The health of people in Australian immigration detention centres

Janette P Green and Kathy Eagar

ABSTRACT

Objective: To determine the health status of people in Australian immigration detention centres and the effect of time in, and reason for, detention.

Design, setting and subjects: An analysis of the health records of 720 of the 7375 people in detention in the financial year 1 July 2005 – 30 June 2006, with oversampling of those detained for > 3 months.

Main outcome measures: Health encounters and health condition categories; estimated incidence rates of new health conditions, new mental health conditions, and new injuries for each cohort (defined by time in, and reason for, detention).

Results: People in detention had an estimated 1.2 (95% CI, 1.18–1.27) health encounters per person-week. Those detained for >24 months had particularly poor health, both mental and physical. Asylum seekers had more health problems than other people in detention. The main health problems varied depending on the length of time in detention, but included dental, mental health, and musculoskeletal problems, and lacerations. Both time in, and reason for, detention were significantly related to the rate of new mental health problems ($P = 0.018$ and $P < 0.001$, respectively). The relationship between these variables and the incidence rates of physical health problems was more complex.

Conclusion: People in immigration detention are frequent users of health services, and there is a clear association between time in detention and rates of mental illness. Government policies internationally should be informed by evidence from studies of the health of this marginalised and often traumatised group.

MJA 2010; 192: 65–70

eMJA Rapid Online Publication 14 December 2009

For editorial comment, see page 61

In Australia, each year from 1999 until 2006 inclusive, at least 6000 people were detained in immigration detention centres under the *Migration Act 1958* (Cwlth).[1] Most were held in detention centres across Australia, and a small number were in offshore detention centres (Christmas Island, Manus Island [Papua New Guinea] and Nauru). All these centres, and the health services provided by them, were managed by private organisations under contract. They employed general practitioners, medical specialists, and nursing and allied health staff, who performed routine screening on arrival and departure, and provided primary health care services.

The health of people in immigration detention has attracted considerable attention, both in the popular press[2] and in academic publications.[3-6] In particular, there is almost universal criticism of the policy of detaining asylum seekers, particularly in terms of the mental health implications, with studies reporting a link between detention and mental illness.[7-11]

The 2005 Palmer Inquiry[12] found serious flaws in the culture and processes of the now Department of Immigration and Citizenship (DIAC) and in the organisation of health services for people in detention. In response to this criticism, the Australian Government established a Detention Health Advisory Group (DeHAG) in early 2006, consisting of representatives from key clinical associations.[13] DeHAG recommended that independent research be undertaken on the health of people in detention, and here we summarise the key findings of that analysis.

METHODS

Subjects

Between 1 July 2005 and 30 June 2006, 7375 people were held in Australian immigration detention centres. These people formed the population group for our study. They were divided into six categories based on reason for detention — unauthorised boat arrivals, unauthorised air arrivals, visa overstays, visa breaches, illegal foreign fishers, and other. People in the first two categories were detained as asylum seekers and are described as such in this article.

The 178 people classified as "other" were excluded. They represented nine heterogeneous categories (eg, people classified as "inadequately documented crew members" [detained for only a day or two], "deserters", "smugglers", and "stowaways").

Sampling strategy

The health needs of people in detention were expected to vary according to the reason for, and the time spent in, detention. Thus, the population was stratified on these two dimensions.

During the study period, 86% of detainees were held for < 3 months. Those staying for ⩾ 3 months represented 14% of people in detention, but 61% of days in detention in 2005–06, and the health needs of this group were expected to be high. Time in detention was divided into < 3 months, 3–12 months, 12–18 months, 18–24 months, and > 24 months, based on length of continuous detention up to 30 June 2006.

To determine the number of people in detention to be sampled within each cohort, we relied on the expert advice of clinicians working in detention centres. Their advice, based on their clinical experience, the expected variability within each cohort, and the health needs of each cohort, was to sample relatively more of the people detained for a longer time (> 3 months). All asylum seekers who had been in detention for more than a year were included, as DeHAG had particular concerns about this group.

In determining the total sample size, time and financial constraints were considered. A sample size of 720 was selected as this would enable analysis by time in, and reason for, detention, with proportions estimated within ±5%. Specific measures of within-cohort variability of numbers of new health encounters were not available.

The study and sample populations, by category and length of stay in detention, are shown in Box 1. Within each of the cohorts, people were selected at random for the sample. The sample represented 10% of people in detention and nearly 28% of days spent in detention during 2005–06 (Box 1).

Data sources

Data were obtained from three sources. Some items (eg, the date and country of birth and details about the detention) came

1 Study and sample populations by category and length of stay in detention, 2005–06

Length of stay	Illegal foreign fisher	Unauthorised air arrival	Unauthorised boat arrival	Visa breach	Visa overstay	Total
No. of people in the sample/total no. in each cohort (proportion of cohort total)						
< 3 months	74/2750 (2.7%)	27/678 (4.0%)	43/80 (53.8%)	46/583 (7.9%)	47/2126 (2.2%)	237/6336 (3.7%)
3–12 months	95/188 (50.5%)	31/35 (88.6%)	14/14 (100.0%)	49/64 (76.6%)	55/255 (21.6%)	244/587 (41.6%)
12–18 months	1/4 (25.0%)	11/11 (100.0%)	0	21/26 (80.8%)	21/68 (30.9%)	54/115 (47.0%)
18–24 months	0	4/4 (100.0%)	0	9/11 (81.8%)	15/62 (24.2%)	28/86 (32.6%)
> 24 months	0	12/12 (100.0%)	93/93 (100.0%)	33/42 (78.6%)	19/91 (20.9%)	157/251 (62.6%)
Total	170/2942 (5.8%)	85/740 (11.5%)	150/187 (80.2%)	158/726 (21.8%)	157/2602 (6.0%)	720/7375 (9.8%)
Days in detention of people in the sample as a proportion of days in detention of cohort total						
< 3 months	3.1%	5.8%	78.5%	8.6%	2.9%	5.2%
3–12 months	51.2%	86.4%	100.0%	81.2%	22.0%	42.6%
12–18 months	40.9%	100.0%	na	78.9%	29.3%	45.2%
18–24 months	na	100.0%	na	78.5%	25.2%	31.1%
> 24 months	na	100.0%	100.0%	74.8%	22.0%	46.5%
Total	13.8%	74.2%	94.4%	66.2%	18.6%	27.7%

na = not applicable (no one in detention in these cohorts during the study period). ◆

from two separate databases held by the DIAC. The third source was the detention health provider's information system and database. Of 800 detainees initially selected, the first 720 for whom records from all three data sources could be matched reliably became the study sample.

The detention health database contained detailed health records dating from August 2004 of the 7375 people held in detention at any time during 2005–06. However, for 301 people who entered detention between 1998 and July 2004, health records for this period were not available.

Full health records were available for 402 of the 720 people in the sample. This group comprised 317 who entered and left detention during the study period, and a further 85 who entered between August 2004 and June 2005 and left during the study period. For a further 142 people who were still in detention at the end of the study period, complete health records were available up to that time. Of these, 94 entered detention during the study period, and the remaining 48 entered between August 2004 and June 2005. The 176 people with incomplete records were detained before August 2004 (38 were still in detention on 30 June 2006).

The net effect was that complete detention health records up to 30 June 2006 were available for 76% of the sample, and for 56% of the sample, the health record covered their entire time in detention.

Using data from these three sources, we compiled a database for analysis, with details on each person, each health encounter, and any interventions or issues addressed at each encounter. A health encounter was defined as any single instance of health care and included clinic visits, diagnostic tests and hospitalisations.

Coding of health encounters

Each encounter was coded according to its primary reason. The International Classification of Primary Care, version 2 PLUS (ICPC-2 PLUS)[14] was used to code complaints, symptoms and interventions, and the International Classification of Diseases, 10th revision, Australian modification (ICD-10-AM)[15] was used to code causes of injury. The ICPC-2 PLUS codes enabled a distinction to be made between encounters at which a definitive medical diagnosis was made ("Diagnosis") and encounters at which health problems were recorded but there was no definitive diagnosis ("Complaints and symptoms").[16] For example, "depressive disorder" and "migraine" were coded as diagnoses, whereas "feeling depressed" and "headache" were coded as complaints and symptoms. We use the term "health problems" collectively to include diagnoses and complaints or symptoms.

To maximise quality, one experienced clinical coder coded all records, with two others

2 Age and estimated sex profiles of the detention population

	Illegal foreign fisher	Unauthorised air arrival	Unauthorised boat arrival	Visa breach	Visa overstay	Total
Age profile (years)						
0–9	0.1%	1.0%	4.3%	0.4%	1.2%	0.7%
10–19	21.2%	4.1%	14.4%	2.9%	2.3%	10.6%
20–29	45.6%	30.8%	33.7%	31.5%	27.5%	35.8%
30–39	22.0%	33.5%	31.0%	33.1%	33.0%	28.5%
40–49	8.4%	23.2%	11.2%	23.6%	27.0%	18.2%
50+	2.7%	7.4%	5.4%	8.5%	9.0%	6.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Estimated sex profile (95% CI)						
Female	0	22% (20.3%–23.3%)	13% (12.7%–12.9%)	23% (21.5%–23.5%)	19% (15.8%–22.5%)	12% (8.0%–15.6%)
Male	100%	78% (76.7%–79.7%)	87% (87.1%–87.3%)	77% (76.5%–78.5%)	81% (77.5%–84.2%)	88% (84.4%–92.0%)

3 Reason for health encounter, by cohort, 2005–06

	Illegal foreign fisher (*n* = 2942)	Unauthorised air arrival (*n* = 740)	Unauthorised boat arrival (*n* = 187)	Visa breach (*n* = 726)	Visa overstay (*n* = 2602)	Total (*n* = 7375)
Estimated number of health encounters (95% CI)						
Diagnosis	208 (187–228)	57 (52–61)	118 (98–137)	113 (98–128)	574 (255–896)	1 070 (1 039–1 102)
Complaints and symptoms	2 320 (1 285–3 355)	364 (347–381)	373 (345–399)	762 (666–859)	3 300 (1 986–4 614)	7 119 (6 079–8 159)
Routine assessment (including entry health screen)	5 468 (4 998–5 939)	1 043 (900–1 186)	219 (207–232)	1 196 (1 104–1 288)	4 477 (4 149–4 803)	12 403 (11 902–12 903)
Preventive/screening	564 (243–885)	81 (74–87)	280 (265–295)	257 (242–271)	1 566 (1 248–1 886)	2 748 (2 426–3 069)
Follow-up	5 210 (1 219–9 200)	1 755 (851–2 660)	1 959 (1 873–2 045)	3 399 (3 043–3 754)	10 643 (5 940–15 345)	22 966 (18 858–27 073)
Case note entry (no consultation)	1 525 (517–2 534)	381 (254–508)	389 (336–443)	736 (602–870)	2 855 (0–6 474)	5 886 (4 860–6 913)
Total	15 295 (13 387–17 203)	3 681 (3 331–4 031)	3 338 (3 256–3 419)	6 463 (6 249–6 677)	23 415 (21 004–25 826)	52 192 (50 238–54 145)
Estimated proportion of health encounters involving definitive treatment						
Treatment or investigation at same encounter	65.7%	58.2%	49.1%	57.9%	55.2%	58.4%

providing quality assurance. The clinical coder reviewed the complete clinical history of each person in the sample. The patient discharge report was very comprehensive and was used as the main source of data extraction. Progress notes, referral letters and diagnostic test results were reviewed as required. If a health condition was first recorded between 1 July 2005 and 30 June 2006, it was coded as a new health problem, with all subsequent related encounters in 2005–06 coded as "follow-up". If the condition had been documented before this period and was deemed relevant to the person's health during the study period, it was classified as a "pre-existing condition".

Analysis

Data analysis was primarily descriptive. Some data (eg, age and time in detention) were available for the whole population; for other variables (eg, information on health encounters), sample values were used to provide population estimates. For the purpose of the analysis, the population was taken to be people detained at any time during the 2005–06 financial year. Allowance was made for the sampling strategy in calculating all estimates.

Results are reported in three ways: population values are given when available; otherwise, estimates and 95% confidence intervals, and, for some results, sample values are presented (this is clearly stated).

An age–sex profile of people in detention was compiled, together with a summary of reasons for their health encounters during 2005–06. The relative incidence of different types of health conditions and injuries was estimated. Rates per 100 person-days of all new health problems were estimated for each cohort, as were rates of injuries.

Rates of new health problems were analysed to test for the effect of time spent in, or reason for, detention, using Poisson regression models with log-link functions.

Ethics approval

Ethics approval was granted by the Human Research Ethics Committee of the University of Wollongong and the South Eastern Sydney and Illawarra Area Health Service.

RESULTS

Age and sex profile

The age and estimated sex profiles of the study population are given in Box 2. Age was calculated as at the date the detainee first entered detention. During 2005–06, children were in detention centres (this no longer occurs); there were 346 children aged < 17 years, 46 of whom were in the sample.

The median age at the start of detention was 30 years, and the mean age was 31.7 (range, 0–76) years. Most were male (88%; 95% CI, 84.4%–92.0%).

Country of origin

People in the study sample came from 58 countries. Population estimates indicate that 62% (95% CI, 57.6%–66.5%) of all people in detention came from three countries (Indonesia, China and Vietnam), but there were differences between the cohorts.

An estimated 98% (95% CI, 96.9%–98.9%) of "Illegal foreign fishers" came from Indonesia. People from Malaysia, Iraq and Sri Lanka accounted for 34% (95% CI, 32.2%–35.5%) of "Unauthorised air arrivals". Of the "Unauthorised boat arrivals", 61% (95% CI, 61.0%–61.3%) were born in Iran, Indonesia, Vietnam or Afghanistan. More than half of the "Visa breach" cohort (54%; 95% CI, 52.9%–55.2%) and the "Visa overstay" cohort (59%; 95% CI, 55.2%–63.6%) were born in China, Vietnam or Malaysia.

All health encounters

Between them, the 7375 people in the study population spent 298 536 days in detention in 2005–06, during which time they had an estimated 52 192 (95% CI, 50 238–54 145) health encounters (Box 3). This was equivalent to 1.2 (95% CI, 1.18–1.27) health encounters per person-week. A new health problem was recorded at an estimated 16% of encounters, and 29% of encounters were for routine screening or assessment. Nearly half (44%) were for follow-up of a health problem recorded at an earlier encounter.

4 New health conditions recorded in detainees, 2005–06, by ICPC-2 PLUS chapter

ICPC-2 PLUS chapter		Estimated no. of new health problems (95% CI) and % of total			
		All detainees ($n = 7375$)		Detention for > 1 year ($n = 452$)	
A	General and unspecified (including risk factors)	847 (831–864)	7.9%	209 (153–265)	7.2%
B	Blood, blood-forming organs, and immune mechanism	16 (16–17)	0.1%	5 (4–5)	0.2%
D	Digestive (including dental)	1 866 (1 429–2 302)	17.5%	425 (352–498)	14.7%
F	Eye	461 (23–899)	4.3%	202 (145–258)	7.0%
H	Ear	227 (200–253)	2.1%	43 (17–70)	1.5%
K	Cardiovascular	105 (97–112)	1.0%	57 (26–87)	2.0%
L	Musculoskeletal	910 (881–938)	8.5%	291 (167–416)	10.1%
N	Neurological	792 (783–801)	7.4%	184 (86–282)	6.4%
P	Psychological (mental health)	986 (962–1 011)	9.2%	406 (321–492)	14.0%
R	Respiratory	1 474 (1 009–1 939)	13.8%	230 (182–278)	8.0%
S	Skin (including lacerations)	1 349 (1 046–1 652)	12.6%	288 (226–350)	10.0%
T	Endocrine, metabolic and nutritional	130 (123–137)	1.2%	69 (29–108)	2.4%
U	Urological	144 (124–165)	1.3%	60 (0–216)	2.1%
W	Pregnancy, childbearing, family planning	12 (11–12)	0.1%	8 (8–9)	0.3%
X	Female genital	69 (60–79)	0.6%	18 (18–19)	0.6%
Y	Male genital	203 (203–204)	1.9%	16 (16–17)	0.6%
Z	Social problems*	1 082 (1 042–1 122)	10.1%	380 (279–481)	13.1%
Total		10 673 (9 228–12 118)	100.0%	2 891 (2 384–3 398)	100.0%

ICPC-2 PLUS = International Classification of Primary Care, version 2 PLUS.[14] * Including non-compliance with treatment and/or medication. ◆

An estimated 37.5% (95% CI, 31.5%–43.5%) of detainees had at least one new health problem in 2005–06; the estimated proportion varied from 66.8% (95% CI, 66.7%–66.9%) of "Unauthorised boat arrivals" to 20.8% (95% CI, 19.6%–22.1%) of "Unauthorised air arrivals". Box 4 lists the estimated number of new health problems. The most common types of problems included dental and respiratory problems, and lacerations. Among those detained for more than a year, mental health, social and musculoskeletal problems were common.

Incidence rates of new health problems in the study period by cohort are shown in Box 5, A. "Unauthorised boat arrival" asylum seekers detained for > 24 months had the most new health problems, with an average of 6.47 recorded for every 100 person-days in detention. These problems were in addition to any diagnosed before the study period.

Mental health

Box 5, B shows that mental health was a significant health issue for people in detention. The reason for detention was found to have a significant additional effect on the rate of new mental health problems after allowing for time spent in detention ($P < 0.001$). The rate for those designated "Unauthorised boat arrivals" was significantly higher than that for other groups (a multiplicative factor of 2.0 [95% CI, 1.6–3.3] compared with "Visa breach"; 3.8 [95% CI, 2.0–7.2] compared with "Visa overstay"; and 11.9 [95% CI, 2.8–50.4] compared with "Illegal foreign fisher"). Similarly, time in detention was found to have a significant additional effect after allowing for the reason for detention ($P = 0.018$). People detained for > 24 months had rates of new mental illness 3.6 (95% CI, 1.1–11.0) times higher than for those who were released within 3 months.

Overall, the estimated proportion of those in the detention population who had a new mental health problem during the study period was just over 6% (95% CI, 3.9%–8.4%). This rate varied from 3% (95% CI, 1.6%–4.4%) for the category "Illegal foreign fisher" to 27% (95% CI, 26.8%–27.0%) for "Unauthorised boat arrival".

As shown in Box 6, the proportion of people with at least one mental health diagnosis was related to time spent in detention. The estimated proportion of those with a new mental health diagnosis during the year varied from < 1% (95% CI, 0–2.0%) in the group detained for < 3 months, to > 27% (95% CI, 27.3%–27.7%) for those in detention for > 24 months. Likewise, for mental health complaints or symptoms, the estimated percentage varied from 3% (95% CI, 0.5%–5.0%) to 39% (95% CI, 38.4%–38.9%). The 12–18-months cohort, largely people detained for "Visa overstay", had a lower rate of new mental health problems.

When diagnoses, complaints and symptoms are considered in combination, the proportion of detainees with any sort of new mental health problem varied from 3% (95% CI, 0.6%–5.0%) of those detained for < 3 months to 44.6% (95% CI, 44.4%–44.9%) of those detained for > 24 months.

Physical health — infectious diseases and injuries

The pattern for physical health was less consistent, with some physical health problems increasing over time spent in detention, and others decreasing. Likewise, the rate of some physical health problems varied by reason for detention but others did not. However, there were too few observations to make the results for the rate of new physical health problems reliable. For this reason, only the incidence of infectious diseases and injuries are reported.

An estimated 1494 (95% CI, 1479–1508) encounters involved an infection of any type, including infections diagnosed at the initial health screen on entering detention. The three most frequently reported infections were upper respiratory infection, dermatophytosis, and otitis externa.

It is estimated that just under 6% (95% CI, 3.5%–8.0%) of the study population were injured during the study period and, between them, they had a total of just under 600 (95% CI, 584–613) injuries. In the study sample, the number of injuries for any individual ranged from one to seven.

Injury rates (Box 7) (adjusted for time in detention) were highest for "Unauthorised

5 New health (A) and mental health (B) problems (diagnoses and complaints or symptoms), 2005–06

Cohort	Illegal foreign fisher	Unauthorised air arrival	Unauthorised boat arrival	Visa breach	Visa overstay	Total
A: Health problems						
Estimated rate of new health problems per 100 person-days (95% CI)						
< 3 months	3.47 (1.67–5.27)	2.58 (0–5.86)	4.49 (3.44–5.53)	1.25 (0–2.54)	4.29 (0.18–8.41)	3.76 (2.08–5.44)
3–12 months	1.20 (0.86–1.54)	4.18 (3.67–4.68)	3.10*	3.77 (3.09–4.44)	4.03 (1.94–6.12)	3.06 (2.07–4.05)
12–18 months	1.10†	0.94*	na	4.16 (3.48–4.85)	2.51 (1.41–3.61)	2.69 (2.00–3.38)
18–24 months	na	2.00*	na	3.20 (2.50–3.89)	1.58 (0.82–2.35)	2.12 (1.45–2.78)
> 24 months	na	5.62*	6.47*	3.24 (2.79–3.69)	2.79 (1.26–4.33)	4.20 (3.25–5.14)
Total	1.59 (0.18–3.00)	3.40 (2.32–4.48)	5.15 (4.79–5.50)	3.55 (3.17–3.93)	2.93 (1.54–4.33)	3.26 (2.80–3.72)
Diagnoses as a percentage of estimated number of new health problems						
	31.0%	33.5%	36.9%	25.6%	29.9%	30.3%
B: Mental health problems						
Estimated rate of new mental health problems per 100 person-days (95% CI)						
< 3 months	0.09 (0.08–0.10)	0.00†	0.25 (0.09–0.41)	0.00†	0.57 (0–4.16)	0.22 (0–1.84)
3–12 months	0.06 (0–0.12)	0.48 (0.38–0.58)	0.71*	0.52 (0.40–0.64)	0.29 (0–0.65)	0.34 (0–1.31)
12–18 months	0.27†	0.09*	na	0.51 (0.36–0.66)	0.18 (0.04–0.32)	0.28 (0–0.92)
18–24 months	na	0.43*	na	0.60 (0.43–0.77)	0.06 (0.05–0.06)	0.26 (0–0.90)
> 24 months	na	1.06*	1.71*	0.57 (0.47–0.68)	0.39 (0.11–0.67)	0.87 (0–1.78)
Total	0.07 (0.05–0.08)	0.48 (0.40–0.57)	1.13 (1.07–1.19)	0.53 (0.48–0.59)	0.25 (0–1.37)	0.45 (0.01–0.89)
Diagnoses as a percentage of estimated number of new mental health problems						
	0	44.0%	41.0%	32.1%	35.9%	33.1%

na = not applicable (see Box 1). * Actual population rate. † Too few occurrences in sample to calculate CI. ◆

air arrivals" and "Visa breach" at about 0.3 per 100 person-days. The "Illegal foreign fishers" had the lowest injury rate at almost 0.1 per 100 person-days. People seeking asylum had proportionally fewer injuries due to assault, but proportionally more due to self-harm, in comparison with the other cohorts.

Interventions

A total of 32 359 (95% CI, 32 345–32 374) interventions were estimated for 2005–06. This is an average of 10.8 (95% CI, 10.83–10.84) interventions per 100 person-days. About 38% were related to medications, while others included general health assessments (17%), blood pressure checks (7%), mental state examinations (7%), and glucose tests (3%).

DISCUSSION

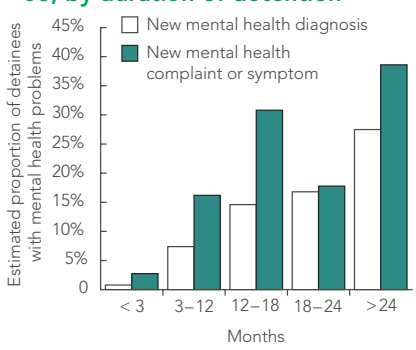
We found that incidence rates and types of new health problems among detainees varied by reason for, and time in, detention. In particular, both reason for, and time in, detention had a significant effect on incidence rates of new mental health problems. Further, the proportion of people with a new mental health problem varied according to reason for detention and was higher for those who had been in detention longer.

Other studies have also found an association between time in detention and mental health. Among a non-random sample of asylum seekers in detention centres or gaols ($n = 70$) in three US states, 70% reported that their mental health had worsened substantially while in detention, and there was a relationship between length of time in detention and levels of anxiety, depression and post-traumatic stress disorder.[7] Another study ($n = 55$) compared the mental health of detained and not detained Afghan asylum seekers in Japan and found that detention was associated with a worsening of mental health.[8]

A large retrospective review of referral records ($n = 4516$) of asylum seekers in centres run by the Danish Red Cross "found an increase in referrals for mental disorders with increased length of stay in asylum centres in a large, multiethnic population of asylum seekers".[9] Two Australian studies investigated mental health issues in previously detained refugees from different communities. In a Mandaean community ($n = 241$), longer detention was associated with more severe mental disturbance, an effect that persisted for an average of 3 years after release.[10] A study in a Persian-speaking community ($n = 116$) identified the detention experience as a cause of serious or very serious stress.[11]

A limitation of our study was that our data collection involved a cross-section of time in detention, and some episodes strad-

6 Detainees with one or more new mental health conditions in 2005–06, by duration of detention



7 Injuries among people in the study sample during 2005–06

	Illegal foreign fisher	Unauthorised air arrival	Unauthorised boat arrival	Visa breach	Visa overstay	Total
Estimated rate of injuries per 100 person-days (95% CI)						
< 3 months	0.09 (0.08–0.10)	0.00	0.21 (0.20–0.22)	0.00	0.29 (0–1.19)	0.16 (0.14–0.17)
3–12 months	0.10 (0.05–0.14)	0.41 (0.35–0.47)	0.27*	0.33 (0.25–0.41)	0.34 (0.02–0.66)	0.27 (0.25–0.29)
12–18 months	0.00	0.00*	na	0.43 (0.33–0.53)	0.12 (0.10–0.15)	0.20 (0.18–0.22)
18–24 months	na	0.43*	na	0.26 (0.15–0.38)	0.15 (0.04–0.27)	0.21 (0.19–0.23)
> 24 months	na	0.49*	0.19*	0.20 (0.16–0.24)	0.10 (0–0.22)	0.20 (0.19–0.21)
Total	0.09 (0.08–0.11)	0.31 (0.25–0.36)	0.22 (0.21–0.22)	0.29 (0.26–0.33)	0.20 (0–0.49)	0.23 (0.22–0.23)
Proportion of total injuries accounted for by each type of injury						
Assault	47.9%	2.7%	10.1%	31.1%	22.5%	26.0%
Sport	43.7%	24.1%	26.8%	16.4%	12.9%	19.6%
Self-harm	2.1%	14.4%	17.7%	13.5%	3.6%	6.2%
All other causes, including cause unknown	6.3%	58.8%	45.4%	39.0%	61.0%	48.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

na = not applicable (see Box 1). * Actual population rate. ◆

dled the start and/or the end of the study period. For many people detained, only the end of their stay was included, and for those who entered detention during 2005–06, the full extent of any pre-existing conditions may not have been recorded. Likewise, many were still in detention at the end of 2005–06, and our study excludes any subsequent problems they developed.

Asylum seekers are the detainees who most often catch the attention of the media in Australia. However, the problems are broader than for this group alone. Most people in detention are there for short periods and receive predominantly primary health care, including an assessment on arrival and departure. However, a small proportion has very complex care needs.

Our study data reflect the government policy of the time. During 2005–06, the policy relating to detention of children was changed, and many people left detention. Recent Australian Government policy changes have removed more people from detention centres, and it would be instructive in future to analyse the profile of those awaiting immigration decisions while living in the community, rather than in a detention centre. This would help separate the health impact of detention from that resulting from the uncertainty of an unknown future.

ACKNOWLEDGEMENTS

The study was funded by the Australian Department of Immigration and Citizenship, who had no role in the analysis or interpretation of data, the writing of the report or the decision to publish. We acknowledge the contributions of the Detention Health Advisory Group; as well as Kerry Innes, Lauren Jones, Carmel Cheney-Fielding, Peter Samsa, Peter Eklund and Pam Grootemaat; and the helpful advice of Elmer V Villanueva.

COMPETING INTERESTS

None identified.

AUTHOR DETAILS

Janette P Green, MStat, Senior Research Fellow
Kathy Eagar, MA, PhD, FAFRM(Hon), Professor of Health Services Research and Director
Centre for Health Service Development, University of Wollongong, Wollongong, NSW.
Correspondence: keagar@uow.edu.au

REFERENCES

1 Australian Government Department of Immigration and Citizenship. Media Fact Sheet 82 — Immigration detention. http://www.immi.gov.au/media/fact-sheets/82detention.htm (accessed Nov 2009).
2 Immigration feature. *The Age* (Melbourne) 2005; 25 Aug – 24 Oct. http://www.theage.com.au/issues/immigration (accessed Nov 2009).
3 Steel Z, Silove DM. The mental health implications of detaining asylum seekers. *Med J Aust* 2001; 175: 596-599.
4 Smith MM. Asylum seekers in Australia. *Med J Aust* 2001; 175: 587-589.
5 Swan N. Concern grows over health of Australia's refugee population. *BMJ* 2001; 323: 529.
6 Fazel M, Silove D. Detention of refugees. *BMJ* 2006; 332: 251-252.
7 Keller AS, Rosenfeld B, Trinh-Shevrin C, et al. Mental health of detained asylum seekers. *Lancet* 2003; 362: 1721-1723.
8 Ichikawa M, Nakahara S, Wakai S. Effect of post-migration detention on mental health among Afghan asylum seekers in Japan. *Aust N Z J Psychiatry* 2006; 40: 341-346.
9 Hallas P, Hansen AR, Staehr MA, et al. Length of stay in asylum centres and mental health in asylum seekers: a retrospective study from Denmark. *BMC Public Health* 2007; 7: 288.
10 Steel Z, Silove D, Brooks R, et al. Impact of immigration detention and temporary protection on the mental health of refugees. *Br J Psychiatry* 2006; 188: 58-64.
11 Momartin S, Steel Z, Coello M, et al. A comparison of the mental health of refugees with temporary versus permanent protection visas. *Med J Aust* 2006; 185: 357-361.
12 Palmer MJ. Inquiry into the circumstances of the immigration detention of Cornelia Rau. Report. Canberra: Commonwealth of Australia, July 2005. http://www.immi.gov.au/media/publications/pdf/palmer-report.pdf (accessed Nov 2009).
13 Detention Health Advisory Group. Report against 2006-2007 work programme. A report to the Department of Immigration and Citizenship. March 2007: 2. http://www.immi.gov.au/managing-australias-borders/detention/_pdf/dehag.pdf (accessed Nov 2009).
14 Family Medicine Research Centre, University of Sydney. ICPC-2 PLUS User's Guide 1998. http://www.fmrc.org.au/Download/PC_UserGuide_Web2007.pdf (accessed Nov 2009).
15 Roberts RF, Innes KC, Walker SM. Introducing ICD-10-AM in Australian hospitals. *Med J Aust* 1998; 169 (8 Suppl): S32-S35.
16 International Classification Committee of WONCA. ICPC-2 International classification of primary care, 2nd ed. Oxford: Oxford Medical Publications, 1998.

(Received 16 Aug 2008, accepted 30 Aug 2009) ❑