# The primary health care service experiences and needs of homeless youth: A narrative synthesis of current evidence

**INTRODUCTION**

Homeless youth (15- 24 years), are one of five groups, who according to the Australian Institute of Health and Welfare (AIHW) have the greatest social and economic disadvantage in Australia with the poorest levels of health ([AIHW, 2010](#_ENREF_2)). In Australia, each night the Department of Families, Housing, Community Services and Indigenous Affairs (DFaHCSIA) estimates that 50,000 Australians under the age of 24 years are homeless ([DFaHCSIA, 2008b](#_ENREF_20)) with numbers increasing, particularly in urban areas according to the Australian Bureau of Statistics ([ABS, 2009](#_ENREF_1)). Homelessness is defined in both absolute (living on the streets) and relative terms (in temporary, emergency or boarding house accommodation). Young people who are homeless experience significant negative social and health consequences including high rates of mental health problems, such as depression and schizophrenia, behavioural disorders and disrupted schooling; the latter a further significant risk factor for a range of poor social outcomes ([Yu et al., 2008](#_ENREF_57)). Young people who become homeless face increased risk of exposure to physical and sexual assault, poor nutrition and inadequate shelter ([Kulik, 2011](#_ENREF_30)), and are more likely than other youth to engage in risky behaviours such as tobacco use, drug and alcohol abuse ([Rosenthal et al., 2008](#_ENREF_46)), and unsafe sex ([Milburn et al., 2007](#_ENREF_35)).

As a result, homeless youth are disproportionate users of health services ([Chin et al., 2011](#_ENREF_13)) with many health problems not diagnosed and treated until they are at an advanced stage ([Power et al., 1999](#_ENREF_44)), resulting in potentially poorer outcomes in human terms and placing additional strain on the health system. Therefore, there is an imperative to prevent homelessness and associated inequity and enable all young Australians to fully participate in a rewarding economic and social life. According to the World Health Organization (WHO), good health is essential to this and it is at the primary health care level where providers can best focus on delivering early interventions that prevent long term health and social disadvantage in collaborative ways that engage youth and their families ([WHO, 2008](#_ENREF_55)).

**BACKGROUND**

*The need for a synthesis of the evidence*

The Australian government is currently investing in strategies to address homelessness ([DFaHCSIA, 2008a](#_ENREF_19)) but the evidence base for how health care should be best delivered to this population is not always rigorously documented. Since 1989 the Commonwealth government, together with the State and territories have funded an ‘Innovative Health Services for Homeless Youth’ programme that provides a range of primary health services targeting homeless and high-risk young people. Successive reviews have indicated client support and benefits but this is based on limited data and is largely anecdotal ([Miller et al., 2007](#_ENREF_36)). Comprehensive data on the use of government-funded specialist homelessness services ([AIHW, 2011](#_ENREF_3)) is available, providing insight into the services youth seek, the reasons why they sought it, and if their needs were met. This does not however, provide detailed information on primary health care (PHC) services and non-government funded specialist services accessed by homeless youth.

The First National Primary Health Care Strategy (Australian Department of Health and Aging DoHA) ([2010](#_ENREF_21)) recognises the need to create linkages and coordination mechanisms between Medicare Locals and other state and territory services that interact with the health system, to address the needs of vulnerable groups such as children at risk, people with serious mental illness and homeless Australians. However there are few comprehensive research investigations into how current PHC needs of Australian homeless youth are and should be effectively addressed. The aim of this paper is to synthesise current research on homeless youth experiences of PHC delivery and contribute an understanding of how PHC can be optimised to address the health needs of youth.

*Defining Primary health care and health needs*

This paper defines PHC as socially appropriate, universally accessible, scientifically sound first level care supported by integrated referral systems in a way that addresses health inequalities; maximises community and individual self-reliance, participation and control; and involves collaboration and partnership with other sectors to promote public health. It encompasses health promotion, illness prevention, treatment and care of the sick, community development, and advocacy and rehabilitation ([APHCRI, 2005](#_ENREF_4)). Health needs include personal and social care, health care, accommodation, finance, education, employment and leisure, transport and access ([Mohsen et al., 2003](#_ENREF_38)). Needs are not only about the inputs required from the individual consumer perspective which is the focus of this paper, but also on outcomes from a health systems standpoint. Assessing PHC needs should not just be medical or economic in focus but must consider health equity, prevention, recovery and rehabilitation and health promotion ([Bradshaw, 2005](#_ENREF_11)).

*Models and approaches to PHC delivery for homeless youth*

Beer and colleagues ([2003](#_ENREF_10)) have outlined various levels of service interventionfor homeless youth that can all be delivered at PHC level. Primary interventions (not to be confused with PHC) address homelessness before it occurs by offering youth supports so they will not become at-risk. Secondary programming targets youth who are at high risk for homelessness and provides support through counselling or referral to other community agencies. These supports can be applied in various settings such as schools using peer support networks ([Beer et al., 2003](#_ENREF_10)). Tertiary supports involve interventions when homelessness has actually occurred. The goal of this type of intervention is outcome-oriented; that is, these programs assist homeless youth in securing safe and independent accommodation ([Skott-Myhre et al., 2008](#_ENREF_48)).

Table 1.

|  |  |  |
| --- | --- | --- |
| Model/ approach | Level of programming | Examples of services provided / service name |
| Outreach Models | Primary and secondary | Preventative focus: health education, social marketing, peer education, referral and advice provided through drop in centres, mobile vans or units. |
| Intensive Support Models | Secondary | Detoxification or mental health services, counselling, referral and advice provided through drop in centres, mobile vans or units. |
| Generic and Crisis Models | Tertiary | Short term accommodation/ emergency shelter offering substance abuse counselling, needle and syringe exchange, legal aid, abuse or sexual assault counselling, referral and advice. |
| Coordination Models (Continuum of Care) | Tertiary | Clinical services, STI screening, treatment and referral, mental health assessment treatment and referral, counselling, information health education, needle exchange, oral health check and referral, health promotion and education, life skills.Additional services includingshower, clean clothes and meals, financial social welfare advice, legal, employment advice. Provided through a clinic based health facility or one-stop-shop. |

Adapted from ([Beer et al., 2003](#_ENREF_10); [Skott-Myhre, 2008](#_ENREF_49))

Other literature suggest that a Youth friendly Service (YFS) model may be a way forward for PHC provision but, little evidence is available, since many of these initiatives have not been appropriately assessed ([Tylee et al., 2007](#_ENREF_54)) and homeless youth are rarely considered. A youth centric health care model for homeless youth ([Barry et al., 2002](#_ENREF_9)) has also been suggested but remains untested.

A number of reports ([Beer et al., 2003](#_ENREF_10); [Brechman-Tousaint et al., 2010](#_ENREF_12); [Keast et al., 2008](#_ENREF_28)) outline service delivery experiences but PHC is not always a feature of these projects, programs or services. Service delivery experiences involving homeless youth have been included in other reports where PHC delivery for young people is a concern ([Loxton et al., 2007](#_ENREF_33); [NMHWG, 2004](#_ENREF_40); [Szirom et al., 2004](#_ENREF_53)). These reports are therefore not only limited in relevance but most rely upon evaluations with unclear methods and lack methodical reviews of the research literature. There are also no systematic reviews that identify best practice for addressing the PHC needs of homeless youth. This highlights an international knowledge gap revealing a need for a synthesis of the research literature to determine the extent and quality of the evidence base to inform PHC policy and service delivery.

The aim of this paper is to synthesise current research on homeless youth experiences of PHC delivery. This paper reports the findings of a narrative synthesis designed to determine: 1.) the PHC services homeless youth access, 2.) experiences of services, reported outcomes and barriers to use. 3.) the PHC service needs and gaps of homeless youth. These findings will contribute to an evidence-based understanding of how PHC can be optimised to address the health needs of youth.

**METHOD**

An initial scoping exercise of four databases was conducted and revealed that the relevant research literature comprises a diverse array of quantitative and qualitative study designs which does not allow for the pooling of research results. No randomised control studies were identified, therefore we decided that information from observation studies would be considered eligible for inclusion alongside quasi experimental and non-experimental descriptive studies. Based on this, a narrative synthesis methodology was selected to analyse the peer-reviewed research papers and was conducted as per current guidelines ([Arai et al., 2007](#_ENREF_5); [Popay et al., 2006](#_ENREF_43)).

*Search Protocol*

A systematic search of the literature was conducted between 2000 and 2011 was carried out using key words: *adolescent, youth, at risk, homeless, service* and *primary health.* Electronic bibliographic databases, the Google Scholar search engine and reference lists were searched for relevant literature (Table 2.).

Table 2.

|  |  |
| --- | --- |
| Database | Records retrieved |
| CINAHL  | 96 |
| PyscInfo | 11 |
| EBM Reviews: Cochrane Database of Systematic Reviews | 8 |
| Campbell Collaboration | 8 |
| MEDLINE | 358 |
| PubMed | 23 |
| ScienceDirect | 224 |
| Web of Science | 237 |
| ProQuest | 193 |
| Google Scholar | 1 |
| Hand searching from reference lists of retrieved items | 7 |
| Total | 1116 |

Retrieved records were screened for their focus on service delivery for homeless youth with homeless youth as the study factor. Papers which were duplicates, not data-based, older than 10 years, whose focus was not PHC service delivery, reported PHC service delivery from the perspective of service providers or had very few homeless youth participants were removed from the sample. The PRISMA guidelines ([Moher et al., 2009](#_ENREF_37)) were used to report process as shown below at Figure 1.

Fig. 1



*Appraisal of quality*

All 13 papers were appraised to establish if the research aim and the methodology used were aligned and to evaluate the recruitment, settings, data analysis, ethics, findings and contribution to knowledge. The 6 qualitative papers were assessed for quality using the Critical Appraisal Skills Programme (CASP) tool for qualitative research ([NHS, 2006](#_ENREF_39)) and the 6 non experimental studies were assessed using Law’s Critical Review Form ([Law et al., 1998](#_ENREF_31)). Finally the mixed methods paper was assessed using a scoring system designed for this purpose ([Pluye et al., 2009](#_ENREF_42)). One item was discarded as quality was deemed low with no mention of ethical processes and insufficient discussion of focus group analysis.

*Data abstraction*

The results sections of each of the 12 papers were analysed to identify the health service needs of homeless youth and determine their experiences of primary health care. A thematic analysis was conducted by the first author using tables and discussed with the second author to critique and reach consensus.

*Data synthesis*

The relationships within and between studies was explored and coded under each theme. A concept map was built to plot patterns and relationships across the themes and sub themes using mind manger software.

**FINDINGS**

Eight papers were retrieved through searching electronic databases, one through Google scholar and three from the reference list of discursive papers retrieved but not included in the analysis. Table 3 provides a summary of studies included in the synthesis with the context, methods, sample and aim. Ten of the papers feature American urban contexts while the remaining two focus on Australian metropolitan settings. Homeless youth reported sexual, gastric, respiratory, oral and dermatologic infections, mental health issues, substance misuse, unprotected sex, needle sharing, violence and rape. Participants described histories of poverty, limited education and a lack of social support and family conflict. Six themes emerged around service use and experience that are described below.

*Service accessed*

Homeless youth accessed a variety of outreach, community health and hospital services and in Woods et al. study ([2002](#_ENREF_56)) homelessness was not a predictor of service type at first contact. Youth accessed a number of PHC facilities, service types and approaches including drop in centres, clinics, programs across a network of agencies, outreach provided by mobile vans and services within shelters and emergency accommodation. For non-urgent health issues common access points were free clinics and mobile clinics while they used local emergency departments and hospitals for urgent and more complicated conditions. Female youth most frequently cited “prenatal care” health services as those they accessed most ([Christiani et al., 2008](#_ENREF_14)).

*Service accessed and interventions received*

The interventions homeless youth received were detailed in two studies. In Woods et al. ([2002](#_ENREF_56)) an HIV program across a network of multiservice outreach agencies, community health centres and hospitals provided HIV prevention/risk assessments, HIV counselling and testing service (CTS), medical care, case management, mental health counselling or support group. In this study homeless youth represented just over 10% of the sample and it is not clear what percentage of this population received specific interventions. However overall young women more likely to have received prevention/HIV risk assessment (68% vs. 54%, *p* , 0.001), HIV CTS (59% vs. 48%, *p* , 0.001), and case management (25% vs.20%, *p ,* 5 0.016) than young men. The first visit was more likely to be deemed primarily about treatment among young men (31% vs. 23%, *p* ,0.001), and more likely to be deemed primarily about prevention among young women (70% vs. 65%, *p* 5 0.015).

PHC interventions and referrals described in Aviles et al. ([2004](#_ENREF_8)) were delivered within the context of a service that provided short-term accommodation for homeless youth. Youth were assigned a case manager to develop an individualized service plan for schooling, job training, job searching, transport, medical and prenatal care, mental health, substance abuse, and family reunification. Youth received on-site case management and referrals for off-site programs, such as mental health, employment, and education programs.

*Health and social outcomes of interventions received*

Two papers outline the health and social benefits of PHC interventions delivered to homeless youth through two different approaches. A street outreach program intervention to promote sexual health run from a service centre ([Rew et al., 2007](#_ENREF_45)) resulted in a significant increase in AIDS/HIV knowledge (p< 0.001) and while there were no changes in behaviour, gender differences in self-care and safe sex behaviour supports male and female specific interventions. Another program run through a drop in centre indicates that therapy and case management alongside improved housing can impact upon mental health and substance use outcomes over time ([Slesnick, 2008](#_ENREF_50)). Among those who received Community Reinforcement Approach therapy and case management over 12 months and who were housed in this period and in the preceding 6 months showed a significant decrease in emotional distress and reduced drug and alcohol usage among those who reported use at pre intervention.

*Factors facilitating usage*

Eight papers provided insight into the factors that facilitated youth usage of services. Perceived need and problem awareness was found to determine mental health service usage ([Soloio et al., 2006](#_ENREF_51)). Problem awareness was also reported by other youth to drive their mental health service use along with motivation to seek counselling ([French et al., 2003](#_ENREF_23)). Previous experience of services and positive perceptions of counselling affected health care seeking behaviour ([French et al., 2003](#_ENREF_23)) and the availability of a case manager and/or youth worker ([Aviles, 2004](#_ENREF_8)). However shelter-based youth said that health care was not usually a priority until they became ill or injured and they did not have a regular PHC service provider ([Ensign et al., 2004](#_ENREF_22)).

Youth satisfaction with services delivered by a variety of community agencies was associated with those perceived to be well organised and provide a safe environment with friendly caring staff who listened, promoted skill development, and engaged youth in positive thinking ([Heinze et al., 2010](#_ENREF_25)). Youth valued a service with a mobile clinic where their prescriptions could be given and then filled at a central agency facilitated by phone call from the doctor ([Christiani et al., 2008](#_ENREF_14)). Agency facilitated contacts with other health and employment organizations and activities that involved families, romantic partners and schools were highly regarded by youth ([Heinze et al., 2010](#_ENREF_25)). Safe environments were sought by younger youth at drop in centres ([Shillington et al., 2011](#_ENREF_47)). Youth were drawn to facilities that were perceived to be attractive ([French et al., 2003](#_ENREF_23)) with resources in waiting rooms such as educational materials and ([Christiani et al., 2008](#_ENREF_14)), as well as options for recreation ([Shillington et al., 2011](#_ENREF_47)), with the availability of food ([Hudson et al., 2010](#_ENREF_27)) as well as acupuncture and other complementary health care regarded as an added attraction ([Ensign et al., 2004](#_ENREF_22)).

Key provider attributes such as staff availability, listening skills, supportive and non-judgmental approaches were valued by youth and noted at accommodation facilities providing PHC ([Aviles et al., 2004](#_ENREF_7)) and at community outreach services ([Heinze et al., 2010](#_ENREF_25)). However, staff attitudeswereperceived to bemore positive in private healthcare facilities where staff were seen as more welcoming and respectful and an increased level of facilities was offered ([Darbyshire et al., 2006](#_ENREF_15)). In contrast, a free clinic in Los Angeles was identified by youth as a model for best practice ([Christiani et al., 2008](#_ENREF_14)). Here youth appreciated staff that did not keep them waiting, listened and discussed health care options with them. Homeless youth were not “hassled” when they lost their patient identification cards and were reissued cards without a lecture. In addition their preference for healthcare delivery was accommodated at sites already known to and frequented by homeless youth (such as drop-in shelters).

The location of services and access to them was a key factor affecting usage. Street-based youth liked the convenience of the medical van ([Ensign et al., 2004](#_ENREF_22)) and appreciated staff who provided assistance with transportation needs to school ([Aviles et al., 2004](#_ENREF_7)) and when outside health care or referrals were required ([Christiani et al., 2008](#_ENREF_14)). Some service locations were avoided such as downtown where the “old drunks hang out” and where health and social services for older homeless adults are concentrated ([Ensign et al., 2004](#_ENREF_22)). Knowledge of services was also highlighted as central to access ([French et al., 2003](#_ENREF_23)) which was often provided by peers ([Aviles et al., 2004](#_ENREF_7); [Hudson et al., 2010](#_ENREF_27)) and assertive staff follow up ([French et al., 2003](#_ENREF_23)).

*Barriers to service use*

Barriers to service use included physical access and lack of knowledge of service location; poor provider attitudes, previous experiences of service and service co-ordination; financial constraints; inappropriate environment; embarrassment; and lack of control, confidentiality and treatment options. Access barriers included the service being too far away, not open when needed, limited clinic sites, long waiting periods required for appointments, and narrow eligibility criteria for the service.([Ensign et al., 2004](#_ENREF_22); [Hudson et al., 2010](#_ENREF_27); [Soloio et al., 2006](#_ENREF_51)). In addition youth stated that they didn’t know where services were or which one to use ([Soloio et al., 2006](#_ENREF_51)) with many youth feeling inadequately prepared to navigate the health care system ([Ensign et al., 2004](#_ENREF_22)). This lack of early knowledge led to missed opportunities for early intervention ([French et al., 2003](#_ENREF_23)).

Staff attitudes were a key concern with youth under 18 years reporting being “hassled” about their ability to consent for care and resulted in care being withheld ([Ensign et al., 2004](#_ENREF_22)). Public health staff were reportedly officious and dismissive with hasty assessments accompanied by a lack of explanation and use of medical labelling ([Ensign et al., 2004](#_ENREF_22); [Hudson et al., 2010](#_ENREF_27)). This led to youth feeling vulnerable, lacking personal control and afraid when referred to hospital ([Darbyshire et al., 2006](#_ENREF_15)). Other youth were concerned about judgmental staff attitudes, prescriptive approaches and poor understanding of the unique situation of homeless youth which they felt was related to inadequate ([Christiani et al., 2008](#_ENREF_14)).

Financial issues played a major role in preventing access to services. Youth reported having no money to get to facilities and the cost of the service being prohibitive. Many youth who were over 18 years had increased difficulty obtaining and keeping health insurance ([Ensign et al., 2004](#_ENREF_22)) and youth could not afford to purchase prescribed medications ([Christiani et al., 2008](#_ENREF_14)). A lack of health insurance was considered a serious barrier to accessing care([Hudson et al., 2010](#_ENREF_27)).

Youth oftenfelt too nervous or embarrassed to talk about their problems ([Ensign et al., 2004](#_ENREF_22)) as well as being afraid and distrustful of the health system. They were also concerned about confidentiality particularly in the case of shelter-based clinics where everyone seems to know “everybody’s business” ([Christiani et al., 2008](#_ENREF_14)) and that providers would contact family, social workers or police ([Soloio et al., 2006](#_ENREF_51)). Youth expressed discomfort in being lumped together with older homeless patients and indicated a desire for homeless youth centred services ([Christiani et al., 2008](#_ENREF_14)). Young homeless parents with children in their care noted that emergency accommodation was unsuitable for young children who were often exposed to swearing and inappropriate behaviours of other clients ([Aviles et al., 2004](#_ENREF_7)).

A lack of coordination between service providers according to some youth lead to the unavailability of “one stop shopping” for health needs particularly in respect to accessing prescribed medications. Youth described the proliferation of agencies with endless bureaucratic requirements involving interagency referrals, the need for identification cards, time-consuming paperwork, and lack of continuity of care ([Christiani et al., 2008](#_ENREF_14)).

*Service needs or gaps*

The needs identified across the papers included enhanced access to appropriate, culturally relevant health education materials and social marketing of services ([Darbyshire et al., 2006](#_ENREF_15); [Ensign et al., 2004](#_ENREF_22); [French et al., 2003](#_ENREF_23)). Youth identified a need for the improved co-ordination of free, youth focused services particularly with respect to mental health care and drug dispensing and the provision of a ‘one-stop shop’ where all services could be accessed ([Aviles et al., 2004](#_ENREF_7); [Christiani et al., 2008](#_ENREF_14); [Darbyshire et al., 2006](#_ENREF_15)).

A mentor programme was suggested by some youth as well as linked health records across agencies reducing the need for youth to repeat their history and carry paper work. Gaps in service provision includeddental care, care for chronic conditions such as diabetes, asthma, and back pain, dental care, mental health, and culturally appropriate, nonjudgmental drug treatment programs. Childcare was lacking particularly at services that provided accommodation impacting upon the ability of young parents to seek employment ([Aviles et al., 2004](#_ENREF_7)).

**DISCUSSION**

Study of this literature shows that youth seek and receive a diversity of PHC services but there is limited evidence regarding which PHC delivery approach, as describe by Beer and colleagues ([2003](#_ENREF_10)) may best address the health and social needs of homeless youth. Street based outreach linked to clinics and drop in centres providing case management linked to housing services show some promise. This suggests that targeted, co-ordinated networks of PHC and accommodation services that provide continuity of care for homeless youth may have some benefits. This is consistent with the findings of a number of programme evaluations such as the model of care for homeless youth with mental health issues involving the alignment of psychiatric services and youth homelessness services in Melbourne ([Hill, 1997](#_ENREF_26)). Other authors have described the use of targeted PHC for vulnerable groups such as injecting drug users who are frequently homeless ([Day et al., 2011](#_ENREF_16); [Linnell et al., 2010](#_ENREF_32)). A major report into mental health provision for youth in Australia recommends six principles with associated strategies that may provide a useful way forward for programme design for homeless youth. These principles of accessibility and engagement, consumer and carer involvement, preventative approach with a recovery focus, continuity of care, workforce and workforce performance, quality and performance ([NMHWG, 2004](#_ENREF_40)) may need to be considered alongside other structural dimensions of PHC such as governance and economics and equity in health outcomes ([Kringos et al., 2010](#_ENREF_29)).

Youth experiences of PHC services, their reported outcomes and barriers to service use synthesised in this review provide insight into factors that should be considered in service provision for homeless youth. Appropriate facility opening hours, short waiting times, accessible locations, staff with empathetic and positive attitudes, co-ordinated free services were well received. The Department of Education and Early Childhood Development ([DEECD, 2012](#_ENREF_17)) in Victoria, Australia is trialling new ways to improve access and uptake to appropriate health care for homeless youth that incorporates many of these features. Seven demonstration sites are testing common assessment tools and referral practices and coordinated access points to the service system for homeless youth with a focus on early intervention. The initiative is funded until mid-2013 when the results of the study will be available.

The narrative synthesis found that service focus and networks are not only key but that a range of individual and provider factors facilitate uptake giving insight into how services can be improved to enhance access. Youth recognition of need and knowledge of services could be enhanced through strategies such as those employed in the Philippines. Here youth peer health educators use a checklist to refer homeless youth to health service so that they can received free, tailored services ([McIntyre et al., 2002, p. 33](#_ENREF_34)). This could also contribute to the selection of suitable future PHC professionals.

Although the American papers included in the synthesis discussed financial barriers to services, declining rates of bulk billing in Australia have been found to represent a significant financial obstacle to homeless people accessing general practice services ([Department of General Practice, 2004](#_ENREF_18)). Sustainable services for homeless youth can only be guaranteed in Australia through continued public funding of appropriately trained medical and nursing staff working alongside community and social workers. However, in order to ensure accessible and acceptable PHC services the voices of youth must be incorporated into quality improvement systems. To this end the Australian Government has recently released a consultation paper on practice-level indicators of safety and quality for primary health care ([2010](#_ENREF_6)). A review of the research evidence is timely to feed into the development of such indicators for vulnerable groups to optimise health outcomes and improve health systems ([Starfield et al., 2005](#_ENREF_52) ).

*Implications for nursing practice and future research*

Nurse led interventions ([Day et al., 2011](#_ENREF_16); [Nyamathi et al., 2009](#_ENREF_41)) integrated with youth development and leadership programs that promote pro-social bonding, cognitive, social and emotional competence and self-determination ([Gavin et al., 2010](#_ENREF_24)) may offer a way forward for homeless youth health service programming. In terms of nursing practice this may involve collaborative community based work that brings together professionals across the education, youth and family support, justice and health sectors. Future intervention studies could assess the success of such approaches.

*Limitations*

This review includes only published peer-reviewed studies, and is thus susceptible to publication bias. It excluded grey literature and foreign language journals, and was limited to a 10 year time period due to funding and time constraints. Hand searching was undertaken using the reference lists of articles which facilitated the inclusion of published peer-reviewed studies that were not retrieved through the selected search routes. Although it is acknowledged that a consideration of health needs must also include the perspective of the supply side this was beyond the scope of the review. Furthermore, we recognise that the health system context of the studies in the review have a major bearing on the synthesis findings. For example universal access to health care is provided in Australia whereas not all youth have national insurance and must pay for their care. Despite this we believe that the findings provide insight into critical issues that have relevance to all developed country contexts.

*Conclusion*

Homeless youth are a growing and very vulnerable group in the community. They have a high risk of actual and potential health problems, and require targeted, age and context appropriate health support if they are to maintain optimal health. This review has highlighted the needs and experiences of homeless young people themselves and provides consumer insights into the factors enhancing or impeding service use, and highlights young people’s view on gaps in current services. Future reviews on PHC for homeless youth from the viewpoint of providers and policy makers would provide further important perspectives that could assist in better meeting the needs of this vulnerable group.

**Table 3.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Reference** | **Context / focus** | **Method/data gathering** | **Sample** | **Aim/s/objective/ purpose** |
| ([Aviles, 2004](#_ENREF_7)) | USA, Chicago | Descriptive qualitative semi-structured life history interviews rated using the Occupational Performance History Interview tool and analysed using constant comparative method | 30 English speaking homeless youth residing in an emergency shelter in a large metropolitan area, 13% 15-17yrs, 86%18- 21yrs, 70%Afro American, 20% Latino, 0.07% White, 0.03% Other, 33% High School drop-out, 33% High School graduate, 10% currently in High School, 10% some college, 17% parent with child, 0.06%, parent without child, 10% pregnant, 64% unemployed, 10% never employed. | To establish how youth identify, access and utilise services  |
| ([Christiani, 2008](#_ENREF_13)) | Los Angeles, California | Descriptive qualitative: 6 focus group discussions | 54 homeless and drug-using youth, aged 18-24 years, recruited from 1 street- and 1 shelter-based setting. Average age of 20.5 years (range 18–25 years); 44% of participants were African American (n = 24); 24% were Anglo-Americans (n = 13); 22% were Hispanic Americans (n = 12); with the remainder identifying themselves as Native American (n = 2), Asian/Pacific Islander (n = 1), or Other (n = 2). Approximately two thirds were male (n = 37). | Identify attitudes of homeless and drug-using youth regarding barriers and facilitators in delivery of quality and culturally sensitive health care |
| ([Darbyshire, 2006](#_ENREF_14)) | Australia, Adelaide / mental health | Descriptive qualitative: semi structured interviews | 10 homeless young people accessing a supported accommodation assistance programme, (seven females and three males) aged from 16 to 24 years of age, who had experienced mental health problems  | Describe the perspectives and experiences of young homeless people with mental health problems in relation to their interactions with health and social care services. |
| ([Ensign, 2004](#_ENREF_20)) | USA, Seattle | Ethnography: interviews followed by focus group discussions | 45 homeless youth aged 15 to 23 years using clinic and street-based services. 20 years (range 15 to 23 years). 80% White, 13% African American, 7% Hispanic/mixed race. | To document the illness and service experiences of homeless youth |
| ([French, 2003](#_ENREF_21)) | Australia, Perth /Mental health | Grounded theory: Interviews and follow up interviews | 16, M=17yrs, homeless or at risk of homelessness youth clients of a mental health  | To determine what factors affect the engagement of at-risk youth at mental health services? |
| ([Heinze, 2010](#_ENREF_22)) | USA Midwestern metropolitan area | Descriptive questionnaire design with regression analyses | 133 youth (42 boys and young men; 91 girls and young women) clients of six community agencies. 31.6% male, 68.4 female, age M= 17.7, 24.8 %white, 61.7% Black, 5.3% Latina/o, 7.5% other. | Examine program characteristics, resources and positive development opportunities that exist within programs for homeless youth and youth at risk for homelessness |
| ([Rew, 2007](#_ENREF_40)) | USA, Texas / sexual health  | Quasi-experimental repeated measures design at three time points (pre-intervention, immediately post-intervention and follow-up) via laptop computers were analyse d using multivariate general linear mixed models | 572 homeless 16—23-year-olds (M = 19.467+1.89) clients of a street outreach program. 58%, males, 33% female 5% no answer, 62% heterosexual, 21% bisexual, 2% gay, 3% transgender, 7% unsure, 3% no answer, 55% White, 16% Latino, 9% multi ethnic, , 8% African American, 6% other, 4% no answer, 2% American Indian, age of first sexual intercourse in years (mean 13.91, SD 3.26) and time homeless in months (mean 20.07, SD 26.82). 218 (38%) reported experiencing sexual abuse. | Determine effectiveness of a short intervention to promote sexual health in was conducted |
| ([Shillington, 2011](#_ENREF_42)) | USA, Southern California /Sexual health | Descriptive survey design | 96 homeless adolescents attending one of two drop-in centers  | To determine the characteristics and preferences of clients |
| ([Slesnick, 2008](#_ENREF_44)) | USA urban south-west | Quasi experimental before and after study using semi structured and self-report questionnaires | All youth (n=172) between the ages of 14-24 (M=19.96 years) who accessed treatment services at a drop in centre. 41 % female, 59% male, White (37.2%), Hispanic (31.4 %), Native American (12.2 %t), African American or black (7.6 %), and mixed ethnicity (11.6 %). Average % days housed in last 90 days was 23 % (range: 0–100 %), with 109 youth (63.4 %) reporting no days housed during the past 90 days. Years of education in this 6-16 years (M=10.54 year). The average % days that youth reported using drugs or alcohol at baseline was 31.4%. The mean baseline % days of being housed was 23 % (SD=35, range: 0–100%), being employed was 16 % (SD=24,range: 0–89%), being in school was 7 % (SD=17, range: 0–100 %), being seen for medical care was 1 % (SD=2.0, range: 0–16 %), and the mean baseline psychological distress score was 0.96 (SD=0.76, range: 0–3.15) | To evaluate the impact of case management and individual therapy offered through a drop-in center for homeless youth on substance use, mental health, housing, education, employment, and medical care utilization |
| ([Soloio, 2006](#_ENREF_45)) | USA, Los Angeles /mental health | Descriptive survey using audio computer-assisted self-interview | Adolescents (N=688) from 30 community sites and outdoor congregating areas, 12-20 years and who have spent at least two consecutive nights away from home without parents or guardians permission if under age 17 years or been told to leave home. 218 (32%) perceived a need for help with depression/anxiety/other mental health problem. Among all youth in the sample, 100/218 (15%) met Brief-Symptom Inventory (BSI) criteria for emotional distress.  | To examine the predisposing, enabling, and need factors associated with mental health service use |
| ([Woods, 2002](#_ENREF_50)) | USA, Boston / HIV | Descriptive survey: encounter-driven contact and intervention (i.e., health services) information was collected by providers at each visit concerning the clients served and services used at participating sites over 4 year period | 2116 program participants accessing HIV program across network of multiservice outreach agencies, community health centres and hospitals: 1346 females, 761 males, 55.4% white, 20.9 %African American, 18.4 % Hispanic, 3.4% Asian, 10.2 % homeless, 83.6 % heterosexual, 1.8 % HIV positive  | To evaluate the factors associated with initiation of services in the Boston HAPPENS Program |

**Table 4.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Reference | Service accessed  | Health and social outcomes | Factors facilitating usage | Client barriers to service  | Service needs or gaps  |
| Aviles, A., Helfrich, C. (2004) | ✓ |  | ✓ | ✓ | ✓ |
| Christiani, A., A. L. Hudson, et al. (2008) | ✓ |  | ✓ | ✓ | ✓ |
| Darbyshire, P., E. Muir-Cochrane, et al. (2006) | ✓ |  | ✓ | ✓ | ✓ |
| Ensign, J., Bell, M. (2004) | ✓ |  | ✓ | ✓ | ✓ |
| French, R., M. Reardon, et al. (2003) | ✓ |  | ✓ | ✓ | ✓ |
| Heinze, H. J., D. M. H. Jozefowicz, et al. (2010) | ✓ |  | ✓ |  |  |
| Rew, L., R. T. Fouladi, et al. (2007) | ✓ | ✓ |  |  |  |
| Shillington, A. M., C. A. Bousman, et al. (2011) | ✓ |  |  |  |  |
| Slesnick, N., M. J. Kang, et al. (2008). | ✓ | ✓ |  |  |  |
| Soloio, M. R., Milburn, N., et al. (2006) | ✓ |  | ✓ | ✓ | ✓ |
| Woods, E. R., Samples, C. L., et al. (2002) | ✓ |  |  |  |  |

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