

## Let's not forget climate change in the food insecurity conversation: why the homeless are most vulnerable

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The recent article by Crawford *et al.*<sup>1</sup> on food insecurity in homeless young people in Australia raises significant issues concerning both nutrition and the affordability of healthier food for this vulnerable group. The high cost associated with healthier foods has been established as one of the key barriers to food security,<sup>2</sup> and this theme was clearly evident in Crawford's exploration of the topic.

Unfortunately, the impact of climate change on food production and food distribution systems will make the goal of healthier eating even more difficult for those already struggling with food costs, such as these young men and women.

Modelling suggests that climate variability will increase in Australia over time,<sup>3</sup> creating a more extreme pattern of 'hotter hots', 'wetter wets' and 'drier dries'. Climate variability strongly impacts agricultural production through reduced food yields and food quality,<sup>3</sup> with water-intensive and heat-sensitive foods such as fruits and vegetables particularly vulnerable.<sup>4</sup> This impact creates a consequential and substantial increase in food cost – Quiggan,<sup>5</sup> for example, found that in the two years from September 2005 to September 2007, fresh fruit prices in Australia increased by 43% and vegetables by 33%. Widespread drought across the country was identified as the primary contributor.

Food distribution chains will also be adversely affected by climate change as a result of predicted increases in extreme weather events such as heatwaves, floods and droughts.<sup>3</sup> Sudden and extreme weather disruptions preventing the movement of food through regular distribution channels or impacting food storage capabilities may cause normally reliable supply chains to falter, increasing food transport costs and increasing the risk of spoilage.<sup>4</sup> This inevitably leads to increased food prices for the consumer. An example of this type of impact was seen after cyclones in Queensland in 2006 and 2011, which destroyed banana and sugar plantations and caused prices of these foods to increase dramatically.<sup>6,7</sup>

Heatwaves and droughts also contribute to increased soil dryness and decreased soil quality, impacting the nutritional quality of fresh produce.<sup>4</sup> Even if one can afford fresh produce, it is unlikely to be of the same nutritional standard in the future as it is now.

Climate change does not impact everyone in the same way. Climate change first threatens the poorest and most vulnerable populations across all societies,<sup>8</sup> with the homeless and those with lower incomes most at risk.<sup>9</sup> While highly distressing, it is entirely understandable that the young homeless people at the heart of Crawford's research appear unaware of the impact climate change will have on their future ability to access nutritious and affordable food.

Refreshingly, several examples of health promotion practice addressing climate change and sustainability already exist, including initiatives in active transport, gender equity and organisational capacity building.<sup>10</sup> In addition, examples of increasing community resilience to a changing climate are evident at the local council level.<sup>11</sup> However, literature on climate change and health promotion practice remains incomplete, with research gaps in this area clearly evident.<sup>12</sup>

It is imperative that Australia's future efforts to mitigate and adapt to climate change continue, with priority given to investment in programs and policies to address food insecurity and increase access to healthy foods for all vulnerable populations.

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