

The physical health status, service utilisation and barriers to accessing care for asylum seekers residing in the community: a systematic review of the literature

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Abstract

Objective. To document physical health problems that asylum seekers experience on settlement in the community and to assess their utilisation of healthcare services and barriers to care, in an international context.

Methods. A systematic review of quantitative and qualitative studies was undertaken according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses. MEDLINE, PsycINFO, Embase and CINAHL databases were searched from 2002 to October 2012, focusing on adult asylum seekers residing in the community in high-income countries.

Results. The search yielded 1499 articles, of which 32 studies met the inclusion criteria – 23 quantitative and nine qualitative. Asylum seekers had complex health profiles spanning a range of infectious diseases, chronic non-communicable conditions, and reproductive-health issues. They appeared to utilise health services at a higher rate than the host population, yet faced significant barriers to care.

Conclusion. The findings of this study highlight the health inequities faced by asylum seekers residing in the communities of host countries, internationally. National data on asylum seekers' health profiles, service utilisation and barriers to care, as well as cross-country policy comparisons, are urgently required for the development of effective Australian health programs and evidence-based policy.

What is known about the topic? The clinical and political focus of asylum seekers' health has largely been on the higher incidence of mental disorders and the impact of immigration detention. Since policy changes made in late 2011, an increasing number of asylum seekers have been permitted to live in the community while their claims are processed. There is a paucity of research exploring the physical health needs of asylum seekers residing in the community.

What does this paper add? The international literature highlights the complexity of asylum seekers' health profiles. Although they appear to utilise health services at a higher rate than the host population, they continue to face many barriers to care.

What are the implications for practitioners? Studies that explore policy options, including cross-country comparisons of health policy and guidelines that improve health outcomes, to foster equity of access and reduce health inequalities between asylum seekers and the host population are urgently required.

Additional keywords: community, healthcare utilisation, physical health.

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Introduction

According to the 1967 Protocol of the 1951 Convention Relating to the Status of Refugees, a refugee is any person owed protection outside the country of their nationality or birth because they have

a well-founded fear that they will be persecuted because of their race, religion, nationality, political opinion or membership of a particular social group.¹ When that person's claim for protection is not approved and/or still being assessed, they are referred to as

asylum seekers. At the end of 2011, there were 42.5 million forcibly displaced people worldwide, of which 15.2 million were refugees and 895 000 were asylum seekers.² Australia, a signatory of the 1951 Refugee Convention, is one of 26 countries participating in the United Nations High Commissioner for Refugees (UNHCR) resettlement program,³ granting 13 759 visas under the Refugee and Humanitarian Program in the financial year 2011–12.⁴ Although the majority of people seek protection through the UNHCR ‘offshore’, there are also a significant number of people arriving by plane or boat who claim asylum once in Australian territory (‘onshore’). Onshore asylum seekers who arrive by plane are granted bridging visas, which allow them to remain lawfully in the community while their refugee claims are assessed, unlike asylum seekers arriving by boat, who are more likely to be detained.

Since November 2011, the Australian government has been releasing some asylum seekers from detention centres into the community with a bridging visa, while their applications are being processed.⁵ More recent policy changes have resulted in the withdrawal of work rights for some community-residing asylum seekers,⁶ and the reintroduction of offshore processing – both conditions related to the means and time of arrival. Complex conditions around permission to work mean there are some asylum seekers on bridging visas, including some arriving by plane, that are denied Medicare.⁷ Complete data on the number of Medicare-ineligible asylum seekers (at all stages of processing) in the community are very difficult to determine.

Allowing some asylum seekers to reside in the community is welcomed by many health and community groups, who have persistently lobbied to reduce the harms incurred in detention centres. However, it now means there are increasing numbers of asylum seekers in the community with complex health needs and relatively little material or social support. Many face difficulties paying for health-related needs and rely on the generosity of pro-bono services and other fee-waivers.⁸ For some asylum seekers, poverty, unsanitary and crowded living conditions, inadequate nutrition and poor access to healthcare services before coming to Australia may contribute additional health burdens.^{9,10} Existing health issues may be further exacerbated by post-migration experiences such as immigration detention before being released in the community, the indeterminate visa status, social isolation, language barriers, financial instability and poor service access.^{8,11}

In the current political context, with a dramatic increase in the number of people living in the community while seeking asylum in Australia, it is imperative that we have a clear understanding of their health-related needs in order to develop appropriate services. The health of asylum seekers in the community is likely to reflect environmental and social factors, and they face unique challenges navigating the host country’s health system. The policy environment around healthcare and social service entitlements in Australia and internationally is constantly evolving and highly politicised, which impacts on the ability to conduct proper research and translate it into evidence-based practice. To date, however, there has been a predominant focus on the mental health implications of immigration detention, with several systematic reviews having already been conducted.^{12–14} Research with asylum seekers in Australia’s community is currently lacking due to reluctance by the government to provide statistics or

registers of those living in the community¹⁵ as well as ethical issues and recruitment difficulties in gaining access to ‘hidden’ populations that may be fearful of authority.¹⁶ Drawing from the international literature, the aim of this systematic review was to document physical health problems that asylum seekers experience on settlement, to assess the utilisation of healthcare services and barriers to care.

Methods

Search strategy

The conduct of the systematic review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement.¹⁷ MEDLINE, PsycINFO, Embase and CINAHL databases were searched. Search terms included: (asylum seek*, seek* asylum, refugee claimant* or forced migrant*) and (health, health disparity, health care access, health care utilisation, primary health care or tertiary health care).

Mesh keywords, indexed terms and subheadings were used as appropriate, depending on the specifications of the database.

Study selection

All studies yielded from the database search were reviewed and assessed for eligibility based on the following criteria: (i) the primary participant group were adult asylum seekers or failed asylum seekers residing in the community (i.e. not a closed detention facility); (ii) the studies were conducted in a high-income country (World Bank Organisation for Economic Co-operation and Development criteria¹⁸); and (iii) the results were published in a peer-reviewed journal in English between 2002 and October 2012. In studies where the sample included refugees, the study was included if the proportion of asylum seekers was greater than 50% of the sample. Physical health was defined as any condition affecting the functioning of the body and involving symptoms or diagnoses related to disease or injury of the body. It did not include articles focusing on mental health problems or studies that were not concerned with assessment of disease burden in asylum seekers to inform service provision, for example studies assessing the effectiveness of tuberculosis screening.

The systematic review included both quantitative and qualitative studies. Quantitative studies were examined to assess physical health status, correlates of physical health and utilisation of health services, whereas qualitative studies were included to explore barriers and facilitators to service access. The inclusion of qualitative studies in systematic reviews is becoming increasingly common, as it may enable triangulation of findings or offer alternative explanations.¹⁹

Data extraction and quality appraisal

All data extraction and appraisals of retrieved studies were primarily undertaken by the first author (EH) and independently verified by the second author (AR), and there was no disagreement between the two reviewers. The extraction of the data followed a tree-stepped process filtering first by title, then the abstract and finally full text were obtained and reviewed. In addition, the reference lists of included articles and any relevant reviews were manually scanned to identify any additional studies that our search strategy could have missed (Fig. 1).

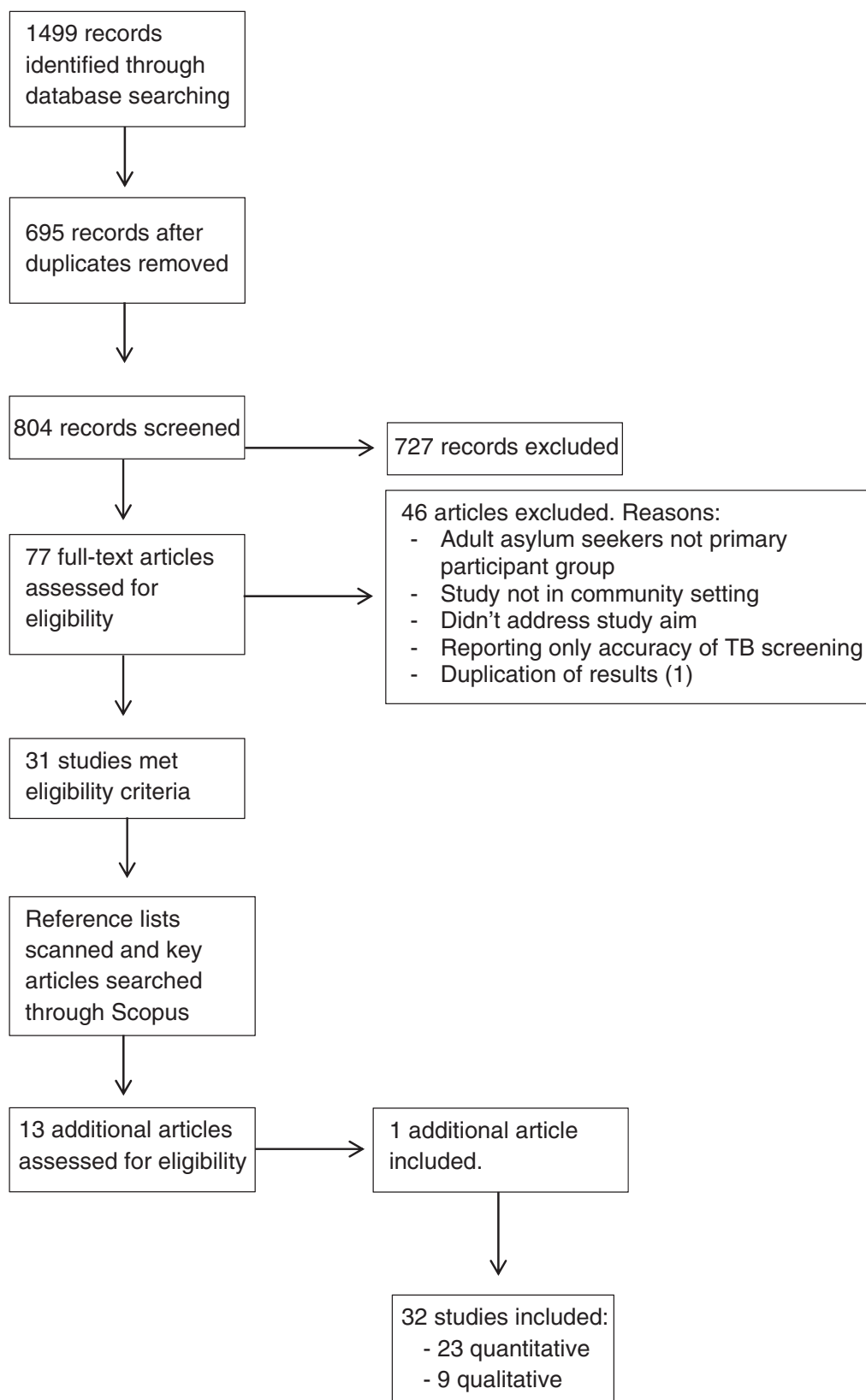


Fig. 1. Flow diagram of the study selection process.

For quantitative studies, data extraction and critical appraisal of the quality of studies were informed by the 'Strengthening the Reporting of Observational studies in Epidemiology' guidelines.²⁰ Eight quality-appraisal criteria were generated: study objective; representativeness; size of the sample; instrumentation/outcome measures; statistical analyses used; control for confounding; study limitations acknowledged; and ethical considerations. Qualitative studies were appraised using a critical review form informed by several guidelines^{21–24} and included: study objective; the use of theoretical perspective to inform the study design and data analysis; sampling technique and size; procedural rigour; triangulation of data analysis and reporting (i.e. consistency); reflexivity; limitations of the study acknowledged; and ethical considerations. The quality of the studies was rated according to their summary score: poor (0–3), adequate (4–6), or high (7–8) quality.

Data synthesis and analysis

Due to the heterogeneity of study designs, measures of physical health and settings, a meta-analysis was not appropriate. For quantitative studies, an integrative approach to content analysis was achieved by identifying key concepts *a priori*. These findings were then reported in a narrative style based on similarities and dissimilarities observed between studies utilising similar outcome measures. Synthesis of evidence from qualitative studies was undertaken using a thematic analysis approach (by the two authors),²⁵ which involved identifying prominent and recurring themes across study findings exploring barriers and facilitators to healthcare. A summary table was employed to improve transparency, assist with reflecting on the frequency or weight of themes and conduct cross-study analysis.

Results

The initial database search yielded 1499 articles (Fig. 1), of which a total of 32 studies met the inclusion criteria (23 quantitative and nine qualitative studies), of which only three were in Australia (Tables 1, 2). All of the quantitative studies were cross-sectional and included mostly audits of medical records or clinical databases (15 studies), or questionnaires (eight studies). Of the qualitative studies, five involved focus group interviews and four employed both focus groups and in-depth interviews. The quality of the 32 studies varied significantly. For quantitative studies, three were of poor quality, 10 were of adequate quality and 10 were of high quality. The majority of qualitative studies were of adequate quality (six), with two of poor quality and only one of high quality.

Physical health status

Of the 23 quantitative studies included in the review, 18 provided data on the physical health status of asylum seekers (eight based on self-report and 10 based on medical record or clinical database data with standardised diagnostic criteria as summarised in Table 1 under 'outcome measure').^{26–43}

Compared with other population groups using the same outcome measures, perception of poor general health status was much worse among asylum seekers (around 60%^{32,42}) than comparative refugee samples (around 42%^{32,42}), immigrants (39%³²) or a general, non-immigrant population (18%³²).

Overall, chronic physical symptoms or complaints were self-reported by 49–77% of asylum seekers.^{29,32,37,40,42} Prevalence differed between study populations, but symptoms and medical diagnoses were commonly noted for the following conditions: dental; headache or migraine; musculoskeletal; neck, back or shoulder pain; dermatological; respiratory; and gastrointestinal problems. Four studies focussed specifically on sexual and reproductive health issues.^{33,35,41,43} These studies showed that asylum seeker women faced a range of complex gynaecological diagnoses and obstetrical issues, including an incidence of severe acute maternal morbidity 4.5 times higher than the general population.⁴³ Asylum seekers were also more likely to have experienced sexual assault^{35,41} and had higher rates of unwanted pregnancies and induced abortions^{33,35} than the host population.

Hobbs *et al.* reported the results of a physical health screening program.³⁴ The study found a high prevalence – compared with the host population – of infectious diseases including active tuberculosis, HIV, Hepatitis B and C, gastrointestinal infections, and helminths.³⁴ Bischoff *et al.* identified eight International Classification of Diseases (ICD) categories: musculoskeletal, respiratory, mental, skin, injury, infectious and parasitic, cardiovascular and pregnancy/childbirth. Of these, infectious and parasitic diseases accounted for only 6.3% of individual diagnoses, which was among the lowest frequency of the eight ICD categories and required the least number of clinic visits per person diagnosed, whereas musculoskeletal and respiratory had the highest frequencies of diagnosis.²⁸ Only one study reported on dental needs, and found that 68.5% of asylum seekers self-reported a need for dental consultation.²⁹

Sociodemographic determinants of physical health

Of the 23 quantitative studies included in the review, 11 studies examined the association between sociodemographic factors and physical health.^{26,28,32–34,36,37,42–45} These findings suggest that older age is associated with an increased risk of all ICD diagnostic categories (excluding reproductive health issues),²⁸ poorer self-reported general health status,³² functional disability,³⁷ chronic conditions^{32,37} and a higher medical referral rate.²⁶ Female gender was associated with a greater likelihood of reporting chronic conditions^{32,37} and physical symptoms²⁶ but not with any specific ICD diagnoses.²⁸ Ethnicity was another sociodemographic characteristic affecting health outcomes; however, due to heterogeneity of sample characteristics, it was too methodologically complex to draw comparison between different ethnic groups or source countries.^{26,28,32,34} One study found that participants from countries experiencing violent conflict had higher frequencies of several ICD diagnoses as well as requiring a greater number of consultations and higher healthcare costs.⁴⁵ Compared with those who had arrived within the previous 6 months, asylum seekers with a longer length of stay had a higher level of disability, greater physical complaints, perceived lower physical health status and lower quality of life.^{36,37} Longer length of stay was also associated with a lower live birth and abortion rate among asylum seekers.³³ A greater number of pre-migration traumatic events resulted in higher medical referral rates,²⁶ and was associated with chronic conditions and poor general health status.³² Similarly, post-migration living conditions and stressors were

Table 1. Quantitative studies: general study characteristics, findings and quality appraisal

ICPC, International Classification of Primary Care; ICD, International Classification of Diseases; N/S, not specified; PMLP, Post-Migration Living Problems; SAMM, severe acute maternal morbidity						
Author, country	Stated study objectives	Study design, setting	Sample size, participant characteristics	Outcome measures related to findings	Findings	Quality rating ^A
Bischoff <i>et al.</i> 2003, ²⁶ Switzerland	To examine the effect that language concordance has on reporting of health symptoms and referral for asylum seekers	Cross-sectional Self-report questionnaire Health facility Consecutive sampling, 6 months	<i>n</i> = 723 Many different geographic regions 72% male Time since arrival: N/S (soon after arrival) Age range: N/S (median 26.5 years)	Demographic data % reporting and type of physical symptoms (categorisation method N/S) % referred to medical service Four aspects of language concordance	One or more severe physical symptoms: 19% Common symptoms: headache (6%), abdominal pain (6%), backache (5%), loss of appetite (3%), dyspnoea (3%), dysuria (2%), palpitation (1%) 36% referred to further medical services Higher language concordance, female gender and ethnicity associated with greater reporting of physical symptoms	6/8
Bischoff <i>et al.</i> 2009, ²⁸ Switzerland	To investigate the burden of disease among asylum seekers	Cross-sectional (retrospective) Hospital database audit Specialist primary care service Consecutive sampling, 3 years	<i>n</i> = 979 >50 countries 62% male Time since arrival: range N/S (median 7 months) Age range: N/S (mean 22.1 years)	Demographic data Diagnoses (number, type): ICD-10 diagnostic codes classified into 8 categories Annual number of clinic visits % enrolled that used services over the study period	One or more ICD diagnoses: 39% Diagnosis rates (% of sample, mean number of clinic visits per person with diagnosis): musculoskeletal diseases (14.5%, 24); respiratory diseases (14.1%, 19.5); skin diseases (8.8%, 19); injuries (8.6%, 25.5); infectious and parasitic diseases (6.3%, 26); cardiovascular diseases (4.4%, 45); pregnancy, childbirth and puerperium (4.5%, 40.5) % that used service: 81.2% Median number of clinic visits per year (any type): 5.8 Increasing age a significant predictor of 7/8 ICD categories (all except pregnancy-related) Country of origin associated with some diagnostic categories	6/8
Bischoff <i>et al.</i> 2009, ²⁷ Switzerland	To compare the healthcare costs of asylum seekers with the local population	Cross-sectional (retrospective) Hospital database audit Specialist primary care service Consecutive sampling, 3 years	<i>n</i> = 490 (+173 local residents as comparison) >50 countries 59% male Time since arrival: N/S Age range: N/S (mean 31 years)	Demographic data Number of consultations Duration of treatment in healthcare facility Monthly costs of healthcare provision (in Euros) Diagnoses (number, type): ICD-10 diagnostic codes classified into 8 categories	Compared with the host population, asylum seekers had: higher mean number of ICD diagnoses (1.7 v. 1.2), lower mean number of consultations (27.0 v. 33.9), shorter duration of care (487 v. 1028 days), less than half the monthly costs (295 v. 644 Euros) With post-hoc tests, costs were statistically different between the two groups up to the age of 50 years, or if patients had less than 3 ICD diagnoses	6/8

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Bischoff <i>et al.</i> 2010, ⁴⁴ Switzerland	To investigate the association between language barriers and the costs of healthcare for asylum seekers	Cross-sectional (retrospective) Hospital database audit Specialist primary care service Consecutive sampling, 3 years	<i>n</i> = 486 >50 countries Gender: N/S for total sample (around 53%) Time since arrival: N/S Age: N/S for total sample	Demographic data Language barriers (physician-reported) Annual number of clinic visits Healthcare consumption/costs (consultations, examinations, interventions, admissions, medication, interpreters) Diagnoses (number, type): ICD-10 diagnostic codes classified into 8 categories	Compared with asylum seekers with no language barriers, those with a language barrier had: higher median number of consultations annually (23.0 v. 10.8), higher median consumption of healthcare (0.36 v. 0.17), higher median monthly costs (3195 v. 1278 Euros), higher median number of ICD diagnoses (2 v. 1)	7/8
Bischoff <i>et al.</i> 2011, ⁴⁵ Switzerland	To explore differences in healthcare costs for asylum seekers from countries experiencing violent conflict or no conflict	Cross-sectional (retrospective) Hospital database audit Specialist primary care service Consecutive sampling, 3 years	<i>n</i> = 969 (90% asylum seekers) >50 countries 60% male Time since arrival: N/S for total sample Age range: N/S for total sample (median 22 years)	Demographic data Country of origin (violent conflict/no violent conflict) Diagnoses (number, type): ICD-10 diagnostic codes classified into 8 categories Healthcare costs (consultations, examinations, interventions, admissions, medication, interpreters) in Euros	Compared with other asylum seekers, those who were from countries experiencing violent conflict had: higher frequencies (<i>P</i> < 0.05) of respiratory diseases (23 v. 13%), skin diseases (13 v. 8%), injuries (13 v. 8%), pregnancies (9 v. 4%), blood diseases (5 v. 2%) and endocrine diseases (11 v. 7%), higher median healthcare costs (974 v. 449 Euros), higher median number of healthcare visits annually (8.2 v. 4.7)	7/8
Blackwell <i>et al.</i> 2002, ²⁹ United Kingdom; England	To assess health history and healthcare needs of newly arrived asylum seekers	Cross-sectional Self-report questionnaire Specialist health service Consecutive sampling, 12 months	<i>n</i> = 397 39 countries (Iran 47%) 73% male Time since arrival: N/S (soon after arrival) Age range: 16–58 years (mean 29.7 years)	Number of healthcare visits Demographic data Health history Present healthcare needs Symptoms: categorised according to British National Formulary chapters Medication use (regular or <i>ad hoc</i> ; prescription or over-the-counter)	Asylum seekers with current symptoms: requiring medical consultation, 54.4%; requiring dental consultation, 68.5%; no symptoms at all, 23.7% Of those symptoms that were reported (300), the majority of complaints were: related to the central nervous system (23%), musculoskeletal (16.7%), skin (13%), ear/nose/throat (9.3%), obstetric/gynaecological (9%), endocrine (6.3%), respiratory (3.7%) 51% complained of dental pain Since arrival, asylum seekers had accessed: primary care, 38.5%; hospital treatment, 8.1%; had a pap smear (female only) 24.5% Currently taking one or more medications, 29.2% Used one or more medicines regularly, 11.3%	5/8

Table 1. (continued)

Author, country	Stated study objectives	Study design, setting	Sample size, participant characteristics	Outcome measures related to findings	Findings	Quality rating ^A
Bradley and Tawfiq 2006, ³⁰ United Kingdom; England	To document the physical and psychological effects of torture on Kurdish asylum seekers	Cross-sectional (retrospective) Medical record audit Legal practice for asylum seekers (referred for medical evaluation of allegations of torture) Sampling method unclear	<i>n</i> = 97 All from Turkey 86% male Time since arrival: N/S Age range: 16–64 years (mean 30 years)	Demographic data Current chronic pain, disability or physical injuries (reported voluntarily during physical examination)	Asylum seekers with physical injuries as a result of torture: 99% (note study design) Most common type of injury: facial or dental (65%); fracture (29%); and scars from burns (18%) Asylum seekers unable to carry out activities of daily living or work unassisted, 12%; with chronic pain, 22%	2/8
Cook <i>et al.</i> 2006, ⁴⁷ United Kingdom; England	To assess the stage of disease and use of services for HIV-positive asylum seekers compared with non-asylum seekers	Cross-sectional (retrospective) Medical record audit Hospitals and specialist HIV service Consecutive sampling, 3.5 years	<i>n</i> = 409 (+1 795 local residents as comparison) Country of origin: N/S 32% male Time since arrival: N/S Age range: N/S (median 33 years)	Demographic data Stage of HIV disease on first presentation Hospital in-patient admissions Number of clinic visits per year Use of antiretroviral therapy	Compared with host population, asylum seekers were: no more likely to seek treatment at a later stage in the HIV disease process or require inpatient stay; have slightly higher median number of outpatient appointments annually (7 v. 6)	6/8
Correa-Velez <i>et al.</i> 2008, ³¹ Australia	To assess primary healthcare utilisation and presentations among asylum seekers	Cross-sectional (retrospective) Medical record audit 3 specialist primary care clinics Consecutive sampling, 12 months	<i>n</i> = 341 (>76% asylum seekers) Many different geographic regions 56% male Time since arrival: 0–302 months (median 58 months) Age range: 0–89 years (mean 34.7 years)	Demographic data Reason for presentation: ICPD-2 diagnostic codes (modified for study purposes) Number of clinic visits	Reasons for clinic attendance (physical health problems, rate per 100 encounters): musculoskeletal complaints (27.1), respiratory (21.4), digestive (19.0), female genital (12.6), skin (12.2), endocrine/metabolic/nutritional (12.2), cardiovascular (11.1), neurological (9.5) Mean number of clinic visits annually: 3.4 Consultations for ≥4 complaints, 22% Encounters where medication prescribed or recommended, 51.6% Encounters for preventative assessment, general check-up or health education, 5%	7/8

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Gerritsen 2006, ³² The Netherlands	To assess the burden of physical and mental morbidity among asylum seekers and make comparison with refugees of similar background	Cross-sectional Self-report questionnaire Register of asylum seekers Random sampling	<i>n</i> = 232 (+178 refugees as comparison) 3 countries: Afghanistan, Iran, Somalia 61% male Time since arrival: range N/S (mean 3.4 years) Age range: N/S (mean 34.4 years)	Demographic data General health status (Short Form-36) Physical health: list of chronic conditions (classification N/S), modified Traumatic events, post-migration stress symptoms (Harvard Trauma Questionnaire)	Compared with refugees, asylum seekers had: increased reporting of poor general health status (59.1% v. 42.0%); higher proportion with >1 chronic conditions (48.4% v. 46.5%) For asylum seekers, the most frequently reported chronic conditions were: dental problems (44.9%), severe neck/shoulder problems (33.4%), eye problems (33.1%), severe/chronic back complaints (32.7%), severe headache/migraine (32.6%) Asylum seekers from Iran reported poorer general health status than those from Afghanistan or Somalia Factors associated with poor general health status: increasing age, number of traumatic events experienced, post-migration stress, not feeling at home. Factors associated with reporting of chronic conditions: Female gender, increasing age, number of traumatic events experienced	8/8
Gerritsen 2006, ⁴⁶ The Netherlands	To assess health service usage and factors affecting access for asylum seekers and make comparison with refugees of similar background	Cross-sectional Self-report questionnaire Register of asylum seekers Random sampling	<i>n</i> = 232 (+178 refugees as comparison) 3 countries: Afghanistan, Iran, Somalia 61% male Time since arrival: range N/S (mean 3.4 years) Age range: N/S (mean 34.4 years)	Demographic data General health status (Short Form-36) Use of healthcare services: on-site nurse, GP, medical specialist, hospital admissions, medication use	No statistically significant differences between asylum seekers and refugees with regards to health service use (not reported below) Of the asylum seeker population: visited on-site nurse in previous 2 months, 63.4%; mean number of nurse visits per person, 1.22; visited GP in previous 2 months, 46.1%; mean number of GP visits over 2 months, 0.96; seen an outpatient medical specialist in previous 2 months, 22.5%; hospitalised in the last 12 months (one or more nights), 12.2%; taken medication in the last 14 days, 57.8% Higher GP use by asylum seekers from Afghanistan than Somalia	8/8

Table 1. (continued)

Author, country	Stated study objectives	Study design, setting	Sample size, participant characteristics	Outcome measures related to findings	Findings	Quality rating ^A
Goosen <i>et al.</i> 2009, ^{3,3} The Netherlands	To estimate the incidence of induced abortions among asylum seekers and assess factors associated with induced abortion	Cross-sectional (retrospective) Clinical database audit, nurse-reported data Community health services, asylum seeker agency Census	9931 (787 women who had induced abortion or live birth) N/S (many different geographic regions) All female Time since arrival: range N/S (93% >9 months) Age range: 15–49 years (average N/S)	Demographic data Reproductive health indicators: number of live births; midwife recorded and ICD-coded data on number of abortions Length of stay	Compared with the host population, asylum seekers had a higher rate of abortions per 1000 live births per year (14.4 v. 8.6) Longer length of stay associated with decrease in abortion rate and live birth rate Strong correlation between higher abortion rate and younger age Some ethnic groups associated with higher abortion rate	7/8
Hobbs <i>et al.</i> 2002, ^{3,4} New Zealand	To report the findings of voluntary health screening initiatives for asylum seekers	Cross-sectional Medical record audit Specialist hospital service Consecutive sampling, 2 years	$n = 900$ >7 countries ('other' not specified) 68% male Time since arrival: N/S Age range: 0 to >60 years (average N/S)	Demographic data Standardised infectious disease testing (Mantoux tests, chest X-rays, selected screening blood tests and faecal testing) Medical referrals made	Positive result from infectious disease screening in those screened ($n = 850$ –900): Schistosoma Ab (3.2%); current Hepatitis B infection (HBsAg: 2.9%); current Hepatitis C infection (Anti HCV: 1.1%); HIV Ab (1.1%), Syphilis (Treponema Ab; 1.0%); Tuberculosis (TB) Mantoux test (36.4%); Active TB (chest X-ray) (0.6%) Asylum seekers with: helminths/parasites (range for different types) (0.8–5.7%), anaemia (3.5%), low ferritin (23%) 65.4% referred to a GP, 32.6% to other service types Some variations in ethnicity for various infectious diseases	7/8
Kurth <i>et al.</i> 2010, ^{3,5} Switzerland	To identify the reproductive healthcare needs of asylum seekers and assess the care they receive	Cross-sectional (retrospective) Hospital database, medical record audit Specialist hospital service Consecutive sampling, 3 years	$n = 80$ Many different geographic regions All female Time since arrival: N/S Age range: 19–60 years (mean 28 years)	Demographic data Reproductive health diagnoses and interventions (method of categorisation N/S)	Most frequently reported gynaecological diagnoses: urogenital infections (41%), lower-abdominal pain (25%), spontaneous abortions (8%), dysmenorrhoea (5%), hypermenorrhoea/menorrhagia (5%) Asylum seekers that reported: previous sexual assault (10%), unwanted pregnancies resulting in induced abortion (22.5%) Most common obstetric issues: premature labour (15%), bleeding (11%), gestational diabetes (9%), intrauterine growth retardation (7%), anaemia (7%) Compared with host population, asylum seekers had a higher induced abortion to live birth ratio (1 : 2.5 v. 1 : 7.5), but no significant differences observed for mode of delivery	6/8

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Laban <i>et al.</i> 2007, ³⁶ The Netherlands	To measure health service use among Iraqi asylum seekers and assess factors affecting this	Cross-sectional Self-report questionnaire National register of asylum seekers Random sampling (Iraqi only)	<i>n</i> = 294 All from Iraq 65% male Group 1: <6 months (mean 2.5); Group 2: >24 months (mean 36.8) Age range: 18 to >64 years (average N/S)	Demographic data Health service use (previous 2 months) Physical health status (method of categorisation N/S) Quality of life (World Health Organization Quality of Life short version; WHO QOL-BREF) Brief Disability Questionnaire PMLP	For the total asylum seeker sample: mean score for perceived general health, 2.89 [range: 1 (very bad) to 5 (very good)]; mean number of physical diseases, 0.85 (range 0–12); mean number of physical complaints, 1.23 (range 0–6) In the last 2 months: accessed health service (any type), 71.4%; accessed curative outpatient services, 37.4%; accessed preventative outpatient services, 55.4%; accessed a GP, 29.3%; accessed a medical specialist, 15.3%; admitted to hospital for physical health problem, 2.7%; taken medication (any type), 39.1% Compared with those who had arrived within the previous 6 months, asylum seekers with a longer length of stay had: higher level of disability, greater physical complaints, lower quality of life, greater medication use
Laban <i>et al.</i> 2008, ³⁷ The Netherlands	To explore quality of life, disability and physical health among Iraqi asylum seekers and their association with psychopathology and pre- and post-migration variables	Cross-sectional Self-report questionnaire National register of asylum seekers Random sampling (Iraqi only)	<i>n</i> = 294 All from Iraq 65% male Group 1: <6 months (mean 2.5); Group 2: >24 months (mean 36.8) Age range: 18 to >64 years (average N/S)	Demographic data Physical health status (method of categorisation N/S) Traumatic experiences/adverse life events (Harvard Trauma Questionnaire) PMLP Quality of life (WHO QOL-BREF) Psychiatric disorders (CID) Brief disability questionnaire	For the total asylum seeker sample: mean days in bed due to ill health, 4.2; mean days of disability, 6.6; mean score for perceived physical health, 3.1 [range: 1 (very good) to 5 (very bad)] % asylum seekers with ≥ 1 chronic physical complaint: 52.6% Most common physical complaints: dizziness with falling (25.2%), headache for >3 months (24.8%), back problem >3 months (21.8%), stomach problem (21.4%), joint problem >3 months (20.7%), intestinal problem >3 months (9.5%), physical handicap (6.8%) Longer length of stay associated with: perceived lower physical health status, higher prevalence of chronic physical complaints and lower quality of life

Redman <i>et al.</i> 2011, ⁴⁰ United Kingdom; Wales	To explore the self-reported health problems, perception and understanding of the national health system among recently arrived asylum seekers	Cross-sectional Self-report questionnaire Accommodation centre for asylum seekers Convenience sampling	<i>n</i> = 30 11 countries Gender: N/S Time since arrival: N/S (70% of sample <4 weeks) Age: N/S	Demographic data Researcher-devised questions on medical problems	76.7% of asylum seekers reported medical problems, of which 73.9% had arisen pre-migration Most common medical problems reported: physical trauma (23.3%), HIV (6.7%), respiratory problems (6.7%), cardiovascular problems (6.7%), musculoskeletal problems (6.7%), skin problems (3.3%) Compared with the host population, asylum seekers: higher proportion of new diagnoses of HIV/AIDS (11.6 v. 0.0%), lower proportion with history of sexually transmitted infection (9.3 v. 18.6%), more likely to have experienced sexual violence (44.2 v. 0.0%), higher number of clinic presentations overall (166 v. 113), less likely to have an up to date pap smear (23.8 v. 61.9%)	3/8
Rogstad and Dale 2004, ⁴¹ United Kingdom; England	To compare the needs of asylum seekers attending a genitourinary clinic with those of matched British patients	Cross-sectional (retrospective) Medical record audit Specialist hospital service Consecutive sampling, 12 months	<i>n</i> = 43 (+43 local residents as comparison) Many different geographic regions 51% male Time since arrival: N/S Age range: 15–56 years (mean 27.9 years)	Demographic data History of previous sexually transmitted infection Number of clinic visits Number of missed appointments Reason for attendance History of sexual violence	Asylum seekers reporting poor general health status: 60.0% With >1 chronic condition: 60.0% Visited GP in last 2 months: 73.3% Admitted to hospital in last 12 months: 20.0% Accessed a specialist in last 2 months: 28.3% Accessed a dentist (time frame not provided): 21.7% Taken medication (any type) in the last 14 days: 71.7% Poor general health and chronic conditions associated with high level of post-migration stressors but not pre-migration stressors No significant differences between refugees and asylum seekers with regards to chronic conditions or service use except asylum seekers more likely than refugees to have visited a GP in the last 2 months (odds ratio 2.8)	5/8
Toar <i>et al.</i> 2009, ⁴² United Kingdom; Ireland	To compare the health status and service utilisation of refugees and asylum seekers	Cross-sectional Self-report questionnaire Accommodation centres for asylum seekers Random sampling	<i>n</i> = 60 (+28 refugees as comparison) 30 countries 67% male Time since arrival: range N/S (mean 18.3 months) Age range: 18 to >48 years (mean 32.8 years)	Demographic data General health status (Short Form-36) Number of chronic conditions (past 12 months) Pre migration stressors (Part 1 Harvard Trauma Questionnaire) Post-migration stressors Utilisation of healthcare services Psychiatric status (Harvard Trauma Questionnaire part IV; Hopkins Symptom Checklist-25)	Asylum seekers reporting poor general health status: 60.0% With >1 chronic condition: 60.0% Visited GP in last 2 months: 73.3% Admitted to hospital in last 12 months: 20.0% Accessed a specialist in last 2 months: 28.3% Accessed a dentist (time frame not provided): 21.7% Taken medication (any type) in the last 14 days: 71.7% Poor general health and chronic conditions associated with high level of post-migration stressors but not pre-migration stressors No significant differences between refugees and asylum seekers with regards to chronic conditions or service use except asylum seekers more likely than refugees to have visited a GP in the last 2 months (odds ratio 2.8)	7/8

Table 1. (continued)

Author, country	Stated study objectives	Study design, setting	Sample size, participant characteristics	Outcome measures related to findings	Findings	Quality rating ^A
Van Hanegem <i>et al.</i> 2011, ⁴³ The Netherlands	Assess incidence and risk indicators for SAMM in asylum seekers	Cross-sectional (retrospective) Hospital database, medical record audit National maternity units Consecutive sampling, 2 years	<i>n</i> = 40 Many different geographic regions All female Time since arrival: 0–108 months (mean 17 months) Age range: 18–42 years (median 32 years)	Demographic data Cases of SAMM during pregnancy, delivery, puerperium Pregnancy characteristics and outcomes	Compared with the host population, asylum seekers had higher incidence of SAMM (31.0 v. 6.8 per 1000 births), higher incidence of uterine rupture (15 v. 8.4%) and eclampsia (27.5 v. 9.1%) but lower incidence of obstetric haemorrhage (42.5 v. 63.3%) Of those asylum seekers with SAMM, 22.5% had another serious underlying condition. 7.5% HIV positive Factors associated with SAMM: HIV positive status, unemployment, low socioeconomic status, major language barrier, shorter stay in the Netherlands, late booking, multiparity, prior Caesarean	6/8

^A0–3, poor; 4–6, adequate; 7–8, high.

associated with chronic diseases and poor general health status across several studies.^{32,37,42}

Health service utilisation

Of the 23 quantitative studies included in the review, 11 provided data on asylum seekers' utilisation of health services, of which five were based on self-reported measures,^{29,36,41,42,46} and six studies used objective measures (medical records or clinical data).^{27,28,31,38,47,48} The proportion of asylum seekers accessing primary care services (facilitated by a nurse or general practitioner) ranged from 55 to 73% in the last 2 months^{36,42,46} to 81% over a 3-year timeframe.²⁷ Asylum seekers' annual primary care attendance averaged 5.8 visits per year in Switzerland,²⁸ 5.2 in the UK (double that of the host population)³⁸ and 3.4 in Australia.³¹ Annualised hospitalisation rates reported in two studies, as measured by the number of admissions in the previous 12 months, varied from 12⁴⁶ to 20%⁴² compared with 7% reported in the general population.⁴⁶ Medication prescriptions (any type) were a frequent outcome of primary care visits, with over half of encounters involving the recommendation or prescription of medication.^{31,38} The proportion of asylum seekers reporting recent medication use ranged from 39 to 72%.^{36,42,46}

Asylum seekers' utilisation of preventative health services, such as screening, health education and immunisation, as well as dental care, allied health and other specialist services were limited or not commonly measured. The few available data suggest that less than 25% of female asylum seekers in Blackwell *et al.* and Rogstad and Dale reported having undergone a cervical pap screening test (v. 62% reported in the host population),^{29,41} and overall preventative assessment, including general check-up and health education, occurred in 1 out of 20 encounters in Correa-Velez *et al.*'s study in Australia.³¹

Finally, in comparing the consumption and costs of health services by asylum seekers with a local comparable sample, Bischoff *et al.*²⁷ found that the mean (\pm s.d.) number of consultations over a 3-year period was 27 ± 50.9 among asylum seekers compared with 33.9 ± 26.7 among the host population. In addition, asylum seekers received shorter duration of care. Therefore, in economic terms, asylum seekers' average monthly cost to the health system was less than half that of the local population. In contrast, Maier *et al.*'s study into asylum seekers' use of health services found that they were more than twice as likely to consult a general practitioner or a specialist and their healthcare costs were 1.8 times higher than that of the local population.⁴⁸

Barriers and facilitators to healthcare

Nine qualitative studies were identified that provided information on barriers and facilitators to healthcare.^{8,49–56} Six major themes were identified within these studies.

Affordability

Inability to pay for medical consultation was cited as an inhibitory factor in some contexts where, at the time of the study, access to free healthcare was not universal.^{8,49,55,56} Aside from consultation fees, there appear to be other costs that serve as barriers, including the cost of transportation to appointments, difficulties paying for pharmaceuticals and other health-related expenses,^{8,52–56} including contraception.³⁵

Table 2. Qualitative studies: general study characteristics and quality appraisal

N/S, not specified

Author, country	Stated study objective(s)	Study design, setting	Sample size, participant characteristics	Quality rating ^A
Asgary and Segar 2011, ⁴⁹ United States of America	To better understand asylum seekers' experiences of poor access to healthcare	Focus groups and in-depth, semi-structured interviews 2 Human Rights Clinics Purposive sampling	<i>n</i> = 35 (+14 physicians: data not included) 19 countries 86% male Time since arrival: N/S; all <24 months Age: N/S; all <40 years	7/8
Bernades <i>et al.</i> 2010, ⁵⁰ United Kingdom; England	To assess asylum seekers' symptoms of psychological distress, and subjective experiences of the asylum process and mental health needs	Mixed methods: Mental health screening questionnaire (data not extracted) and in-depth, semi-structured interviews General health clinic and specialist mental health clinic Convenience sampling	<i>n</i> = 29 (only 8 interviewed) 13 countries 90% male Time since arrival: 0 to >84 months (mean 19.8 months) Age: N/S	3/8
Bhatia and Wallace 2007, ⁵¹ United Kingdom; England	To explore asylum seekers' and refugees' experiences of primary care	In-depth, semi-structured interviews Refugee support service Convenience sampling	<i>n</i> = 11 (73% asylum seekers) 7 countries 18% male Time since arrival: N/S; all <10 years Age range: 22–65 years (average N/S)	5/8
McLeish 2005, ⁵² United Kingdom; England	To describe the maternity experiences of asylum seekers	In-depth, semi-structured interviews Publicised through a range of health and welfare providers Convenience and snowball sampling	<i>n</i> = 33 19 countries All female Time since arrival: N/S Age range: 16–40 years (average N/S)	3/8
O'Donnell <i>et al.</i> 2007, ⁵³ United Kingdom; Scotland	Explore healthcare needs and barriers and facilitators to access for asylum seekers	Focus groups and in-depth, semi-structured interviews Community-based asylum seeker support groups Convenience sampling	<i>n</i> = 52 16 countries 40% male Time since arrival: N/S (most of the sample more than 3 years) Age: N/S	6/8
O'Donnell <i>et al.</i> 2008, ⁵⁴ United Kingdom; Scotland	To explore how asylum seekers' previous knowledge and experience of health care influences their current expectations	Focus groups and in-depth, semi-structured interviews Community-based asylum seeker support groups Convenience sampling	<i>n</i> = 52 16 countries 40% male Time since arrival: N/S (most of the sample more than 3 years) Age: N/S	6/8
Rees 2003, ⁵⁵ Australia	To summarise findings on the experiences of asylum seekers and the effect of prolonged asylum status	Mixed methods: cross-sectional questionnaire (not included) and in-depth, semi-structured interviews Recruitment site: N/S Purposive sampling	<i>n</i> = 23 All from East Timor All female Time since arrival: N/S Age: N/S	4/8
Spike <i>et al.</i> 2011, ⁸ Australia	To explore difficulties asylum seekers face in accessing primary care services	In-depth, semi-structured interviews Asylum seeker support centre Purposive sampling	<i>n</i> = 12 (1 refugee; +5 stakeholders: data not included) Many different geographic regions 67% male Time since arrival: range N/S (mean 3.4 years) Age range: N/S (more than half 40–59 years)	4/8

(continued next page)

Table 2. (continued)

Author, country	Stated study objective(s)	Study design, setting	Sample size, participant characteristics	Quality rating ^A
Wahoush 2009, ⁵⁶ Canada	To explore the health behaviours of refugee and asylum seeker mothers in accessing healthcare for their children	Focus groups and in-depth, semi-structured interviews Recruitment sites: N/S; network recruitment approach with multiple start points Purposive sampling	<i>n</i> = 55 (51% asylum seekers) Many different geographic regions All female Time since arrival: N/S (most between 1 and 2 years) Age: N/S	6/8

^A0–3, poor; 4–6, adequate; 7–8, high.

Poor health literacy and understanding of the health system

Many asylum seekers originate from low- and middle-income countries where the structure of the health system is very different to that of highly industrialised countries. The participants in the majority of the studies found navigating the healthcare system to be problematic due to inadequate knowledge of the availability of, and their eligibility for, health services.^{49,50,52–56} Problems cited were a lack of provision of health service information on arrival in the country, poor understanding of the concept of primary healthcare and referral pathways, and logistical difficulties in accessing a service. Social and community supports were seen as integral for providing information and resources to facilitate service access.^{49,51,52}

Perceived effectiveness and quality of health services

Participants complained of long waiting times for all types of services and a lack of continuity of care, which served as deterrents for future help-seeking.^{49,50,53,54} Continuity of care was perceived to be a facilitator to service access because it improved asylum seekers' trust and confidence in health professionals. Some asylum seekers were concerned about the 'generalist' role of doctors in primary care. They felt that GPs were not specialised enough or did not have sufficient knowledge about refugee health issues to be able to provide adequate care.^{49,53,54}

Medical mistrust

The participants in Asgary and Segar's study held concerns over the degree of confidentiality and security that was maintained with their health information. This appeared to be linked to the perception that the immigration and health systems were interconnected, and that their health information, lack of documentation or inability to pay would have an effect on the asylum process, or increase their risk of deportation or detention.⁴⁹ The participants of other studies expressed issues of trust relating to the presence of interpreters during consultations, as they could not be assured of the accuracy and quality of translation and whether confidentiality was upheld.^{50,51,53,54}

Discrimination and health professionals' attitudes

Themes of discrimination were highlighted in multiple qualitative studies.^{49–54,56,57} This included witnessed or observed hostility from staff, feeling that they weren't being respected, were being denied care or were offered a poorer quality of care as

a result of their race or immigration status. In contrast, staff that demonstrated kindness, listened carefully and built rapport with asylum seeker patients fostered a sense of trust and facilitated service access.^{49,51–54,57}

Linguistic and cultural factors

In most countries, asylum seekers are eligible for interpreter services in a range of health settings but communication and linguistic barriers were consistently described as major barriers to healthcare.^{8,49–51,53,54,56} Asylum seekers frequently encountered a lack of available, professional or culturally appropriate interpreters, resulting in the inappropriate use of family or friends as informal interpreters.

Discussion

Studies utilising both patient- and physician-reported data consistently demonstrate that asylum seekers have a high prevalence of one or more medical conditions, and where a comparison group is available, this is significantly greater than the host population. This is not limited to infectious diseases, as is commonly thought, but encompasses a complex array of acute and chronic medical conditions, reflected in asylum seekers' tendency to report their general health as poor. Cross-sectional studies correlating demographic risk factors, albeit limited, indicate that female gender, a history of experiencing violent conflict or pre-migration trauma, and a lengthy asylum process are associated with poorer health outcomes.

Patterns of healthcare consumption appeared to be high in most studies but varied between settings; heterogenous study designs and the absence of a comparative host sample in many studies made it difficult to contextualise these findings. Utilisation rates can reflect both morbidity patterns and health service entitlements or access, making interpretation somewhat challenging.⁵⁸ Bischoff *et al.* found that despite a higher number of diagnoses, asylum seekers had fewer medical consultations, shorter duration of care and lower costs than the host population,²⁷ suggesting that they face barriers in seeking care. These findings conflict with another study from the same country concluding that asylum seekers had more frequent consultations and higher costs.⁴⁸ The contradictory findings could be a result of different study methodology and costing models, but nevertheless highlight the difficulties in examining healthcare consumption.

Of the studies included in the review, only one quantitative³¹ and two qualitative studies^{8,55} were undertaken in Australia. Therefore findings from research conducted with asylum seekers

in other host countries should be considered in the context of the healthcare system, entitlements, socio-environmental factors, and other humanitarian policy such as the profile of asylum seeker intakes. For example, all countries identified in the research appear to have a health screening process for asylum seekers on arrival and most provide healthcare beyond emergency needs, but there are important differences in the extent and delivery of services. In the Netherlands a gatekeeper system is in place, where on-site in government-provided residences asylum seekers have access to a doctor or nurse whom they are required to see before being referred externally. In Switzerland and the UK, asylum seekers are allocated to or register with a primary care service in the community and provided with free, comprehensive health coverage. The Swiss example is particularly unique where research was embedded within a specialised, integrated primary care service founded within a tertiary teaching hospital, specifically to provide comprehensive primary care for asylum seekers. Data collected over a 3-year period were used to monitor the needs of asylum seekers attending the service and make improvements accordingly.

Implications for the Australian context

The above examples of other host countries are in contrast to Australia, where health services are fragmented and increasingly difficult to navigate for asylum seekers and health providers alike, and very limited data are collected on asylum seekers attending public health services. The findings from qualitative data suggest that asylum seekers face many barriers in accessing care, which presents opportunities for improvements that could be adopted in the Australian context. Due to their unique and diverse health profiles, linguistic barriers, cultural differences and longer consultation requirements, some health professionals may be under-resourced or reluctant to provide care to asylum seekers.⁵⁹ The continued development and wide dissemination of evidence-based clinical guidelines, innovative service models and incentives for professional development need to be complemented with a national cultural competence framework to assist health professionals to better meet the needs of asylum seekers. Specialist refugee health roles, such as Refugee Health Fellows and Refugee Health Nurses, as well as bicultural health and welfare workers can be integral resources for other health professionals seeking advice and support.

Other policy considerations to improve access and health outcomes for asylum seekers in Australia include the adoption of universal access to Medicare, the Pharmaceutical Benefits Scheme and the provision of Health Care Cards to those meeting eligibility criteria. This would make healthcare and medications more affordable, reduce the burden on community services willing to provide fee-free consultations⁶⁰ and address the inconsistencies between state fee-waiver directives for Medicare-ineligible asylum seekers.^{61,62} Reducing such inequities for asylum seekers is likely to prevent long-term health complications due to delayed intervention⁶³ and perhaps provide greater uptake of preventive services.

In Australia, asylum seekers are not eligible for many of the settlement services provided to refugees, such as extensive information and orientation, language classes, Centrelink income

benefits, skills training and employment services. Being largely dependent on community welfare organisations disempowers individuals and exposes them to greater health risks as they face poverty and homelessness.^{64,65} More research into social and environmental factors that may increase the susceptibility of asylum seekers to poor health is urgently required. Addressing such determinants of asylum seeker health requires a framework that seeks greater collaboration between health and welfare organisations and policy makers.

Limitations

There were several limitations in the quality of the studies reviewed, which should be acknowledged. Although a few studies did use random sampling from non-clinical settings, there was a tendency to recruit convenience samples through health and support centres. This may have resulted in an over-representation of health problems, or a bias toward those already seeking care and with greater social supports, rather than the more marginalised asylum seeker population. Other limitations include the predominance of cross-sectional methodology, reliance on self-reported health data, inadequate survey instruments that were not always cross-culturally validated and back-translated, and a lack of testing of the reliability of interpreters.

There were also some challenges and limitations in conducting this systematic review. Incorrect or inexplicit use of the correct legal terminology related to asylum seekers may have resulted in the unintended exclusion of some articles, as the broader term 'refugees' was not used in the database search. Despite the heterogeneity of study designs, inclusion of qualitative studies enabled the assessment of complex concepts and triangulation of data.

Conclusion and policy implications

Asylum seekers residing in community settings while they await a decision on their refugee status have a disproportionate burden of physical morbidity that is not only limited to infectious diseases, but also chronic, non-communicable conditions and sexual and reproductive health issues. There are several unique factors that place them at greater risk of poorer health outcomes, some of which are related to the host country environment and amenable to intervention. There are a multitude of barriers that continue to impede healthcare access for asylum seekers. Despite increasing numbers of people seeking asylum in many countries throughout the world, little research has been conducted to help us understand the health needs of this vulnerable group. Further studies are urgently required to promote the development of policy and a national cultural competence framework to guide the provision of healthcare to asylum seekers and to address the current health inequities they face.

Conflicts of interest

The authors report no conflicts of interest.

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