

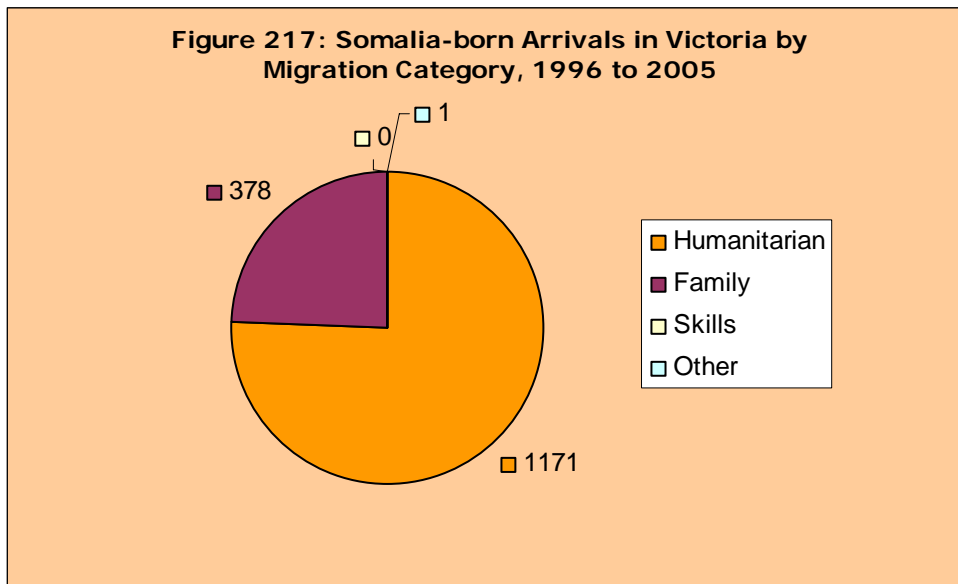
3.13 Somalia

The Somali Republic was created in 1960 from the Italian colony of Somalia and British Somaliland¹⁹. Civil war broke out in 1991 after the collapse of the 21-year-long dictatorship of Siyad Barre. Those who had previously lived under British rule declared independence as the Republic of Somaliland from the fragile centralised authority based in Mogadishu, in the former Italian territory. United Nations intervention from 1993 to 1995 failed to resolve the conflict. In August 2000 a Transitional National Government (TNG) was created but its mandate expired in 2003³¹. Late 2004 the new Somali President Abdullahi Yusuf Ahmed formed a Transitional Federal Government (TFG) with a 275-member parliament. However, due to ongoing factional fighting, the TFG remains resident in Nairobi (Kenya) and has been unable to move to Mogadishu³¹.



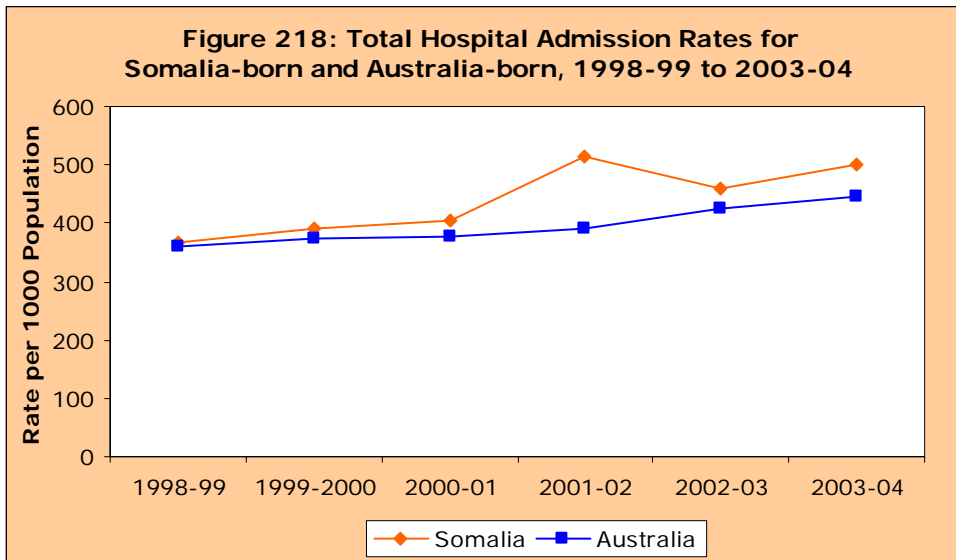
Source: The World Factbook²⁷

By 1996 there were 2,055 Somalia-born in Australia, of whom the great majority (1,397) lived in Victoria²¹. The 2001 census recorded 3,711 Somalia-born persons living in Australia (2,313 were in Victoria)²². Between July 1996 and June 2005, 1,550 Somalia-born arrived in Victoria²⁰. Seventy six percent came under the humanitarian program and 24% under the family reunion stream (Figure 217). Many of those arriving under the family stream were likely to have been from refugee backgrounds.

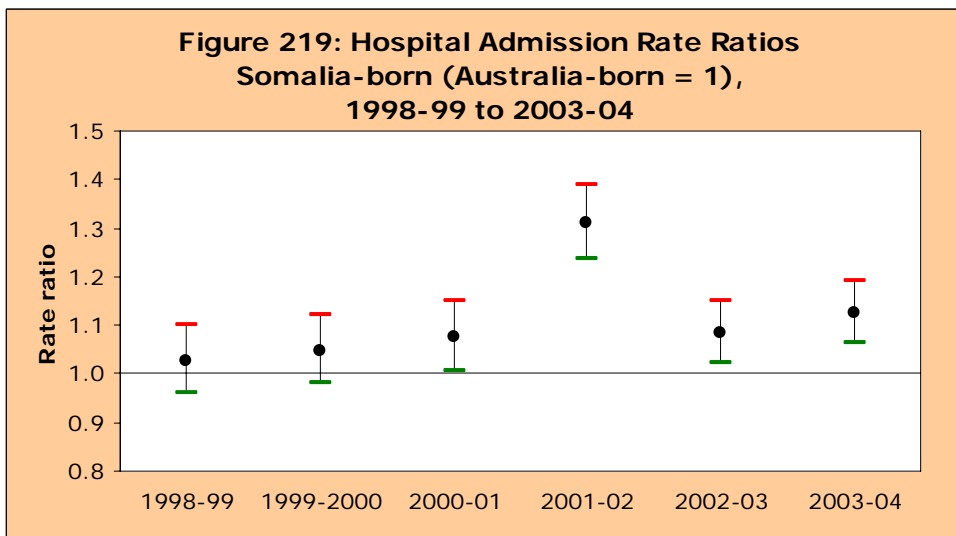


3.13.1 Total hospital admissions

A total of 6,027 hospital admissions in Victoria were recorded for Somalia-born persons between 1998-99 and 2003-04. Figure 218 shows the total hospital admission rate for Somalia-born and Australia-born persons from 1998-99 to 2003-04. The rate of total admissions for Somalia-born increased overall from 368.51 per 1000 persons [331.01 – 411.34] in 1998-99 to 500.65 per 1000 persons [460.18 – 546.09] in 2003-04.

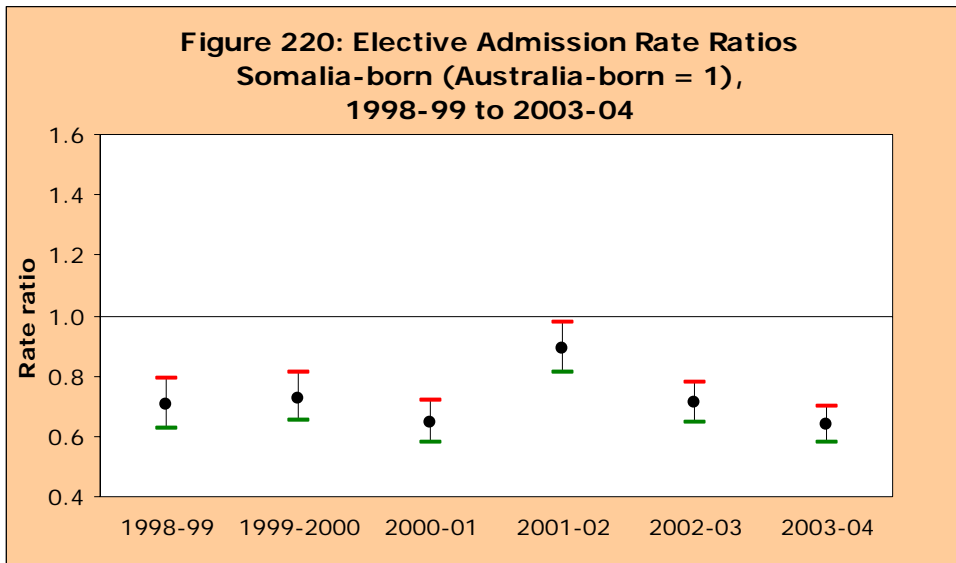


Compared with Australia-born, Somalia-born recorded either similar or higher admission rate ratios over the six-year period (Figure 219). The lowest rate ratio was 1.03 [0.96 – 1.10] in 1998-99 and the highest was 1.31 [1.23 – 1.39] in 2001-02. Rate ratios moved away from Australia-born averages over time.

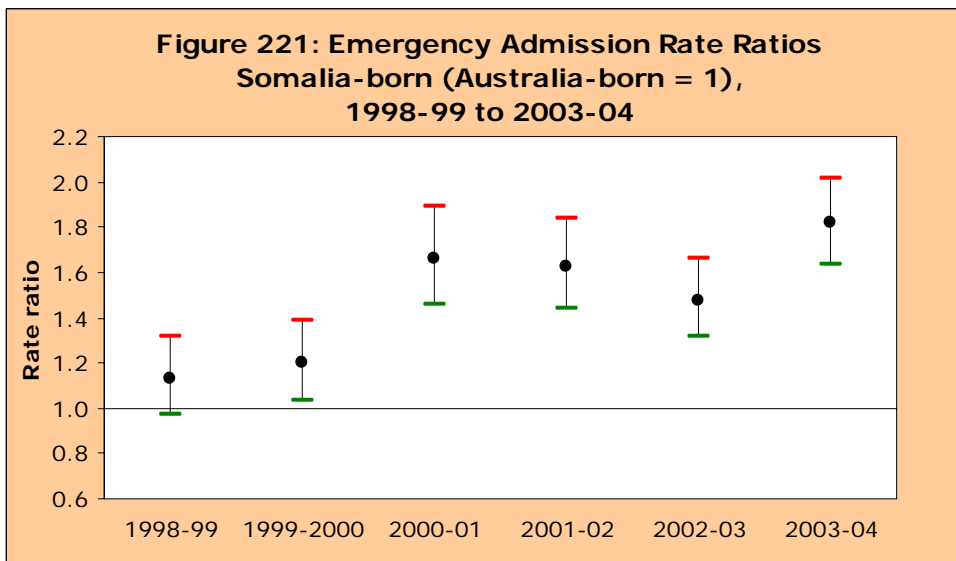


3.13.2 Admission type

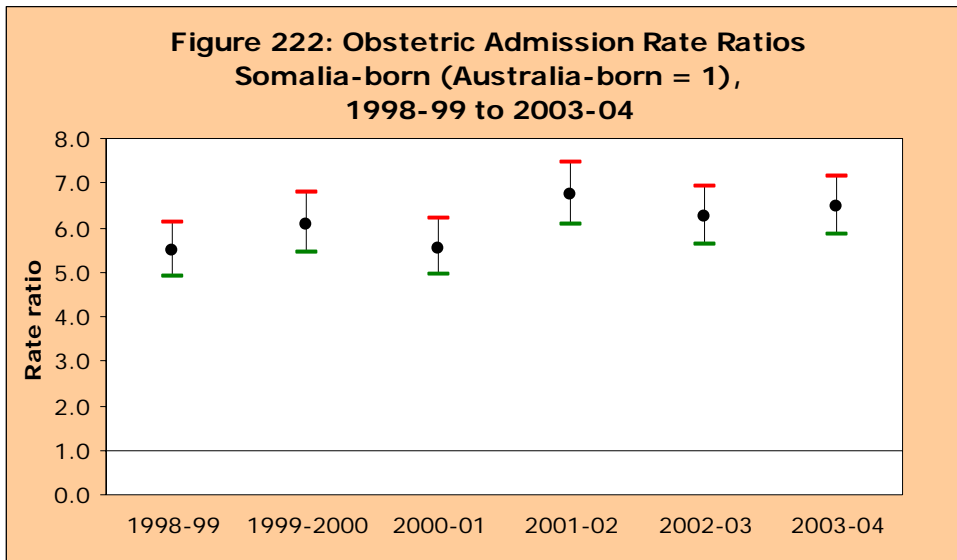
The rate of elective admission for Somalia-born increased from 172.66 per 1000 persons [144.37 – 206.92] in 1998-99 to 239.89 per 1000 persons [210.99 – 274.10] in 2001-02, decreasing subsequently to 198.53 per 1000 persons [174.01 – 228.19] in 2003-04. When compared with Australia-born, Somalia-born reported lower elective admissions over the six-year period (Figure 220). The lowest rate ratio was 0.64 [0.58 -0.70] in 2003-04 and the highest was 0.89 [0.81 – 0.97] in 2001-02.



The rate of emergency admissions for Somalia-born persons doubled during the six-year period, increasing from 90.81 per 1000 persons [70.92 – 116.84] in 1998-99 to 183.43 per 1000 persons [154.57 – 218.19] in 2003-04. Emergency admission rate ratios were higher than Australia-born, except for the year 1998-99 (similar), and moved away from Australia-born averages over time (Figure 221). The lowest rate ratio was 1.13 [0.97 – 1.32] in 1998-99 and the highest was 1.81 [1.64 – 2.02] in 2003-04.

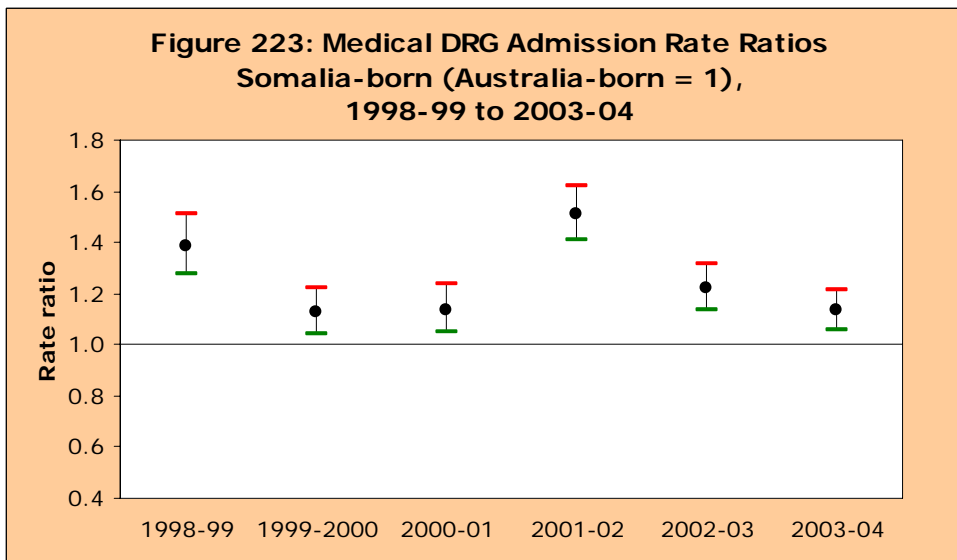


Obstetric admissions rates amongst Somalia-born women remained stable over the six-year period, from 303.87 per 1000 women aged 10-54 years [269.48 – 344.73] in 1998-99 to 323.99 per 1000 women [291.94 – 360.86] in 2003-04. Compared with the Australia-born averages, obstetric admission rate ratios were considerably higher amongst Somalia-born women over the six-year period (Figure 222). The lowest rate ratio was 5.47 [4.90 – 6.10] in 1998-99 and the highest was 6.74 [6.08 – 7.47] in 2001-02.

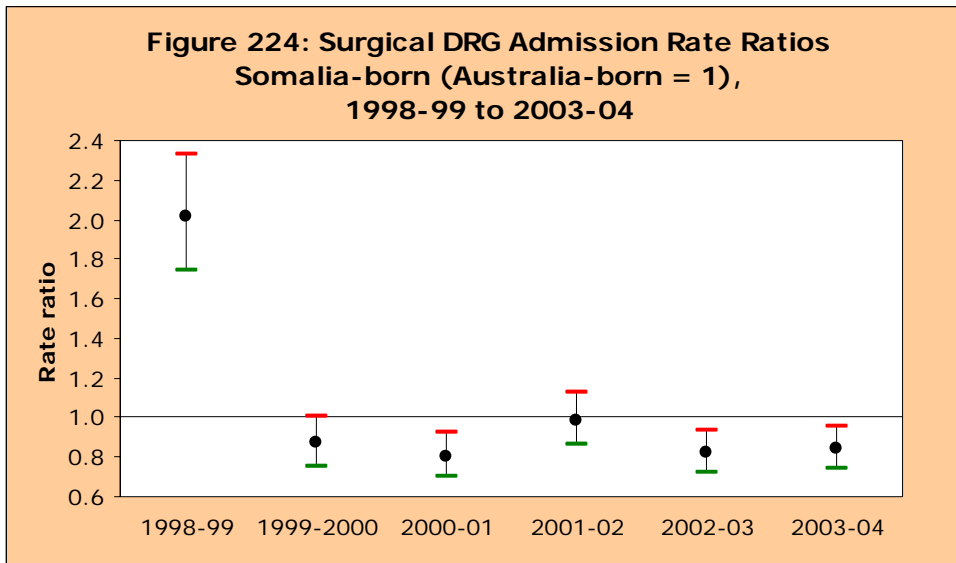


3.13.3 DRG type

Medical DRG admission rates for Somalia-born persons increased between 1998-99 (220.28 per 1000 persons [193.57 – 252.22]) and 2001-02 (351.01 per 1000 persons [316.00 – 391.22]), decreasing afterwards to 306.20 per 1000 persons [274.75 – 342.75] in 2003-04. Compared with Australia-born, medical DRG admission rate ratios were higher amongst Somalia-born, particularly in the 1998-99 (1.39 [1.27 – 1.51]) and 2003-04 (1.51 [1.41 – 1.62]) periods (Figure 223).



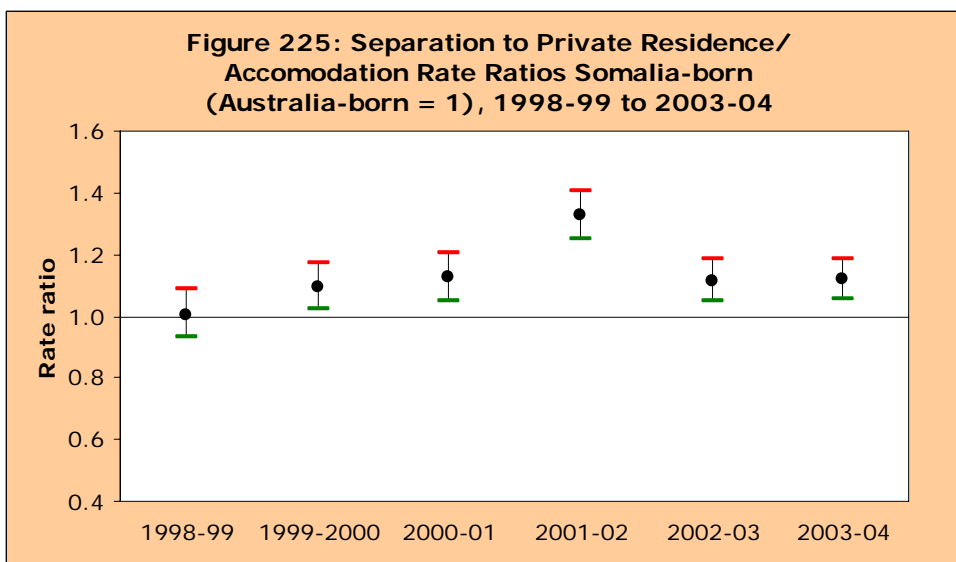
Surgical admission rates amongst Somalia-born remained stable over the six-year period. The lowest rate was 83.39 per 1000 persons [67.60 – 104.94] in 2000-01 and the highest was 107.01 per 1000 persons [84.62 – 135.63] in 1998-99. Compared with Australia-born, surgical admission rate ratios reported no consistent patterns over the study period (Figure 224).



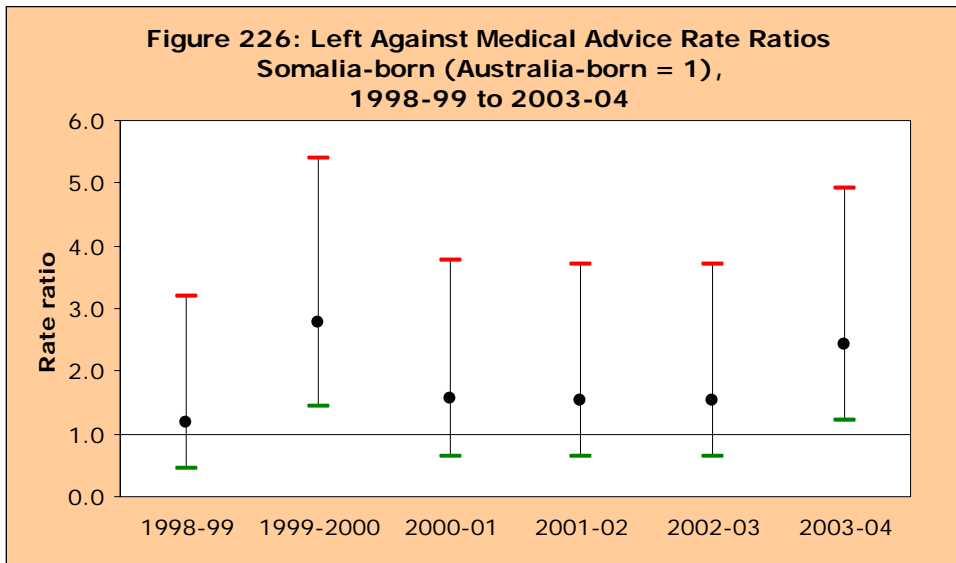
The overall increase of total hospital admission rates amongst Somalia-born over the six-year period (Figure 219) consisted mainly of emergency (Figure 221), obstetric (Figure 222) and medical DRG (Figure 223) admissions, rather than elective (Figure 220) and/or surgical DRG (Figure 224) admissions.

3.13.4 Separation mode

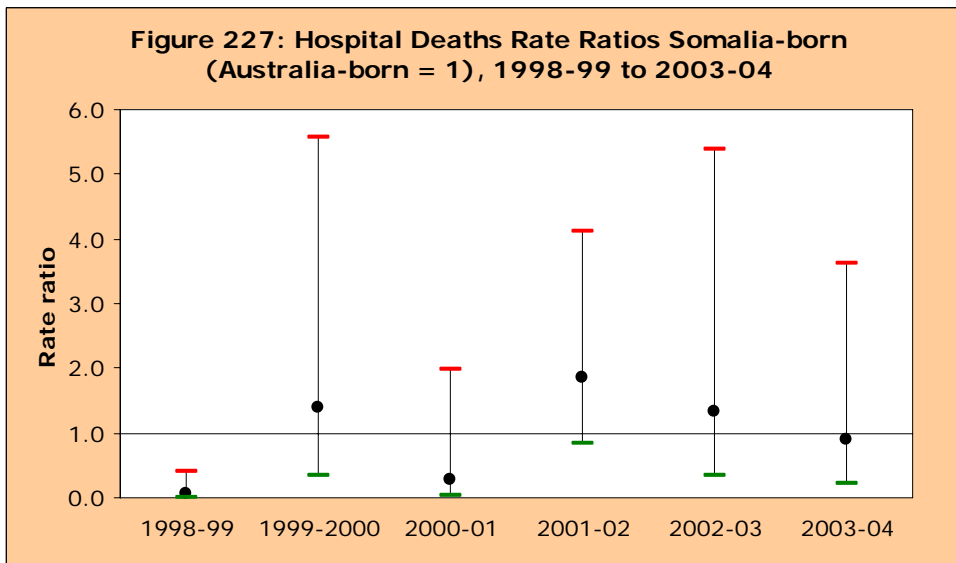
Compared with Australia-born, higher rate ratios of separation to private residence or accommodation were observed for Somalia-born except for the year 1998-99 (similar) (Figure 225). The highest rate ratio was 1.33 [1.25 – 1.41] recorded in 2001-02.



There was no consistent pattern in the rate of discharge at own risk for Somalia-born. The lowest rate was 1.06 per 1000 persons [0.29 – 11.54] in 1998-99 and the highest was 3.00 per 1000 persons [1.02 – 13.06] in 1999-2000. Discharge at own risk rate ratios were similar to Australia-born except for the 1999-2000 and 2003-04 periods (higher) (Figure 226). The highest rate ratio was 2.79 [1.44 – 5.41] in 1999-2000.

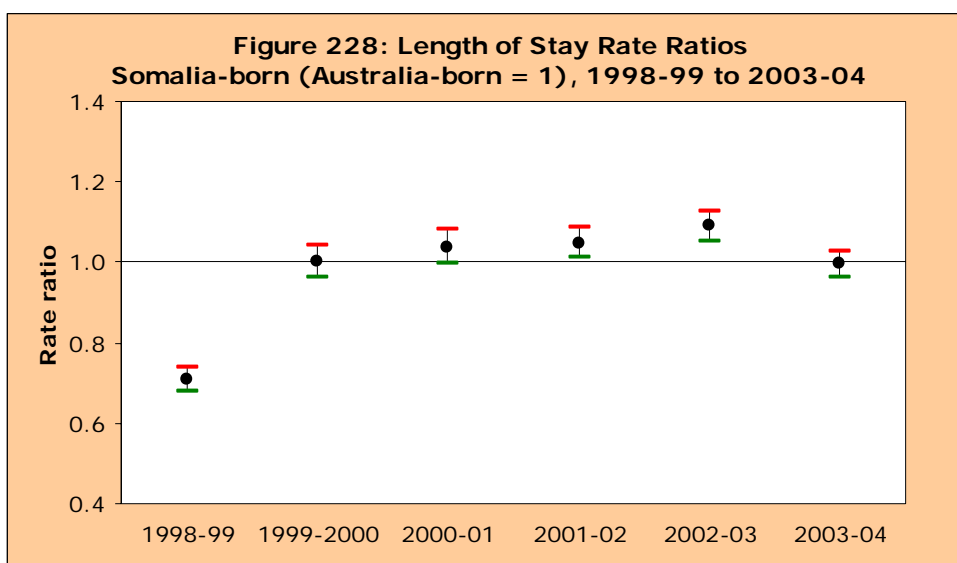


Hospital death rates showed a no consistent pattern amongst Somalia-born. The lowest death rate was 0.24 per 1000 persons [0.01 – 10.92] in 1998-99 and the highest rate was 8.09 per 1000 persons [1.96 – 23.32] in 2001-02. Hospital death rate ratios were similar to the Australia-born average except for the 1998-99 period (lower) (Figure 227). The lowest rate ratio was 0.06 [0.01 – 0.41] in 1998-99 and the highest was 1.84 [0.83 – 4.12] in 2001-02.



3.13.5 Length of stay

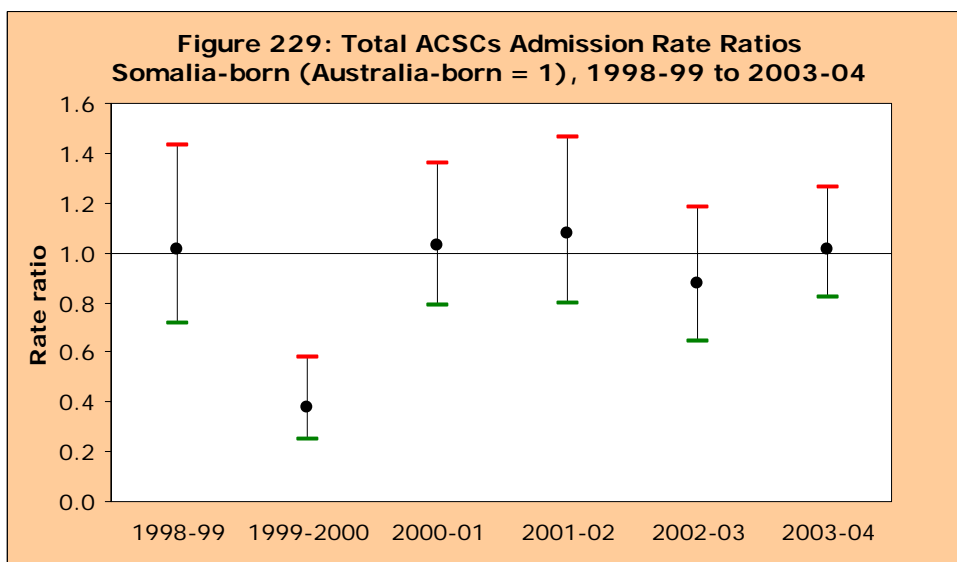
The rate of bed days for Somalia-born increased from 950.82 days per 1000 persons [890.01 – 1016.80] in 1998-99 to 1601.49 days per 1000 persons [1514.96 – 1693.52] in 2002-03, decreasing subsequently to 1486.01 days per 1000 persons [1407.71 – 1569.51] in 2003-04. Length of stay rate ratios reported no consistent patterns when compared with Australia-born (Figure 228). Rate ratios were lower in 1998-99, similar in 1999-2000, 2000-01 and 2003-04, and higher in 2001-02 and 2002-03. The highest rate ratio was 1.09 [1.05 – 1.13] in 2002-03.



3.13.6 ACSCs admissions

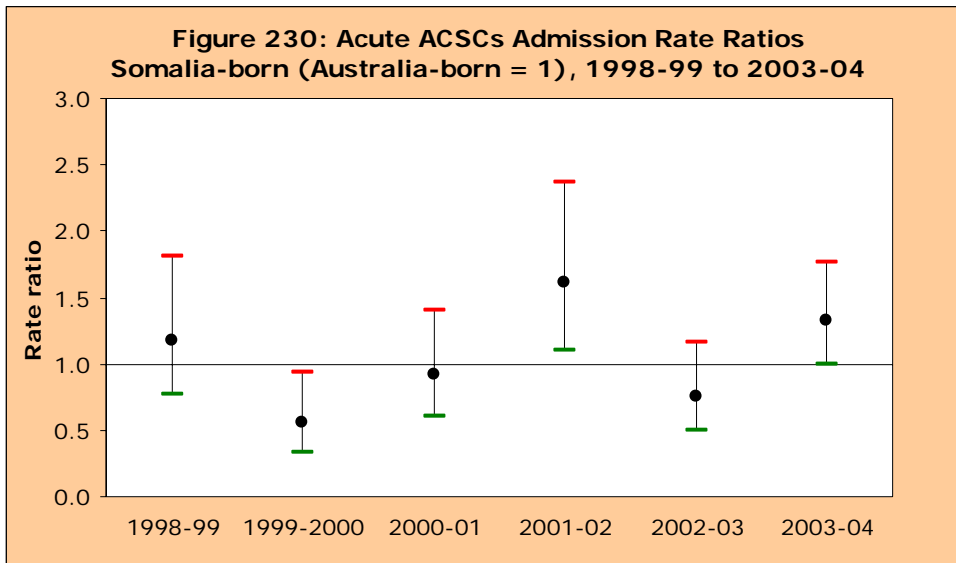
Total ACSCs admissions

Total ACSCs admission rates for Somalia-born decreased from 1998-99 (32.34 per 1000 persons [18.46 – 54.03]) to 1999-2000 (11.99 per 1000 persons [5.44 – 25.71]), increasing subsequently to 43.92 per 1000 persons [29.73 – 64.83] in 2003-04. Rate ratios were mostly similar to Australia-born averages except for the 1999-2000 period (lower) (Figure 229). The lowest rate ratio was 0.38 [0.25 – 0.58] in 1999-2000 and the highest was 1.08 [0.80 – 1.46] in 2001-02.

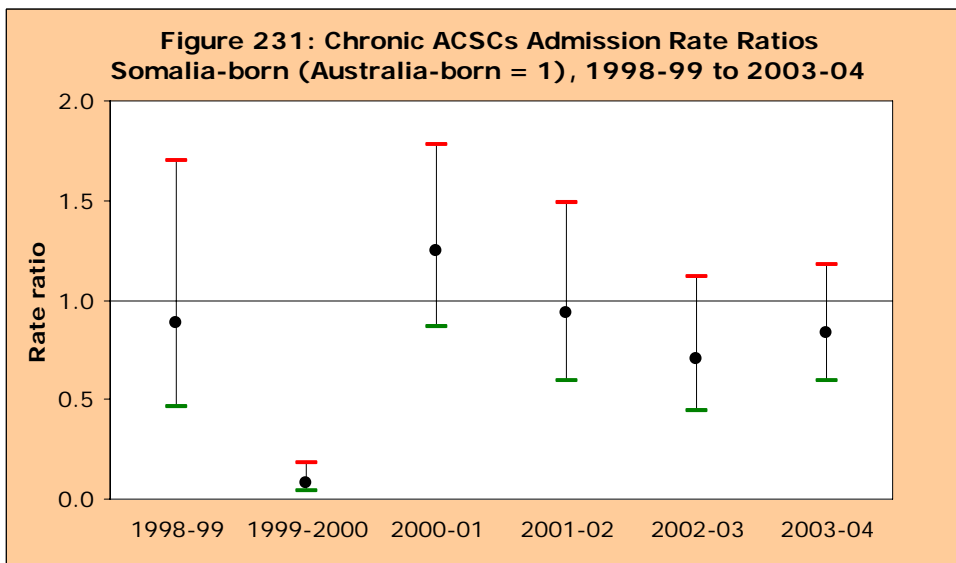


Acute, chronic and vaccine-preventable ACSCs admissions

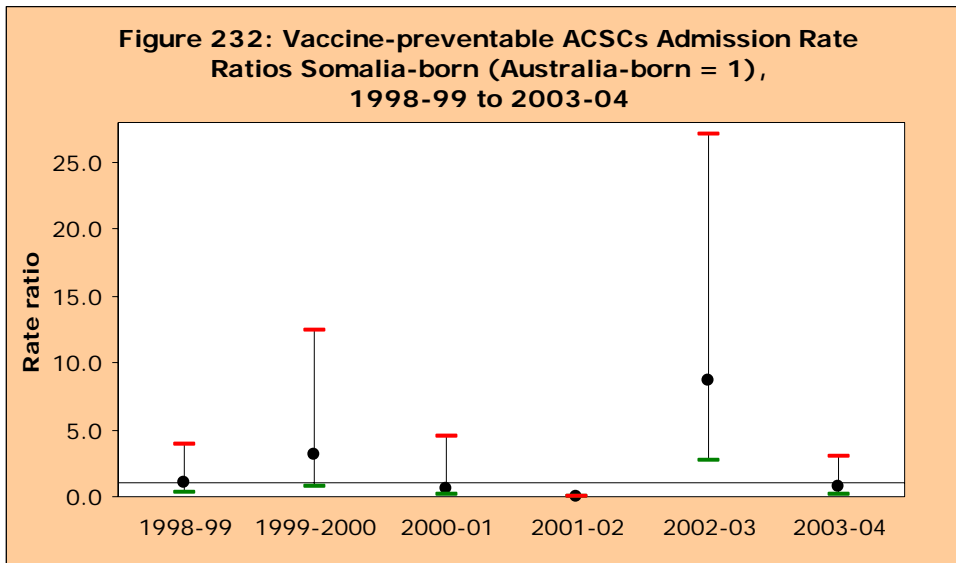
Both admission rates and rate ratios for acute ACSCs showed no consistent patterns amongst Somalia-born over time. The lowest admission rate was 7.25 per 1000 persons [2.81 – 19.08] in 1999-2000 and the highest was 23.18 per 1000 persons [12.25 – 41.79] in 2001-02. Compared with Australia-born, acute ACSCs admission rate ratios were similar except for the 1999-2000 (lower) and 2001-02 (higher) periods (Figure 230). The lowest rate ratio was 0.55 [0.33 – 0.94] in 1999-2000 and the highest was 1.61 [1.10 – 2.37] in 2001-02.



Chronic ACSCs admission rates for Somalia-born decreased sharply from 15.84 per 1000 persons [5.90 – 34.82] in 1998-99 to 1.44 per 1000 persons [0.52 – 11.21] in 1999-2000, increasing subsequently to 21.97 per 1000 persons [11.53 – 39.99] in 2003-04. Chronic ACSCs rate ratios were mostly similar to Australia-born averages except for the year 1999-2000 (lower) (Figure 231). The lowest rate ratio was 0.08 [0.04 – 0.18] in 1999-2000 and the highest was 1.24 [0.87 – 1.78] in 2000-01.



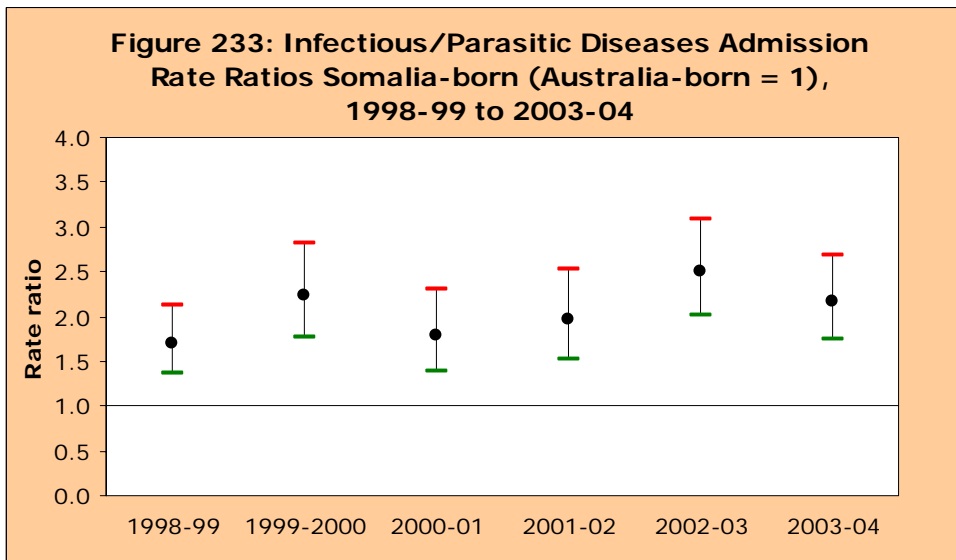
There was no consistent pattern of hospital admissions for vaccine-preventable ACSCs amongst Somalia-born during the study period. The lowest admission rate was zero in 2001-02 and the highest was 6.13 per 1000 persons [0.84 – 21.45] in 2002-03. Compared with Australia-born, vaccine-preventable ACSCs admission rate ratios were similar amongst Somalia-born except for the 2001-02 (lower) and 2002-03 (higher) periods (Figure 232).



3.13.7 Admissions for specific diagnosis categories

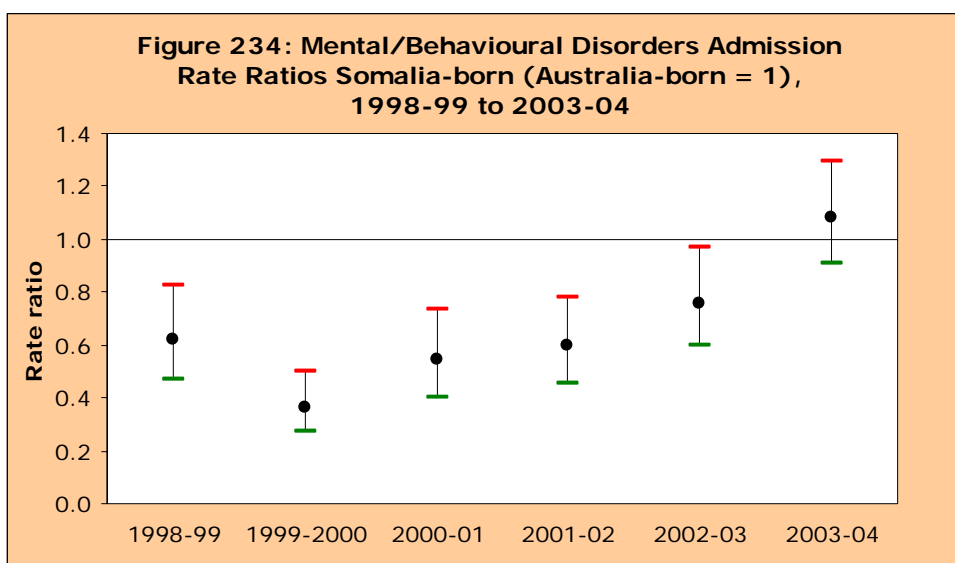
Infectious and parasitic diseases

There was no consistent pattern in the admission rate for infectious and parasitic diseases amongst Somalia-born over time. The lowest rate was 30.67 per 1000 persons [21.34 – 46.48] in 2000-01 and the highest was 48.77 per 1000 persons [33.33 – 71.07] in 2002-03. Infectious and parasitic diseases rate ratios were above Australian-born averages over the six-year period (Figure 233). The lowest rate ratio was 1.69 [1.36 – 2.11] in 1998-99 and the highest was 2.49 [2.01 – 3.09] in 2002-03.



Mental and behavioural disorders

Admission rates for mental and behavioural disorders amongst Somalia-born initially decreased from 19.97 per 1000 persons [12.22 – 34.44] in 1998-99 to 11.77 per 1000 persons [8.28 – 21.81] in 1999-2000, increasing subsequently to 37.13 per 1000 persons [30.50 – 49.51] in 2003-04. Compared with Australia-born, admission rate ratios were lower for Somalia-born between 1998-99 and 2003-03, moving towards Australia-born averages in 2003-04 (1.08 [0.91 – 1.29]) (Figure 234). The lowest rate ratio was 0.37 [0.27 – 0.50] in 1999-2000.



3.13.8 Top ten AR-DRGs

A comparison of the 2003-04 top 10 AR-DRGs between Somalia-born and Australia-born is shown in Table 14. The top 10 AR-DRGs accounted for 44.2% of the total hospital admissions for Somalia-born compared with 31.8% for Australia-born. Pregnancy and birth-related conditions accounted for 30.9% of total hospital admissions for Somalia-born compared with 1.8% for Australia-born. Renal dialysis was the most common AR-DRG amongst Australia-born but was not in the top 10 for Somalia-born.

Table 14: Top 10 AR-DRG for Somalia-born and Australia-born, 2003-04

Somalia-born			Australia-born		
	AR-DRG	% *		AR-DRG	% *
1	Vaginal delivery no complicating diagnosis	8.5	Renal dialysis		8.9
2	Other antenatal w moderate/no complicating diagnosis	8.5	Chemotherapy		4.7
3	False labour	5.9	Other colonoscopy, sameday		3.5
4	Other gastroscopy, non-major digestive disease, sameday	5.5	Neonate >2499 g without significant operation room procedure with other problem		3.2
5	Mental health treatment, sameday with electro-convulsive therapy	3.6	Other gastroscopy, non-major digestive disease, sameday		2.3
6	Other antenatal admission with severe complicating diagnosis	3.0	Mental health treatment, sameday, without electro-convulsive therapy		2.0
7	Abortion with dilation & curettage, aspiration curettage/hysterotomy	2.9	Dental extractions and restorations		2.0
8	Other colonoscopy, sameday	2.2	Other factors influencing health status <80		1.9
9	Caesarean delivery without complicating diagnosis	2.1	Vaginal delivery no complicating diagnosis		1.8
10	Abdominal pain/mesenteric adenitis no complication and/or comorbidity	2.0	Major lens procedure		1.5

* % of total hospital admissions

3.13.9 Key findings – Somalia-born

- Total hospital admission rates increased over the six-year period (Fig 218).
- Total hospital admission rate ratios were either similar to or higher than the Australia-born average (increasing over time) (Fig 219).
- Surgical DRG admission rate ratios reported no consistent patterns when compared with Australia-born (Fig 224).
- Length of stay rate ratios showed no clear patterns when compared with Australia-born (Fig 228).

Lower than Australia-born

- Elective admission rate ratios (Fig 220).
- Mental and behavioural disorders admission rate ratios (moving towards Australia-born averages over time) (Fig 234).
- Proportion of hospital admissions due to renal dialysis in 2003-04 (Table 14).

Similar to Australia-born

- Discharge at own risk rate ratios (Fig 226).
- Hospital death rate ratios (Fig 227).
- Total, acute, chronic and vaccine-preventable ACSCs admission rate ratios (Figs 229 to 232).

Higher than Australia-born

- Emergency admission rate ratios (increasing over time) (Fig 221).
- Obstetric admission rate ratios were markedly higher (Fig 222).
- Medical DRG admission rate ratios (Fig 223).
- Separation to private residence/accommodation rate ratios (Fig 225).
- Infectious/parasitic diseases admission rate ratios (increasing trend) (Fig 233).
- Pregnancy and birth-related conditions accounted for a higher proportion of hospital admissions in 2003-04 (Table 14).

3.14 Sudan

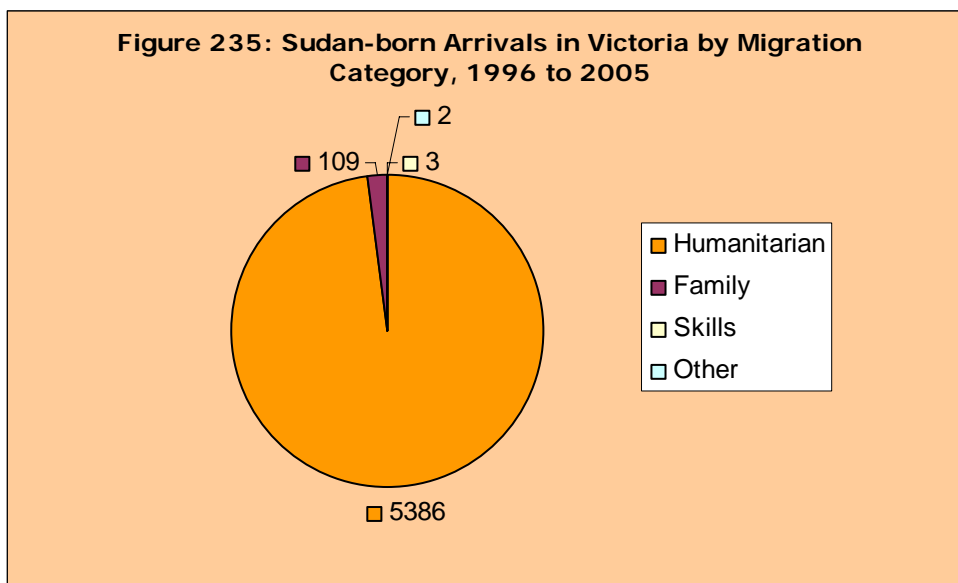
Sudan obtained independence from British-Egyptian rule in 1956. Conflict and civil unrest have prevailed ever since, fuelled by military regimes supporting Islamic-oriented governments and by the northern economic, political, and social domination of non-Muslim, non-Arab southern Sudanese³². Sudan experienced relative calm between 1972 and 1983 when the South was granted some autonomy³³. However, following the discovery of oil in southern Sudan, the Khartoum government introduced Islamic law and took away South's autonomy, prompting civil war. This conflict has resulted in more than two million deaths and about six million people displaced³³. Several peace treaties have been signed since 2002. In January 2005, a final Comprehensive Peace Agreement was reached granting a six-year autonomy period for the South, which will be followed by a referendum for independence.



Source: The World Factbook²⁷

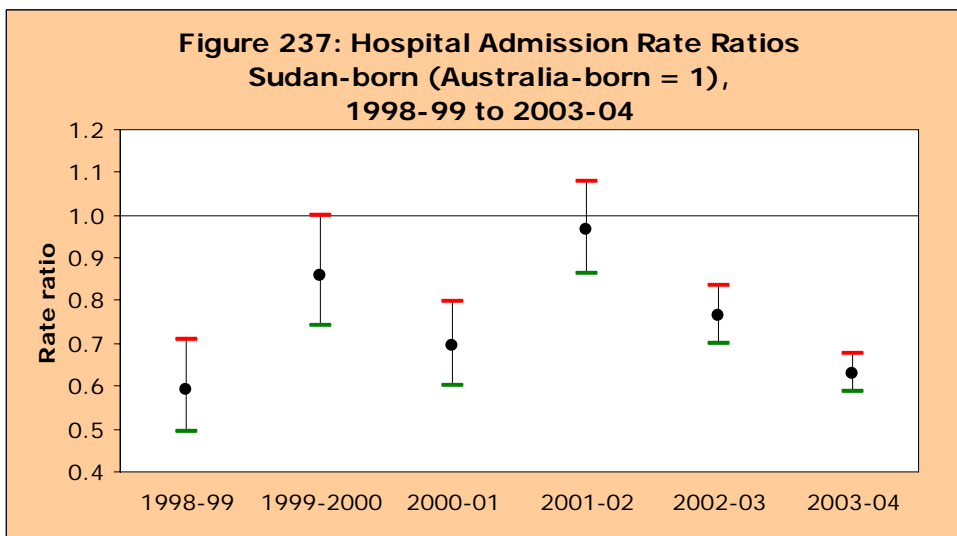
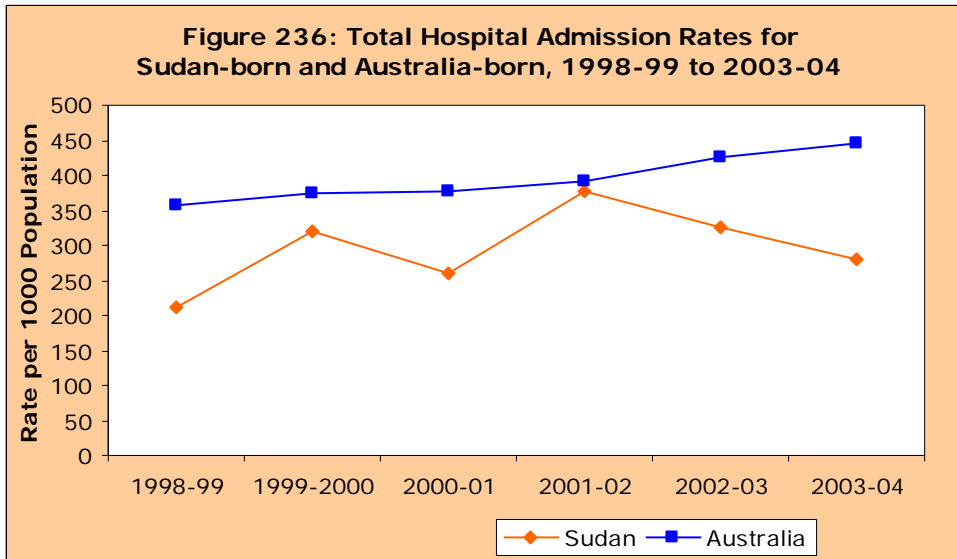
Since 2003, conflict in the western region of Darfur has resulted in tens of thousands of deaths, rape, torture, abductions, forced recruitment, systematic burning of villages and over two million displaced³³. Drought and famine have deteriorated the humanitarian situation. These prolonged conflicts have forced many Sudanese to seek refuge in neighbouring countries such as Ethiopia, Kenya, Egypt, Congo and Uganda¹⁹.

The 1996 census recorded 2,424 Sudan-born persons living in Australia (360 in Victoria)²¹. By 2001, the number of Sudan-born in Australia increased to 4,900 (985 were living in Victoria)²². Between 1996 and 2005, a total of 5,500 Sudan-born persons arrived in Victoria (Figure 235)²⁰. Those who entered under the humanitarian program represented 98% of the total number of arrivals, while the family stream accounted for 2% of arrivals. Like the humanitarian arrivals, many of those under the family reunion program were also likely to have been through refugee-like experiences.



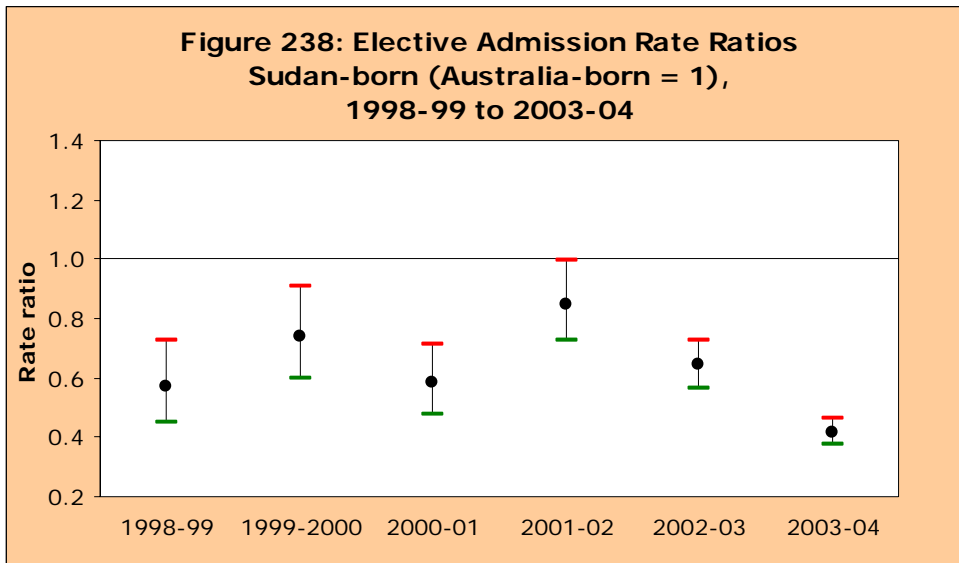
3.14.1 Total hospital admissions

A total of 2,040 hospital admissions in Victoria were recorded for Sudan-born persons between 1998-99 and 2003-04. The rates of total admissions for Sudan-born over the six-year period are shown in Figure 236. The lowest admission rate was 212.28 per 1000 persons [169.20 – 266.77] in 1998-99 and the highest was 378.42 per 1000 persons [315.94 – 452.28] recorded in 2001-02. Compared with Australia-born, Sudan-born recorded lower admission rate ratios except for the 1999-2000 and 2001-02 periods (similar) (Figure 237). The lowest rate ratio was 0.59 [0.50 – 0.71] in 1998-99 and the highest was 0.96 [0.86 – 1.08] in 2001-02.

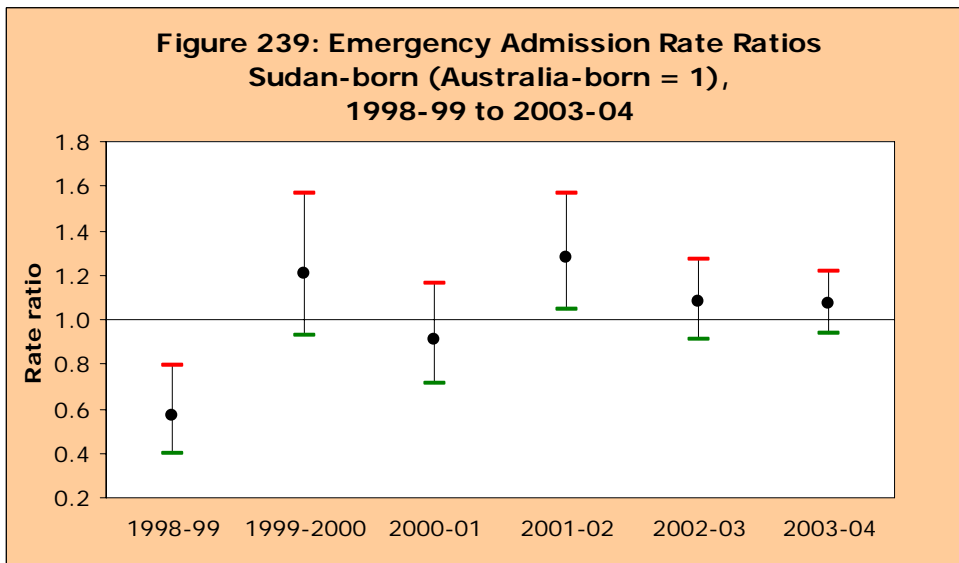


3.14.2 Admission type

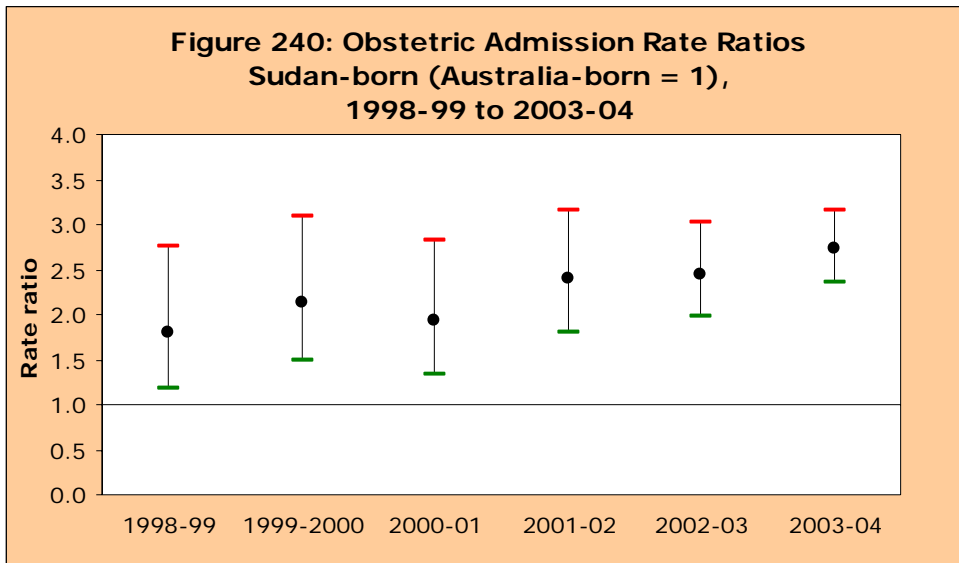
The rate of elective admission amongst Sudan-born increased from 139.89 per 1000 persons [102.03 – 190.37] in 1998-99 to 229.02 per 1000 persons [178.97 – 291.14] in 2001-02, decreasing subsequently to 129.77 per 1000 persons [104.47 – 163.24] in 2003-04. When compared with Australia-born, Sudan-born reported lower elective admission rate ratios except for the 2001-02 period (similar) (Figure 238). The lowest rate ratio was 0.42 [0.37 – 0.46] in 2003-04 and the highest was 0.85 [0.73 – 0.99] in 2001-02.



The rate of emergency admissions amongst Sudan-born showed an overall increase over time, from 45.34 per 1000 persons [30.49 – 71.88] in 1998-99 to 108.01 per 1000 persons [79.47 – 146.16] in 2003-04. Emergency admission rate ratios were similar to the Australia-born average, except for the years 1998-99 (lower) and 2001-02 (higher) (Figure 239). The lowest rate ratio was 0.57 [0.40 – 0.80] in 1998-99 and the highest was 1.28 [1.04 – 1.56] in 2001-02.

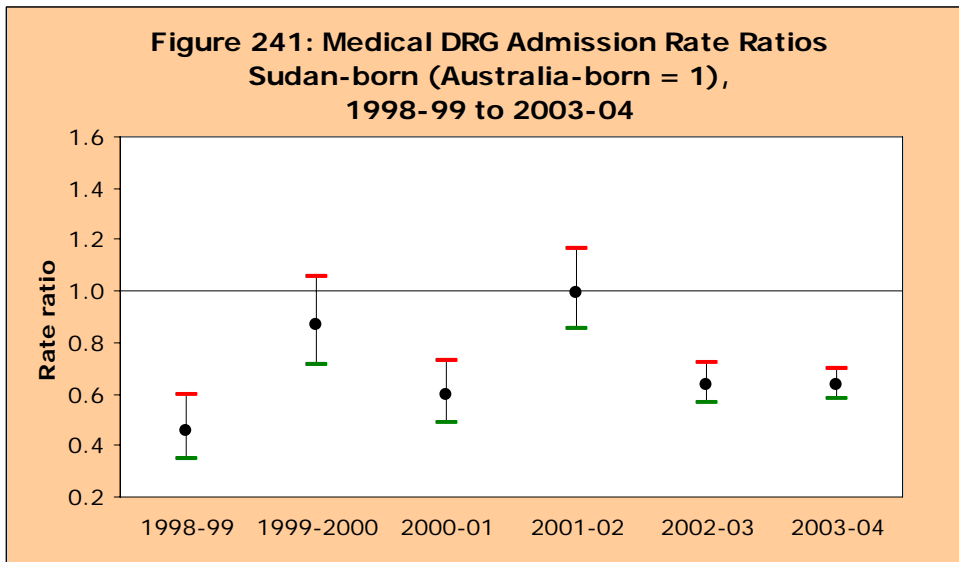


The rate of obstetric admissions amongst Sudan-born women increased over the six-year period, from 100.06 per 1000 women aged 10-54 years [61.84 – 156.80] in 1998-99 to 136.41 per 1000 women [116.90 – 160.86] in 2003-04. Obstetric admission rate ratios were higher for Sudan-born women, moving away from Australia-born averages over time (Figure 240). The lowest rate ratio was 1.80 [1.17 – 2.76] in 1998-99 and the highest was 2.73 [2.36 – 3.15] in 2003-04.

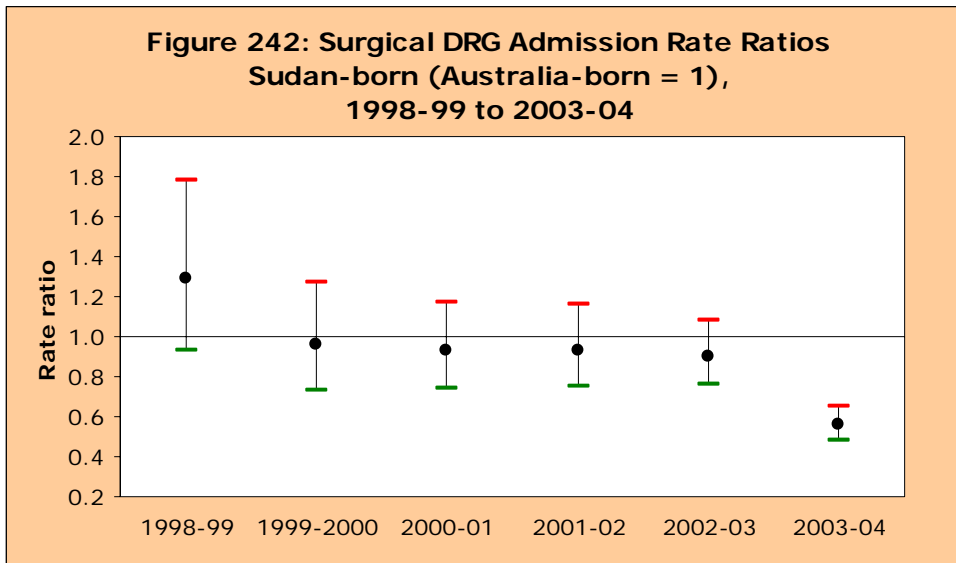


3.14.3 DRG type

Medical DRG admission rates for Sudan-born increased from 72.83 per 1000 persons [53.98 – 102.60] in 1998-99 to 230.99 per 1000 persons [179.47 – 294.89] in 2001-02, decreasing subsequently to 172.15 per 1000 persons [138.44 – 214.62] in 2003-04. Rate ratios of medical DRG admission were mostly lower than Australia-born, except for the 1999-2000 and 2001-02 periods (similar) (Figure 241). The lowest rate ratio was 0.46 [0.35 – 0.60] in 1998-99 and the highest was 1.00 [0.85 – 1.16] in 2001-02.

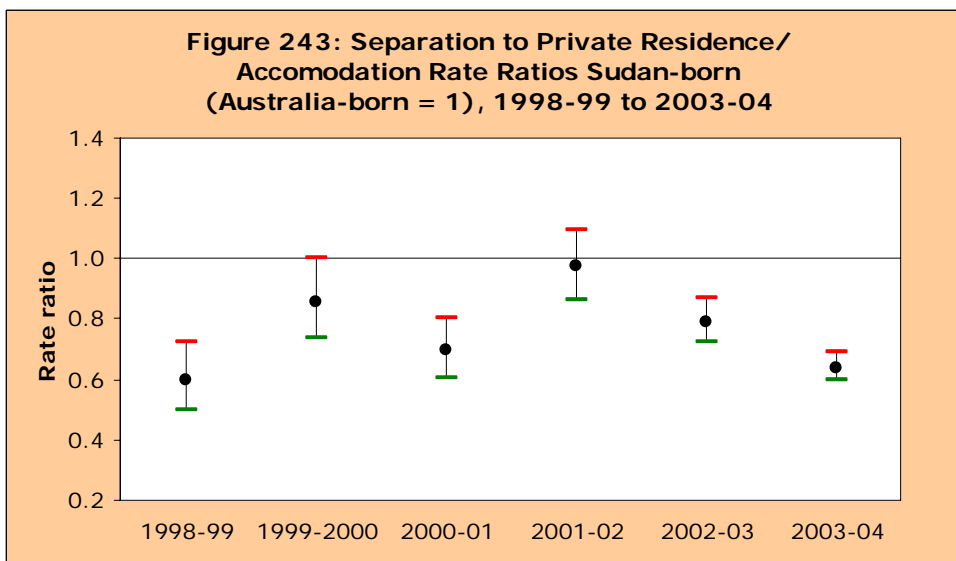


Surgical admission rates for Sudan-born increased between 1998-99 (68.23 per 1000 persons [43.93 – 105.27]) and 2002-03 (102.41 per 1000 persons [75.51 – 139.62]), decreasing to 64.02 per 1000 persons [48.09 – 88.37] in 2003-04. Compared with Australia-born, surgical admission rate ratios were similar amongst Sudan-born except for the year 2003-04 (lower) (Figure 242). Rate ratios decreased over time. The lowest rate ratio was 0.56 [0.48 – 0.65] in 2003-04.

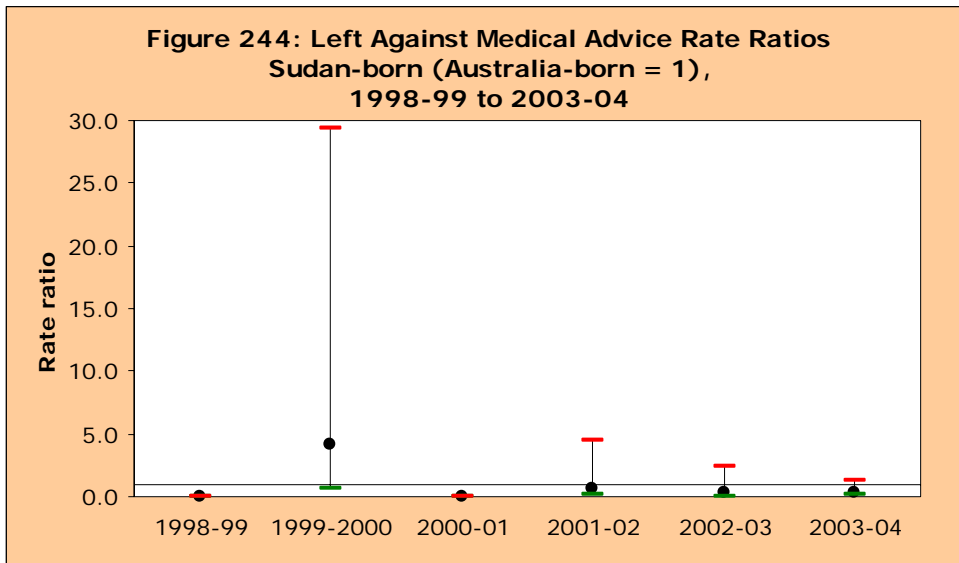


3.14.4 Separation mode

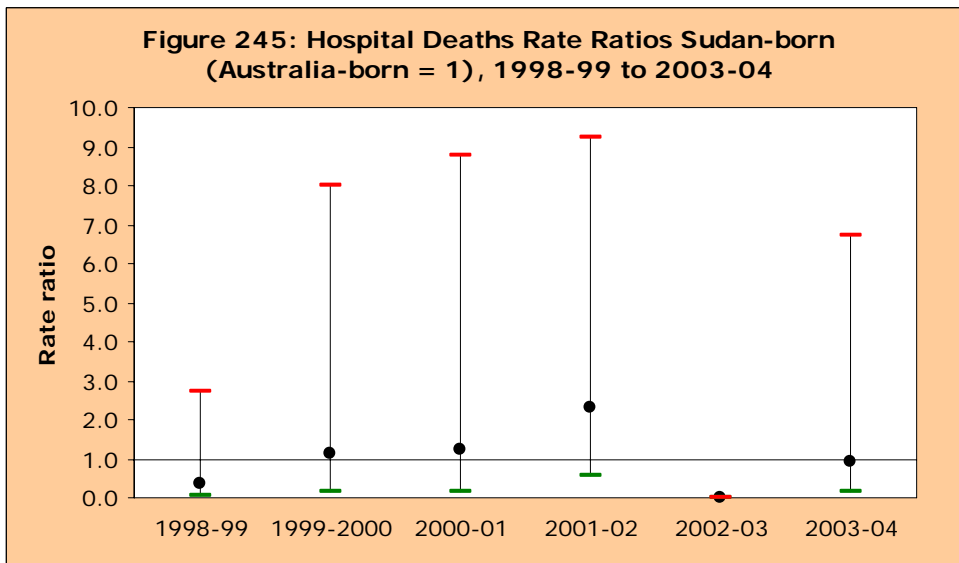
Compared with Australia-born, lower rate ratios of separation to private residence or accommodation were observed for Sudan-born except for the 1999-2000 and 2001-02 periods (similar) (Figure 243). Rate ratios ranged from 0.60 [0.50 – 0.72] in 1998-99 to 0.97 [0.87 – 1.09] in 2001-02.



No consistent pattern in the rate of discharge at own risk was seen amongst Sudan-born. The lowest discharge rate was zero in 1998-99 and 2000-01, and the highest was 4.45 per 1000 persons [0.11 – 24.80] in 1999-2000. When compared with Australia-born, discharge at own risk rate ratios for Sudan-born were similar except for the 1998-99 and 2000-01 periods (lower) (Figure 244).

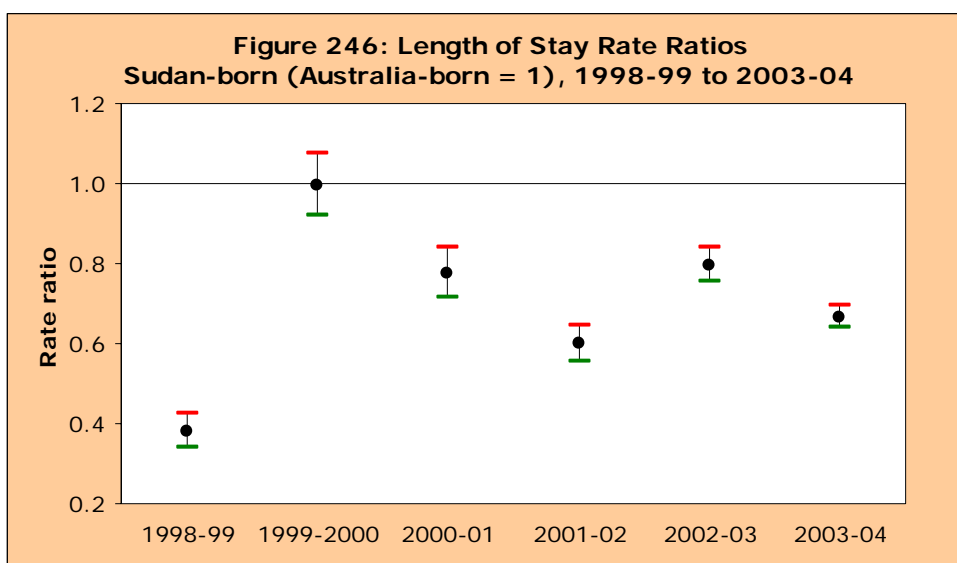


Hospital death rates for Sudan-born increased from 1.59 per 1000 persons [0.04 – 21.35] in 1998-99 to 10.09 per 1000 persons [1.22 – 36.45] in 2001-02, decreasing to 4.17 per 1000 persons [0.11 – 23.23] in 2003-04. There were no hospital deaths amongst Sudan-born in 2002-03. Hospital death ratios were similar to the Australia-born average, except for the year 2002-03 (lower) (Figure 245). The lowest rate ratio was zero in 2002-03 and the highest was 2.30 [0.57 – 9.21] in 2001-02.



3.14.5 Length of stay

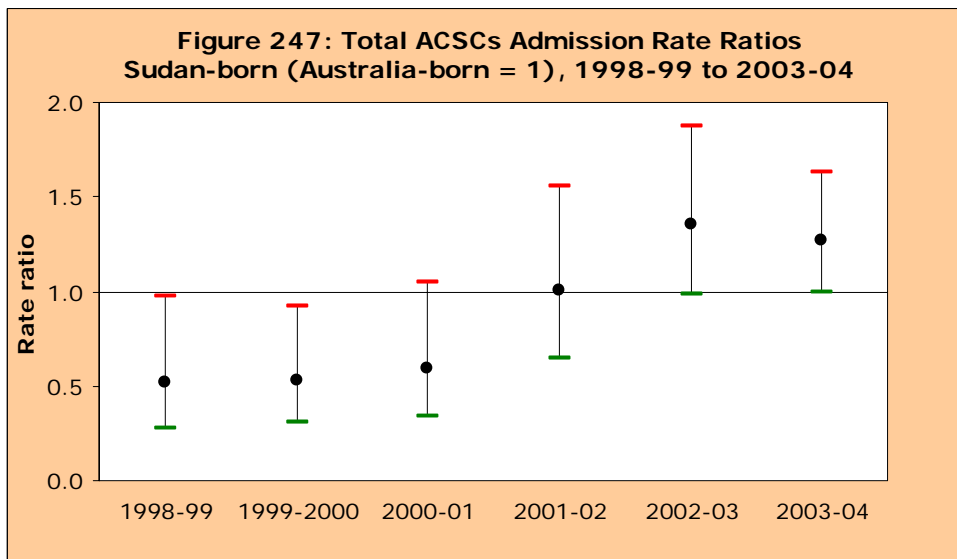
The rate of bed days for Sudan-born increased markedly between 1998-99 (507.84 days per 1000 persons [442.05 – 584.31]) and 1999-2000 (1381.34 days per 1000 persons [1251.07 – 1522.71]), decreasing subsequently to 994.23 days per 1000 persons [905.80 – 1091.27] in 2003-04. Compared with Australia-born, length of stay rate ratios were mostly lower for Sudan-born except for the 1999-2000 period (similar) (Figure 246). The lowest rate ratio was 0.38 [0.34 – 0.42] in 1998-99 and the highest 0.99 [0.92 – 1.08] in 1999-2000.



3.14.6 ACSCs admissions

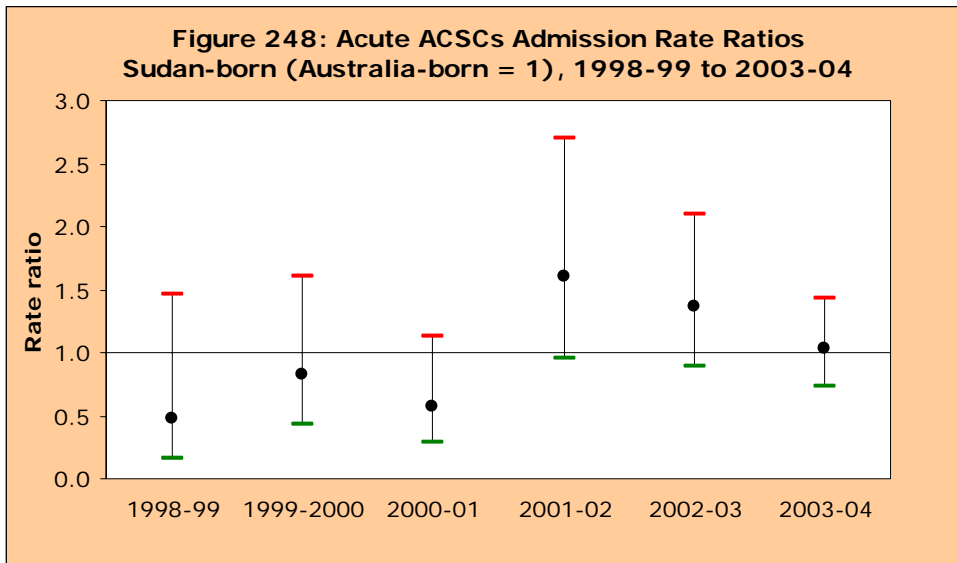
Total ACSCs admissions

Total ACSCs admission rates for Sudan-born tripled over time, increasing from 16.64 per 1000 persons [7.44 – 39.71] in 1998-99 to 55.07 per 1000 persons [32.77 – 88.60] in 2003-04. Total ACSCs admission rate ratios were mostly similar to Australia-born, except for the 1999-2000 period (lower) (Figure 247). Rate ratios increased over time. The lowest rate ratio was 0.52 [0.28 – 0.97] in 1998-99 and the highest was 1.36 [0.98 – 1.87] in 2002-03.

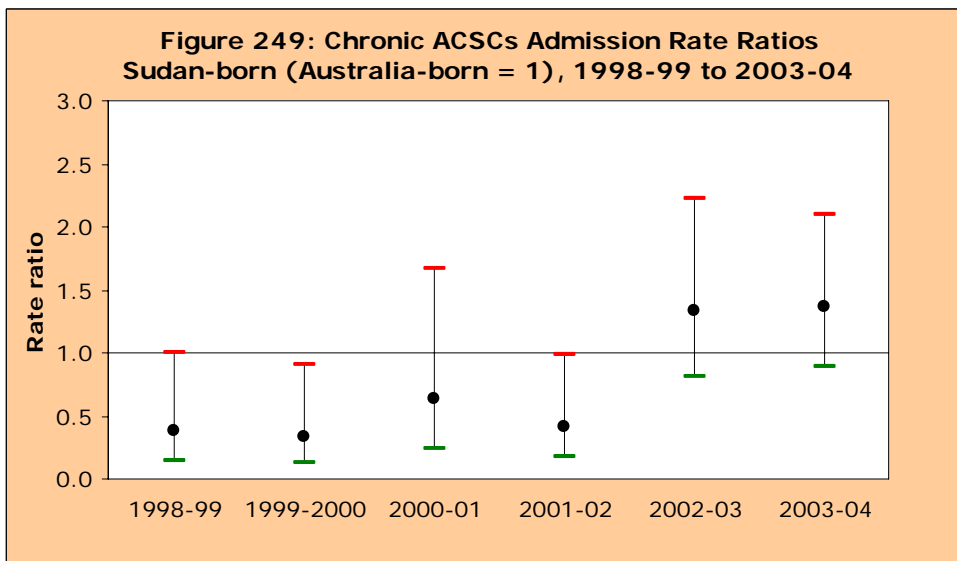


Acute, chronic and vaccine-preventable ACSCs admissions

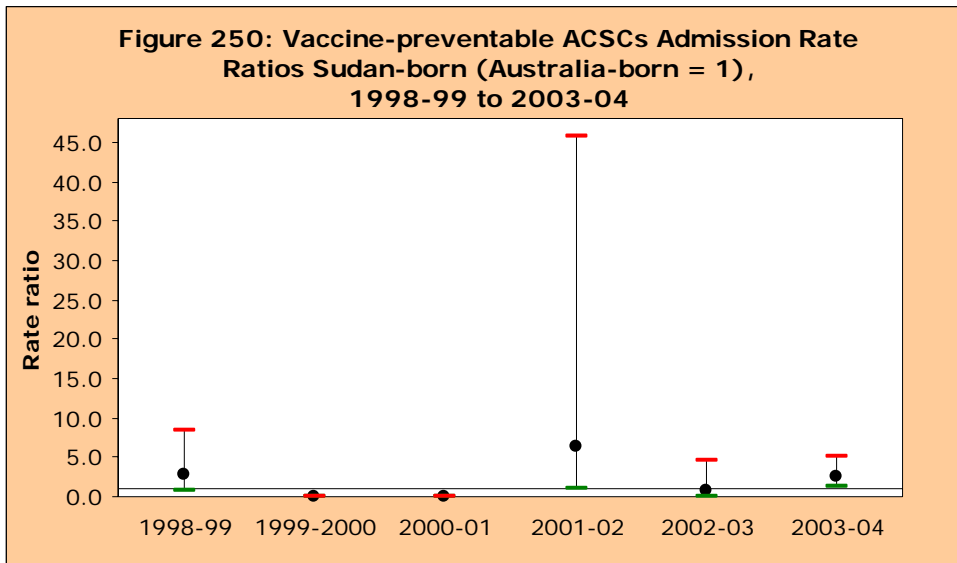
Admission rates for acute ACSCs amongst Sudan-born initially increased from 6.08 per 1000 persons [0.94 – 27.65] in 1998-99 to 22.96 per 1000 persons [8.72 – 51.83] in 2001-02, decreasing afterwards to 17.20 per 1000 persons [7.30 – 38.28] in 2003-04. Compared with Australia-born, acute ACSCs admission rate ratios were similar amongst Sudan-born (Figure 248). The lowest rate ratio was recorded in 1998-99 (0.47 [0.15 – 1.46]) and the highest was recorded in 2001-02 (1.60 [0.94 – 2.70]).



Chronic ACSCs admission rates amongst Sudan-born showed a five-fold increase over the six-year period, from 6.71 per 1000 persons [1.76 – 27.33] in 1998-99 to 35.84 per 1000 person [17.26 – 66.79] in 2003-04. Chronic ACSCs admission rate ratios were similar to Australia-born, except for the year 1999-2000 (lower) (Figure 249). Rate ratios increased over time.



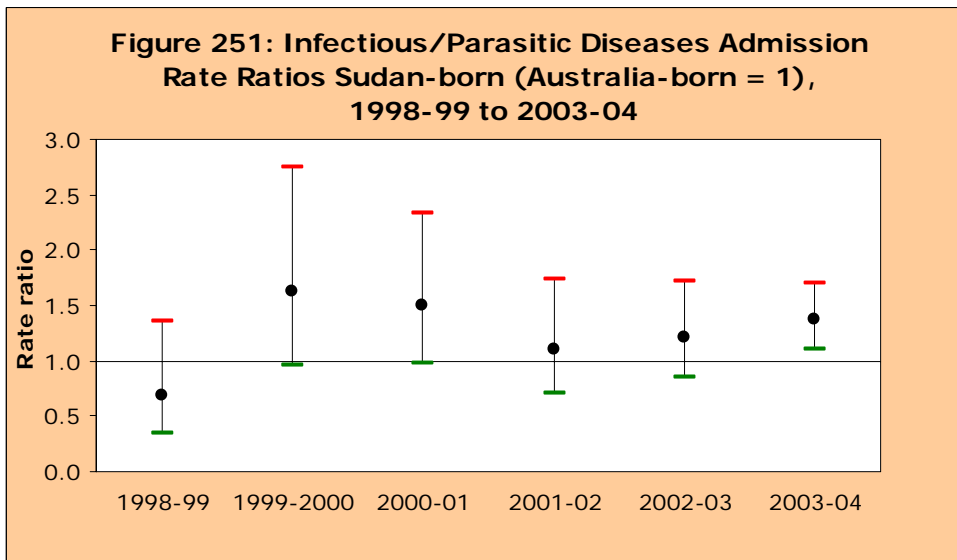
There were no consistent patterns of vaccine-preventable ACSCs admission rates and rate ratios for Sudan-born. The lowest admission rate was zero recorded in 1999-2000 and 2000-01, and the highest rate was 5.05 per 1000 persons [0.13 – 28.11] recorded in 2001-02. When compared with Australia-born, admission rate ratios showed no consistent patterns, ranging from zero in 1999-2000 and 2000-01 to 6.40 [0.90 – 45.65] in 2001-02 (Figure 250).



3.14.7 Admissions for specific diagnosis categories

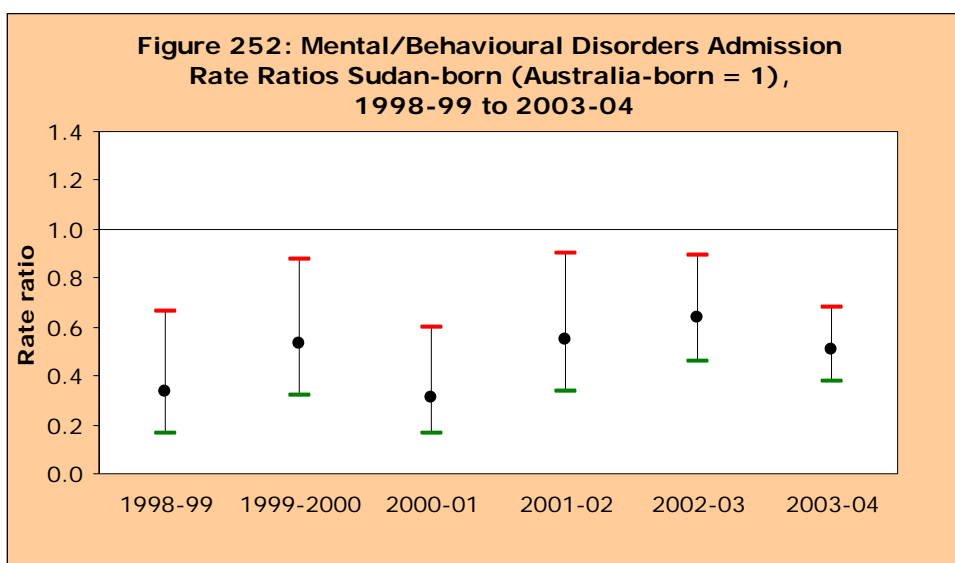
Infectious and parasitic diseases

Admission rates for infectious and parasitic diseases amongst Sudan-born showed a no consistent pattern over time. The lowest admission rate was 13.50 per 1000 persons [5.26 – 36.12] in 1998-99, and the highest was 31.93 per 1000 persons [15.31 – 60.97] in 1999-2000. Infectious and parasitic diseases admission rate ratios were similar to Australia-born averages except for the 2003-04 period (higher) (Figure 251).



Mental and behavioural disorders

Admission rates for mental and behavioural disorders amongst Sudan-born increased from 10.66 per 1000 persons [4.54 – 31.23] in 1998-99 to 20.60 per 1000 persons [10.98 – 41.77] in 2002-03, declining to 17.27 per 1000 persons [7.46 – 38.16] in 2003-04. Compared with Australia-born, admission rate ratios for Sudan-born were consistently lower over the six-year period (Figure 252). The lowest rate ratio was 0.31 [0.16 – 0.59] in 2000-01 and the highest was 0.64 [0.46 – 0.89] in 2002-03.



3.14.8 Top ten AR-DRGs

Table 15 compares the top 10 AR-DRGs between Sudan-born and Australia-born in 2003-04. The top 10 AR-DRGs accounted for 44.1% of the total hospital admissions for Sudan-born compared with 31.8% for Australia-born. Renal dialysis was the most common AR-DRG for Australia-born but was not in the top ten AR-DRGs for Sudan-born. Pregnancy and birth-related conditions accounted for 30.9% of admissions amongst Sudan-born, compared with 1.8% amongst Australia-born. Digestive system disorders, including diagnostic procedures such as gastroscopy and colonoscopy, represented 13.2% of total admissions amongst Sudan-born, compared with 5.8% amongst Australia-born.

Table 15: Top 10 AR-DRGs for Sudan-born and Australia-born, 2003-04

Sudan-born			Australia-born	
	AR-DRG	%*	AR-DRG	%*
1	Vaginal delivery no complicating diagnosis	10.9	Renal dialysis	8.9
2	Other antenatal with moderate/no complicating diagnosis	7.2	Chemotherapy	4.7
3	Other gastroscopy, non-major digestive disease, sameday	6.8	Other colonoscopy, sameday	3.5
4	Abortion with dilation & curettage, aspiration curettage/hysterotomy	5.7	Neonate >2499 g without significant operation room procedure with other problem	3.2
5	Oesophagitis & miscellaneous digestive system disorders <10	4.6	Other gastroscopy, non-major digestive disease, sameday	2.3
6	Other antenatal admission with severe complicating diagnosis	2.2	Mental health treatment, sameday, without electro-convulsive therapy	2.0
7	Postpartum & Post abortion without operation room procedure	1.9	Dental extractions and restorations	2.0
8	Other colonoscopy, sameday	1.8	Other factors influencing health status <80	1.9
9	Vaginal delivery with severe complicating diagnosis	1.5	Vaginal delivery no complicating diagnosis	1.8
10	False labour	1.5	Major lens procedure	1.5

* % of total hospital admissions

3.14.9 Key findings – Sudan-born

- Overall, total hospital admission rates recorded an increasing trend over time (Fig 236).
- No consistent pattern for vaccine-preventable ACSCs rate ratios was recorded when compared with Australia-born averages (Fig 250).

Lower than Australia-born

- Total and elective hospital admission rate ratios (Figs 237-238).
- Medical DRG admission rate ratios (Fig 241).
- Separation to private residence/accommodation rate ratios (Fig 243).
- Length of stay rate ratios (Fig 246).
- Mental and behavioural disorders admission rate ratios (Fig 252).
- Proportion of hospital admissions due to renal dialysis in 2003-04 (Table 15).

Similar to Australia-born

- Emergency admission rate ratios (Fig 239).
- Surgical DRG admission rate ratios (decreasing trend over time) (Fig 242).
- Discharge at own risk rate ratios (Fig 244).
- Hospital death rate ratios (Fig 245).
- Total, acute and chronic ACSCs admission rate ratios (Figs 247 to 249). Total and chronic admission rate ratios increased over time.
- Infectious/parasitic diseases admission rate ratios (Fig 251).

Higher than Australia-born

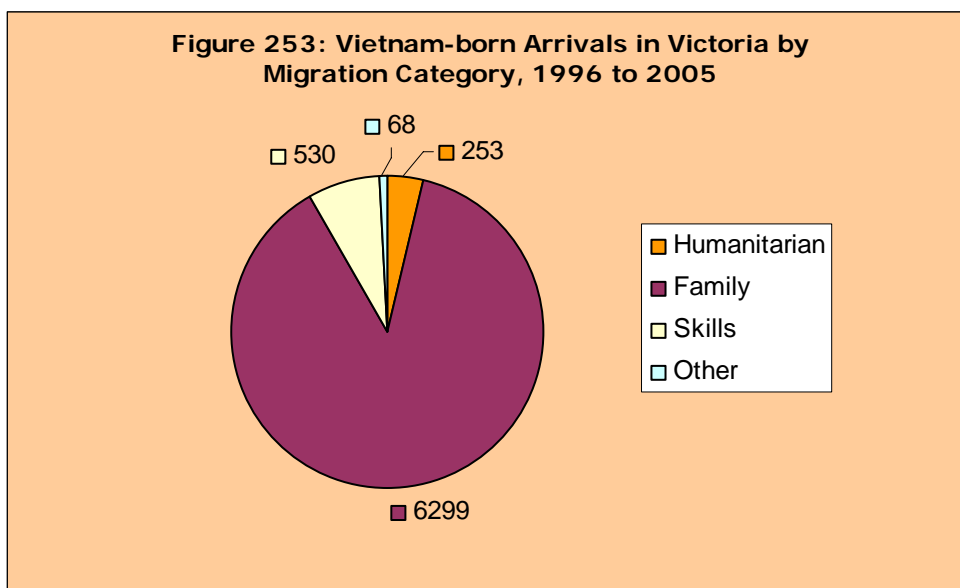
- Obstetric admission rate ratios (increasing over time) (Fig 240).
- Pregnancy and birth-related conditions and digestive tract disorders (including diagnostic procedures) accounted for a higher proportion of hospital admissions in 2003-04 (Table 15).

3.15 Vietnam

Vietnam became part of French Indochina in 1887³⁴. Although independence was declared after World War II, France continued ruling until 1954, when communist forces led by Ho Chi Minh took control of the North and defeated the French. In 1960, the communist forces known as Viet Cong began a guerrilla war aiming to gain control of the South. In 1965, the United States embarked on a sustained war against the North, which ended in 1973 following a cease-fire agreement¹⁹. Two years later, North Vietnamese forces swept to victory, gaining control of the South and establishing a reunified 'Socialist Republic of Vietnam'. In 1978, Vietnam invaded Cambodia in response to a series of Khmer Rouge (Cambodia's regime) attacks on Vietnamese towns. This invasion prompted a ten-year armed conflict between Vietnam and China, which ended in 1989¹⁹. The conflict during the 1970s led to a massive displacement of Vietnamese refugees to China, Hong Kong and South-East Asia. A number of these refugees were resettled in Western countries, including Australia.

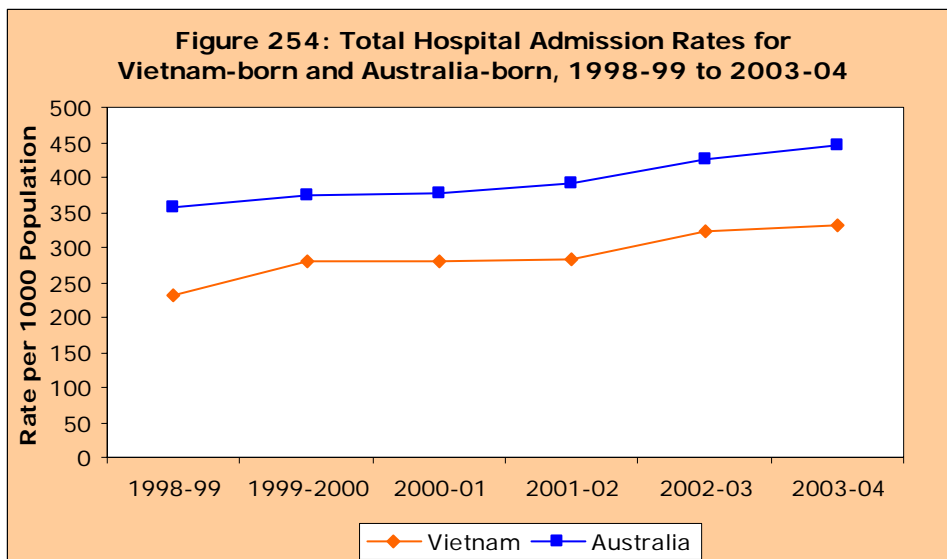


In 1976 there were 2,427 Vietnam-born persons in Australia. By 1986, the number of Vietnam-born had increased to 83,056¹⁹, predominantly of refugee backgrounds. The 1996 census recorded 151,053 Vietnam-born living in Australia (55,217 were in Victoria)²¹; in 2001 the total number was 154,831 in Australia and 56,664 in Victoria²². Between 1996 and 2005, 7,150 Vietnam-born persons arrived in Victoria²⁰. Eighty eight percent of these came under the family migration category and only 3.5% arrived under the humanitarian program (Figure 253).

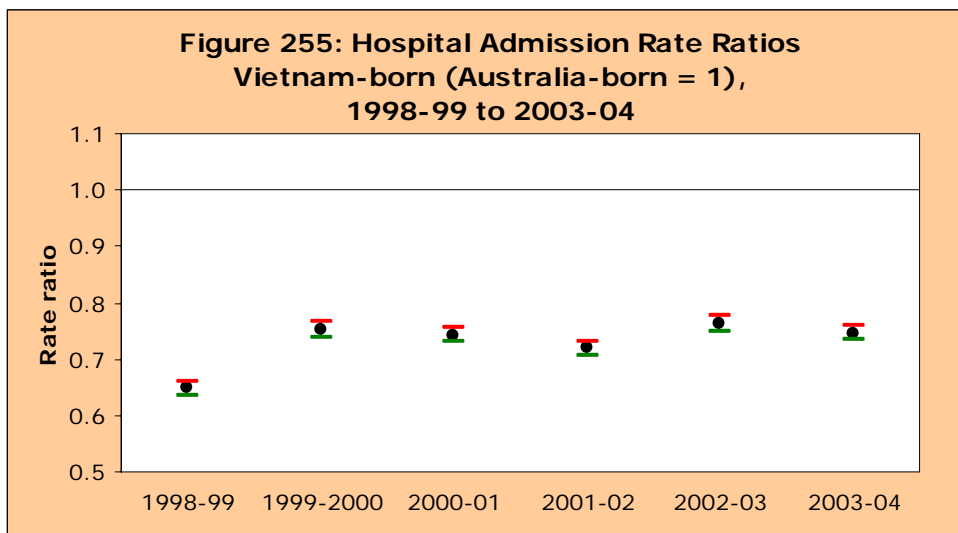


3.15.1 Total hospital admissions

A total of 89,103 hospital admissions in Victoria were recorded for Vietnam-born persons between 1998-99 and 2003-04. Overall, the rate of total admissions for Vietnam-born increased from 232.34 per 1000 persons [227.41 – 237.36] in 1998-99 to 332.15 per 1000 persons [326.43 – 337.95] in 2003-04 (Figure 254).

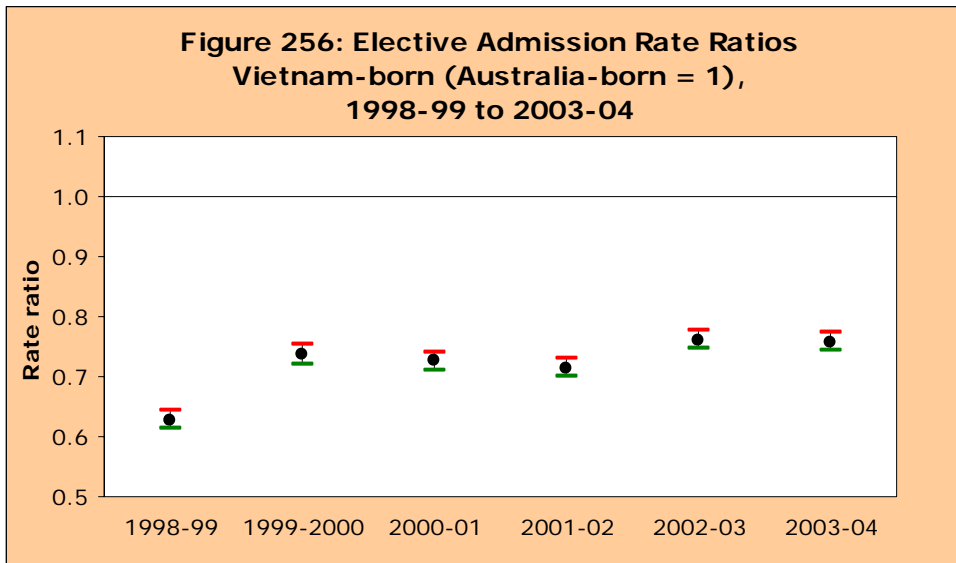


Compared with Australia-born averages, Vietnam-born recorded consistently lower admission rate ratios over the study period (Figure 255). Rate ratios ranged from 0.65 [0.64 – 0.66] in 1998-99 to 0.76 [0.75 – 0.78] in 2002-03.

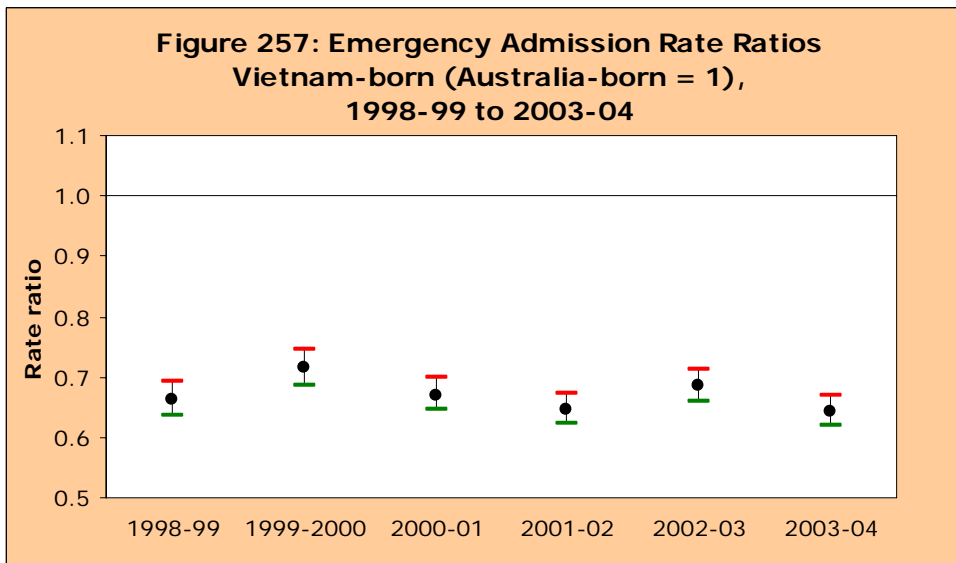


3.15.2 Admission type

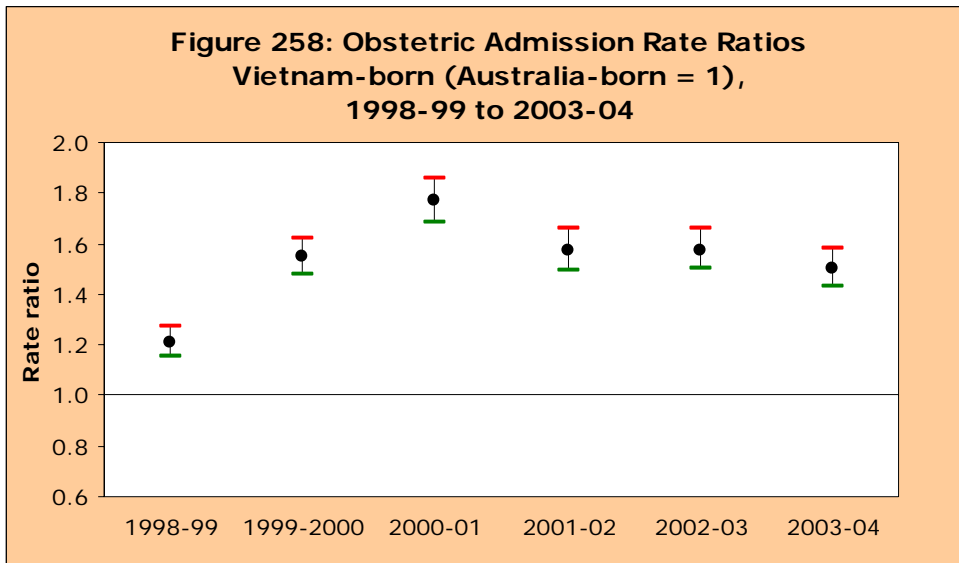
The rate of elective admission amongst Vietnam-born increased from 154.20 per 1000 persons [150.10 – 158.40] in 1998-99 to 236.62 per 1000 persons [231.73 – 241.59] in 2003-04. When compared with Australia-born, Vietnam-born reported consistently lower elective admission rate ratios (Figure 256). The lowest rate ratio was 0.63 [0.61 – 0.64] in 1998-99 and the highest was 0.76 [0.75 – 0.78] in 2002-03.



The rate of emergency admissions for Vietnam-born persons increased slightly from 53.10 per 1000 persons [50.64 – 55.67] in 1998-99 to 64.90 per 1000 persons [62.31 – 67.57] in 2003-04. Emergency admission rate ratios were consistently lower than Australia-born averages over the six-year period (Figure 257). The lowest rate ratio was 0.64 [0.62 – 0.67] in 2003-04; the highest rate ratio was 0.72 [0.69 – 0.75] in 1999-2000.

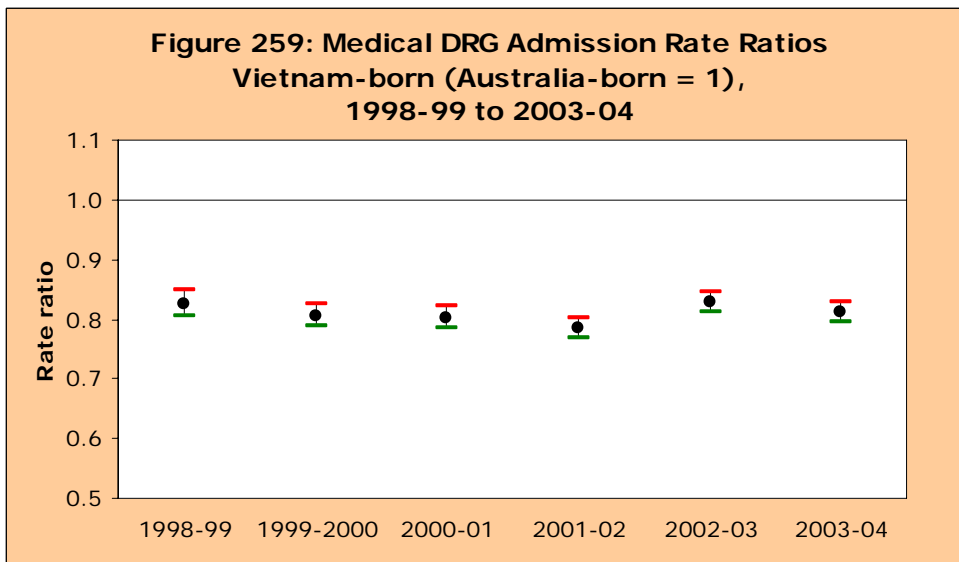


The rate of obstetric admissions amongst Vietnam-born women remained steady during the study period. The admission rates ranged from 67.18 per 1000 women aged 10-54 years [64.32 – 70.19] in 1998-99 to 82.26 per 1000 women [78.76 – 85.90] in 2000-01. Obstetric admission rate ratios for Vietnam-born women were above Australia-born average over the six-year period (Figure 258). The lowest rate ratio was 1.21 [1.15 – 1.27] in 1998-99 and the highest was 1.77 [1.68 – 1.86] in 2000-01.

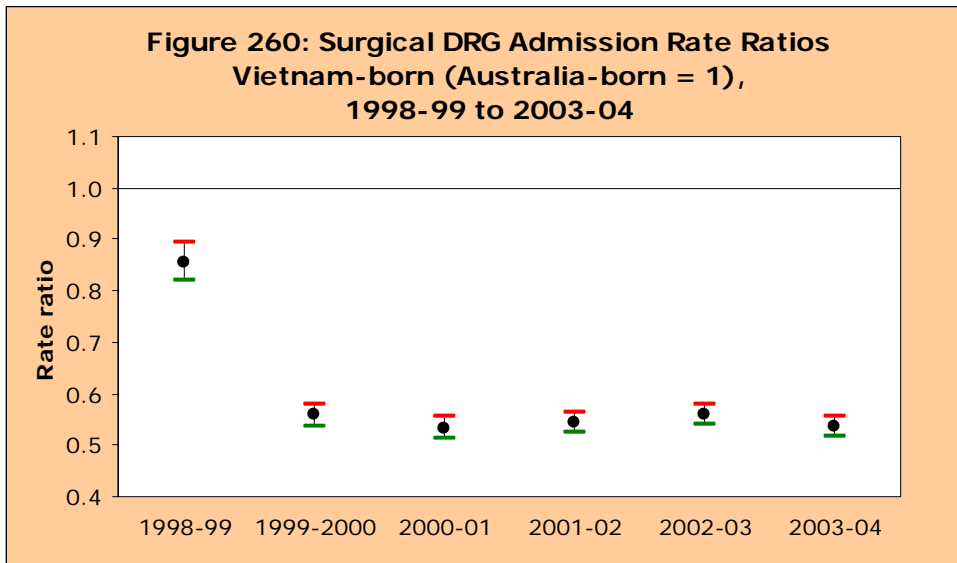


3.15.3 DRG type

Medical DRG admission rates for Vietnam-born increased from 131.32 per 1000 persons [127.68 – 135.05] in 1998-99 to 219.42 per 1000 persons [214.67 – 224.26] in 2003-04. Compared with Australia-born, rate ratios of medical DRG admission were consistently lower amongst Vietnam-born over the six-year period (Figure 259). The lowest rate ratio was 0.78 [0.77 – 0.80] in 2001-02 and the highest was 0.83 [0.81 – 0.84] in 2002-03.

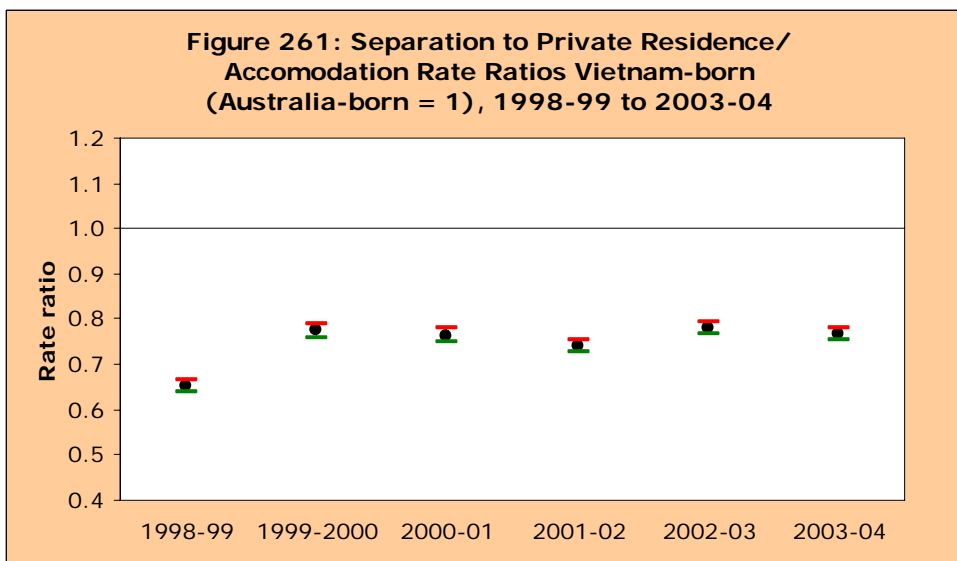


Surgical DRG admission rates amongst Vietnam-born increased from 45.41 per 1000 persons [43.24 – 47.68] in 1998-99 to 61.32 per 1000 persons [58.98 – 63.75] in 2003-04. Compared with Australia-born, surgical DRG admission rate ratios were lower over the study period (Figure 260). The lowest rate ratio was recorded in 2000-01 (0.53 [0.51 – 0.55]) and the highest in 1998-99 (0.86 [0.82 – 0.89]).

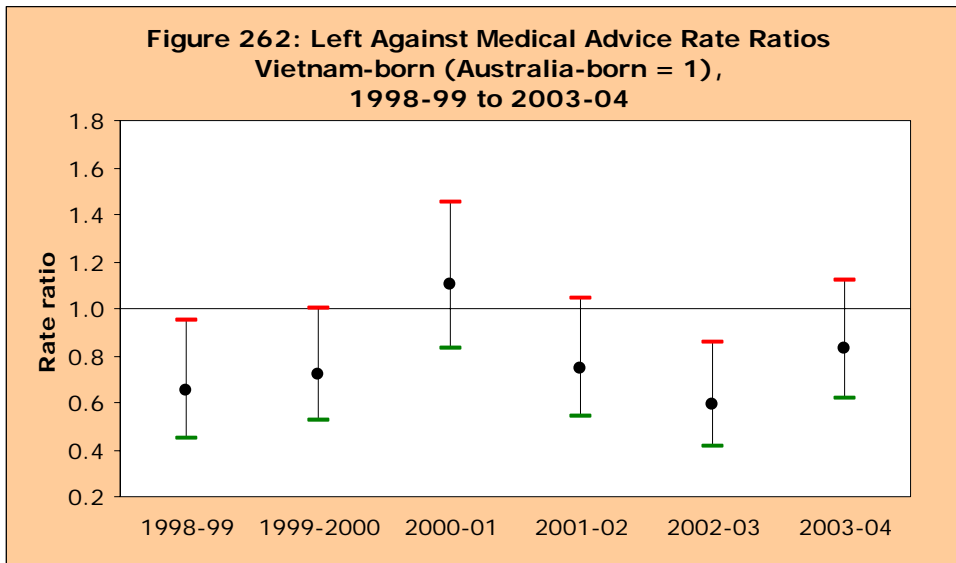


3.15.4 Separation mode

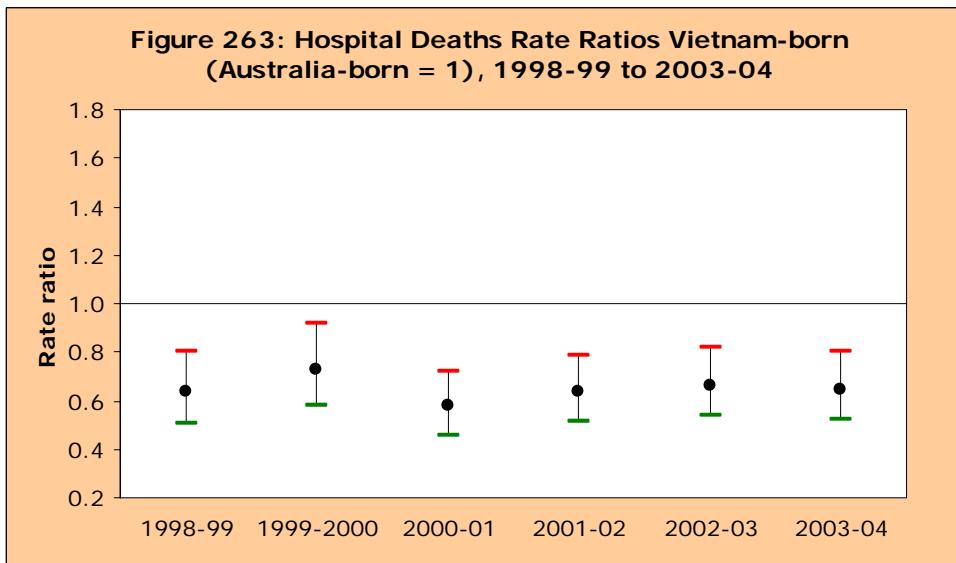
Compared with Australia-born, lower rate ratios of separation to private residence or accommodation were observed for Vietnam-born over the six-year period (Figure 261). The lowest rate ratio was 0.65 [0.64 – 0.66] in 1998-99; the highest was 0.78 [0.77 – 0.79] in 2002-03.



There was no consistent pattern in the rate of discharge at own risk for Vietnam-born. The rates of discharge ranged from 0.58 per 1000 persons [0.37 – 0.91] in 1998-99 to 1.13 per 1000 persons [0.82 – 1.53] in 2000-01. When compared with Australia-born averages, discharge at own risk rate ratios were similar amongst Vietnam-born except for the 1998-99 and 2002-03 periods (lower) (Figure 262). The lowest rate ratio was 0.59 [0.41 – 0.85] recorded in 2002-03.

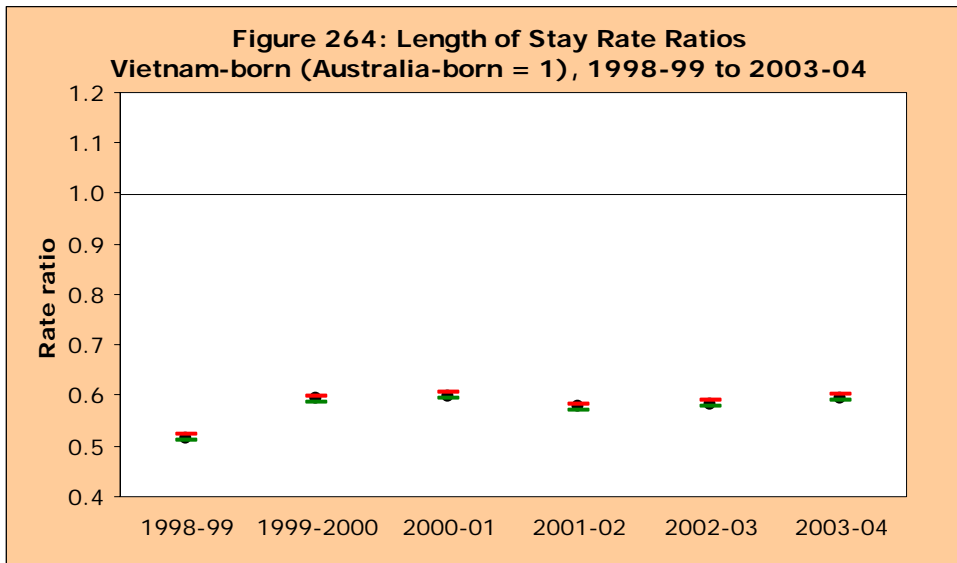


The rate of hospital deaths amongst Vietnam-born remained steady over time. The lowest rate was 2.33 per 1000 persons [1.82 – 2.94] in 2000-01 and the highest was 2.90 per 1000 persons [2.32 – 3.58] in 2002-03. When compared with Australia-born, Vietnam-born reported consistently lower rate ratios over the six-year period (Figure 263). The lowest rate ratio was 0.58 [0.46 – 0.72] in 2000-01 and the highest was 0.73 [0.58 – 0.92] in 1999-2000.



3.15.5 Length of stay

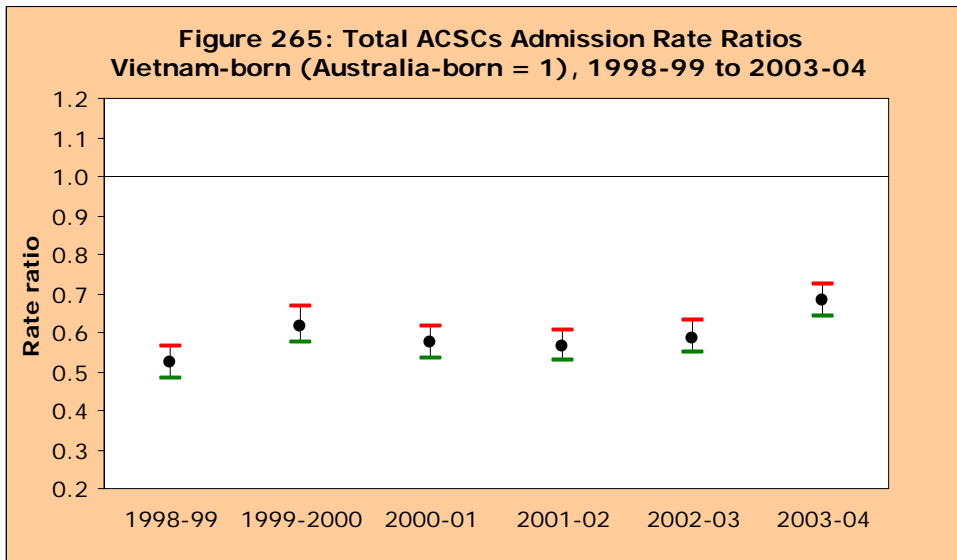
The rate of bed days for Vietnam-born increased from 690.96 days per 1000 persons [681.91 – 700.11] in 1998-99 to 889.55 days per 1000 persons [879.89 – 899.29] in 2003-04. Length of stay rate ratios were markedly lower than Australia-born average over the six-year period (Figure 264). The lowest rate ratio was 0.52 [0.51 – 0.52] in 1998-99 and the highest was 0.60 [0.59 – 0.60] in 2000-01.



3.15.6 ACSCs admissions

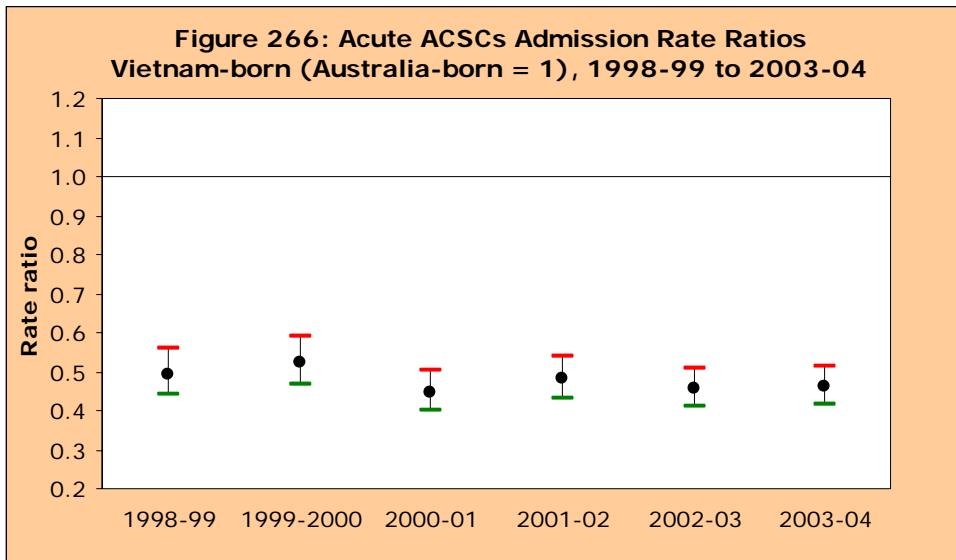
Total ACSCs admissions

Total ACSCs admission rates for Vietnam-born doubled over time, increasing from 16.70 per 1000 persons [15.27 – 18.23] in 1998-99 to 29.49 per 1000 persons [27.65 – 31.43] in 2003-04. Total ACSCs admission rate ratios were consistently lower than Australia-born averages over the six-year period (Figure 265). Rate ratios ranged from 0.52 [0.48 – 0.57] in 1998-99 to 0.68 [0.64 – 0.72] in 2003-04.

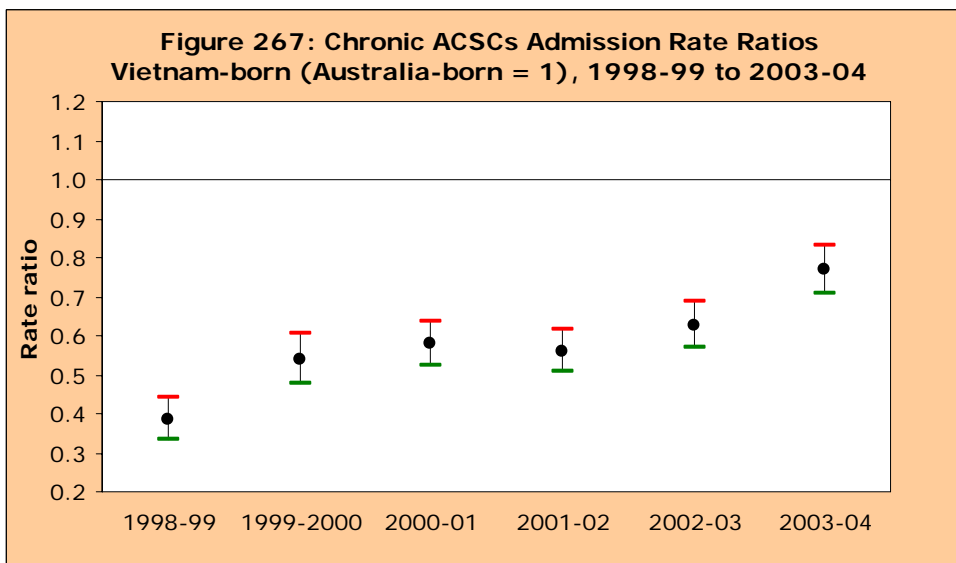


Acute, chronic and vaccine-preventable ACSCs admissions

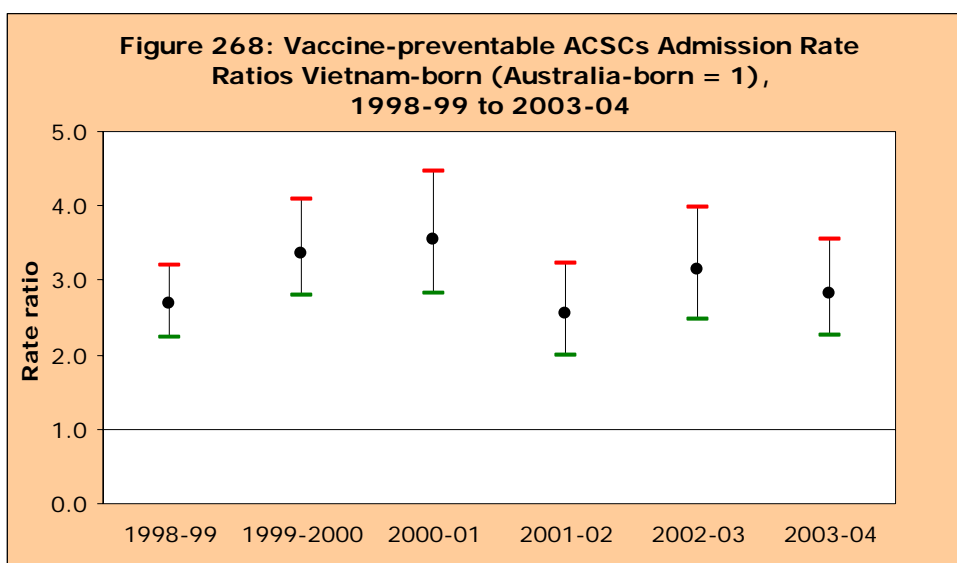
Admission rates for acute ACSCs amongst Vietnam-born increased slightly over time, from 6.37 per 1000 persons [5.53 – 7.31] in 1998-99 to 7.75 per 1000 persons [6.89 – 8.71] in 2003-04. Compared with Australia-born, acute ACSCs admission rate ratios were consistently lower amongst Vietnam-born (Figure 266). The lowest rate ratio was recorded in 2000-01 (0.45 [0.40 – 0.50]) and the highest in 1999-2000 (0.52 [0.47 – 0.59]).



Chronic ACSCs admission rates increased over time amongst Vietnam-born, from 6.88 per 1000 persons [5.92 – 7.96] in 1998-99 to 20.13 per 1000 persons [18.56 – 21.81] in 2003-04. Chronic ACSCs rate ratios were lower than Australia-born and moved towards Australia-born averages over time (Figure 267). The lowest rate ratio was 0.38 [0.34 – 0.44] in 1998-99 and the highest was 0.77 [0.71 – 0.83] in 2003-04.



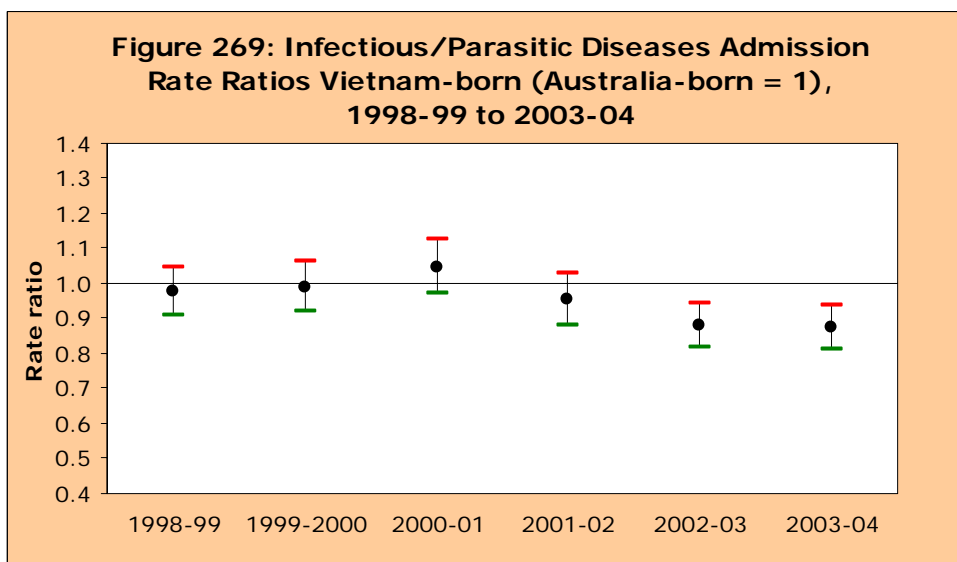
Vaccine-preventable ACSCs admission rates amongst Vietnam-born showed an overall decline over time, from 3.80 per 1000 persons [3.17 – 4.53] in 1998-99 to 2.35 per 1000 persons [1.90 – 2.88] in 2003-04. Vaccine-preventable ACSCs admission rate ratios were higher than Australia-born averages over the six-year period (Figure 268). Rate ratios ranged from 2.54 [2.00 – 3.23] in 2001-02 to 3.55 [2.83 – 4.47] in 2000-01.



3.15.7 Admissions for specific diagnosis categories

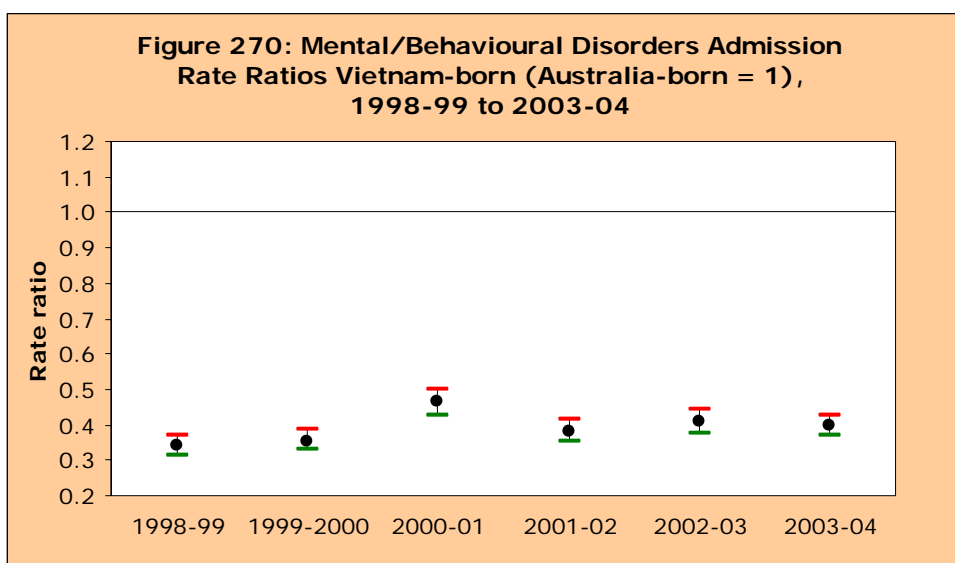
Infectious and parasitic diseases

Admission rates for infectious and parasitic diseases amongst Vietnam-born decreased slightly over time, from 19.39 per 1000 persons [17.91 – 20.98] in 1998-99 to 17.70 per 1000 persons [16.39 – 19.10] in 2003-04. Infectious and parasitic diseases admission rate ratios were similar to Australia-born except for the 2002-03 and 2003-04 periods (lower) (Figure 269). The lowest rate ratio was 0.87 [0.81 – 0.94] in 2003-04 and the highest was 1.05 [0.97 – 1.12] in 2000-01.



Mental and behavioural disorders

Admission rate for mental and behavioural disorders amongst Vietnam-born increased slightly over the study period, from 10.91 per 1000 persons [9.33 – 11.99] in 1998-99 to 13.62 per 1000 persons [12.52 – 14.81] in 2003-04. Compared with Australia-born, admission rate ratios were markedly and consistently lower over the six-year period (Figure 270). Rate ratios ranged between 0.34 [0.31 – 0.37] in 1998-99 and 0.46 [0.43 – 0.50] in 2000-01.



3.15.8 Top ten AR-DRGs

Table 16 compares the top 10 AR-DRGs between Vietnam-born and Australia-born in 2003-04. The top 10 AR-DRGs accounted for 51.5% of the total hospital admissions for Vietnam-born compared with 31.8% for Australia-born. Renal dialysis was the most common AR-DRG for both groups, but it represented 21.0% of total hospital admissions for Vietnam-born compared with 8.9% for Australia-born. Pregnancy and birth-related conditions accounted for 13.6% of Vietnam-born total admissions, compared with 1.8% for Australia-born. Diagnostic procedures for digestive disorders (i.e. gastroscopy, colonoscopy) represented 8.7% of admissions amongst Vietnam-born compared with 5.8% amongst Australia-born. Admissions due to chemotherapy showed similar proportions across the two groups.

Table 16: Top 10 AR-DRGs for Vietnam-born and Australia-born, 2003-04

Vietnam-born		Australia-born		
	AR-DRG	%*	AR-DRG	%*
1	Renal dialysis	21.0	Renal dialysis	8.9
2	Vaginal delivery no complicating diagnosis	5.3	Chemotherapy	4.7
3	Other gastroscopy, non-major digestive disease, sameday	5.2	Other colonoscopy, sameday	3.5
4	Chemotherapy	5.1	Neonate >2499 g without significant operation room procedure with other problem	3.2
5	Abortion with dilation & curettage, aspiration curettage/hysterotomy	4.8	Other gastroscopy, non-major digestive disease, sameday	2.3
6	Other colonoscopy, sameday	3.5	Mental health treatment, sameday, without electro-convulsive therapy	2.0
7	Other antenatal with moderate/no complicating diagnosis	2.1	Dental extractions and restorations	2.0
8	Other factors influencing health status <80	1.7	Other factors influencing health status <80	1.9
9	Major lens procedures	1.4	Vaginal delivery no complicating diagnosis	1.8
10	Caesarean delivery without complicating diagnosis	1.4	Major lens procedure	1.5

* % of total hospital admissions

3.15.9 Key findings – Vietnam-born

- Total hospital admission rates increased over the six-year period (Fig 254).

Lower than Australia-born

- Total, elective and emergency admission rate ratios (Figs 255 to 257).
- Medical DRG admission rate ratios (Fig 259).
- Surgical DRG admission rate ratios (Fig 260).
- Separations to private residence/accommodation (Fig 261).
- Hospital death rate ratios (Fig 263).
- Length of stay rate ratios were markedly lower (Fig 264).
- Total, acute and chronic ACSCs admission rate ratios (Figs 265 to 267). Total and chronic admission rate ratios moved towards the Australia-born average over time.
- Mental/behavioural disorders admission rate ratios were markedly lower (Fig 270).

Similar to Australia-born

- Discharge at own risk rate ratios (Fig 262).
- Infectious and parasitic diseases admission rate ratios (Fig 269).
- Renal dialysis was the top AR-DRG in 2003-04 (Table 16).

Higher than Australia-born

- Obstetric admission rate ratios (Fig 258).
- Vaccine-preventable ACSCs admission rate ratios (Fig 268).
- Pregnancy and birth-related conditions and diagnostic procedures for digestive disorders accounted for a higher proportion of hospital admissions in 2003-04 (Table 16).