

# Health and health care in Australian immigration detention: a comparison between onshore and offshore data

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## Abstract

**Purpose** – *This study aims to compare the impact of Australian onshore and offshore immigration detention centres (IDCs) on detainees' health and health-care events.*

**Design/methodology/approach** – *It uses data extracted from the Australian Government's quarterly health reports from 2014 to 2017. These reports contain a range of data about the health and well-being of detainees, including complaints/presenting symptoms and number of appointments and hospitalisations. To compare onshore and offshore data sets, the authors calculated the rate of health events per quarter against the estimated quarterly onshore and offshore detention population. They ran a series of two-proportion z-tests for each matched quarter to calculate median z- and p-values for all quarters. These were used as an indicator as to whether the observed differences between onshore and offshore events were statistically significant.*

**Findings** – *The results suggest that adults detained onshore and offshore have substantial health needs, however, almost all rates were far higher in offshore detention, with people more likely to raise a health-related complaint, access health services and be prescribed medications, often at two to three times the rate of those onshore.*

**Originality/value** – *This paper adds to a modest body of literature that explains the health of people detained in Australian IDCs. To the best of the authors' knowledge, this is the first paper to explore health service utilisation and a range of other variables found in the Australian Government's quarterly health reports. These findings bolster the evidence which suggests that detention, and particularly offshore detention is particularly harmful to health.*

**Keywords** Australia, Health, Refugee, Health care, Asylum seeker, Immigration detention, Offshore detention

**Paper type** Research paper

## Introduction

The Australian immigration detention system has been a subject of significant debate and controversy over the past decades (Essex, 2020). Since 1992, the country's migration law requires the detention of all non-citizens who are in Australia without a valid visa, including those who overstay, have their visa cancelled or arrive in Australia without a visa and are seeking asylum. Once a person (adult or child) has been moved to immigration detention, they must remain in detention until they have been granted a valid visa enabling them to remain lawfully in Australia or they choose to leave/are removed from the country (Kaldor Centre for International Refugee Law, 2021). This in practice means that a person can be held in detention for a prolonged and indefinite period.

The detention can take place both onshore and offshore. Onshore immigration detention refers to the detention of individuals within Australian territory. The majority of non-citizens onshore are held in closed, high security immigration detention centres (IDCs) and

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immigration transit accommodations (ITAs). Detainees may also be held temporarily in alternative places of detention (APODs), such as hotels and correctional centres, and a small number of individuals have also been approved to live in set housing within the community. Australia's laws also enable the transfer of individuals who arrived by boat/are intercepted at sea and wish to apply for asylum to regional processing centres (RPCs) offshore on Nauru and Manus Island in Papua New Guinea ([Australian Human Rights Commission, 2004](#)). Those detained offshore are given no opportunity to resettle in Australia and are barred from entering the country on a permanent basis. All asylum seekers who have arrived by boat since August 2012 have been liable to offshore processing, with thousands detained for over a decade with little news about safety or resettlement as the Australian Government continues to negotiate for their third country resettlement.

The detention environment, and particularly the offshore environment, have been widely criticised from a health and human rights standpoint. Singling out offshore detention specifically the International Criminal Court (ICC) labelled these policies as “cruel, inhuman, or degrading treatment” which were unlawful under international law ([Doherty, 2020](#)). The United Nations (UN) special rapporteur on torture also accused the Australian Government of failing to provide adequate detention conditions on Manus Island and Nauru by “violating the right of asylum seekers, including children, to be free from torture or cruel, inhuman or degrading treatment” ([UN Human Rights Council, 2015](#)), whilst [Amnesty International \(2016\)](#) similarly concluded that offshore detention and processing policies “amount to torture”.

Offshore detention policies have also been shown to have a devastating impact on health and well-being. For example, the [Médecins Sans Frontières \(2020\)](#) Indefinite Despair Report found that amongst 208 refugees and asylum seekers detained on Nauru, 129 (62%) were diagnosed with moderate to severe depression, 25% were diagnosed with anxiety disorder, 18% with post-traumatic stress disorder and 11% with complex trauma, amongst a range of other diagnoses. This report also details a deterioration of over time: of those who had consistent contact with health services ( $n = 74$ ), 15 (20%) remained stable, while 51 (69%) deteriorated and only 8 (11%) showed improvement in their daily functioning. In a study using data collected during the 2014 Australian Human Rights Commission Inquiry into Children in Immigration Detention, [Mares \(2016\)](#) found extremely high rates of mental disorder in both adults and children detained on Christmas Island, offering further evidence of the profound negative consequences of prolonged immigration detention for health. A recent cross-sectional analysis of a cohort of children and young people subjected to detention on Nauru ( $n = 62$ ) have also shown that the vast majority of the cohort had physical health (89%) and mental health (79%) concerns, including self-harm or suicidal ideation/attempt (45%); as per the study's findings, mental health concerns were also more likely in children and young people who had been held in detention for a year or longer ([Amarasena et al., 2023](#)). [Gleeson \(2016\)](#) has also documented cases of self-harm and suicide attempts by offshore detainees, highlighting the psychological toll of prolonged detention and the harsh living conditions in RPCs on Manus and Nauru.

While such reports begin to give insight into the life of those detained offshore, only recently have we been able to directly compare conditions in onshore and offshore immigration detention. In two recent articles that used Australian Government data related to health in immigration detention a number of stark results were found. [Essex \(2022a\)](#) used the Kessler Psychological Distress Scale (K10) [1] data from these reports. The mean overall K10 score onshore was 18.85, while offshore it was 24.37. These scores are significantly higher than those recorded by [Slade et al. \(2011\)](#) in the Australian community (14.05), suggesting that detainees often struggle with moderate to severe mental health problems; these scores are also higher if detained longer and offshore. A further study examined other data contained within these reports to gauge the impact of offshore detention on detained children ([Essex, 2022b](#)). These results suggest that in offshore detention children presented to

general practitioners (GPs) far more frequently about a range of complaints, including digestive, skin, musculoskeletal, respiratory, eye, ear and urological complaints when compared to those held onshore. Children detained offshore were also significantly more likely to see mental health staff (psychologists, counsellors and mental health nurses), generally at two to three times the frequency of those onshore. These results reflect those of [Tosif et al. \(2023\)](#) who also found based on retrospective audit of medical records that parents and children detained on Nauru had a significantly higher prevalence of mental health concerns compared with those held in IDCs on the Australian mainland or territories.

This paper has been informed by the literature that details the impact that Australian immigration detention has on the health of those who are detained. This study seeks to add to this literature by comparing the impact of Australian onshore and offshore immigration detention centres. It has two overarching aims. Firstly, we intend on quantifying the health and health-care encounters of the onshore and offshore adult populations in Australian immigration detention centres, outlining incidence as it relates to health-care access, prescriptions and other key health events. Secondly, we compare the incidence of health events between onshore and offshore detention to explore the impact of offshore detention on health and health-care events.

## Materials and methods

### *Data sources*

In this study, we used the Australian Government's quarterly immigration detention health reports over a period of three years (from Quarter 3, 2014, to Quarter 2, 2017) for onshore and offshore detention [\[2\]](#). The reports were either already publicly available [\[3\]](#) or obtained through freedom of information requests sent to the Australian Department of Home Affairs. They contain data about the health and well-being of detainees, including complaints/presenting symptoms and number of appointments and hospitalisations, among other variables. For onshore detention, the reports covered detention centres (IDCs and ITAs) on Mainland Australia and Christmas Island; other forms of onshore detention, such as APODs and community detention are therefore not investigated in this paper.

### *Measures, data transformation and analysis*

Data were entered manually by the authors, screened, and cleaned. To compare onshore and offshore data sets, the data were transformed. To do this, we first had to estimate the quarterly detention populations. The estimates were informed by the monthly Australian immigration detention population statistics (which are publicly available and published by the Australian Government) [\[4\]](#) and the quarterly health reports. For those detained onshore, the Department of Home Affairs publishes monthly, cross-sectional statistical reports on the immigration detention population; this data set alone is however not suitable for determining the number of new and released detainees onshore on a quarter-by-quarter basis, because the statistics for each month include hundreds of people who have been detained for less than three months as well as individuals who are detained for multiple quarters. Hence, a more accurate quarterly detention population needed to be calculated for onshore detention. This was done on the basis of the quarterly health reports, by using the percentage of the population and number of individuals who were for instance prescribed medication for a given quarter, and from this, we estimated the total number against which this figure was reached. To calculate the offshore population, we used the cross-sectional population of adults. This was possible because after mid-2014 to mid-2017 the offshore population was largely static; that is, few people would have moved in and out within a quarter. We did explore whether the method that was applied to onshore data would make any significant difference to our results for the offshore calculations, and we found that cross-sectional data was generally representative of the percentages reported in

the offshore quarterly health reports (accurate to within 1%–2%). The total numbers of adults and children by detention category and quarter are reported in Table 1. A more detailed explanation of our methodology is contained in the supplementary material.

After calculating the detention population for both onshore and offshore data, we estimated the rate of health events per quarter against the quarterly onshore and offshore adult detention population. Health-related events were converted to rates or proportions per 100 detainees per quarter (i.e.  $p = \frac{e}{n} \times 100$ ). We have relied on data reporting “unique individuals” as opposed to “unique appointments” per quarter; that is, the rates reported below reflect the number of adults per quarter that (on average) accessed services or were prescribed medication. Raw data from which these rates were calculated are detailed in our supplementary material (see Tables 10–15). Because quarter by quarter many of the same adults were detained, data violated assumptions for independence of observations, limiting the significance tests that could be carried out. We opted therefore to run a series of two-proportion z-tests for each matched quarter. After calculating a z- and p-value for each quarter, we calculated median z- and p-values for all quarters and used this as an indicator as to whether the observed differences between onshore and offshore events were statistically significant.

This study included five variables: the reasons why adults presented to GPs and psychiatrists, the number of consultations by health profession, prescribed medication, referrals and hospitalisations and the number of individuals being observed because of suicide and self-harm risk. A detailed description of these variables is included in the supplementary material.

### *Ethical approval*

Ethics approval for this study was granted by the University of Greenwich, Human Research Ethics Committee (UREC/20.1.5.6).

## **Results**

### *Reasons for presentation to general practitioners and psychiatrist*

Over the three years, there were a total of 95,968 onshore and 66,358 offshore appointments with GPs or psychiatrists. The number of health events and totals are reported in the supplementary material in Table 9. Rates varied quite substantially, however

**Table 1** Total number of adults and children by detention category and quarter

<i>Quarter</i>	<i>Onshore adult population</i>	<i>Onshore child population</i>	<i>Total onshore population</i>	<i>Offshore adult population</i>	<i>Offshore child population</i>	<i>Total offshore population</i>
2014 Q3	3,602	700	4,302	2,014	186	2,200
2014 Q4	4,414	622	5,036	1,795	135	1,930
2015 Q1	3,862	455	4,317	1,604	103	1,707
2015 Q2	3,218	173	3,391	1,512	88	1,600
2015 Q3	3,449	153	3,602	1,473	92	1,565
2015 Q4	3,264	132	3,396	1,391	68	1,459
2016 Q1	2,970	110	3,080	1,346	54	1,400
2016 Q2	2,994	32	3,026	1,247	49	1,296
2016 Q3	3,055	13	3,068	1,224	45	1,269
2016 Q4	2,467	13	2,480	1,201	45	1,246
2017 Q1	2,834	33	2,867	1,196	45	1,241
2017 Q2	3,024	18	3,042	1,220	42	1,262

**Notes.** The figures represent the total number of people detained throughout the quarter. Children in the detainee population refers to those aged 18 years and under.

**Source:** Figure by author

in almost all cases, rates were higher amongst the offshore population. Presentations related to general/unspecified issues (Md [5] = 68 offshore, Md = 45 onshore), digestive complaints (Md = 44 offshore, Md = 23 onshore), skin complaints (Md = 37 offshore, Md = 18 onshore), musculoskeletal complaints (Md = 44 offshore, Md = 27 onshore), respiratory complaints (Md = 33 offshore, Md = 11 onshore), eye complaints (Md = 9 offshore, Md = 4 onshore), social complaints (Md = 17 offshore, Md = 8 onshore), neurological complaints (Md = 13 offshore, Md = 7 onshore), ear complaints (Md = 11 offshore, Md = 4 onshore) and urological complaints (Md = 19 offshore, Md = 4 onshore) and injuries (Md = 10 offshore, Md = 5 offshore) were all, on average across all quarters, higher for offshore. The only exceptions here were psychological complaints (Md = 36 offshore, Md = 48 onshore) and pregnancy (Md = 1 offshore [0.59], Md = 1 offshore [1.11]) which were both higher onshore. A summary along with *z*- and *p*-values are reported in [Table 2](#). As presentations may have been recorded more than once in these data, it makes it somewhat difficult to interpret. Looking at the number of presentations for unique adults helps in this respect. The number of unique adults who presented for various issues mirrors the results above in that offshore rates were far higher in almost all categories, including presentations in relation to general/unspecified issues (Md = 35 offshore, Md = 25 onshore), digestive complaints (Md = 21 offshore, Md = 13 onshore), skin complaints (Md = 20 offshore, Md = 10 onshore), musculoskeletal complaints (Md = 24 offshore, Md = 14 onshore), respiratory complaints (Md = 16 offshore, Md = 6 onshore), eye complaints (Md = 5 offshore, Md = 3 onshore), neurological issues (Md = 10 offshore, Md = 6 onshore), ear complaints (Md = 5 offshore, Md = 2 onshore), urological complaints (Md = 11 offshore, Md = 3 onshore) and injuries (Md = 8 offshore, Md = 4 onshore). Again, the only exception here was psychological complaints, with rates higher onshore (Md = 20 offshore, Md = 16 onshore). A summary along with *z*- and *p*-values are reported in [Table 3](#) and [Figures 1](#) and [2](#). Together these results suggest that more adults more frequently sought assistance for a range of complaints offshore compared with those onshore.

### ***Number of consultations by health profession***

Over three years, there were a total of 442,800 appointments onshore and 205,095 appointments with health-care professionals offshore. The number of health events and totals are reported in supplementary material. Rates varied quite substantially, however, in almost all cases, rates were higher amongst the offshore population. While we did not run significance tests on the unique appointments as totals exceeded the detention population across most quarters, rates were higher offshore in all categories except nurse appointments, which were higher onshore. These results are summarised in Table 4 in supplementary material. As presentations may have been recorded more than once in these data, it makes it somewhat difficult to interpret; looking at the number of presentations for unique adults helps in this respect. The number of unique adults who presented for various issues mirrors the results above in that offshore rates were far higher in almost all categories. GP appointments (Md = 61 offshore, Md = 52 onshore), mental health nurse appointments (Md = 65 offshore, Md = 43 onshore), psychologist appointments (Md = 26 offshore, Md = 12 onshore) and counsellor appointments (Md = 44 offshore, Md = 9 onshore) were all, on average across all quarters, higher offshore. The only exception here were nurse appointments which were significantly higher onshore (Md = 68 offshore, Md = 81 onshore). A summary along with *z*- and *p*-values are reported in Table 5 in supplementary material and in [Figures 3](#) and [4](#). Together these results suggest that more adults more frequently sought assistance for a range of complaints offshore compared with those onshore.

### ***Prescribed medications***

Rates of prescriptions per quarter presented a more mixed picture. Offshore prescriptions for nonsteroidal anti-inflammatory drugs (NSAIDs) (Md = 37 offshore, Md = 24 onshore), hyperacidity, reflux or ulcers (Md = 17 offshore, Md = 9 onshore), penicillin (Md = 19

**Table 2** Rate per quarter, median z- and p-values: reasons for presentation to GP/psychiatrist – unique appointments

Onshore	General unspecified																Offshore																		
	Psychological	Digestive	Skin	Musculoskeletal	Respiratory	Endocrine	Cardiovascular	Eye	Social	Neurological	Blood	Ear	Urological	Pregnancy	Genital	Injury		Psychological	Digestive	Skin	Musculoskeletal	Respiratory	Endocrine	Cardiovascular	Eye	Social	Neurological	Blood	Ear	Urological	Pregnancy	Genital	Injury		
2014 Q3	56.65	71.50	40.66	27.68	38.54	24.64	20.34	7.74	9.51	12.02	3.51	9.16	11.48	5.16	10.51	10.48	Note: The above figures represent rates or proportions per 100 detainees Source: Figure by author	47.86	44.18	57.68	46.09	48.27	36.00	12.82	8.64	12.82	15.05	13.59	1.64	14.27	29.68	2.50	12.05	16.05	
2014 Q4	60.29	61.66	33.80	21.92	30.74	13.24	14.97	5.62	6.53	8.88	2.96	5.34	8.72	5.52	8.58	6.27		88.08	62.33	78.19	54.92	68.50	39.02	20.88	12.18	13.58	21.92	18.86	2.49	19.17	28.55	2.02	12.38	20.00	
2015 Q1	42.78	46.14	23.07	19.16	25.60	10.49	10.49	4.01	5.65	9.24	1.76	2.94	5.70	4.91	5.98	4.66		91.04	60.93	64.56	47.04	61.86	34.33	13.06	11.19	13.94	20.21	17.98	1.11	16.99	23.37	1.58	9.14	13.06	
2015 Q2	46.53	42.17	22.85	14.77	21.70	7.70	8.96	4.84	4.51	7.31	1.76	3.57	4.34	2.89	4.07	4.78		99.94	61.19	70.06	47.88	64.25	36.94	13.06	8.31	11.88	21.50	16.36	1.56	19.44	21.25	0.75	6.75	12.88	
2015 Q3	62.16	50.33	25.35	17.49	24.99	13.60	10.27	6.55	4.66	7.36	1.08	2.58	4.69	1.78	4.08	4.61		105.37	43.83	55.53	47.99	55.97	37.70	11.63	7.80	12.65	21.53	16.36	1.28	15.85	20.13	1.21	11.31	10.54	
2015 Q4	67.58	44.55	22.79	21.55	23.06	8.95	12.04	5.59	4.00	10.92	0.91	3.12	4.24	1.09	4.36	5.33		105.14	33.10	44.62	36.05	46.40	32.63	9.25	6.10	6.92	18.78	12.20	1.17	10.76	21.86	1.51	4.93	8.64	
2016 Q1	62.47	52.95	21.88	21.49	28.83	7.56	10.84	5.16	3.93	12.66	1.20	4.68	5.32	0.97	4.71	3.80		86.00	35.14	30.64	37.86	42.36	20.57	10.14	5.86	8.21	20.93	10.57	0.50	10.50	17.36	0.43	2.79	7.86	
2016 Q2	36.05	42.70	19.76	15.80	24.82	8.92	8.96	6.94	3.80	5.82	1.35	3.21	2.74	0.13	2.68	4.46		49.61	36.73	40.20	33.95	40.90	33.26	7.48	6.48	8.26	9.10	13.12	0.93	7.87	6.87	0.00	3.78	10.11	
2016 Q3	12.81	43.22	22.91	16.40	27.93	12.81	8.64	6.03	3.94	1.08	1.01	3.03	3.62	0.36	4.14	4.82		20.65	30.02	43.89	36.96	42.08	31.84	9.46	6.86	9.30	0.63	14.74	1.10	10.01	9.06	0.08	3.70	11.58	
2016 Q4	11.61	51.85	21.05	18.51	36.17	12.34	8.31	5.40	3.95	0.65	0.60	4.03	3.35	1.13	2.66	4.11		12.28	25.76	22.79	20.71	27.85	18.14	2.01	2.65	3.21	0.48	9.39	0.56	4.57	5.54	0.00	3.29	4.74	
2017 Q1	11.16	51.73	18.77	18.14	31.29	9.77	9.14	6.03	3.87	0.77	0.59	4.57	2.06	0.10	2.72	4.71		13.94	14.99	19.90	17.89	19.50	10.80	6.45	2.66	2.10	0.08	7.90	0.24	3.71	4.67	0.08	2.10	3.55	
2017 Q2	14.17	45.13	18.70	15.98	26.73	12.33	8.35	6.05	3.42	6.61	0.95	4.17	2.24	0.53	1.81	3.55		6.97	13.31	11.89	7.69	12.20	7.61	4.44	2.22	2.93	0.24	3.25	0.16	4.20	3.96	0.08	0.55	1.82	
Median onshore rate	44.66	48.24	22.82	18.32	27.33	11.41	9.71	5.82	3.98	7.31	1.14	3.80	4.29	1.11	4.11	4.68		Median onshore rate	44.66	35.94	44.26	37.41	44.38	32.94	9.80	6.67	8.78	16.91	13.35	1.11	10.63	18.74	0.59	4.36	10.33
Median offshore rate	67.81	35.94	44.26	37.41	44.38	32.94	9.80	6.67	8.78	16.91	13.35	1.11	10.63	18.74	0.59	4.36		Median offshore rate	67.81	35.94	44.26	37.41	44.38	32.94	9.80	6.67	8.78	16.91	13.35	1.11	10.63	18.74	0.59	4.36	10.33
z (median)	-12.12	7.76	-13.95	-14.07	-9.84	-17.15	1.15	-0.99	-6.02	-3.48	1.12	-8.43	-15.24	2.01	-1.48	-6.76		z (median)	-12.12	7.76	-13.95	-14.07	-9.84	-17.15	1.15	-0.99	-6.02	-3.48	1.12	-8.43	-15.24	2.01	-1.48	-6.76	
p (median)	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p = 0.004	p = 0.05	p < 0.001	p < 0.001	0.26411	p < 0.001	p < 0.001	p < 0.001	0.02709	p < 0.001		p (median)	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p = 0.004	p = 0.05	p < 0.001	p < 0.001	0.26411	p < 0.001	p < 0.001	0.02709	p < 0.001			

Note: The above figures represent rates or proportions per 100 detainees  
Source: Figure by author

**Table 3** Rate per quarter, median z- and p-values: reasons for presentation to GP/psychiatrist – unique adults

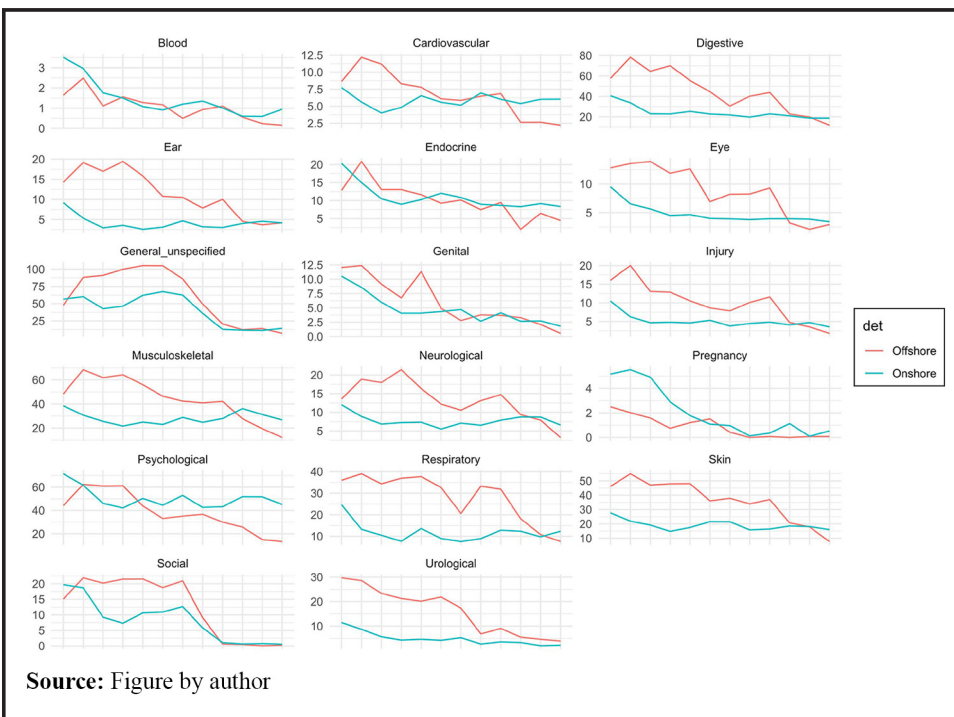
Onshore	General										Offshore									
	unspecified	Psychological	Digestive	Skin	Musculoskeletal	Respiratory	Endocrine	Cardiovascular	Eye	Social	Neurological	Blood	Ear	Urological	Pregnancy	Genital	Injury			
2014 Q3	31.07	26.87	21.79	15.74	22.49	11.91	9.94	7.02	6.94	13.85	9.77	1.94	4.47	7.19	3.86	7.22	6.47			
2014 Q4	30.04	21.05	17.94	11.96	16.36	7.14	8.90	4.40	4.17	13.21	7.16	2.06	2.74	5.14	3.38	5.75	4.17			
2015 Q1	23.95	19.73	12.95	11.44	13.98	8.21	7.09	2.10	4.56	5.20	5.62	1.40	1.97	3.94	4.04	3.96	3.06			
2015 Q2	25.79	18.43	12.49	9.32	12.87	4.75	6.28	4.20	3.11	5.56	5.53	1.21	1.99	3.23	1.68	3.14	3.92			
2015 Q3	32.53	20.79	14.38	10.09	13.69	7.31	6.64	4.84	2.96	9.02	5.77	1.07	1.42	2.93	1.13	3.22	3.62			
2015 Q4	33.70	20.22	13.24	11.55	13.54	5.39	7.75	4.66	4.56	8.76	4.56	0.80	1.59	2.94	0.70	3.09	4.17			
2016 Q1	31.65	22.90	13.60	12.09	15.89	4.58	7.54	4.18	2.79	8.87	5.49	0.88	2.29	3.20	0.71	3.33	4.21			
2016 Q2	23.08	21.44	13.03	10.22	13.99	5.41	6.38	5.14	2.74	5.28	5.18	1.20	2.00	1.84	0.10	2.07	3.41			
2016 Q3	9.75	18.13	13.09	9.66	14.57	7.10	5.63	4.68	2.36	1.01	6.09	0.95	1.70	2.45	0.16	2.65	3.83			
2016 Q4	8.19	17.11	10.62	9.93	15.36	5.76	5.19	3.49	2.88	0.61	5.19	0.45	1.91	2.15	0.36	1.58	3.36			
2017 Q1	8.29	19.55	11.01	9.60	14.68	5.61	6.03	4.13	2.51	0.74	5.65	0.49	2.12	1.34	0.11	1.91	3.63			
2017 Q2	9.92	18.35	9.82	8.37	12.04	6.51	5.52	4.27	2.41	0.53	4.23	0.79	2.05	1.36	0.17	1.55	2.71			
Offshore	General										Offshore									
	unspecified	Psychological	Digestive	Skin	Musculoskeletal	Respiratory	Endocrine	Cardiovascular	Eye	Social	Neurological	Blood	Ear	Urological	Pregnancy	Genital	Injury			
2014 Q3	29.69	21.55	32.03	27.86	25.97	21.30	9.38	7.15	9.58	11.42	10.77	1.39	7.80	18.12	1.74	8.14	10.13			
2014 Q4	41.73	24.85	37.72	30.92	34.09	20.11	13.76	8.64	9.03	14.76	13.31	1.50	8.52	16.88	1.50	7.41	12.48			
2015 Q1	48.57	22.51	28.99	25.06	29.74	15.77	8.85	8.29	7.79	14.65	13.47	0.94	7.36	13.28	1.18	5.61	9.54			
2015 Q2	50.60	23.81	28.04	23.69	31.08	16.73	8.99	6.02	7.14	15.67	15.21	1.46	7.80	12.50	0.73	4.37	10.19			
2015 Q3	47.11	19.62	24.30	23.69	27.63	16.56	8.62	5.70	7.74	16.16	11.54	1.09	6.72	12.70	0.75	6.45	8.42			
2015 Q4	45.72	16.61	22.07	19.34	23.94	15.96	7.26	4.46	4.67	13.66	9.35	0.86	5.39	14.31	0.65	3.59	5.90			
2016 Q1	39.75	15.60	16.34	18.20	21.77	9.51	7.06	4.38	4.83	14.49	8.02	0.52	4.09	9.36	0.30	2.38	6.69			
2016 Q2	29.03	15.80	19.81	16.92	21.33	15.48	6.09	5.45	4.65	6.90	9.62	0.00	4.09	3.93	0.00	2.65	7.94			
2016 Q3	14.13	12.42	19.44	19.93	23.53	14.30	6.78	5.64	5.47	0.57	11.19	0.98	4.33	4.98	0.08	2.61	8.66			
2016 Q4	7.49	7.83	8.33	9.24	11.32	5.91	2.66	1.58	2.00	0.50	5.41	0.50	1.92	2.58	0.00	1.92	2.83			
2017 Q1	5.94	5.35	6.69	6.10	7.27	4.26	2.76	1.84	1.25	0.08	4.01	0.17	1.17	1.67	0.08	1.34	2.26			
2017 Q2	4.02	4.43	4.18	3.20	5.16	2.79	2.13	1.23	1.39	0.25	1.97	0.16	0.74	1.07	0.16	0.49	0.98			
Median onshore rate	24.87	19.98	13.06	10.16	14.28	6.14	6.51	4.33	2.88	5.42	5.58	1.01	2.00	2.93	0.71	3.12	3.73			
Median offshore rate	34.72	16.20	20.94	19.64	23.73	15.63	7.16	5.55	5.15	12.54	10.20	0.90	4.86	10.93	0.47	3.12	8.18			
z (median)	-4.67	4.31	-6.59	-8.10	-6.47	-8.86	0.46	-0.36	-3.46	-1.84	-5.53	1.32	-5.10	-10.42	1.44	-1.02	-5.62			
p (median)	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p = 0.02	p = 0.099	p < 0.001	p = 0.009	p < 0.001	p = 0.19	p < 0.001	p < 0.001	0.1594	p = 0.15	p < 0.001			

Note: The above figures represent rates or proportions per 100 detainees

Source: Figure by author

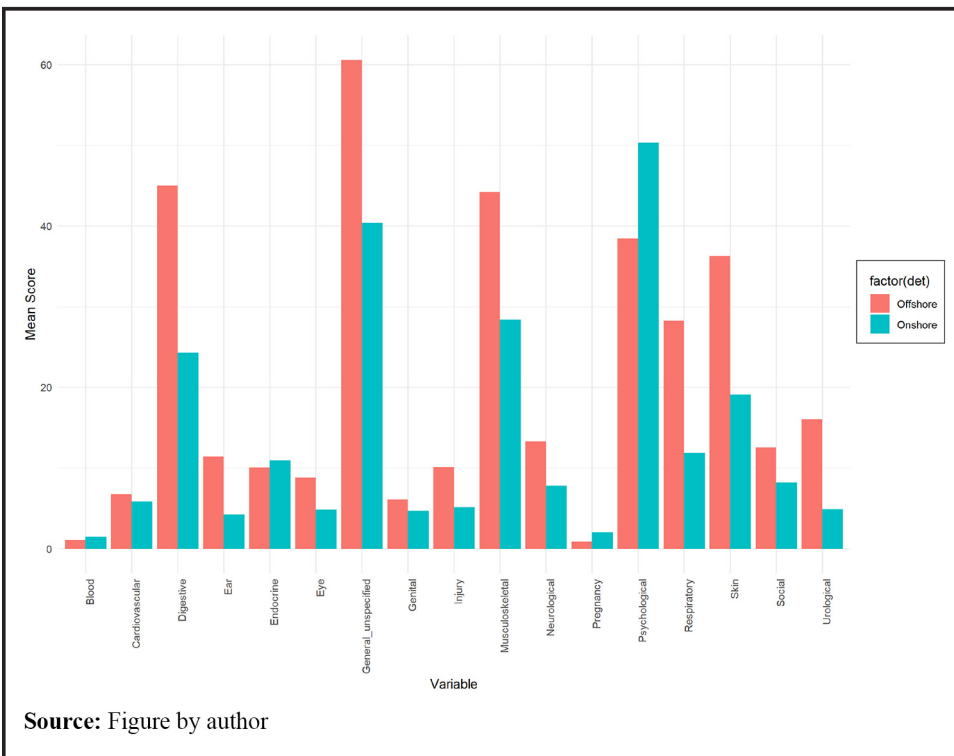


**Figure 1** Rate per quarter: reasons for presentation to GP/psychiatrist – unique adults



Source: Figure by author

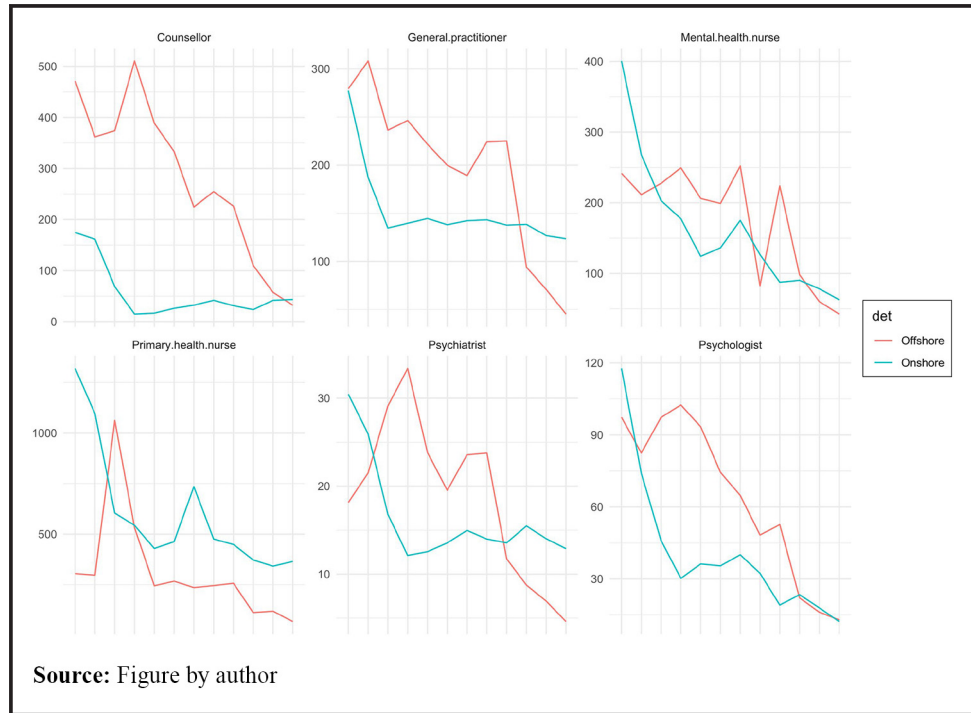
**Figure 2** Mean rate: reasons for presentation to GP/psychiatrist – unique adults



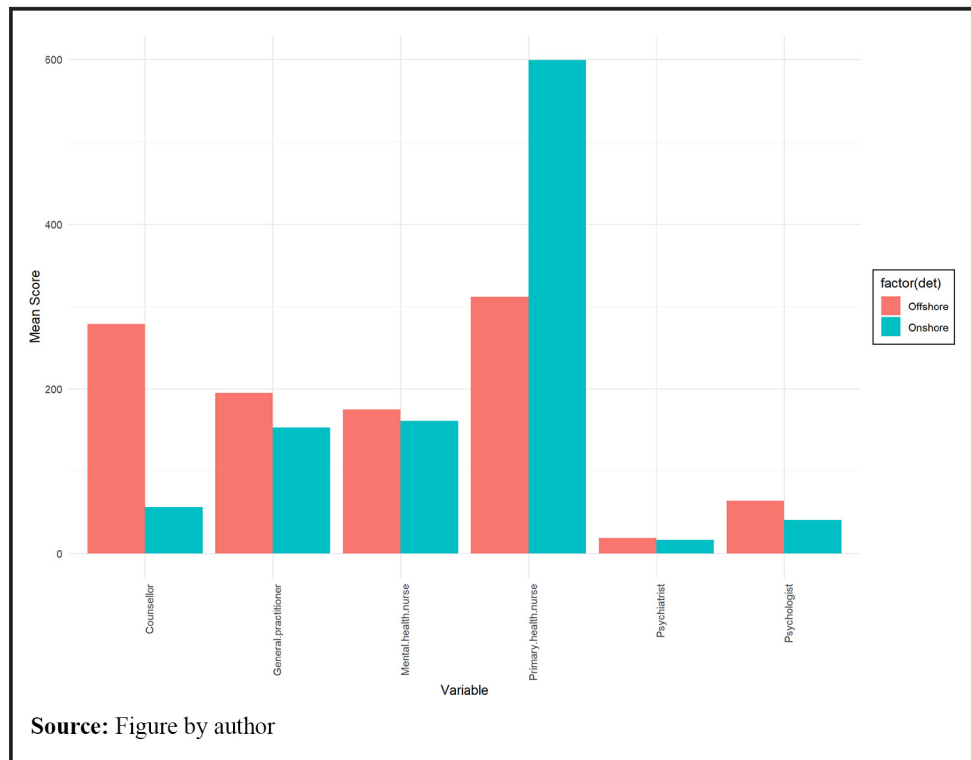
Source: Figure by author



**Figure 3** Rate per quarter: appointments by health professional – unique appointments



**Figure 4** Mean rate: appointments by health professional – unique appointments



offshore, Md = 5 onshore), antihistamines (Md = 21 offshore, Md = 9 onshore), rubefacients (Md = 7 offshore, Md = 3 onshore) and anti-anxiolytics (Md = 4 offshore, Md = 2 onshore) were all, on average across all quarters, higher offshore. Prescriptions for anti-psychotics (Md = 4 offshore, Md = 7 onshore), combination analgesics (Md = 10 offshore, Md = 14 onshore) and all psychotropic prescriptions (Md = 18 offshore, Md = 22 onshore) were all, on average across all quarters, higher onshore. A summary along with  $z$ - and  $p$ -values are reported in Table 6 in supplementary material and in Figures 5 and 6.

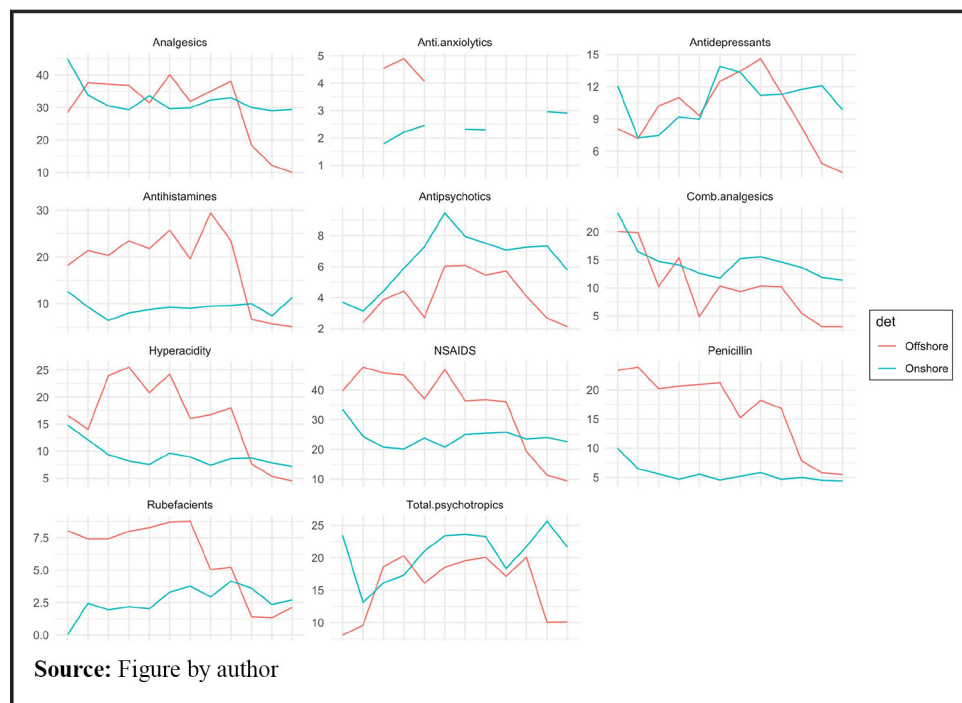
### Referrals and hospitalisations

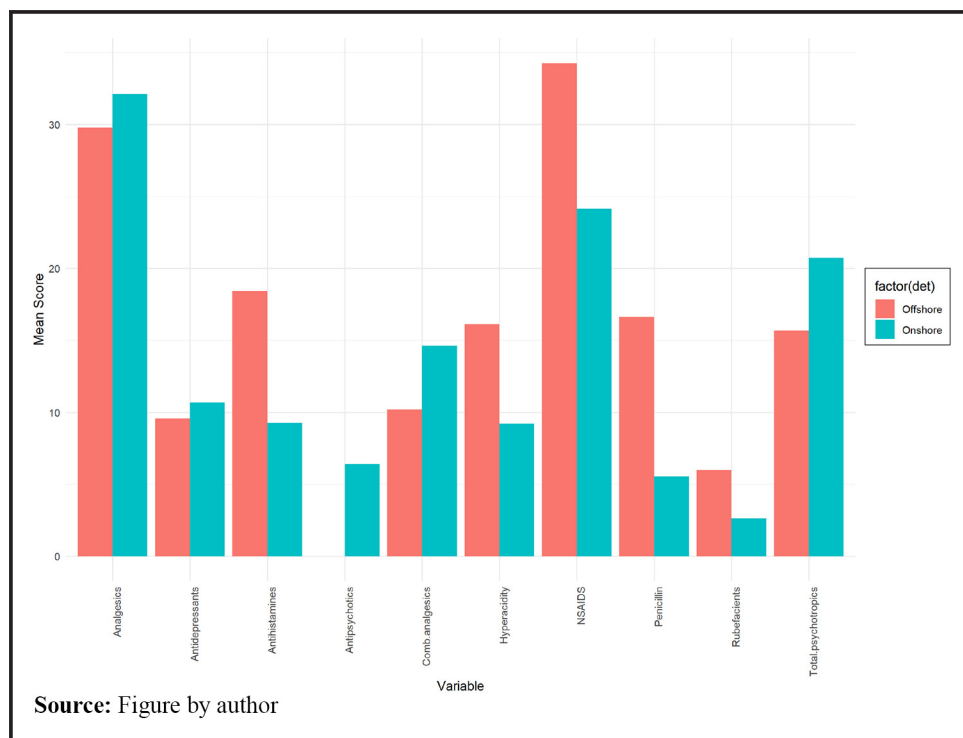
Rates of referrals and hospitalisations were all higher onshore, with pathology referrals (Md = 82 offshore, Md = 138 onshore) allied health referrals (Md = 28 offshore, Md = 64 onshore), radiology referrals (Md = 18 offshore, Md = 28 onshore), specialist referrals (Md = 2 offshore, Md = 8 onshore) and hospital admissions (Md = 2 offshore, Md = 6 onshore), on average across all quarters, higher onshore. A summary along with  $z$ - and  $p$ -values are reported in Table 7 in supplementary material.

### Number of individuals being observed because of suicide or self-harm risk

Data regarding observations related to suicide and self-harm were available since 2015 Q3. Rates were significantly higher onshore in almost all categories. Ongoing commencements (Md = 1 offshore, Md = 2 onshore), moderate commencements (Md = 1 offshore, Md = 2 offshore), high commencements (Md = 1 offshore and Md = 2 onshore) on observations and unique individuals (Md = 2 offshore, Md = 3 onshore) were all, on average across all quarters, higher onshore. A summary along with  $z$ - and  $p$ -values are reported in Table 8 in supplementary material.

**Figure 5** Rate per quarter: number of adults who were prescribed medication



**Figure 6** Mean rate: number of adults who were prescribed medication

## Discussion

The above results suggest detainees both onshore and offshore have substantial health needs and that a significant number both on and offshore are likely to have had particularly poor health while detained. On almost every measure, incidence of health-care events in offshore detention were either on par or significantly worse than onshore detention. Both the number of individuals and number of presentations per 100 detainees per quarter were higher for a range of health-care professions offshore, suggesting that individuals offshore accessed health services at far higher rates than those onshore. Those offshore were generally also prescribed medications at a far higher rate than those onshore. While there were some health events that were significantly higher onshore, these were few and are arguably best explained by there being a lack of availability and/or access to health services offshore (de Boer, 2013; Gleeson, 2016). This is arguably the case for referrals and hospitalisations. Services on Manus Island and Nauru are not only limited, but there have also been multiple public cases where the Australian Government has refused specialist treatment for those offshore (Essex, 2015).

Previous studies have suggested that those detained for protracted periods more closely resembled a clinical sample (e.g. Mares, 2016; Young and Gordon, 2016; Zwi *et al.*, 2018). On this point, it is worth comparing some of the results reported in this study to health service utilisation and events in the broader Australian community. In 2016–2017, 87.8% of the Australian population visited their GP at least once each year (RACGP, 2018). In comparison, our data suggests that about 50% of the detention population saw a GP every quarter onshore, and almost 61% per quarter offshore. During the same period, at least once in 12 months 68% of the Australian population were prescribed medication (RACGP, 2018). In detention, if we sum the number of individuals prescribed medication per quarter, 151% of individuals onshore and 250% of individuals offshore were prescribed a medication per quarter, meaning that on average there were 1.5 and 2.5 prescriptions written per person per quarter. Perhaps the most alarming figure is related to mental health. In 2019–2020 on average, 10.7% of Australians accessed mental

health-specific services (i.e. psychologists, psychiatrists and GPs) ([Australian Institute of Health and Welfare, 2020](#)). In detention rates were far higher: per quarter, rates of accessing mental health professionals ranged from 8% of the population (individuals who accessed a psychologist onshore) to 65% of the population (individuals who accessed a mental health nurse offshore).

Surprisingly, the results also show that observations related to risk of suicide and self-harm were significantly higher onshore. It is somewhat difficult to interpret these results; however, there appear to be at least four plausible explanations. Firstly, those onshore had significantly greater need to be placed on observation, although, this is unlikely as significantly higher levels of distress – which are often associated with acts of self-harm and suicidal ideation – have long been reported offshore (e.g. reference redacted to maintain anonymity; [Tosif et al., 2023](#)). Secondly, those onshore had far greater access to services and therefore access to support if at risk. Thirdly, detainees offshore who engaged in self-harming behaviour and/or communicated thoughts of suicide may not have been taken seriously by staff and referred to medical care. Finally, there is also ample evidence to suggest that International Health and Medical Services (IHMS) and health-care professionals offshore were not trusted and were not accessed, which may well explain why fewer individuals were placed on suicide and self-harm observations offshore.

This study has several limitations that should be noted. Firstly, a degree of selection bias is acknowledged in the IHMS quarterly health reports, namely, those who had been detained for protracted periods or those with more acute grievances were less likely to engage with health services. Similarly, the reports acknowledge that they may not have offered a true reflection of health-care use and events occurring in the offshore RPCs, given the exclusion of clinical activities related to transferees who were designated as refugees following 2016. These two factors likely led to an underestimation of the offshore rates reported in this study. Secondly, the data collected in the health reports were in many ways piecemeal and inconsistent, and we cannot comment on how accurately data was recorded. This suggests caution in interpreting the results. Thirdly, while our data overwhelmingly suggests that immigration detention and particularly offshore detention is harmful, we cannot rule out other potential confounders and state conclusively a cause-and-effect relationship regarding the impact of detention. Fourthly, because of the nature of the data contained in the reports, we were constrained in the statistical analyses we could use to examine these data. While we have taken a relatively conservative approach, caution is still warranted in interpreting our findings. A final limitation relates to the quarterly health reports themselves, given that the data reported in them can only be used as a proxy for the health of those detained onshore and offshore (e.g. variables such as appointment numbers are both an indicator of disease burden as well as of quality of care and access to care). Better reporting of health information should be made a priority into the future, particularly given the fairly dire results reported here.

Overall, the results of this study suggest that men and women detained in Australian immigration detention centres have far greater health needs than those in the Australian community: they access health-care services at high rates, are prescribed medication at high rates and present with a substantial range of physical and emotional problems, including injuries, respiratory infections, digestive and skin problems and acute mental health episodes. The results also appear to support claims about the (lack of) availability of health-care services offshore. While on many measures those offshore had far greater health needs, their significantly lower referrals to external and specialist services arguably indicate that referrals were either denied or unavailable offshore. There is ample anecdotal evidence to support this point and the Australian Government's reluctance to transfer unwell immigration detainees has been well documented too ([Reilly, 2019](#)).

The results reported in this study, which almost unequivocally suggest that offshore detention results in far worse health outcomes for detainees, have broader, global relevance. As several high-income countries continue to externalise migration controls and explore/turn to the use of offshore detention ([Essex et al., 2021](#)), our findings support those advocating for an end to offshore and even all immigration detention.

## New contribution to the literature

This paper adds to a modest body of literature that explains the health of people detained in Australian immigration detention centres. It is the first paper to our knowledge to explore health service utilisation by adult immigration detainees and a range of other variables found in the Australian Government's quarterly health reports. The findings bolster the evidence which suggests that detention, and particularly offshore detention is particularly harmful to health. The results should also serve as a warning for governments which are modelling Australia's approach and are implementing offshore detention policies as a measure to stop unauthorised migration and people smuggling.

## Notes

1. K10 is a psychological screening tool designed to measure psychological distress based on questions about levels of nervousness, agitation, psychological fatigue and depression (Kessler, Barker, Colpe *et al.*, 2003). K10 total scores range from 10 to 50 with higher scores indicating greater distress.
2. These reports are not available any earlier than these dates and the Australian Government has not yet released reports beyond Q4, 2017 offshore and Q4, 2018 onshore.
3. [www.homeaffairs.gov.au/access-and-accountability/freedom-of-information/disclosure-logs](http://www.homeaffairs.gov.au/access-and-accountability/freedom-of-information/disclosure-logs)
4. [www.homeaffairs.gov.au/research-and-statistics/statistics/visa-statistics/live/immigration-detention](http://www.homeaffairs.gov.au/research-and-statistics/statistics/visa-statistics/live/immigration-detention)
5. Median rate per 100 detainees

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## Supplementary material

The supplementary material for this article can be found online.

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