Health and Nutrition in Australia

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Key Points

- Approximately two-thirds of the Australian adult population is overweight or obese according to the most recent Australian Health Survey. This proportion continues to increase, with massive implications for the burden of chronic disease on individuals and the economy.
- Aboriginal and Torres Strait Islander peoples, low socio-economic and culturally and linguistically diverse groups, experience malnutrition disproportionately.
- The Australian food supply contains a surplus of energy and nutritious foods, yet the modern obesogenic environment deters healthy diets and active lifestyles.
- Current spending on preventive health is markedly lower than many other OECD countries.
- Local, state, and federal governments, as well as agricultural and food processing industries, can all contribute to the reduction of the economic and social cost of malnutrition in Australia.

Summary

Australia possesses one of the world’s safest food supplies, providing sufficient caloric and nutritional food to facilitate diets that minimise the risk of chronic disease. Despite this, a greater proportion of the Australian population is malnourished than ever before. It is apparent that the present system is failing to protect vulnerable segments of the population, harbouring unacceptable levels of inequality in food distribution and access. Federal government action has been stilted and unreliable, while agricultural bodies and the
Australian Food Grocery Council (AFGC) have acted subversively to impede progress of certain preventive measures out of apparent self-interest. Considerable economic benefit and immeasurable improvements in quality of life could be achieved through cooperation between government, primary and secondary food industries, research bodies and the local community. Environments conducive to the achievement and maintenance of healthy weight may be created through this cooperation.

Analysis

Malnutrition in Australia

The majority of Australians have the option to eat a balanced and nutritious diet, such as that outlined in the recently revised Australian Dietary Guidelines (2013). The guidelines were designed to include the types of food actually available in Australia. Poor adherence to the evidence-based recommendations for diet and lifestyle is reflected in current levels of chronic disease, as well as the persistence of micronutrient inadequacies.

Overweight and obesity

“Eating right” is a global challenge. An article published in the Lancet in 2012, indicated that 10 per cent of the global disease burden can be attributed to poor diet and physical inactivity. The World Health Organization predicts that type 2 diabetes will become the seventh largest killer by 2030. Globally, 1.4 billion people are overweight and obese, while 870 million suffer from chronic hunger, representing a dual burden of malnutrition. Australia is by no means the ‘fattest’ country. In another study recently published in the Lancet, Australia is ranked 30th for levels of overweight and obesity, not far behind the United States (20th). In this study it also noted that Australia and New Zealand are experiencing the fastest rates of growth in overweight and obesity, in contrast with the plateauing trend seen in many other developed countries.

The Australian Health Survey is conducted regularly and has tracked the increase in overweight and obesity from 56 per cent in 1995, to 63 per cent in 2011-12. The number of adults classified as overweight and obese is expected to reach 66 per cent of the population by 2019. Twenty-five per cent of children in Australia were deemed overweight and obese in 2011-12. Excess weight has negative health impacts, as demonstrated by the 2011-12 National Health Measures Survey (NHMS). Blood tests show that overweight and obesity increase the risk of abnormal results for nearly all chronic diseases assessed, including cardiovascular and liver diseases, and type 2 diabetes.
Micronutrient deficiencies

Major nutrients at risk, as reported in the National Nutrition and Physical Activity Survey (NNPAS, 2011-12), include iodine, iron (in women) and Vitamin D. Rates of breastfeeding in Australia are sub-optimal. In 2011-12, only 17.6 per cent of infants were exclusively breastfed to six months of age in accordance with the World Health Organization (WHO) recommendation. Exclusive breastfeeding of infants has been linked to numerous short- and long-term health benefits for the child. Incentives for the mother to breastfeed include improved mental health and post-partum weight loss.

Demographic inequities in malnutrition and food security

Demographic trends in obesity, malnutrition and food insecurity are distinct and perverse. Obesity is disproportionately prevalent in rural and remote communities, individuals born overseas and lower socioeconomic areas. Aboriginal and Torres Strait Islanders (ATSI) are 1.5 times more likely to be obese compared to non-Indigenous people. In 2012-2013, the calculated body mass index (BMI) of ATSI children aged 2-14 years indicated that 30 per cent were overweight or obese. Of individuals over the age of 15 years, 29 and 37 per cent were overweight or obese respectively. ATSI populations in Australia suffer from Type 2 diabetes, a diet related condition, at three times the rate of the non-Indigenous population. This pattern is also observed in other Indigenous populations, such as the First Nations People of Canada. Furthermore, vitamin and mineral deficiencies, typical of undeveloped countries, persist in remote communities.

In Australia, a single question is used to identify food insecurity: ‘have you run out of food in the past twelve months and been unable to afford more?’ By this measure, the national average of food insecurity is given as five per cent. Among ATSI populations, 24 per cent are food insecure. Other sub-populations experiencing food insecurity at higher rates, include...
the unemployed, single-parent households, low-income earners, rental households and young people. Certain culturally and linguistically diverse (CALD) groups, people who do not have access to private or public transport, substance abusers and those who are disabled, elderly or frail are also more susceptible to food insecurity.

Misconceptions about food insecurity

A common perception exists that food insecurity is synonymous with hunger and being underweight. One of the most commonly cited definitions, “access to sufficient, safe and nutritious foods to maintain a healthy and active life”, emerged from the World Food Summit of 1996 and implies more breadth within the concept of food security. The WHO describes three dimensions of food security: availability, access and utilisation.

This complexity is evident in Australia, where risk of obesity is elevated among those who experience mild to moderate food insecurity. Though ‘sufficient, safe, and nutritious’ foods may be available, restrictive food budgets motivate the purchase of “junk” foods. Such foods are low in essential nutrients, high in salt and fat, and/or high in sugar. They are associated with weight gain, dental caries and nutrient deficiencies.

A recent study published in the Journal of Public Health Nutrition makes it clear why these “junk” foods may be preferred. In Sydney, forty-eight per cent of disposable income is required to purchase a food basket of healthy food for the most disadvantaged sector of the population. Compare this to the nine per cent of disposable income used to purchase the same foods by individuals in the least disadvantaged sector. Other research has demonstrated that the cost of a week’s worth of healthy and environmentally sustainable food is 30 per cent greater in lower socioeconomic areas. In remote communities, the lack of availability and poor quality of fresh produce interplay with affordability to discourage healthy choices.

Economic burden of overweight and obesity and the balance of health spending

The Australian Diabetes, Obesity and Lifestyle (AusDiab) study estimated the direct economic cost of overweight and obesity was $21 billion in 2005. Indirect costs add another $35.6 billion per year to these estimates. This equates to approximately eight per cent of Australia’s total economic output. A report produced in the US indicated that health promotion programmes produce a median cost-benefit ratio of US$1:$3.14. To address existing cases of overweight and obesity, lifestyle intervention programmes have been shown to be much more beneficial than pharmacological interventions, both financially and socially. On the other hand, surgery has a negative cost-benefit outcome, as well as physical and emotional side effects. Even without this evidence, the need to restructure the health system to focus on primary prevention and lifestyle interventions is intuitive. Political and corporate preference for medical interventions and “quick fixes” act as a barrier.

Investment in preventive health

In 2010-11, the proportion of public health expenditure within total health expenditure was 1.7 per cent; it had decreased from 2.2 per cent in 2007-08. Within this, only a small proportion is allocated to addressing poor nutrition and food security. In contrast, New
Zealand ranks first among OECD countries by percentage of spending on prevention in total health care expenditure (6.96 per cent), with Canada a close second at 6.55 per cent.

In Australia, the recently released 2014-15 budget does not improve this logic-defying balance of health-care spending. In fact, it proposes the abolition of the National Partnership Agreement on Preventive Health (NPAPH), which represented a pledged investment of $932 million from 2009-2018, to implement initiatives that promote healthy lifestyles. The Australian National Preventative Health Agency (ANPHA), formed as part of the NPAPH, will also be abolished. Moreover, the proposed $7 GP co-payment will act as a disincentive that will discourage individuals from seeking medical help. Ultimately, this could lead to an increase in expensive chronic diseases that may have been prevented by diet and lifestyle intervention.

**Importance of food environments**

*Obesogenic environments*

To address the issues of malnutrition, including obesity, in Australia we must first identify the causes. This objective is surprisingly challenging. Instead of simply blaming individuals or food companies, the interaction of a number of social, cultural and physical factors should also be considered. In the NNPAS, 2.3 million Australians aged over 15 years reported being currently on a diet. This is ironic to consider in the light of increasing rates of obesity and overweight. Aspects of food supply, such as the availability of safe “junk” food, may contribute to this contradiction. In Australia, “junk foods” are well marketed, easy to obtain and prepare. “Junk” food takes up a large proportion of each supermarket, with many products featuring health claims such as ‘wholegrain’ (but high sugar) snack bars and ‘fat-free’ confectionary.

The recent NNPAS reported that 35 per cent of the dietary energy of Australians was derived from “junk” foods. A high intake of these types of foods, combined with a reduction in

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1 Obesogenic environments refer to those that are conducive to weight gain.
physical activity levels creates a truly obesogenic environment. Dr Margaret Chan, Director-General of WHO, identified the enemies of public health at the 8th Global Conference on Health Promotion in 2013: “Big Food” and “Big Soda”. “Big alcohol” also featured in Dr. Chan’s landmark speech. The NNPAS reported that alcohol contributed 4.8 per cent of the total energy in the diet of Australians. Reducing alcohol intake would undoubtedly result in significant weight loss and reduce the incidence of cancer and chronic disease among Australians.

Supplemental vitamins and minerals are often used to compensate for poor diet, with 29 per cent of Australian adults reporting that they regularly took a supplement in 2011-12 (NNPAS). The World Cancer Research Fund recommends achieving nutrition through diet alone however, in light of research that indicates an increased risk of certain cancers with high dose supplement use. A consumer is faced with the challenge of interpreting health claims on packaging, misconceptions about dietary supplements, misrepresented nutrition research, social norms about alcohol use and “fad” diets. This necessitates a high level of nutrition, analytical and critical skills, as well as motivation, to navigate the modern day food environment.

**Solutions**

**Government: Strategies and policy**

Government action is a key tool in addressing the issues of malnutrition, obesity and food security in Australia. Policies and strategies, such as the *National Preventive Health Research Strategy (2013-2018)*, released in June 2013, are core elements in attempts to make progress with these issues. Importantly, this strategy highlights the necessity of integrating multiple sectors and professions throughout the research process. Policy should be based on current evidence about optimum nutrition. It should also consider the growing challenges of sustainability and equity to reduce the burden of diet-related death, illness and disability. Currently, a scoping study is being carried out to inform the development of a new National Nutrition Policy. The study is chaired by the Department of Health and Ageing, with input from the States and Territories. The Nutrition Policy should be finalised in 2014.

The Food and Health Dialogue is another Federal Government initiative, instigated in 2009, which encourages the food industry to voluntarily reduce the amount of saturated fat, sugar and energy in processed foods. It also seeks to increase the proportions of fruit, vegetables and fibre/wholegrain cereals in those foods. The Food and Health Dialogue works in quick service restaurants to encourage improved nutritional quality, the education of customers and reduction of portion sizes. A recent evaluation published in the Medical Journal of Australia found that none of the 124 targets set have been fully achieved. Yet, similar programs in the United Kingdom have shown a high level of effectiveness. Differences observed can be attributed to the measurability and meaningfulness of their aims and the strength of government support.

Meaningful policy change and implementation at the federal government level has been rare, in the context of unstable leadership and party changes. The Gillard government commissioned the National Food Plan (NFP) in 2010, which represented Australia’s first “whole of government” food plan. Finally released in May 2013, the NFP was shelved in
favour of the development of the Agriculture White Paper, following the election of a new Federal government in November 2013. Unfortunately, the suggestions in the NFP appear to have been considerably more holistic than the new White Paper, which is chiefly focused on increasing agriculture’s productivity and profitability.

Recommendations from the NFP include informing and empowering the community. Logically, this could begin with addressing the low levels of food literacy among Australian children. Notably, the Stephanie Alexander Kitchen Garden Program has grown expanded from one school in 2001, to 665 in 2012. It teaches primary school children how to grow, harvest, prepare and share fresh food. The success of this program has resulted in a continued Federal government commitment for funding and expansion.

Local government and community participation

Participation in community gardens, city farms, school kitchen gardens, food hubs, cooperatives and farmers’ markets, carries great benefits by increasing public perceptions of food security and changing connections with food. These measures may be most successful because of the involvement and support of local government. Healthy Cities Illawarra (HCI), a local government initiative, involves innovative measures to create a local and thriving food system, and healthy, active lifestyles. The initiative includes programmes such as Food Fairness Illawarra (FFI), a kitchen garden network, and peer education projects to improve the food security status of low-income communities. Ongoing reporting, evaluation and dissemination of the benefits of such programs are essential to inspire other local governments to take up the baton. To achieve this requires a groundswell of action among local governments and communities in lieu of currently unreliable top down approaches.

Food labelling

Changes to food labelling will enable consumers to make healthier food choices and the anticipation is that this will motivate the food industry to reformulate food products. The controversial Front of Pack Labelling (FoPL) project typifies the recurring theme of stagnation at the implementation stage in any strategy involving voluntary or regulated food industry change that may affect profits. Lobbying by the AFGC resulted in the removal of the project’s website hours after it went live in 2014. With the appointment of a new Oversight Committee, the voluntary period for companies to introduce the labelling system is due to begin in July. Opposition from the food industry and politicians, however, is
ongoing. Meanwhile, the George Institute of Global Health, based at the University of Sydney has produced the FoodSwitch mobile application to aid with food label interpretation. Once the barcode has been scanned, the application gives each food a “traffic light” rating and suggests a healthier, comparable option. FoodSwitch has been downloaded over half a million times, showing the eagerness of the Australian public for tools to support informed food choices.

Role of medical practitioners and allied health professionals

Allied health professionals, particularly diabetes educators, exercise physiologists and dieticians, are able to support individuals in making lifestyle changes to manage and relieve diet-related chronic disease. Currently, Australian adults are entitled to claim a total of five sessions per calendar year under the Medicare rebate arrangements, to utilise the services of all allied health professionals. Regular, individualised feedback and dietary advice is the optimum programme for achieving and maintaining weight loss. Compared to this formula, current provisions are inadequate. ATSI peoples are entitled to ten sessions; however, there is a stark contrast in their accession of these entitlements compared with other Australians, indicated by the rate of potentially preventable hospitalisation (PPH)\(^2\). In 2008-09, the rate of PPH was 4.9 times greater among Indigenous Australians.

Aboriginal and Torres Strait Islander nutrition: the need for a tailored approach

The new National Aboriginal and Torres Strait Islander Health Plan 2013-2023 is designed to achieve the Closing the Gap targets. Strategies within this plan include improving access to nutritious foods through a National Nutrition Policy. Issues such as a lack of nutritional hardware were not addressed (only six per cent of ATSI communities have functioning nutritional hardware, including preparation and storage areas, and a functioning stove and sink). Details of approach and implementation must be carefully considered; for example, adjusting to learning style, incorporating local food and supporting cultural practices. The Dietetics Association of Australia (DAA) advocates the success of approaches that engage at the remote store level, while maintaining that there is no ‘one size fits all’ solution to food security.

Conclusion

Rates of overweight and obesity are commonly bandied about by the media; often accompanied by words such as ‘epidemic’ and ‘alarming’. Predictably, this sensationalism does not inspire change in individuals nor can scare tactics support and maintain lifestyle changes. Diet-related chronic disease, with its various ramifications for quality of life will touch most families in Australia. Social norms about the acceptability and inevitability of overweight and obesity should be challenged to encourage personal responsibility. Government at all levels; agricultural industries and “Big Food” undoubtedly have the primary responsibility for creating supportive environments. Results of the 2011-2013 Australian Health Survey can be used to ensure better-targeted measures and messages to

\(^2\) PPH - is defined by the Australian Institute of Health and Welfare as those admissions that potentially could have been prevented through the timely and appropriate provision of primary care or other non-hospital services
substantiate change. Rather than frustrated and circular discussions seeking the perfect solution, immediate action is necessary to confront the issues of obesity and food security.

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