

# **Senate inquiry into food production in Australia**

## **Submission by Population Health Queensland**

### **1. Introduction**

Population Health Queensland is a statewide function located within the Division of the Chief Health Officer, Queensland Health, consisting of Statewide units and Population health services. Queensland Health is the primary provider of population health services in Queensland. Population health programs are delivered directly by Queensland Health or by providing funding to non-government and community organisations. Queensland Health's key role is to provide leadership for population health; provide information and other support to influence the health enhancing operations and practices of key partners; and develop and maintain services/programs for delivery at a population and group level.

Population Health Queensland welcomes the opportunity to provide a submission on the Senate Inquiry into Food Production in Australia.

Population Health Queensland recognises that a healthy, accessible and affordable food supply is fundamental to good health and the prevention of chronic diseases.

An inquiry into food production in Australia has the potential to investigate and make recommendations to address factors impacting on the cost of basic healthy food, the availability of food and securing the production of healthy food for Australians now and into the future.

The food system, and therefore the food security of Australia, is very vulnerable to the impacts of climate change and resource constraints, such as the impact of rising fuel prices on the cost of food production, storage, processing and transport, and increased adverse weather events on food availability.

This submission provides examples of initiatives that Queensland Health is involved in that address the affordability and sustainability of a healthy food supply. To provide data on the performance of the food system and potential impact on diet-related diseases, Population Health Queensland recommends that a national healthy food price and availability monitoring system is established.

### **2. Food production and the dietary guidelines for Australians**

The Australian dietary guidelines are the assimilation of scientific evidence about what we need to eat to achieve and maintain good health through diet. A varied and sustainable agricultural system is essential to ensuring Australians have the capacity to achieve eating patterns consistent with the dietary guidelines.

The current dietary guidelines for Australian adults are:

- Enjoy a wide variety of nutritious foods:
  - Eat plenty of vegetables, legumes and fruits
  - Eat plenty of cereals (including breads, rice, pasta, and noodles), preferably wholegrain
  - Include lean meat, fish, poultry and/or alternatives
  - Include milks, yoghurts, cheeses and/or alternatives. Reduced fat varieties should be chosen, where possible
  - Drink plenty of water

*And take care to:*

- Limit saturated fat and moderate total fat intake
  - Choose foods low in salt
  - Limit your alcohol intake if you choose to drink
  - Consume only moderate amounts of sugars and foods containing added sugars
- Prevent weight gain: be physically active and eat according to your energy needs
  - Care for your food: prepare and store it safely
  - Encourage and support breastfeeding.

Similar dietary guidelines also exist for children and adolescents and older people.

The National Health and Medical Research Council are currently reviewing all the dietary guidelines and the modelling for the Core Food groups. The dietary guidelines review will include in its consideration food, diet and environmental sustainability, including food production. The revised guidelines are due to be released for public consultation in February 2010.

### **3. Food Costs**

Queensland Health monitors the cost of healthy foods through the Healthy Food Access Basket (HFAB) surveys. Five surveys have been conducted in 1998, 2000, 2001, 2004 and 2006. The range and types of foods included in the HFAB represent commonly available and popular foods consistent with the Australian Guide to Healthy Eating.<sup>1</sup> The foods selected provide 70 per cent of the nutritional requirements and 95 per cent of the estimated energy requirements of a hypothetical family of six people for a two-week period.

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<sup>1</sup> Department of Health and Ageing. *Australian Guide to Healthy Eating*. Canberra: Department of Health and Ageing, 1998.

Results of the 2006 HFAB Survey highlight the increasing cost of healthy food and the associated potential barrier to good health faced by all Queenslanders, particularly among people residing more than 2000 kilometres from Brisbane, and those from lower socioeconomic status and other vulnerable groups.

In 2006, the average cost of the HFAB was \$457.46. The same basket of healthy food was purchased for \$304 in 2000. The highest cost was in very remote stores where it was \$107.81 (24.2%) higher than the statewide average, but in those very remote stores more than 2000 kilometres from Brisbane the HFAB was \$145.57 (32.6%) higher. This is a critical issue as very remote stores are often the sole source of healthy foods for the community.

The cost of healthy food continues to be more expensive than less healthy choices across most of Queensland. The cost differential between healthy foods and less healthy options impacts negatively on food choice, diet quality and the prevalence of diet-related diseases. With price an important factor when deciding what food items to buy,<sup>2</sup> the health of all Queenslanders, but particularly people of lower socioeconomic status and other vulnerable groups, may be compromised as a result.

A copy of the full 2006 HFAB report is attached. Copies can also be downloaded at [www.health.qld.gov.au/ph/Documents/hpu/33125.pdf](http://www.health.qld.gov.au/ph/Documents/hpu/33125.pdf)

#### **4. Link between food costs, chronic disease, food insecurity and health inequalities**

Poor nutrition is now responsible for around 16 per cent of the total burden of disease,<sup>3</sup> is implicated in more than 56 per cent of all deaths, and costs in excess of \$5 billion nationally per year, including direct health care costs of approximately \$3 billion per year in Australia based on 1990 costings.<sup>4</sup> In 1992–93, diet-related diseases were estimated to contribute around 14 per cent of the annual Queensland hospital budget, or \$192 million per year, and are now likely to be much higher.<sup>5</sup>

The health costs of obesity are significant. Direct costs of obesity alone are now at least 4-5 per cent of total health care costs. The total indirect cost to Australia of obesity in 2008 was estimated at \$58.2 billion, including \$8.2 billion in financial costs and \$50 billion in the cost of lost wellbeing.<sup>6</sup> Being

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<sup>2</sup> Department of Primary Industries. Queenslanders' Attitudes Towards Everyday Food Items Newsletter. Brisbane: Department of Primary Industries; March 2001. <http://lists.dpi.qld.gov.au/dpi-info-sites-1.html> (accessed June 2007).

<sup>3</sup> Health Determinants Queensland, Queensland Health, 2004.

<sup>4</sup> Eat Well Australia, A strategic framework for Public Health Nutrition 2000-2010, National Public Health Partnership, 2000.

<sup>5</sup> HIC. *Queensland hospital costs attributable to inappropriate diet. Information circular no. 44*: Health Information Centre, Queensland Health, 1998.

<sup>6</sup> Access Economics. *The economic costs of obesity: A report to Diabetes Australia*, 2006.

overweight, including being obese, now contributes 8.6 per cent of the burden of disability and premature death in Queensland.<sup>7</sup>

There is clear evidence that poor nutrition is a major determinant of premature death and morbidity. Nutrition is particularly significant to the health of infants and children as a key factor in optimum physical and cognitive growth and development. Adequate nutrition promotes growth, enhances quality of life and contributes to health and wellbeing. Access to a healthy, affordable and varied diet is an important health and social issue.<sup>8</sup>

Eating a healthy diet consistent with the Australian Guide to Healthy Eating will help prevent chronic diseases, however, for some groups it's now more affordable to eat a diet consisting of more energy-dense, nutrient poor foods to make the food dollar stretch further. Energy-dense nutrient-poor foods are high in fat and sugar, cost less per 1000 kilojoules, and are highly palatable.<sup>9</sup> As a result, energy-dense nutrient-poor foods are perceived as being more affordable, more filling, more acceptable by family members, and readily available in disadvantaged areas.<sup>10, 11</sup> Increasing consumption of these foods has been linked to the increase in obesity observed in Australia and worldwide.

As a nation, Australia is considered to be food secure. However, disadvantaged groups and people on low incomes are at greater risk of being food insecure. This means that sections of the population experience hunger as a result of insufficient food or eat a nutritionally inadequate diet due to poor food options or food skills. They may also suffer from anxiety and other psychological ill effects because their food supply is of poor quality, their capacity to acquire food is unreliable, and the situation of being unable to acquire enough food carries a lot of social stigma. In the 1995 National Nutrition Survey, 5.2 per cent of adults indicated that they had run out of food and couldn't afford to buy any more in the 12 months prior to the survey. This rate was higher among the unemployed (11.3%) and those paying rent or board (15.8%). These rates may underestimate the true prevalence of food insecurity in Australia. For instance, a survey in three disadvantaged communities in South West Sydney found that 22 per cent of households experienced food insecurity suggesting that the prevalence of food insecurity may be somewhere between these two figures. There are many practical strategies that have been implemented to address food insecurity, such as increasing local food production.

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<sup>7</sup> Queensland Health. The Health of Queenslanders 2006. Report of the Chief Health Officer. Brisbane: Queensland Health, 2006.

<sup>8</sup> Queensland Public Health Forum (2002). *Eat Well Queensland 2002-12: Smart Eating for a Healthier State*. Brisbane, Queensland Public Health Forum.

<sup>9</sup> Drewnowski A, Specter SE. Poverty and obesity: the role of energy density and energy costs. *Am J Clin Nutr.* 2004;79(1):6-16.

<sup>10</sup> Reidpath, D., et.al. (2002) , "An ecological study of the relationship between social and environmental determinants of obesity". *Health and Place*.

<sup>11</sup> Block, Jason P et al. (2004). 'Fast food, race/ethnicity, and income: a geographic analysis.' *American Journal of Preventive Medicine.* Vol 27 ( 3) pp. 211 – 217.

A range of issues are impacting simultaneously on food availability and costs and therefore the food security of communities and households throughout Queensland. Issues such as droughts and flooding, increasing world demand for meat and dairy production, and production of biofuels are all impacting on food availability and putting upward pressure on food prices locally, nationally and worldwide.<sup>12</sup> Food insecurity has a high cost for individuals, families and communities. In the short term, anxiety, hunger and lack of energy. In the long term, increasing rates of overweight and obesity, especially in women.<sup>13</sup>

## **5. Food production processes**

The following issues are food production processes that have relevance to nutrition and food security. For the purposes of this submission, food production is considered to be the process up to the point where a food product is complete and ready for distribution. It excludes processes such as storage and transport of the product.

Organic food production has recently been given support by the United Nations' Food and Agriculture Organisation (FAO) as a strategy to support a sustainable food supply and therefore ensure global food security.<sup>14</sup> It can provide benefits over conventional farming methods through avoiding the use of synthetic fertilizers, pesticides and herbicides, efficient use of water, greater soil health and soil biodiversity, and greater density of some nutrients. These benefits can be realised in terms of climate change adaptation and mitigation strategies.

Value-adding to basic food products can have both useful and harmful effects on the population's nutrition and food security. For example, fortifying food to return the micronutrient content to pre-processing level, or as a public health policy to raise nutrient intakes in a population, is under the jurisdiction of Food Standards Australia and New Zealand (FSANZ). There is little, if any peer-reviewed literature on the non-health related costs and benefits of fortification. For example, voluntary fortification of orange juice and other beverages with calcium may influence the population's consumption of these foods, displacing healthier alternatives such as water and reduced-fat milk which are cheaper and need less processing. Time, energy and resources may be better directed to alternative food production process supporting a sustainable food supply and ensuring food security. Other processes such as modified-atmosphere packaging of lettuce, may have similar non-health related costs and benefits which could impact on national food security.

During production and processing there is often significant wastage of food. For example, over-supply of processed lettuce into convenience packs can result in greater wastage than transporting and selling the lettuce unprocessed. Processing and transportation of surplus produce incurs costs that may make it more economically to simply dump the extra produce rather

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<sup>12</sup> Cohen MJ et al. Impact of climate change and bioenergy on nutrition. IFPRI & FAO. 2008.

<sup>13</sup> Mancino L, Lin BH, Ballenger N (2004). *The role of economics in Eating Choices and Weight Outcomes*, AIB – 791, USDA/ERS.

<sup>14</sup> Food and Agriculture Organisation. Organic Agriculture 2008 [cited 16 Sept 08]. Available from <http://www.fao.org/organicag/index.jsp>

than distribute it – to food banks for instance. This practice could have an increasing negative impact on national food security and population nutrition in the future, particularly under climate change scenarios.

The balance between growing feed for animals that could be used for human consumption needs further consideration in the context of sustainable food production. However, the current practices do not support a sustainable food supply system in Australia<sup>16</sup>.

In summary, much of the food production system is concerned with the economics of supply and demand of a particular product. However, there are social and environmental costs, as well as the economic costs of food production, which need to be considered when aiming for market efficiency in order to ensure national food security.<sup>15</sup>

## **6. Examples of Queensland Health initiatives addressing affordable and sustainable food production**

Queensland Health has led or partnered in a number of initiatives to address affordable and sustainable food production. Examples in brief follow.

### **6.1 Community Food Assessment in Central Project**

Mapping the local food system, taking into account key aspects of access and supply has been described as an important component of Community Food Assessments (CFA).<sup>16</sup> However, very few examples of these processes have been conducted in Queensland to date. This project aims to conduct a CFA in three different sites across Queensland in order to gather information that will assist in prioritising future community food security interventions.

Various forms of CFAs have been found to be important in driving change in local food systems internationally,<sup>17</sup> and in Australia.<sup>18</sup> CFAs provide an understanding of the social, economic, and institutional factors that affect the quantity and quality of available food and its affordability, as well as a better understanding of barriers to food access. CFAs also support efforts toward planning and implementing local policies and programs to improve community food security. For example, at a community level, these may include:

- Farmers' markets - that boost incomes of local farmers and in turn generate local employment opportunities, as well as increasing consumer access to fresh produce; and

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<sup>15</sup> Lang T and Heasman M. Food wars: the global battle for mouths, minds and markets. London; Earthscan: 2008.

<sup>16</sup> McCullum C, Desjardins E, Kraak V, Ladipo P, Costello H (2005) Evidence-based strategies to build community food security. J Am Diet Assoc 105(2):278-283.

<sup>17</sup> McCullum C, Pelletier D, Barr D, Wilkins J. (2002) Use of a participatory planning process as a way to build community food security. J Am Diet Assoc 102:962-967.

<sup>18</sup> The Penrith Food Project: Goals and Achievements [Online] Available: <http://www.penrithcity.nsw.gov.au/index.asp?id=360>

- Community gardens - that help public housing residents and other low-income consumers supplement their diets with home-grown produce.<sup>19</sup>

This project will include piloting some standard methods/tools for assessing the local food system and will provide baseline data to allow monitoring and surveillance of local food production and distribution to commence in study areas. The 'commercial' aspects of local food system that will be mapped include farms (crops, dairies, and livestock), fisheries, food manufactures/processors and food distributors/wholesalers. The 'community supported' aspects of the local food system to be assessed and mapped include community and school gardens, farmer's markets, community supported agriculture (subscription farming and community farms), food box schemes, farmgate and roadside 'honesty' stalls, food cooperatives and local food procurement policies of government institutions. Data is being collected from a range of sources including Australian Bureau of Statistics (ABS), Safe Food Production Queensland, Department of Primary Industries and Fisheries, Local Governments, Yellow Pages and key informant interviews.

The project completion target is June 2009.

## **6.2 Formation of a Sunshine Coast 'Sustainable and Secure Local Food Alliance'**

In partnership with the local council, the regional natural resource management body, a regional sustainability advocacy group and an innovative community supported agriculture scheme (Foodconnect subscription farming), Queensland Health supported a one day 'Local Food Value Chain Workshop' event at the University of the Sunshine Coast in May 2008. The event brought together an estimated 70 farmers, retailers, restaurateurs, processors, government officials and politicians from the Sunshine Coast region to analyse the local food value chain and to identify strategies to address barriers to local food production for local consumption. Note that a value chain is not the same as a supply chain - it is the sequence of linked value-creating activities in a production process ranging from sourcing basic raw materials and energy to the ultimate delivery of products and services. Value chain analysis when applied to a whole industry, focuses attention on the relationships between the various businesses that add value to the product as it moves along the value chain from raw materials to consumer. It can help to identify where the links are weak or where the costs involved don't justify the amount of value added. In the case of the Local Food Value Chain workshop, this methodology was applied to the production of local food for local consumption in order to help develop strategies to strengthen the local food economy and thus make it more economically viable for farmers to produce for the local market. The process was intended to strengthen alliances in order to create a more rewarding position for producers in the local marketplace, while minimising the costs that ultimately get passed through to the consumer.

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<sup>19</sup> McCullum C, Desjardins E, Kraak V, Ladipo P, Costello H (2005) Evidence-based strategies to build community food security. *J Am Diet Assoc* 105(2):278-283.

Different stakeholders came to the table with different agendas ranging from ecological sustainability of food production and distribution through to the economic viability and sustainability of local farming. For health, the key drivers were around the fact that in order for community to follow the key nutrition messages promoted by recent social marketing campaigns, fruit and vegetables and other healthy food must be affordable and accessible – particularly for the most economically vulnerable groups in the community. This event was viewed as an ‘upstream’ strategy to support increased fruit and vegetable consumption and healthy eating though considering security of future food supply in the Sunshine Coast region.

Key recommendations from the workshop were the formation of a Sunshine Coast Regional Council-backed ‘Sustainable and Secure Food Supply Alliance’ and the establishment of a central produce to relocalise food production and distribution. Participants also recommended the alliance would do the following:

- Oversee a regional food industry database/website so supply of produce could more effectively be matched to demand. Such a website would list all farmers, the crops they produced and the food required by local food processors, restaurateurs and retailers;
- Develop a public education campaign explaining the benefits of choosing locally-grown or produced goods and fruits and vegetables in season;
- Develop a ‘local branding’ initiative denoting Sunshine Coast-grown foods to assist consumers identify local produce; and
- Form partnerships with key decision makers in all levels of government and present the Sunshine Coast Regional Council with a policy proposal package aimed at maximising and localising food production on the Sunshine Coast. This could involve incentives enabling low-income earners to lease land and the conversion of urban land plots for food production, town planning changes to limit the proliferation of large supermarket chains, the clearing of red tape to fast-track the establishment of a central market on the Sunshine Coast, the establishment of village economies across the Sunshine Coast, each with their own community gardens and stronger protections for quality agricultural land.

A report is currently being prepared for presentation to the Sunshine Coast Regional Council in October/November 2008.

### **6.3 Food Outback**

The *Food Outback* project aims to improve accessibility, availability and affordability of vegetables and fruit for those living in South-West Queensland. Supporting local food production was identified as a key intervention point to achieving this end through research conducted by the Queensland Health Southern Area Public Health Nutrition team since 2003.

The project aims to form strong partnerships with external agencies as many factors that influence food production and supply of nutritious food fall outside of the health sector, including transport and freight, storage and shopping



habits and demand.

Work conducted within the 'supporting local food production' intervention point to date includes:

- Collaborated with local shire councils, South West Natural Resource Management and the Queensland Department of Primary Industry to identify food crops and traditional bush foods that can be grown and promoted in the South West Queensland region;
- Formed a food supply sub-group of the South West Regional Managers Coordination Network (lead by Queensland Department of Communities) to take coordinated action intra-governmentally and alongside non-government organisations to address food supply issues, particularly affordability of nutritious food;
- Collated information around known local food production initiatives (e.g. community gardens, commercial food production); and
- Established a stakeholder database to identify partners and increase capacity-building activities amongst key stakeholders to address local food supply and production issues.

#### **6.4 Emerging issues in food production**

Population Health Queensland has an interest in the development of a biofuels industry in Australia and the impact on food security, such as reducing the amount of land available for food production, and contributing to the upward pressure on basic food prices. Population Health Queensland recommends that future policy decisions on the biofuels industry include a comprehensive analysis of the impact on food security and health outcomes.

Population Health Queensland recognises the importance of maintaining and growing a viable farming sector to supply sufficient healthy foods for Australians. Strategies to build up and strengthen the food production farmer sector are needed, in the context of sustainable land management.

It is also in Australia's interest to support ecologically sustainable farming practices to reduce the impact rising fuel prices, climate change and past environmental degradation has, and will have, on the supply of a wide variety of healthy foods consistent with achieving population dietary guidelines.

#### **7. National food costs monitoring and surveillance**

Population Health Queensland recommends that a national healthy food price and availability monitoring system is included as a component of a national food and nutrition monitoring and surveillance system. Such a system should include costings for a basket of healthy foods consistent with the Australian Guide to Healthy Eating, as well as commonly purchased foods, and be conducted in rural and very remote communities as well as metropolitan areas.

#### **Population Health Queensland Contact**

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