Sustaining dignity? Food insecurity in homeless young people in urban Australia

Belinda Crawford^{A,B,G}, Rowena Yamazaki^C, Elise Franke^D, Sue Amanatidis^C, Jioji Ravulo^E, Kate Steinbeck^F, Jan Ritchie^B and Siranda Torvaldsen^B

^ANSW Public Health Officer Training Program, NSW Ministry of Health, Locked Bag 961, North Sydney, NSW 2059, Australia. ^BSchool of Public Health and Community Medicine, University of New South Wales, Level 3 Samuels Building, UNSW Australia, NSW 2052, Australia.

^CCommunity Health Service, Sydney Local Health District, Level 9, KGV Building, Missenden Road, Camperdown, NSW 2050, Australia.

^DYouth Health Service, South Western Sydney Local Health District, 53–56 Mitchell Street, Carramar, NSW 2163, Australia. ^ESchool of Social Sciences and Psychology, University of Western Sydney, Locked Bag 1797, Penrith, NSW 2751, Australia.

^FDiscipline of Paediatrics and Child Health, The University of Sydney, NSW 2006, Australia.

^GCorresponding author. Email: belinda.crawford@gmail.com

Abstract

Issue addressed: Food insecurity is recognised as an increasing problem in disadvantaged and marginalised groups. The aim of this study was to investigate issues associated with food insecurity and nutrition in young people experiencing, or at risk of, homelessness in metropolitan Australia.

Methods: Eight focus group discussions were conducted with 48 young people (aged between 15 and 25 years) in specialist homelessness services in central and south-western Sydney.

Results: Participants described daily experiences of food insecurity, persistent hunger and poverty. Structural barriers to food security and nutrition were identified and included poverty and reduced physical access to fresh foods. Participants also described a desire to save time, for convenience and to be socially connected. Despite the hardships and the chaos of youth homelessness, the groups were defined by their strength of character, resilience and hope for the future.

Conclusion: Homeless young people within central and south-western Sydney report varying degrees of food insecurity, despite being supported by specialist youth homelessness services.

So what? A collaborative, multistrategic approach with youth participation is required to further enhance the capacity of youth services to improve food security, food access and the availability of nutritious foods for homeless young people. A greater focus on advocacy and policy action is also required to bring food security and nutrition to the forefront of national efforts to improve the health and welfare of disadvantaged groups.

Key words: food access, nutrition, qualitative research, youth.

Received 18 October 2013, accepted 14 May 2014, published online 18 August 2014

Introduction

Food and shelter are considered fundamental human rights,^{1,2} yet homelessness appears to be increasing in Australia,³ and with it the risk of inadequate food. Homelessness is more than 'rooflessness' and includes people in crisis, temporary and medium- to long-term supported accommodation.⁴ Census data indicate that over half of the 105 000 homeless people in Australia are children and young people (aged under 25 years).⁵ Additionally, one-third of homeless young people access specialist homelessness services.⁶ Homeless young people are a marginalised, vulnerable and often voiceless population.

Food insecurity is inextricably linked to poverty and is frequently reported in marginalised populations, who consistently have inadequate resources to access minimum amounts of food and essential items in socially acceptable ways.⁷ Food insecurity is not limited to people living on the street, as the vulnerability and poverty that underpins food insecurity often persists, despite the support provided by accommodation services.^{6–10} Although not specifically focused on homeless populations, primary barriers to food security have been shown to be a lack of money associated with inadequate welfare payments and the high cost of healthy foods.^{11–13} Reduced physical access to fresh, healthy foods

B. Crawford et al.

also increases the risk of food scarcity in marginalised populations. 13,14

High nutritional needs for rapid growth and development, combined with the inconsistent eating patterns characteristic of adolescence,¹⁵ place homeless young people at an increased risk of food insecurity and malnutrition. A small group of international studies^{9,16–19} and one Australian study⁸ showed that homeless young people living on the street often struggle to find enough food to meet their daily nutritional requirements, and experience persistent hunger, anxiety, stress and embarrassment. Homeless young people often consume higher amounts of energy-dense, nutrient-poor foods and lower amounts of fresh fruits, vegetables and staple food items. Additionally, research on the nutrition of young people leaving care found that most considered that they rarely ate healthy food, or were eating foods of low nutritional value.^{20,21}

Despite the importance of adequate nutrition for growth and development during adolescence,¹⁵ very little is known about food insecurity in homeless young people accessing support from specialist youth homelessness services. In Australia, these services not only provide accommodation and case management, but foster stability, positive relationships and life-skills training, thereby providing a unique and valuable setting in which to target diet, nutrition and food security as young people transition to independence.¹⁰ The aim of this study was to explore issues associated with food insecurity among homeless young people accessing support from specialist youth accommodation services.

Methods

A qualitative approach using focus group discussions was chosen for its potential to generate rich and detailed information.^{22–24} An interview guide of six semi-structured questions and interactive activities (Table 1) was developed in collaboration with paid youth advisors and the Project Advisory Committee in order to maximise youth participation.

We invited participants from seven specialist youth homelessness services. One drop-in service, one crisis accommodation service and five medium- to long-term accommodation services were purposively selected to reflect the social, cultural and linguistic diversity of young people experiencing homelessness in metropolitan Australia.

Participating specialist homelessness services differed in terms of accommodation and meal provision. The drop-in service did not provide accommodation; however, it did offer meals and case management. The crisis accommodation service provided a limited number of beds for young people to stay from one night to 3 months, with all meals provided. Most of the medium- to long-term accommodation services offered a range of accommodation options, including supported accommodation with staff on site, to semi-independent living, where young people live alone in a shared property with outreach support. The length of stay in these services varied from 6 to 24 months. The young people staying at these services were responsible for their own cooking and shopping; however, support was provided by the provision of regular organised meals, supermarket vouchers and meal preparation assistance.²⁵

Flyers were displayed at participating services to inform young people of the study. All young people aged 15–24 years who were accessing these services at the time of the study were eligible to participate.

Focus groups were conducted in the common areas of specialist homelessness services and lasted 80–120 min. Each group had at least one facilitator and an observer or scribe. Paid youth advisors from the Project Advisory Committee assisted with focus groups in order to establish credibility and build rapport with participants. Focus groups were conducted until the research team determined that data saturation had been met.

Questions	Prompts
1. What's the worst/most disgusting thing someone has given you to eat? (Introductory activity)	Examples from facilitators (e.g. vegetable terrine)
2. Describe (write/draw) your idea of the 'perfect meal'.	 Type of food, location, company and general atmosphere
(a) What would you need to make this a reality?	 Food preferences, knowledge and skills; social aspects of eating; necessary equipment and resources;
	 Who prepares the meal? Is cooking a pleasure or pain? Where do you purchase the food? Supermarket? Fast-food chain?
(b) Can you share with us why this meal is important to you?	• For your culture or religion? Memories of a time, place, person?
 Word association tasks for the categories of junk food, healthy food/ balance, fitness, dieting, hunger and getting food when homeless 	Say/write/draw the words that come to mind
4. We'd like you to think about some of the reasons why young people may find it hard to access healthy food.	 Not enough money to buy food; shops too far away or hard to travel to; can't cook; not interested in food; nowhere to store food; no time; disability or illness
(a) For young people living in a refuge, how important do you rate each of these?	• It can be important or not important (ranking exercise)
(b) Can you say more?	Like a time when you or a friend have experienced this (narratives)

Table 1. Semi-structured food security and nutrition questions used in the eight focus groups with homeless young people

This study was approved by the Human Research Ethics Committees at Sydney Local Health District and the University of New South Wales. Verbal consent to be audiotaped was recorded at the beginning of the focus group. Participants aged under 16 years had additional consent provided by their youth worker as guardian. All participants were provided with a A\$20 supermarket voucher to cover any costs of participation.

Analysis

Focus groups were tape recorded and transcribed verbatim. A detailed classification system of major issues and topics was developed for thematic analysis, with reference to a recognised food security schema.²⁶ Coding was completed individually for focus group discussions in order to identify any group-, culturalor service-specific differences. Coded material relevant to each identified category was then combined for all focus groups. One member of the research team (BC) completed preliminary coding, while two members of the research team (RY and EF) reviewed all transcripts to confirm and refine thematic analysis. A reference group made up of six focus group participants (three females and three males) was created for respondent validation after preliminary analysis had been completed. A paid youth advisor also reviewed the thematic analysis to ensure credibility and trustworthiness.

Results and discussion

Eight focus groups were conducted between November 2010 and May 2011 (Table 2). Group sizes ranged from three to ten participants, with a total of 48 participants out of a total of 50 service users, with only two people declining to participate in the study. The groups were made up of 29 females (four of whom were young parents), 18 males and one transgender.

Themes

Three major categories were derived from the data, each with several secondary themes (Fig. 1). A primary theme of survival, resilience and endeavouring to maintain independence in times of homelessness and food scarcity was evident, as was a second theme related to the structural barriers resulting from poverty and reduced access to healthy foods. The third overarching theme was the desire to be socially connected, common to all young people. Variation was evident both within and between groups in regard to the stability of living situations, maturity and life experiences, and individual knowledge and skills. No significant gender differences were observed. Similarities and differences between the groups are summarised in Table 3.

Survival, resilience and endeavouring to maintain independence

Surviving homelessness and food scarcity

All groups described experiences of persistent hunger and anxiety associated with chronic food shortages during periods of unstable shelter and to a lesser extent when engaged with youth support and accommodation services:

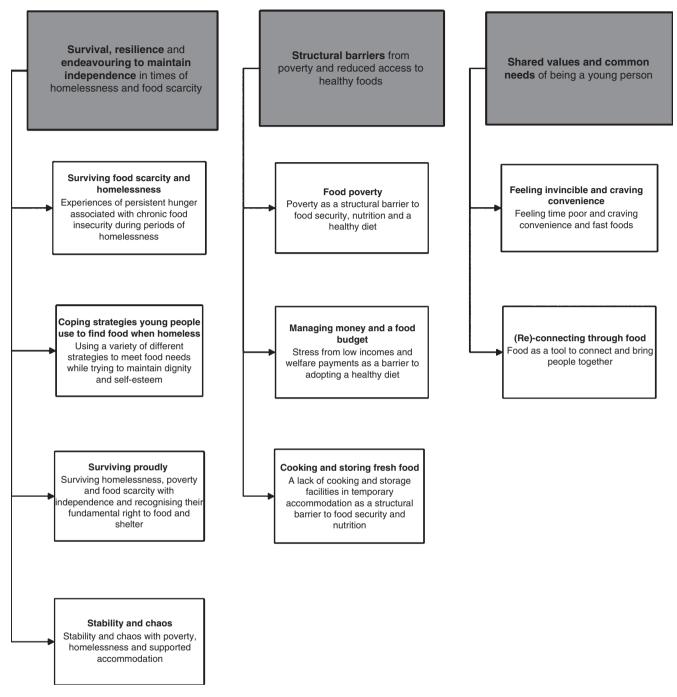
Imagine waking up in the morning... and you have to go to the chapel [emergency food relief], where there is 4000 other people in exactly the same position as you or worse... and you're classified as one of those people (female who identified as Aboriginal).

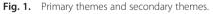
The extent of food insecurity seemed to be dependent on the young person's situation, with more severe food insecurity evident in the more disadvantaged participants living in less supported accommodation or kinship arrangements. Severe food insecurity was particularly evident for participants attending a youth drop-in centre, as the meals provided by the service were often the only food eaten for the day. This portrayal of food scarcity and nutritional inadequacy is consistent with national⁸ and international research,⁹ as the vulnerability and poverty that underpins food insecurity persists, despite the support and shelter provided by specialist homelessness services.

While participants communicated feelings of shame and embarrassment associated with their actions, the need to find food was viewed as a matter of desperation, necessary for their survival. Many adopted a belief that taking food from a place of abundance was justified, as the benefit of independently finding food was well worth the risk of being caught: 'You have to eat to

Group	Description of group	Age range (years)	Number of participants
1	Young people from culturally diverse backgrounds and out-of-home care in a medium- to long-term accommodation service	16–24	7
2	Young Aboriginal people; drop-in service	16-20	10
3	Female group; residents from two medium- to long-term accommodation services	16-20	5
4	Young people who identified as gay, lesbian, bisexual or transgender; drop-in and semi- independent living	16–24	7
5	Residents from medium- to long-term supported accommodation; crisis accommodation	15-19	4
6	Female group; residents from crisis accommodation	15-20	3
7	Young people from culturally diverse and refugee backgrounds in semi-independent living	17-24	8
8	Female group; residents in semi-independent living and support programs	16-20	4

Table 2. Description of the eight focus groups completed with homeless young people





survive, and sometimes you have to fight to survive ... and if you get busted for it do it again' (female who identified as Southern European–Australian). They also disassociated themselves from these actions, discussing actions as those that had occurred in the past, during previous periods of homelessness. Similar attitudes and risk-taking behaviours have been reported elsewhere, suggesting that these findings are characteristic of homeless young people.^{8,9,19}

Strategies young people use to find food when homeless

To survive the food scarcity of homelessness, most participants described using a variety of food acquisition strategies to meet their food needs. Bargain-shopping and bulk-buying techniques were consistently the preferred option, as the need to independently find food was essential to maintain dignity and self-esteem: 'I eat chicken and rice ... I buy 22 kilo [of rice]' (male who identified as African, refugee). However, these strategies

Subtheme	Similarities and differences between groups	
Surviving homelessness and food scarcity	Experiences of persistent hunger during periods of homelessness were reported by young people from all groups, but appeared to be more severe for young people living in less stable accommodation (i.e. attending the drop-in service or crisis accommodation).	
Coping strategies young people use to find food when homeless	Coping strategies were more commonly reported by young people in medium- to long-term accommodation, due to the need for adequate storage facilities as well as planning and budgeting skills.	
Surviving proudly	Young people from all groups recognised the importance of living independently and demonstrated strength of character and resilience.	
A stable base to overcome chaos	The overwhelming chaos and poverty of homelessness appeared to be more severe for young people attending the drop-in service or crisis accommodation compared with young people from medium- to long-term accommodation.	
Food poverty persists	Young people from all groups reported having limited incomes and felt that poverty was a primary structural barrier to food security, nutrition and a healthy diet. Older, more mature participants (generally in medium- to long-term accommodation) and young parents reported a more systematic approach to budgeting.	
Managing money and a food budget	Young people from all groups viewed money for food as an expendable component of their budgets and reported prioritising unexpected expenses over food.	
The food environment	Young people from all groups reported reduced physical access to fresh and healthy foods from the built and planned environment.	
Cooking and storing fresh food	A lack of cooking and storage facilities was more commonly reported in groups with young people from medium- to long-term accommodation. Young people attending the drop-in service or in crisis accommodation typically reported a preference for and reliance on pre-packaged convenience foods.	
Feeling invincible and craving convenience	An invincibility attitude was evident in all groups. Most young people reported feeling time-poor and craved the convenience and instant gratification of fast foods.	
(Re)-connecting through food	Young people in medium- to long-term accommodation saw food as a tool to connect and bring people together. However, young people attending the drop-in service more commonly reported difficulties fulfilling the obligations of family and kinship while looking after themselves.	

Table 3. Summary of the similarities and differences between focus groups of homeless young people

were often limited to young people in stable medium- to long-term accommodation and required adequate storage facilities as well as budgeting and planning skills. Participants in more temporary accommodation reported using a wide variety of strategies to obtain small amounts of food on a daily basis, a 'hand-to-mouth existence'.¹⁹ While a reliance on welfare organisations and the charity of friends and family were frequently mentioned as potential food sources, these were often avoided due to feelings of shame and embarrassment. The stigma associated with receiving charity may contribute to further anxiety, isolation and food insecurity amongst homeless young people and lead towards the use of illegal and unsafe food sources: 'It made me feel like scabbing. I didn't feel good inside' (female who identified as Pacific Island-Australian). A small number of participants also discussed temporary incarceration as a potential food source when homeless. Participants described the quantity and quality of food provided before court dates to be superior to other food options: 'It's best when you go to court, you get a mad feed' (male who identified as Aboriginal). Although this result is consistent with Booth's⁸ Australian study of homeless young people living on the streets, this finding has not been widely reported in the international literature to date.

Surviving proudly

Despite the daily challenges of homelessness, poverty and food scarcity, the strength of character and resilience of the young people

in this study was striking. Participants saw themselves as survivors, wise from past and present hardships, sometimes whilst at home and once they became homeless: 'I think it's good to be independent, cause it gives you confidence in life to be able to move on. To face the world and not be afraid of it' (male who identified as Anglo–Australian).

They also recognised their fundamental human right to food and shelter and were motivated to advocate for change, for themselves as well as for others less fortunate. These findings contrast strongly with the common perception of homeless young people as delinquents, alcoholics and drug addicts.⁶ The young people in this study instead presented as a strong and compassionate group who valued their independence and dignity as well as the knowledge gained from their lived experiences.

A stable base to overcome chaos

Despite the strength, resilience and desire for independence that were evident in this group, many participants identified periods of difficulty when poverty and unexpected events threw their lives into chaos. This scenario was particularly apparent in a large innercity group from a drop-in service, as participants appeared to exist from one day to the next, locked in the chaos and poverty of their lives. Their lack of stable accommodation seemed to limit opportunities to plan or look forward: 'Like when you're out and about you don't care about food ... but if you're just at home,

that's all you can think of ... you think, 'Oh, I'm starved' (male who identified as Aboriginal).

In contrast, participants in stable long-term accommodation services seemed to be much more hopeful; living in the moment, planning for the future and looking forward to a better life:

And they say the best things to do come free and that's true. I was poor and had no money. To go and sit in the botanical gardens and have these cockatoos fly down and I can feed them ... them memories are priceless and things you don't have to pay for (female who identified as Aboriginal).

Structural barriers resulting from poverty and reduced food access

Food poverty persists

All participants had limited incomes and described the poverty of homelessness to be a primary structural barrier to food security, nutrition and a healthy diet. Although older, more mature participants and young parents generally described a systematic approach to budgeting, they reported that they consistently did not receive enough money to meet their daily needs:

You don't have enough, or you just have enough to get by. And sometimes it's not even enough by the end of the fortnight so you have to get cheap meals. Like get mince and have that five nights in a row, that's the cheapest thing (female who identified as Pacific Islander–Australian).

This finding reflects the strong association between poverty and food security.^{13,27,28} Recent research in marginalised groups has identified that welfare payments are consistently insufficient to meet the high cost of housing and essential items in Australia.^{8,11,12,29} For young people, food poverty impacts on their ability to participate fully in education and paid employment.

Fresh and healthy food choices were viewed as much more costly, with many participants identifying fresh fruits and vegetables as unaffordable and often unattainable luxury items. Some participants appeared to try to budget for fresh foods and include them in their diets where possible, generally at the beginning of each pay cycle. Pre-packaged foods were perceived to be more affordable, filling, acceptable and available within the local area. The disparity between the cost of healthy, fresh foods and the cost of processed foods is well recognised, particularly for disadvantaged populations as well as communities in rural and regional areas.^{28–31}

Managing money and a food budget

While this study did not specifically investigate budgeting skills, participants reported allocating only a small amount of money, approximately A\$30–50 per week, on food and essential items. The allocation of money for food was also viewed as an expendable component of the budget, as unexpected expenses were prioritised over food, thereby resulting in a short-term period of food insecurity.

Most participants also identified periods of chaos when money for food was scarce. These results are consistent with recent research highlighting persistent financial stress from inadequate incomes and welfare payments as a principle barrier to adopting a healthy diet.^{31,32}

You pay the rent, so you have somewhere to live, and then you pay the bills if you have enough money and then you buy food if you have enough money. But if you don't have enough money you can always get a meal somewhere (female who identified as Anglo–Australian).

The food environment

Reduced physical access to the built and planned environment was identified as another structural barrier to food security and nutrition. In line with recent research, participants reported that opportunities to buy fresh and healthy foods were limited by a lack of affordable shops within the local area.³³ Although convenience stores and take-away shops were much closer and easier to access, they often did not stock fresh foods. Large shopping centres were generally not located within walking distance or readily accessible by public transport: 'It's hard to take your trolley up the highway, with cars going both ways. You don't want to get hit by cars' (male who identified as Anglo–Australian). Cost-saving measures, such as buying in bulk, were also limited by the difficulty in physically transporting groceries home.

Cooking and storing fresh food in temporary accommodation

A lack of cooking and storage facilities emerged as an important structural barrier to food security and nutrition. This result is consistent with the literature, as adequate infrastructure and facilities have been identified as essential to the safe preparation, storage and consumption of fresh foods.³⁴ Some participants commented that a lack of cupboard space, combined with the restrictions of small fridges, limited opportunities to buy in bulk or employ other cost-saving measures: 'When I first moved here I didn't have a fridge. It was really hard ... spending money on take-away every night' (female who identified as Aboriginal).

However, other participants, particularly those in unstable or shortterm accommodation, felt that storing food was not important, due to the relative abundance and affordability of convenience foods: 'Why store food when you can buy fish and chips?' (male who identified as Anglo–Australian). Typically, these convenience foods included energy-dense, nutrient-poor foods such as potato crisps, salty snacks and confectionary.

The shared values and common needs of being a young person

Feeling invincible and craving convenience

An invincibility attitude often associated with being a young person was evident amongst all focus groups. Although most participants were able to identify fast foods as energy dense and unhealthy, they felt that the instant gratification and convenience far outweighed any potential health consequences. Some groups demonstrated a blasé attitude towards the consumption of large quantities of junk food, as a healthy, balanced diet was considered more important for older people. They seemed to enjoy and crave the taste and experience of junk food: 'I think old people can't eat it, but we can eat as much as we like ... we're immune to junk food' (two females who identified as Anglo–Australian).

Participants also described themselves as being very time poor and felt that that they simply did not have enough time to prepare healthy meals. Work, school, parenting, social responsibilities and family obligations were often prioritised above shopping and cooking. Participants differed in their attitudes towards time management and meal preparation. While healthy food was seen as a time-intensive and often unattractive option, some participants viewed take-away and fast foods to be much quicker, easier and therefore far more convenient: 'It's hard to eat healthy stuff. You can pick up some junk food between running here and there, but if you actually go home and cook vegies then you need time to do it' (male who identified as Anglo–Australian). Many participants also reported craving the convenience and instant gratification of fast foods.

(Re)-connecting through food

Social connectedness was also seen as an important factor influencing food security and nutrition. Participants valued the support of family and friends and viewed food as a tool to connect and bring people together. The culture of preparing and sharing food was seen to be an essential part of daily life, to maintain self-esteem and self-identity and move away from the stigma and embarrassment of homelessness towards a new, positive and independent lifestyle. For some, a regular meal with family was a way of reconnecting after leaving home: 'I go to like my mum's house and have a good meal... It puts warmth in your heart' (male who identified as Anglo–Australian). However, others were also acutely aware that support networks might have a negative impact on stability and food security and communicated a constant struggle to fulfil the obligations of family and kinship with the need to look after oneself.

Conclusions

The focus groups provided a rich context to explore experiences of homelessness, hunger, food security and nutrition in a diverse group of homeless young people. We found that these homeless young people experienced varying degrees of food insecurity, despite being supported by specialist homelessness services. Barriers to food security and nutrition at a structural level included poverty from insufficient welfare payments and the high cost associated with fresh foods, as well as reduced physical access from inadequate transport options and limited storage. Participants also expressed the desire for convenience and fast food and to be socially connected, common to all young people. Despite the hardships and chaos of homelessness, the strength of character, resilience and hope that defined these young people was striking. They highlighted the importance of maintaining their independence and dignity, living in the moment and looking towards a brighter future that was free from the challenges, stigma and embarrassment of homelessness.

It was not the purpose of the study to identify the extent to which the views of these participants reflect the views of the broader homeless youth population. Instead the qualitative study managed successfully to meet its specific purpose of revealing the meanings behind the views held by this group about food insecurity. It is possible that young people who felt more empowered and articulate were more motivated to volunteer for focus group discussions. However, 48 out of 50 young people who were in attendance at the services at the time of the focus groups agreed to participate. The greater proportion of females in this study may have resulted in an underrepresentation of male opinions, yet this is reflective of bed occupancy and engagement within specialist homelessness services.⁶

Another potential limitation of this study was the use of focus groups to discuss sensitive topics. It is well recognised that participants can sometimes feel peer pressure to give similar answers or to be more positive in their responses.²⁴ However, participants were encouraged and supported to share their opinions and experiences, while being assured that discussions would not be communicated to their youth workers or services. The key themes were consistent across all focus group discussions, and the research team continued data collection until saturation had been reached.

Our findings have important implications for public health nutrition and health promotion programs in Australia. A multistrategic, transdisciplinary approach with youth participation is recommended to improve food access, availability and utilisation for homeless young people. Such an approach should utilise the strengths within this population and specialist homelessness services. A greater focus on advocacy and policy action is also required to bring food security and nutrition to the forefront of national efforts to improve the health and welfare of disadvantaged groups.

Conflicting interests and financial disclosure

The authors declare that there is no conflict of interest regarding this study. This research did not receive a specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Acknowledgements

This work was completed while Belinda Crawford was an employee of the NSW Public Health Officer Training Program, funded by the NSW Ministry of Health. She undertook this work while based at the Community Health Service, Sydney Local Health District. This program is offered in partnership with the University of New South Wales. The authors wish to acknowledge Vanessa Clift for her management support and contribution to the YHUNGER project. Thank you to Tegan Picone, Jillian Manahan, Johnny Ellis, Josh Cringle and Rebecca Nassar. We also wish to thank Brandon Bear (Yfoundations), Brett Pickard (YouthBlock) and the members of the Project Advisory Committee for enabling this research.

References

- 1. United Nations. Universal Declaration of Human Rights. Geneva: United Nations; 2009.
- 2. United Nations. International Covenant on Economic, Social and Cultural Rights. Treaty Series. Geneva: United Nations; 1966.
- Department of Families, Community Services and Indigenous Affairs. The road home: a national approach to reducing homelessness. Canberra: Commonwealth of Australia; 2008.
- Chamberlain C, MacKenzie D. Understanding contemporary homelessness: issues of definition and meaning. Aust J Soc Issues 1992; 27(4): 274–97.
- 5. Australian Bureau of Statistics. Counting the homeless. Canberra: Australian Bureau of Statistics; 2006.
- National Youth Commission. Australia's Homeless Youth: a report of the National Youth Commission Inquiry into Youth Homelessness. Victoria: National Youth Commission; 2008.
- Food and Agriculture Organization of the United Nations (FAO). The state of food insecurity in the world 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition. Rome: FAO; 2012.
- Booth S. Eating rough: food sources and acquisition practices of homeless young people in Adelaide, South Australia. *Public Health Nutr* 2006; 9(2): 212–8. doi:10.1079/PHN2005848
- Whitbeck LB, Chen X, Johnson KD. Food insecurity among homeless and runaway adolescents. *Public Health Nutr* 2006; 9(1): 47–52. doi:10.1079/ PHN2005764
- Davies L, Whitcross P. The NASH project: promoting better nutrition using accreditation standards in youth housing services. Sydney: NSW Department of Health; 2007.
- Nolan M, Williams M, Rickard-Bell G, Mohsin M. Food insecurity in three socially disadvantaged localities in Sydney, Australia. *Health Promot J Austr* 2006; **17**(3): 247–54.
- Gallegos D, Ellies P, Wright J. Still there's no food! Food insecurity in a refugee population in Perth, Western Australia. *Nutr Diet* 2008; **65**(1): 78–83. doi:10.1111/ j.1747-0080.2007.00175.x
- 13. VicHealth. Food for All 2005–10: program evaluation report. Victoria: Victorian Health Promotion Foundation; 2011.
- Smith A. Improving healthy eating and food security in disadvantaged families what do we know? Adelaide: Eat Well SA; 2002.

B. Crawford et al.

- World Health Organization. Nutrition in adolescence: issues and challenges for the health sector: issues in adolescent health and development (WHO discussion papers on adolescence). Geneva: WHO; 2005.
- Antoniades M, Tarasuk V. A survey of food problems experienced by Toronto street youth. Can J Public Health 1998; 89(6): 371–5.
- Dachner N, Tarasuk V. Homeless 'squeegee kids': food insecurity and daily survival. Soc Sci Med 2002; 54: 1039–49. doi:10.1016/S0277-9536(01)00079-X
- Greenblatt M, Robertson MJ. Life-styles, adaptive strategies, and sexual behaviors of homeless adolescents. *Hosp Community Psychiatry* 1993; 44(12): 1177–80.
- Tarasuk V, Dachner N, Poland B, Gaetz S. Food deprivation is integral to the 'hand to mouth' existence of homeless youths in Toronto. *Public Health Nutr* 2009; **12**(9): 1437–42. doi:10.1017/S1368980008004291
- Broad B, Saunders L. Involving young people leaving care as peer researchers in a health research project: a learning experience. *Res Policy Plan* 1998; 16: 81–91.
- West A. You're on your own: young people's research on leaving care. London: Save the Children; 1995.
- 22. Grbich C. Qualitative research in health. Sydney: Allen & Unwin Ltd; 1999.
- Grbich C. New approaches in social research. London: Sage Publications Ltd; 2004.
 Morgan D. Focus groups. Annu Rev Sociol 1996; 22: 129–52. doi:10.1146/annurev. soc.22.1.129
- Yfoundations. Accommodation Support Services. Sydney: Yfoundations; 2014. Available from: https://yfoundations.org.au/index.x.php?option=com_content&view=article&id=129&Itemid=96 [Verified 28 March 2014]
- Innes-Hughes C, Bowers K, King L, Chapman K, Eden B. Food security: the what, who, why and where to of food security in NSW. Sydney: Physical Activity and Nutrition Obesity Research Group (PANORG), Heart Foundation NSW and Cancer Council NSW; 2010.
- Giskes K, Turrell G, Patterson C, Newman B. Socio-economic differences in fruit and vegetable consumption among Australian adolescents and adults. *Public Health Nutr* 2002; 5(5): 663–9. doi:10.1079/PHN2002339
- Turrell G, Bentley R, Thomas L, Jolley D, Subramanian S, Kavanagh AM. A multilevel study of area socio-economic status and food purchasing behaviour. *Public Health Nutr* 2009; **12**(11): 2074–83. doi:10.1017/S1368980009004911
- Saunders P. Using budget standards to assess the well-being of families. SPRC Discussion Paper No. 93. Sydney: University of New South Wales; 1998.
- 30. Stewart I. Research into the cost, availability and preferences for fresh food compared with convenience food items in remote area Aboriginal communities. Canberra: Australian Medical Association and the Australian Pharmaceutical Manufacturers Association Roy Morgan Research Centre Pty Ltd; 1997.
- Drewnowski A, Darmon N. The economics of obesity: dietary energy density and energy cost. Am J Clin Nutr 2005; 82(1, Suppl): 2655–2755.
- Rychetnik L, Webb K, Story L, Katz T. Food security options paper. A planning framework and menu of option for policy and practice interventions. Sydney: NSW Centre for Public Health Nutrition; 2003.
- Innes-Hughes C, Boylan S, Lobb E, King L. Measuring rural food environments within Murrumbidgee Health Network, NSW. Sydney: PANORG; 2011.
- Torzillo PJ, Pholeros P, Rainow S, Barker G, Sowerbutts T, Short T, et al. The state of health hardware in Aboriginal communities in rural and remote Australia. Aust N Z J Public Health 2008; 32(1): 7–11. doi:10.1111/j.1753-6405.2008.00158x