care Partnership's (PCP) admission rates for total ACSCs increased over the six-year period. The admission rates for total ACSCs increased from 23.31 per 1,000 persons (22.69-23.93) in 1997-98 to 33.43 per 1,000 persons (32.74-34.14) in 2002-03 (Figure 4).

Figure 4: ACSCs admission rates in Hume/Moreland PCP, 1997-98 to 2002-03



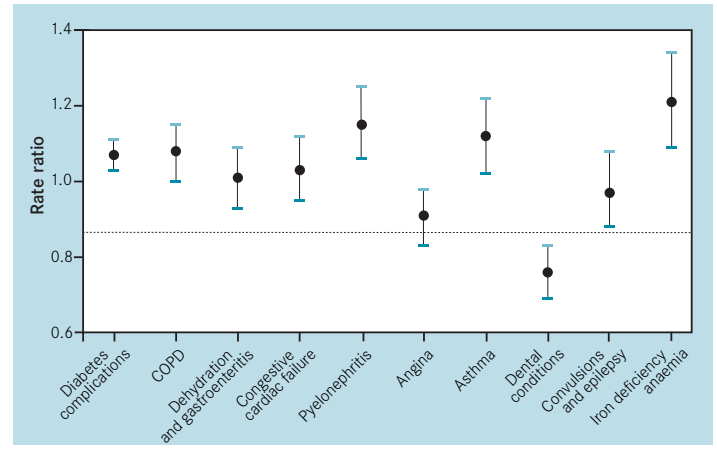
Top 10 individual ACSCs admissions, 2002-03

Table 2 summarises the admission rates and average bed days for the top 10 ACSCs in 2002-2003. The top 10 ACSCs accounted for 91.76 per cent of the total ACSCs in the region. The average bed days for the top 10 ACSCs was 5.43 in 2002-03.

Admission rate ratios for the top 10 individual ACSCs, (Victoria = 1), 2002-03

The Primary Care Partnership's (PCP) admission rate ratios for most of the top ten ACSCs (except angina and dental conditions) were significantly higher than the Victorian averages in 2002-03 (Figure 5). The PCP's highest admission rate ratio in 2002-03 was for iron deficiency anaemia, which was 1.21 (1.09-1.34).

Figure 5: Top 10 ACSC admission rate ratios in Hume/Moreland PCP, (Victoria = 1), 2002-03



Key findings – PCP15 – Hume/Moreland

- The PCP's admission rate for total ACSCs increased over the six-year period.
- The PCP's highest admission rate ratio in 2002-03 was for iron deficiency anaemia which was 1.21 (1.09-1.34).

Table 2: Top 10 ACSCs in PCP15 – Hume/Moreland, 2002-03

ACSC	Number of admissions	Rate per 1000 persons	Lower CI	Upper CI	Average bed days	Total bed days
Diabetes complications	2,889	11.06	10.66	11.47	8.61	24,885
Chronic obstructive pulmonary disease	862	3.30	3.09	3.53	6.57	5,664
Dehydration and gastroenteritis	675	2.54	2.36	2.74	2.63	1,774
Congestive cardiac failure	623	2.48	2.29	2.68	6.99	4,355
Pyelonephritis	617	2.37	2.19	2.56	3.88	2,391
Angina	587	2.26	2.08	2.45	2.37	1,389
Asthma	526	1.97	1.81	2.15	2.02	1,060
Dental conditions	481	1.78	1.63	1.95	1.21	584
Convulsions and epilepsy	412	1.52	1.38	1.67	2.34	963
Iron deficiency anaemia	390	1.49	1.35	1.64	1.82	709

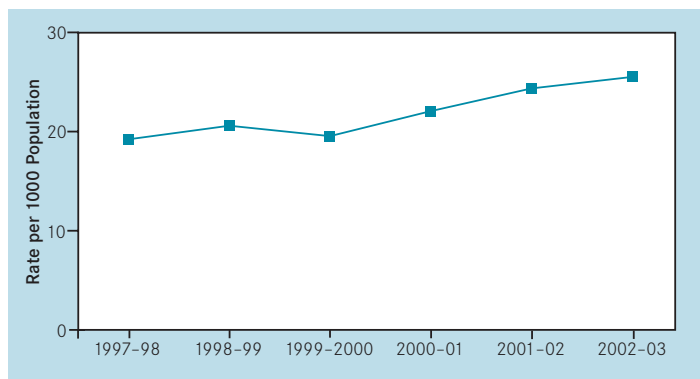


Banyule/Nilumbik Primary Care Partnership (PCP 16)

Variations in rates of ACSCs admissions, 1997-98 to 2002-03

The Primary Care Partnership's (PCP) admission rates for total ACSCs increased over the six-year period. The admission rates for total ACSCs increased from 19.22 per 1,000 persons (18.54-19.90) in 1997-98 to 25.51 per 1,000 persons (24.78-26.26) in 2002-03 (Figure 6).

Figure 6: ACSCs admission rates in Banyule/Nilumbik PCP, 1997-98 to 2002-03



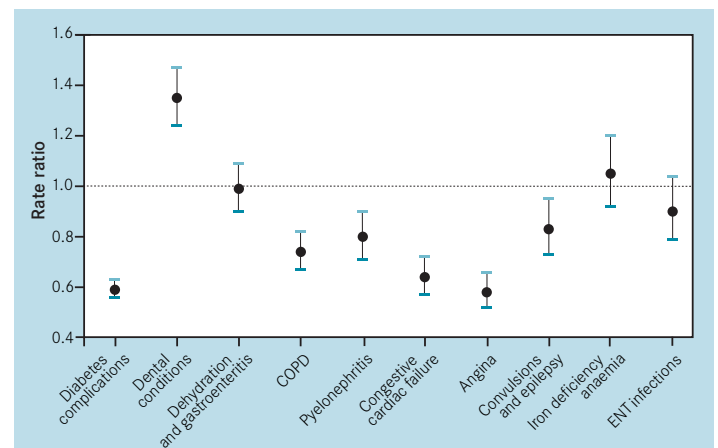
Top 10 individual ACSCs admissions, 2002-03

Table 3 summarises the admission rates and average bed days for the top 10 ACSCs in 2002-2003. The top 10 ACSCs accounted for 88.48 per cent of the total ACSCs admissions in the region. The average bed days for the top 10 ACSCs was 4.90 in 2002-03.

Admission rate ratios for the top 10 individual ACSCs, (Victoria = 1), 2002-03

The PCP's admission rate ratios for the top 10 ACSCs (except dental conditions) were similar to or significantly lower than the Victorian averages in 2002-03. The PCP's highest admission rate ratio was for dental conditions, which was 1.35 (1.24-1.47).

Figure 7: Top 10 ACSC admission rate ratios in Banyule/Nilumbik PCP, (Victoria = 1), 2002-03



Key findings – PCP16 – Banyule/Nilumbik

- The PCP's admission rates for total ACSCs increased over the six-year period.
- The PCP's admission rate ratios for the top 10 ACSCs (except dental conditions) were similar to or significantly lower than the Victorian averages for 2002-03.

Table 3: Top 10 ACSCs in PCP16 – Banyule/Nilumbik, 2002-03

ACSC	Number of admissions	Rate per 1000 persons	Lower CI	Upper CI	Average bed days	Total bed days
Diabetes complications	1,084	6.11	5.76	6.49	9.67	10,479
Dental conditions	564	3.17	2.92	3.44	1.20	677
Dehydration and gastroenteritis	447	2.50	2.27	2.74	1.91	855
Chronic obstructive pulmonary disease	396	2.27	2.06	2.50	6.22	2,463
Pyelonephritis	293	1.64	1.46	1.84	4.75	1,391
Congestive cardiac failure	282	1.54	1.37	1.73	6.42	1,811
Angina	263	1.46	1.29	1.64	1.87	491
Convulsions and epilepsy	222	1.30	1.14	1.49	3.27	725
Iron deficiency anaemia	237	1.29	1.14	1.47	1.70	402
Ear, nose and throat infections	215	1.27	1.11	1.45	1.49	321

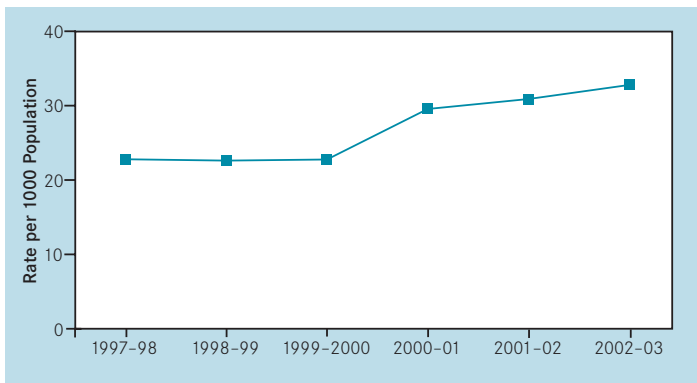


North Central Metropolitan Primary Care Partnership (PCP 17)

Variations in rates of ACSCs admission, 1997–98 to 2002–03

The Primary Care Partnership's (PCP) admission rates for total ACSCs increased over the six-year period. The PCP's admission rates for total ACSCs increased from 22.61 per 1,000 persons (22.79–23.36) in 1997–98 to 32.78 per 1,000 persons (32.15–33.43) in 2002–2003 (Figure 8).

Figure 8: ACSCs admission rates in North Central Metropolitan PCP, 1997–98 to 2002–03



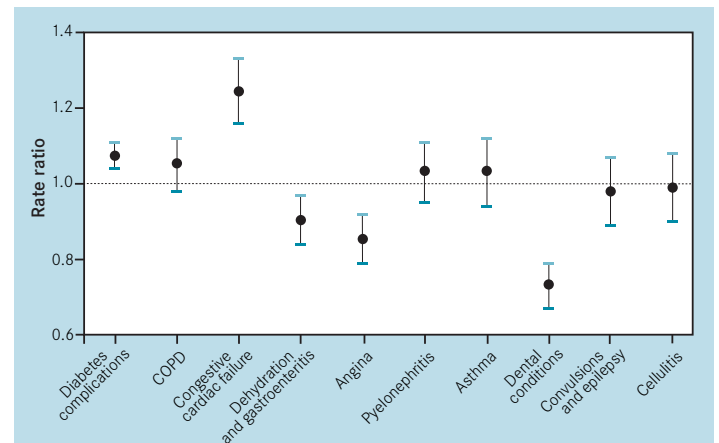
Top 10 individual ACSCs admissions, 2002–03

Table 4 summarises the admission rates and average bed days for the top 10 ACSCs in 2002–2003. The top 10 ACSCs accounted for 92.24 per cent of the total ACSCs admissions in the region. The average bed days for the top 10 ACSCs was 5.78 in 2002–03.

Admission rate ratios for the top 10 individual ACSCs, (Victoria = 1), 2002–03

The PCP's admission rate ratios for diabetes complications and congestive cardiac failure were significantly higher than the Victorian averages in 2002–03. The PCP's highest admission rate ratio was for congestive cardiac failure, which was 1.24 (1.16–1.33).

Figure 9: Top 10 ACSC admission rate ratios in North Central Metropolitan PCP, (Victoria = 1), 2002–03



Key findings – PCP17 – North Central Metropolitan

- The PCP's admission rates for total ACSCs increased over the six-year period.
- The PCP's admission rate ratios for diabetes complications and congestive cardiac failure were significantly higher than the Victorian averages for 2002–03.
- The PCP's highest admission rate ratio in 2002–03 was for congestive cardiac failure, which was 1.24 (1.16–1.33).

Table 4: Top 10 ACSCs in PCP17 – North Central Metropolitan, 2002–03

ACSC	Number of admissions	Rate per 1000 persons	Lower CI	Upper CI	Average bed days	Total bed days
Diabetes complications	3,311	11.06	10.69	11.45	8.81	29,159
Chronic obstructive pulmonary disease	969	3.22	3.02	3.43	6.36	6,158
Congestive cardiac failure	876	2.98	2.79	3.19	6.69	5,862
Dehydration and gastroenteritis	726	2.27	2.11	2.44	2.35	1,704
Angina	639	2.13	1.97	2.30	2.40	1,535
Pyelonephritis	646	2.11	1.96	2.28	4.37	2,822
Asthma	545	1.81	1.67	1.97	2.13	1,160
Dental conditions	531	1.70	1.56	1.85	1.26	669
Convulsions and epilepsy	477	1.52	1.39	1.67	3.43	1,636
Cellulitis	462	1.50	1.37	1.64	5.04	2,327

Suggested citation

Health Surveillance & Evaluation Section, Public Health, Department of Human Services (2004). *Ambulatory care sensitive conditions 2002–03 update: Northern Metropolitan Region and Primary Care Partnerships*. Melbourne, Victoria: Victorian Government.

Additional information

Full details of the methodology are available from earlier ACSC reports which can be downloaded from the Department of Human Services website at:

www.health.vic.gov.au/healthstatus

Contact details

Dr. Zahid Ansari
Health Surveillance & Evaluation Section
Email: Zahid.Ansari@dhs.vic.gov.au



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