Response to the Draft Australian Dietary Guidelines

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1. Executive Summary & Recommendations

**Recommendation 1:** Produce population resources written with practical considerations to enable all people to interpret and apply Guidelines to dietary intakes.

**Recommendation 2:** Include the environmental evidence outlining the types of evidence, assessment considerations and methodological issues of the environmental effects in Guidelines.

**Recommendation 3:** Integrate environmental considerations into the Guidelines, particularly for

- a) The five food group foods and drinks that are core to health and minimally processed, for example ‘Enjoy a wide variety of nutritious foods from these five food groups everyday to maximise health and environmental sustainability’

and

- b) for ‘extras’ foods and drinks that contribute little or no nutritional value to the Australian diet, for example ‘Avoid the intake of foods and drinks high in total energy, fat, salt and added sugars particularly from highly processed and packaged foods’

**Recommendation 4:** Reinstate priority on the overarching principle of ‘enjoying’ a wide range of nutritious foods

**Recommendation 5:** Include reference to drinks to be consistent with other Guidelines, rewrite guideline to state “Enjoy a wide variety of nutritious foods and drinks from these five food groups every day to maximise health and environmental sustainability”

**Recommendation 6:** Rerword guideline to ‘eat plenty of vegetables, legumes and beans including different types and colours’.

**Recommendation 7:** Rerword guideline to ‘Plenty of Grain (cereal) foods, mostly wholegrain, minimally processed such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats and barley’.

**Recommendation 8:** Rerword draft Guideline 1 to read

*Enjoy a wide variety of nutritious foods from these five food groups every day to maximise health and environmental sustainability:*

- Plenty of vegetables, legumes/beans including different types and colours, and vegetables and legumes.
- Plenty of fruit
- Plenty of grains (cereals) foods, mostly wholegrain such as bread, cereals, rice, pasta, noodles, polenta, couscous, oats and barley
- Some lean meat and poultry, fish, eggs, nuts and seeds and legumes/beans
- Some milk, yoghurt, cheese and/or their alternatives, mostly reduced fat (reduced fat milks are not suitable for children under the age of 2 years)

And drink plenty of water, mainly tap water
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Recommendation 9: Reword overarching guideline to state ‘Avoid the intake of foods and drinks high in total energy fat, salt and added sugars, particularly from highly processed foods and drinks’.

Recommendation 10: ‘Read labels to choose lower sodium options among similar foods’ appears to be a practical application and not a dietary guideline. Leave this statement out and included in the practical applications section for this guideline and in the AGHE as food labels provide food literacy information on a range of nutrients. This would then be an appropriate place to indicate that sodium is a main ingredient of salt.

Recommendation 11: Reword the overarching Guideline 3 to state “Choose amounts of nutritious foods and drinks to meet your energy needs to achieve and maintain a healthy body weight”

Recommendation 12: Add physical activity as advice at the end of this guideline (not repeat in overarching Guideline and then again in children and older people), for example “Be physically active everyday”

Recommendation 13: The average energy needs of different lifecycle stages must be included in AGHE to enable the population to know what their energy needs are. Comparisons to the energy content of high fat, salt, sugar foods with indication of portion size are important practical considerations.

Recommendation 14: Reword guidelines to ‘Children should eat to energy needs for healthy growth and development’. Reference to physical activity should be put in as separate statement.

Recommendation 15: Consider Reordering Guidelines based on message testing with the population

Recommendation 16: Give greater priority to social equity including the cost of healthy food in the implementation of Guidelines by expanding the practical considerations at the end of each chapter and providing practical advice to the Australian population on ways to achieve Guidelines with lower cost nutritious foods.

Recommendation 17: Ensure that the Guidelines are widely distributed and available in multiple formats for end users. This requires a sufficient level of resourcing for the production of publications, professional development opportunities for stakeholders and long-term dissemination of publications

Recommendation 18: Include practical considerations for each stage of the lifecycle and vulnerable groups at the end of each chapter to enable health professionals and others to access details those specific to their target groups/clients/patients.

Recommendation 19: Produce a series of stand alone simple communications for the Australian population based on life stage and vulnerable group guidelines considering cognitive behavior change strategies, social and cultural inclusion to enable individuals to achieve current recommendations.
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Recommendation 20: Make Guidelines ‘doable’ with communications in simple directive statements, utilising appropriate language to motivate change in line with desired behaviours, e.g. avoid added sugar intake and advice on foods contributing amounts of added sugar to the Australian diet.

Recommendation 21: Provide a range of flexible delivery for dissemination - online and interactive as well as paper copies of materials and develop professional development opportunities for health professionals.

Recommendation 22: Produce a series of peer-reviewed publications on Guidelines on process, evidence basis, testing with population and technical writing.

Recommendation 23: Be consistent with the use of bullets or alphabetical listing of points under the overarching Guidelines (Guideline 2 has alphabetical points, Guidelines 1 and 3 have bullet points).

Recommendation 24: Bracket (low-fat diets are not suitable for infants) as in Guideline 1 where the statement on milk includes (reduced fat milks are not suitable for children under the age of 2 years) for consistency in advice to specific stages of the lifecycle.

Recommendation 25: Include more detail from the synthesis of data collated from the dietary modelling of foundation and total diets, evidence literature review and population testing in the AGHE to maximise practical application.

Recommendation 26: Undertake more work on the graphical representation of foods on the plate, including reorientating the plate to include vegetables and fruit at the top, assess the magnification of different foods based on feedback from population interpretation testing and provide text to indicate what the food groups are (e.g vegetable group)

Recommendation 27: Include graphical representations of foods, for example brassica vegetables next to the serve size equivalents to improve population comprehension, including an indication as to the amount of daily water intake.

Recommendation 28: Consider how varying culturally and linguistically diverse groups are represented on the plate and how the AGHE can be adapted for nutrition education and promotion with different cultural groups to match practical considerations in Guidelines.

Recommendation 29: Provide a range within food group recommendations to assist achieving the same nutrient recommendations for different stages of the lifecycle.

Recommendation 30: Provide clear and specific recommendations for drinks that are likely to contain high energy, saturated fat and added sugars to be included in the ‘extra’ food sections.

Recommendation 31: Highlight the important of whole fruit or minimally processed fruit such as canned fruit and remove fruit juice as the equivalent to whole pieces of fruit.

Recommendation 32: Include clear definitions of portion sizes required in serve sizes, such as photographs that match the actual serve size, particularly for amphorous foods (foods that don’t hold their shape and are difficult to judge) like rice etc.
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Recommendation 33: Include an indication of energy (kilojoule) requirements for different lifecycle and genders in the table with the food group recommendations.

Recommendation 34: Use the term ‘extra’ serves in place of ‘additional serves for taller or more active men and women.

Recommendation 35: Provide clear definitions on the types and amounts of extra foods (‘sometimes’ and ‘other foods’ or ‘occasional’ foods) in order to assist the population and application by stakeholders.

Recommendation 36: Move fats back into the ‘extra’ food group representations.

Recommendation 37: Included recommendations of numbers of ‘extra’ serves in AGHE for different physical activity levels such as inactive, moderately active and highly active to match the reference to energy needs in the Guidelines.

Recommendation 38: Include where appropriate, environmental sustainability advice in food choices and consideration to lower cost food choices in promotion of five food groups.

Recommendation 39: Provide practical advice to develop food literacy in areas such as food label reading to ascertain total energy, sugar and sodium content and provide details on suitable cooking methods to lower fat and saturated fat contents.

Recommendation 40: Develop the opportunity to use traditional dissemination approaches such a publication called Background for Nutrition Educators and develop newer approach to dissemination and implementation of the AGHE (Guidelines)

Recommendation 41: NHMRC to work with the Commonwealth Department of Health to support a National Food and Nutrition Monitoring and Surveillance System for Australia to provide evidence on Guidelines implementation and effectiveness.

Recommendation 42: NHMRC work with the Department of Health and Department of Agriculture, Fisheries and Forestry to develop actions plans to set industry targets for providing a food supply consistent with the Guidelines.

Recommendation 43: Include representatives of the primary food groups, particularly the fruit, vegetable and legume industries in the next iterations of the Dietary Guidelines and not include representation from the sector of the food industry that produces high total energy, fat, salt and sugar foods.

Recommendation 44: NHMRC to call for financial incentive to support low-income Australians purchase high quality nutrient dense foods.

Recommendation 45: NHMRC needs to work with a range of stakeholders to develop action plans that addresses the cost of healthy foods for low-income Australians.

Recommendation 46: NHMRC to acknowledge the limited public health nutritionist workforce and provide appropriate training for professionals other than nutritionists, and compulsory food and nutrition education in schools.
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2. Introduction

The Public Health Association of Australia Incorporated (PHAA) is recognised as the principal non-government organisation for public health in Australia and works to promote the health and well-being of all Australians. The Association seeks better population health outcomes based on prevention, the social determinants of health and equity principles.

Public Health

Public health includes, but goes beyond the treatment of individuals to encompass health promotion, prevention of disease and disability, recovery and rehabilitation, and disability support. This framework, together with attention to the social, economic and environmental determinants of health, provides particular relevance to, and expertly informs the Association’s role.

The Public Health Association of Australia

PHAA is a national organisation comprising around 1800 individual members and representing over 40 professional groups concerned with the promotion of health at a population level.

Key roles of the organisation include capacity building, advocacy and the development of policy. Core to our work is an evidence base drawn from a wide range of members working in public health practice, research, administration and related fields who volunteer their time to inform policy, support advocacy and assist in capacity building within the sector. PHAA has been a key proponent of a preventive approach for better population health outcomes championing such policies and providing strong support for the Government and for the Preventative Health Taskforce and National Health and Medical Research Council (NHMRC) in their efforts to develop and strengthen research and actions in this area across Australia.

PHAA has Branches in every State and Territory and a wide range of Special Interest Groups. The Branches work with the National Office in providing policy advice, in organising seminars and public events and in mentoring public health professionals. This work is based on the agreed policies of the PHAA. Our Special Interest Groups provide specific expertise, peer review and professionalism in assisting the National Organisation to respond to issues and challenges as well as a close involvement in the development of policies. In addition to these groups the Australian and New Zealand Journal of Public Health (ANZJPH) draws on individuals from within PHAA who provide editorial advice, and review and edit the Journal.

Advocacy and capacity building

In recent years PHAA has further developed its role in advocacy to achieve the best possible health outcomes for the community, both through working with all levels of Government and agencies, and promoting key policies and advocacy goals through the media, public events and other means. The PHAA believes that the Australian Dietary Guidelines provide a key overview for healthy eating and should form an integral part of the Australian National Food Plan.
3. Introduction to PHAA Submission on Australian Dietary Guidelines (incorporating the Australian Guide to Health Eating)

PHAA firmly maintains that there is a food and nutrition crisis occurring in Australia that mandates the need for the Australian government to establish and promote of the dietary patterns that lead to long healthy lives as part of a comprehensive food and nutrition policy\(^1\). 

Since NHMRC’s 2003 Dietary Guidelines for Australians publication the food and nutrition crisis in Australia is matched by interventional concerns regarding

- a) Rising overweight and obesity rates and related chronic disease rates\(^2\).
- b) Loss of traditional dietary patterns and cultural ways of eating due to convergence of international diets in part due to easier food trade\(^3\).
- c) Amplified levels of evidence for action on environmental sustainability\(^4-7\).

PHAA notes that there are strong interrelationships between these three concerns that indicate changing food and nutrition systems (including the rise in highly processed foods and drinks) are significantly impacting on physical and mental health. Dietary Guidelines have greater imperative now to address these interrelated issues.

Diet-related health care costs are rising in Australia as evidenced by the $52 billion total costs to society associated rising obesity rates\(^8\). The Australian Government needs to make crucial decisions now to shift more of the population to healthier eating patterns matched with appropriate levels of physical activity.

PHAA is pleased to be able to provide the NHMRC with expert comment on the draft for public consultation of the Australian Dietary Guidelines (incorporating the Australian Guide to Health Eating) (Guidelines). This submission is provided in several sections; PHAA’s position on Guidelines will be covered first followed by commendations to the NHMRC. PHAA will then take the opportunity to provide recommendations on the Guidelines and the AGHE that it considers will contribute to their effectiveness. Finally PHAA would like to outline some broader implications that it feels will contribute to the implementation and long term effectiveness of the Guidelines and to outline to the NHMRC considerations for ongoing Guidelines revision and how PHAA can facilitate this work.


Guidelines represent the best consensus of scientific knowledge and public health advice currently available.

PHAA’s mandate in the discipline of public health nutrition is to promote and assist action on public health food and nutrition issues. Public health nutrition for the purposes of this submission is defined as
Public health nutrition aims therefore require multi-faceted and multi-strategic approaches including social, cultural, economic, ecological (environmental) and political factors whilst drawing on its origins in nutrition science\(^9\). More recently public health nutrition has been reconceptualised within the New Nutrition Science paradigm\(^{10,11}\). The New Nutrition Science recognises the limitations of traditional biomedical/nutrition science approaches to improving health and the potential scope of integrating the social (including cultural, economic and political)\(^{12}\) and the environmental with nutrition science\(^{13}\). The relationship of these approaches is depicted in Figure 1.

![Figure 1 Public Health Nutrition Dimensions](image)

It is therefore unlikely that improvements in health of Australians will be made if nutrition science recommendations are considered in isolation. Public health nutrition now has the responsibility to promote food that is not only healthy, but also environmentally sustainable\(^{14}\).

PHAA considers that Guidelines provide Australia Government with the opportunity to incorporate and promote the biomedical, social, cultural, economic, environmental and political benefits of healthy food intakes to the Australian population and is particularly keen for the opportunity to comment on the draft consultation.

Australia has published Dietary Guidelines since 1982 and has been regarded as world leader in relation to the process and the production of age group specific dietary advice for populations\(^{15}\). The NHMRC guideline development process establishes the gap between evidence and practice and produces simple communications that contribute to filling this gap. The Australian population needs credible and reliable nutrition information to make food choices\(^{16}\). PHAA recognises that many
organisation’s work to undermine the Guidelines using a variety of strategies (17). Guidelines and the
AGHE provide sound, consistent, coherent, simple and clear dietary advice to be conveyed to the
population by a range of organizations to improve population food literacy.

The absence of Dietary Guidelines would see the level of nutrition misinformation in the
population rise dramatically and result in increased population confusion related to
healthy eating.

Food literacy is the term used to describe the food skills and knowledge needed to make use of
public health nutrition messages (18). PHAA believes that there have been a number of impacts on
food literacy since the 2003 edition of Guidelines such as

- Concerns about declining/changing food preparation and cooking skills (19)
- Lack of understanding of food labels, particularly the NIP & %DI (20, 21)
- Increasing complexity of the food supply as evidenced by growth in the number of
supermarket items, for example packaged snack foods (22).

PHAA maintains the purpose of Guidelines is to provide advice to the general population about
healthy food choices, addressing issues such as balance and variety in the diet, eating enough
vegetables, fruit, and cereal foods. It is important that Guidelines contribute to general wellbeing in
relation to maximising nutritional status including growth for children as well as reducing impact of
diet related diseases. PHAA also sees that it is important to highlight nutrients of public health
significance including healthy intakes of fat, salt, sugar, at times some specific limiting nutrients,
infant feeding and food safety.

However PHAA recognises that community concerns about food and nutrition may extend to issues
far beyond those addressed in the Guidelines and that there is significant food and nutrition
misinformation in the public arena. Guidelines are an important tool to provide Australian’s with up-
to-date dietary advice. However they do need a dissemination plan and support within a policy
framework. Section 8 will outline the broader implications for Guidelines dissemination,
implementation and evaluation.

4.1 Historical Development, Implementation and Evaluation of Food-based Dietary
Guidelines (Guidelines)

Dietary Guidelines have a long history of development and use that demonstrates their
international and national importance. Since 1955 Dietary Guidelines have been tools
promoted internationally by United Nations agencies to enable individual governments to translate population nutrient goals into food-based advice for their citizens.

A Plan For Action was adopted at the International Conference on Nutrition in Rome in
1992, which called for the dissemination of nutrition information through sustainable food-
based approaches that encourage dietary diversification through the production and
consumption of micronutrient-rich foods, including appropriate traditional foods. This lead
to focus on food based dietary guidelines (FBDG). The plan for action marked a change from
policies dictated by a number of policies focusing on prevailing public health problems.
Following this, in 1996 the Food and Agricultural Organization (FAO) and the World Health
Organization (WHO) of the United Nations published guidelines for the development of
FBDG (23). Those guidelines remain the key reference work on the subject today.
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FBDG characteristics described by the World Health Organization (WHO) are \(^{24}\):

- The expression of the principles of nutrition education mostly as foods
- Intended for use by individual members of the general public, and
- If not expressed entirely as foods, written in language that avoids, as far as possible, the technical terms of nutrition science.

PHAA believes that the primary focus on whole foods in Guidelines and not individual nutrients is particularly important to recognise. Food and beverages are composed of a complex array of constituents including individual nutrients. Improving health outcomes by isolating individual nutrients has not been replicated by clinical trials using dietary supplements. The health benefits of nutrients cannot be delivered in isolation and may in some cases cause adverse effects\(^{25}\).

4.1.1 Implementation of Guidelines

Dietary Guidelines require essential implementation plans that effectively inform the public on the messages. The Joint Food and Agricultural Organisation/World Health Organisation (FAO/WHO) consultation report presents some factors to be taken into consideration in the implementation process that are valid in the Australian context \(^{23}\):

- Messages should be short and clear, easily remembered, and comprehensible (understood by the general public). Visual materials used to communicate Guidelines messages must also be clear and comprehensible to be successful. In addition, Guidelines must be culturally acceptable as regards dietary habits, lifestyle etc. Radical changes to current habits will be less successful than recommendations on small changes, which will be easier to communicate and implement.
- Guidelines should be practical, i.e. the foods recommended in Guidelines must be affordable, accessible, and varied so that they suit different population groups. The population will not use them unless they are practical.
- Educational materials should be developed to support Guidelines. The purpose of such material is to explain further the guideline’s content and its application in everyday life (explain portion size etc.). It is recommended that all relevant stakeholders are involved in producing education material since this enhances the materials’ quality.
- Guidelines should be communicated through a wide selection of strategies. When a message is communicated several times, for example via different media, the message is reinforced and the impact will be more significant.
- Communication of Guidelines should be targeted and address relevant community groups, age groups etc.
- Guidelines should be tested. First, nutritionists and citizen representatives (e.g. school teachers, community leaders) should check the guidelines. Upon revision made on the basis of this first testing, a second check with citizen should be performed to test their understanding.

In addition to this, the European Food Safety Authority (EFSA) Scientific Opinion on Guidelines also recommends integrating the Guidelines into a ‘coherent food and nutrition policy’ that exceeds mere communication to consumers in order for the implementation to be effective\(^{26}\). PHAA will provide more commentary and recommendations on this point in Section 8.
4.1.2 Evaluation of Guidelines

The FAO/WHO consultation report outlines outcome and process evaluation (23). The purpose of outcome evaluation is to measure the results or impacts of the Guidelines (knowledge, attitude, behaviour, practice etc.). This is mostly done using surveys. Process evaluation on the other hand entails assessing how a message is disseminated or implemented. The most important question to ask when carrying out such an evaluation is whether the communication campaign was implemented as planned. By evaluating the process, the outcomes are put into context. The process evaluation should yield information as to how to improve delivering the message in the future to improve outcome evaluation (24).

The EFSA Scientific Opinion also lists ways of evaluating effects (26). The listed indicators do not have the same time scale in terms of follow-up, which needs to be taken into consideration when used.

- Changes in food sales/purchases. Note that such statistics may not paint a true picture of consumption; therefore one should be cautious when interpreting the data.
- Changes in food composition. Guidelines can impact food composition by working as a driver for product reformulation. Monitoring of this is essential in that one must have knowledge about food composition to measure nutrient intake trends in the population.
- Changes in food group consumption. Indicators are obtained via representative dietary surveys.
- Changes in health status. Biomarkers, morbidity and mortality rates and more specific indicators can be used.

To measure effectiveness of Guidelines it is necessary to have the guidelines monitored and evaluated. The monitoring and evaluation results should then be used to improve the Guidelines or the way they have been implemented.

Internationally Guidelines development accounts for the biological, physical, social and cultural environments in which specific populations exist. The World Health Organisation’s (WHO) 2004 Global Strategy on Diet, Physical Activity and Health encourages governments to draw up national dietary guidelines, taking into account evidence from national and international sources. The performance indicators for this are:

- The existence of published guidelines
- Clear mechanisms to disseminate dietary guidelines
- The percentage of the target population that received the national dietary guidelines and were able to successfully translate them into healthy dietary intakes (27).

4.2 PHAA’s use of the Dietary Guidelines and Australian Guide to Healthy Eating

PHAA regards the Guidelines and AGHE as the unequivocal dietary advice and uses them to define and encourage healthy eating behaviours though all of its food and nutrition-related policies and advocacy activities.

PHAA works to promote and support health at a population level. PHAA considers that the primary use of the Guidelines is to provide advice to the general population about healthy food choices. They address issues such as balance and variety in the diet, eating enough vegetables, fruit, and cereal foods, healthy intakes of fat, salt, sugar, at times some specific...
limiting nutrients, and infant feeding. They represent the best consensus of scientific knowledge and public health advice currently available. PHAA recognises that population concerns about food and nutrition may extend far beyond the health issues addressed by the existing Guidelines.

PHAA also considers that the Guidelines have a number of other critical functions in public health nutrition. PHAA uses NHMRC evidence-based guidelines to guide its policy development and advocacy activities.

The NHMRC process used enables PHAA to use the Dietary Guidelines and AGHE to give definitive advice and promote clear consistent dietary policy recommendations, including the following policy statements:

- Food, Nutrition and Health
- Breastfeeding
- Food and Nutrition Monitoring and Surveillance in Australia
- Food Security for Aboriginal and Torres Strait Islander Peoples
- Health Claims on Food
- Improving the Health of School-age Children and Young People
- Promoting Healthy Weight: The prevention and management of overweight and obesity in Australia
- Marketing Food and Beverages to Children

PHAA has undertaken several recent advocacy activities that have utilised the Guidelines to encourage and support public health nutrition action. These include:

- A Future of Food – with an emphasis on protecting the environment and a sustainable food supply (28).
- National Food Plan - Initial Consultation - the call for an Australian integrated food and nutrition policy by Department of Agriculture Fisheries and Forestry (29).

4.3 Dietary Guidelines as part of a Food & Nutrition System Approach to Improving Health

PHAA’s food and nutrition-related policy and advocacy agenda is broad and aims to encourage interventions to improve dietary patterns in Australia, from the promotion of healthy eating, food security, creating a supportive environment through regulation and enforcement, to ensuring a sustainable food supply. PHAA has previously submitted to the NHMRC that this current revision process of the Guidelines take into account emerging scientific evidence on wider social and economic issues that influence food and health. In doing this PHAA recognises that are many drivers of food choice for Australians.

PHAA asserts that the general message of eating a variety of nutritious foods within energy needs for good health has not changed, however the food and nutrition system in which the population live as changed dramatically. The food and nutrition system in Australia now produces more kilojoules for consumption than ever before; the population has become more reliant on eating outside the home. PHAA has outlined in its submission to the Department of Agriculture, Fisheries and Forestry (DAFF’s) Initial Consultation on a National Food Plan the myriad of issues deriving from
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the economic focus of Australia’s food supply that increase the availability of highly processed foods and drinks with limited nutritional value (29).

The health impact of food needs to be considered across the food supply chain, from trade to consumption. The relevance and dissemination of the guidelines for all stakeholders should therefore be considered during the revision process. Although the food industry (manufacturers, processors, advertisers, retailers, education and training, food service) is a major stakeholder, the health of the Australian population should be regarded as the priority and therefore general citizens as the primary target.

The promotion of nutritious, affordable, accessible and acceptable food by Guidelines must take into consideration the sustainability of natural resources both in Australia and in the countries from which we import food(28).

PHAA would like to see action on commitment by the Australian government to a vision for food that is integrated across all areas of government specifically incorporating health, social inclusion, agriculture and fisheries, education, treasury, innovation and the environment(30).

5. Commendations on the Australian Dietary Guidelines Incorporating the Australian Guide to Healthy Eating - draft for Public Consultation

The National Health and Medical Research Council (NHMRC) is identified as Australia’s peak body for developing health advice for the Australian community, health professionals and governments. The level of commitment to nutrition by the NHMRC is important and critical given the extent of diet-related disease.

PHAA congratulates the NHMRC on the thoroughness of the process as evidenced by the substantial documents produced to support the draft Guidelines incorporating the AGHE and in a process that builds on the evidence base produced by the 2003 Guidelines. The revision and development of Guidelines across the lifecycle and the translation of this into practical advice in the AGHE at the same time represents a significant milestone in government nutrition recommendations development. PHAA is aware of the enormity of the task undertaken by the NHMRC in this current revision.

There are a number of commendations that PHAA would like to elaborate on in this submission.

5.1 International Recognition of Australian Dietary Guidelines

The process and draft outcomes to produce the 2012 Guidelines has enabled the NHMRC to maintain Australia as a world leader in producing population food-based Dietary Guidelines. This current revision has been a unique opportunity to have a set of Dietary Guidelines and Food Selection guide revised at the same time. Australia has been a world leader in producing specific Guidelines for children & adolescents, adults and older adults(15). Australia has been recognised as the first country to consider the social importance of healthy foods with the inclusion of the word ‘enjoy’ in the overarching dietary guideline statement in the 2003 Guidelines and the inclusion of Guidelines on alcohol and food safety. The ongoing development of Guidelines recognised in the
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draft for public consultation primary builds on the 2003 Guidelines as outlined on page 13 of the draft for public consultation. PHAA considers this incremental development of Guidelines a significant strengthen in being able to communicate consistent messages over time to the Australian population with the aim of improving health.

The media attention given to the release of the draft Guidelines on the 16th December 2011 is testament to the interest in achieving health via dietary advice in Australia.

5.2 Goals of the 2010-2012 Revision Process

PHAA has previously congratulated the NHMRC on the comprehensiveness of the original goals to update the Guidelines as published in 2010 and takes this opportunity to reiterate the importance of these goals. These goals exemplify NHMRC’s position as the peak body on health advice.

Goals of Guidelines Revision

- Deliver the nutrient requirements for people of varying age/gender, activity levels and life-stages.
- Are culturally acceptable, socially equitable and environmentally sustainable
- Reflect the current Australian food supply and food consumption patterns
- Provide some flexibility in food choice and promote health and wellbeing

These comprehensive goals for Guidelines recognise that food not only performs a biological function but also in addition has significant social, cultural and economic roles in Australian lives.

The increased priority placed on the socially equitable and environmental sustainability of Guidelines reflects the public health nutrition view of these being a higher priority than previous Guidelines revisions.

The NHMRC is also to be congratulated on the expert working committee that was formed to revise the Guidelines and AGHE. The calibre of public health nutrition professionals was impressive including noted world leaders in nutrition science, social determinants and environmental sustainability issues. The expertise assembled by the NHMRC gave the public health nutrition community great confidence in the evidence review process and the committees ability to clarify scientific uncertainty where important.

5.2 Rigour of the Evidence Based Process

The Evidence based process undertaken by the NHMRC to inform the Guidelines has provided health professionals and other stakeholders with elucidation of the strength of evidence linking diet and long-term health. This process is highly regarded in the public health nutrition discipline and should guide government action at all levels. The effort to document the new evidence base by reviewing over 55 000 scientific journal articles in such a rigorous process is impressive. This was also noted with the public consultation process for the draft Infant Feeding Guidelines for Health Workers (IFGHW). The rigour of the evidence based process puts Australia in line with international best practice in dietary guidelines development. It was important that the NHMRC build on previous Guidelines revision processes in the development of the current draft for public consultation given.
PHAA is pleased to see that in several areas the strength of evidence regarding the association between food intakes and health has increased particularly for the consumption of:

- Sugary sweetened drinks are associated with increased weight gain;
- Milk and fruit intake is associated with a reduced risk of heart disease;
- Non-starchy vegetables and decreased risk of some cancers
- Wholegrain cereals consumption is associated with decreased risk of heart disease as well as excessive weight gain.
- Breast feeding association with long-term health benefits;

PHAA notes that the NHMRC has explained the different expectation in evidence grades for public health nutrition, however it must be made clear to nutrition and other stakeholders that level C evidence is the highest level of evidence likely for nutrition given the limitations of randomised controlled trials (RCTs). Public health nutrition evidence will never consist of level A (mostly RCTs) as its no appropriate or ethically not suitable to undertake these types of study designs (32). Therefore it can never be suggested that lower levels of evidence in nutrition compared with clinical areas suggests a ‘lesser’ impact of diet on health. The NHMRC has a role to ensure this distinction is clearly made in the Guidelines.

The extensiveness and thoroughness of the evidence report provides a strong mandate and current imperative for Australian State and Territory government intervention into the national diet.

5.3 Acknowledgement of the Social Determinants of Health

Since the 2003 version of the Guidelines the increased recognition of the social determinants of health and how these might impact on dietary intakes is an important step in line with international recognition(31). Nutrition can’t be considered in isolation to the social, cultural and economic context of the lives of the Australian population. The draft of consultation contains evidence on ‘Equity and the social determinants of health and nutrition status in Appendix 7. PHAA believes the NHMRC has appropriately documented a number of issues in Appendix 7 that act as significant barriers for segments of the Australian population to achieve Guidelines and therefore optimum health. It is pleasing to see a statement related to these barriers.

A greater understanding of the barriers to consuming a nutritious diet will help ensure appropriate messages, education and public health strategies are developed for groups who experience a greater burden of diet-related disease. It was essential that the social determinants of health and nutrition status were considered in the Guidelines so as to reduce the risk of adding to health inequalities, for example, by promoting consumption of expensive or hard to access foods (page 179).

PHAA maintains it is essential to consider how this recognition is translated in Guidelines and AGHE messages and will provide commentary and recommendations in Section 6 and 7.

5.4 Consistency and Specificity of messages- Guidelines (incorporating the Australian Guide to Health Eating (AGHE))

The Guidelines place appropriate emphasis on a high dietary variety and quality pattern from eating more vegetables, legumes, fruits, and whole grains that have been the cornerstone messages in
Dietary Guidelines since 1982. The continuation of these messages highlights the consistency in population advice over time.

Now the evidence-based review process used by the NHMRC adds scientific recognition that these are the dietary patterns required to improve population health. Increasingly the NHMRC is able to be more specific with particular recommendations that should translate to the population’s dietary intake.

Important points to note are;

- Coherent set of advice for the population. As applied to different stages of the lifecycle it clearly illustrates that similar basic principles apply to all.
- Indication that variety is from the five food groups is an improvement on past Guidelines
- Need to eat mostly wholegrain rather than just ‘preferably’ wholegrain important
- Appropriate to include different statements for some Guidelines i.e. Reduced fat milks are not suitable for children under age of 2 years
- Limit messages reflect need clear communication to the majority of the Australian population to eat less of energy dense, nutrient poor foods or ‘extra’ foods
- Inclusion of guidelines specifically recommending limiting sugar-sweetened drinks provides a definite statement on drinks that provide little nutrition but high energy in the Australian diet (33). 
- Breastfeeding and Food safety important to include in Guidelines.

5.4.1 Australian Guide to Health Eating

The incorporation of the AGHE is essential as food selection guides have provided the mainstay of dietary advice in Australia since the 1940’s and are acknowledged in a wide range of nutrition education initiatives (34). The link to the AGHE as the graphic representation summary of the Guidelines continues to support the consistent messages of five food groups and the plate designed from the 1998 AGHE review and 2003 Dietary Guidelines review. This is the first time that these two tools have been revised in conjunction and PHAA commends the NHMRC on this process.

The continued use of the plate and title from 1998 is important to reinforce consistency of past and current efforts to education the Australian population on food group selections. This type of food selection guide also matches international efforts (7) which suggests a consistency in interpretation by populations around the world. AGHE now clearly indicates that all five food groups needs to be eaten every day which wasn’t as clear in the 1998 version and places appropriate emphasis on plant based foods such as vegetables, legumes, fruit, cereals and grains.

All age groups included which provides consistency in recommendations and prevents estimations for children below 4 years of age. This provides consistency with the 2006 Nutrition Reference Values (NRVs).

The subdivision of vegetable recommendations into types such as brassica etc. provides more practical advice for the population than ever before and distinguishes intake of potatoes from other important nutrition sources.
5.5 Contribution to Food Literacy of Australians

Food literacy is an emerging term used to describe what individuals and as a community know and understand about food and how to use it to meet dietary requirements\(^{(35)}\). The scope and practical advice in Guidelines has the potential to improve food literacy in Australia. The Guidelines have the potential to help the population understand the practical application of terms such as the terms energy, saturated fats, trans fat, added salt, added sugar. Although these terms are used in the Guidelines without practical food examples. In addition, people don't understand the difference between salt and sodium.

5.6 Presentation and Format

The draft for public consultation document provides a clear rationale for the Guidelines process and the organisation of the sections outlining each of the Guidelines into

- a) summary,
- b) setting the scene,
- c) evidence
- c) health outcomes and
- d) practical considerations provide a clear and consistent presentation of the evidence.

It is useful for health professionals and other stakeholders in the dissemination and implementation to have all stages of lifecycle and other groups included in one document. WHO has documented the life course approach in the 2003 Expert Consultation on Diet, nutrition and chronic disease that outlines the cumulative impact of poor nutrition, particularly the fetal origins of adult disease\(^{(36)}\). There is limited evidence on the tracking of dietary patterns across the life course but what is available highlights the importance of pregnancy and the early years development of healthy dietary intakes\(^{(37)}\).

6. Recommendations for Australian Dietary Guidelines

In reviewing the documents released for public consultation PHAA has noted a number of matters that it deems commentary on will support the NHMRC to produce the most comprehensive and effective Guidelines and AGHE in Australia’s history. The recommendations that follow in this section are particularly designed to improve the interpretation and application of Guidelines by the Australian population.

Each of these matters will be discussed separately in the order they appear in the draft for public consultation.

6.1 Targeting and Resources for the Australian Population

The draft for public consultation indicates that the target audience comprises health professionals (nutritionists and non-nutritionists), educators, government policy makers, the food industry and other interested parties (page 10). Whilst these professional groups are important secondary target
group the primary target audience of Guidelines has always been the healthy Australian population. The draft outlines ‘additional resources’ to support the Guidelines in Figure 1.1 (page 12).

Recommendation 1: Produce population resources written with practical considerations to enable all people to interpret and apply Guidelines to dietary intakes.

6.2 Need to include Environmental Considerations

PHAA contends that it would be a missed opportunity not to integrate environmental considerations in the 2012 revision. Dietary guidelines need to go further than just maintain an interest in food choices and the environment.

Documenting environmental considerations in developing Guidelines is not new business for the NHMRC. The 2003 Guidelines edition included a chapter in a Special Considerations section in the evidence chapters on ‘Dietary Guidelines and the Sustainability of Food Systems’ (38). Guidelines continue to be developed from a review of the latest scientific developments. Some of these ongoing developments are relevant from an ecological perspective. Public health nutrition concerns regarding environmental sustainability are not new and the role of Guidelines in providing this advice in conjunction with nutrition was proposed over 25 years ago (39, 40). The current levels of overconsumption of energy from food and drinks above requirements are clearly evident in the rising overweight and obesity rates in both children and adults in Australia. The calls to integrate environment into Guidelines are more pressing than ever (4, 5, 41, 42).

The NHMRC recognised the need to consider the environment sustainability in the production of the Guidelines when the original goals of the process were published (31). The draft for public consultation identifies a number of perceived issues in incorporating environmental sustainability into Guidelines (Section 1.6 page 20-21) and that environment will be addressed in a separate process. PHAA believes that this would isolate environment from Guidelines not in fact address their importance when the NHMRC has already undertaken a review of the evidence.

The draft for Public Consultation appears to make a number of statements and provides evidence on environment. For example the NHMRC state;

- Appropriate Guideline messages that would impact on the environment and nutrition (page 20).
- That the general principles of the Guidelines are compatible with reducing environmental impacts as well as promoting good health (page 21).
- Environment is mentioned as a reason to ensure vegetables, legumes and beans are a major component of the Australian diet (page 32).
- The practical considerations for fish outline issues and evidence for the recommendation of a 40% increase in fish consumption in Australia (page 59).

PHAA believes that the evidence for a healthy diet being a sustainable diet is strong. The evidence based process would clearly demonstrate synergies between health and environment recommendations should be acknowledged. It is important to document the best available evidence rather than leave environment out of the Guidelines. Acknowledging the environment in Dietary Guidelines is not new business for the NHMRC.
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PHAA is concerned that by not including the environmental considerations that the NHMRC could be considered to be placing less emphasis on this dimension of public health nutrition. PHAA consider that it is important to include all considerations in the one document, particularly as the evidence base linking environmental issues and health has expanded considerably since 2003 and the work of the NHMRC in this area would provide international leadership on dietary guidelines.

**Recommendation 2: Include the environmental evidence outlining the types of evidence, assessment considerations and methodological issues of the environmental effects in Guidelines.**

### 6.2.1 International Experience

The World Health Organisation (WHO) recommended the threats to health from environmental concerned be considered over 10 years ago (43). Evidence based processes in other countries have produced sufficient levels of evidence to recommend integrating environment in Guidelines (44-47).

Other countries have shown leadership in Guidelines evolution by incorporating environment-related messages. One example is that the Swedish National Food Administration has proposed that Dietary Guidelines be developed that give equal footing to health of the population and health of the environment (47). Their recent proposal on “Environmentally effective food choices”, the first of its kind to be published by a national authority, was compiled by Sweden’s National Food Administration in conjunction with the Swedish Environmental Protection Agency (47, 48). However, the European Commission has asked for a revision because the recommendations to eat locally produced food were found to contravene principles of free movement of goods with the EU internal market.

A second example is that the Health Council of the Netherlands has been investigating qualitative dietary guidelines for a diet that is both healthy and sustainable in terms of environment and biodiversity. The advisory report from the Health Council of the Netherlands was issued in English in July 2011 (6). This report provides a timely summary of current evidence and international developments on sustainable diet. These guidelines from the Netherlands are listed in Appendix A, as examples of what could be included in the Guidelines. It is relevant to note that this advisory report includes concern at current dietary guidelines that have health benefits but detrimental environmental impacts comment, “The guideline ‘eat fish twice a week, including one portion of oily fish’ may yield health benefits, but may be ecologically detrimental in terms of marine biodiversity”.

A third example comes from the United Kingdom (UK). Appendix C contains a list of ecological associations to healthy eating from the UK Consumer Council that now form part of the dietary advice used by professionals. The UK has been making progress in the last few years in incorporating environmental sustainability through the work of the Sustainable Development Commission (46). This advice had been incorporated into incorporating sustainability into hospital food selection and public sector catering. There has also been a campaign to reduce household food waste (41). The Setting the Table report from the Sustainable Development Commission outlines a number of recommendations for dietary guidelines to consider limiting animal food sources, high fat, sugar and salt foods and reducing food waste. The Setting the Table report recommendations are listed in Appendix B. The report outlines the framework for which the UK government integrates sustainability concerns.
Figure 2 The UK government’s principles of sustainable development(46)

Figure 2 provides the framework of the UK government’s principles of sustainable development. Of note in the UK government’s principles of sustainable development is the use of sound science responsibility whilst at the same time where there is uncertainty applying the precautionary principle. The precautionary principle in the context of environmental protection is essentially about the management of scientific risk. It is a fundamental component of the concept of ecologically sustainable development (ESD) and has been defined in Principle 15 of the Rio Declaration (1992) from the Rio Declaration on Environment and Development(49):

*Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

Australia has adopted ESD as a guiding principle of environmental management. The National Strategy for Ecologically Sustainable Development (1992) adopts the precautionary principle as a “core element” of ESD as does the Inter-Governmental Agreement on the Environment(50). These are the basis for the current distribution of governmental responsibility for environmental management in Australia.

There is clearly a government mandate to consider environmental sustainability in its core business and that includes development of Guidelines. A healthy diet is generally an ecological sustainable diet(6).

### 6.2.2 Environmental Context Imperative

It has been noted that there is a need for an unambiguous basis for population communication when considering health and environment and for health professionals to ethically promote healthy food choices(6,51). PHAA consider it is important to not recommend foods that will have greater environmental impact if other choices are available. PHAA would like to see the NHMRC evidence that promotion of fish for example or other foods is not environmentally detrimental for Australia.
and/or other parts of the world from which we may import these food and drink products. This evidence would in a chapter on environmental links with diet to be included in the Guidelines (Recommendation2).

Dietary guidelines are generally similar across various countries even given the differing food system operations in various countries, different cultural ways of eating and differing nutritional status and health outcomes. The inclusion of environment in several sets of Guidelines acknowledges the importance and synergistic relationship with health. PHAA believes there is a clear interrelationship to food costs, availability and sustainability. Environment and sustainability issues must now be integral to public health nutrition efforts not identified as a separate issue to be addressed at another time as the NHMRC outline on page 20 of the draft for public consultation.

PHAA believes that in addition the evidence linking dietary intakes to obesity provides a mandate for a clear message about the impact of eating more than dietary requirements and the environmental impact of this extra food consumption.

**Recommendation 3: Integrate environmental considerations into the Guidelines, particularly for**

- a) The five food group foods and drinks that are core to health and minimally processed, for example ‘Enjoy a wide variety of nutritious foods from these five food groups everyday to maximise health and environmental sustainability’, and
- b) for ‘extras’ foods and drinks that contribute little or no nutritional value to the Australian diet, for example ‘Avoid the intake of foods and drinks high in total energy, fat, salt and added sugars particularly from highly processed and packaged foods’

**6.4 Strengthening the Social Context of Food and Eating (Guideline 1)**

The draft document acknowledges the different cultural and social preferences related to eating a variety of nutritious food (page 25) but the message of ‘enjoy’ a wide variety of nutritious foods has been removed from the previous 2003 version and replaced with ‘eat’. PHAA believes that it is particularly important to consider the social context of foods, particularly the social benefits of eating, the synergistic nature of foods for health benefit, the evidence supporting dietary patterning, to encompass various eating styles, availability of foods etc. PHAA also notes that the NHMRC advises on page 20 of the draft document that it considers that the key messages of the Guidelines may not have changed significantly since 2003 but that the evidence has strengthen. It is therefore unclear why the overarching principle of enjoying nutritious food has changed.

**Recommendation 4: Reinstate priority on the overarching principle of ‘enjoying’ a wide range of nutritious foods**

**Recommendation 5: Include reference to drinks to be consistent with other Guidelines, rewrite guideline to state “Enjoy a wide variety of nutritious foods and drinks from these five food groups every day to maximise health and environmental sustainability”**
6.5 Plenty of Vegetables, including different types and colours, and legumes/beans (Guideline 1)

The wording of this guideline comes after the principle statement about a wide variety and is prefaced with ‘plenty’ whereas the rest of the food group statements don’t include a quantity indication.

PHAA believe that it is important to place legumes and beans in the same context as vegetables. The Guidelines presented on page 3 put the ‘legumes/beans’ at the end of the statement whereas the discussion of the evidence on page 32 refers to ‘vegetables Including legumes/beans”. There needs to be consistency in the way this guideline statement is written with the document. PHAA would like to see this clarified for the Australian population.

Recommendation 6: Reword guideline to ‘eat plenty of vegetables, legumes and beans including different types and colours’.

6.6 Grain (cereal) foods, mostly wholegrain, such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley.

PHAA has noted the inclusion of a new cereal type ‘quinoa’ of the first time in dietary guidelines. It is unlikely that this cereal is readily available in the Australian food supply, commonly consumed or that the population knows how to prepare this grain. Most supermarkets carry small supplies and it is generally found in the health food section. The NHMRC has indicated that a consideration in Guidelines is to reduce potential for inequities. The Department of Agriculture, Fisheries and Forestry (DAFF) describe quinoa as a ‘new’ plant industry based on a recent report on New and Emerging Industries(53). This also adds weight to the issue of the amount in the food supply and the cost of this grain. PHAA would like to see ‘quinoa’ removed from the list of grain (cereal) foods from the list of practical suggestions in this guideline.

Recommendation 7: Reword guideline to ‘Plenty of Grain (cereal) foods, mostly wholegrain, minimally processed such as breads, cereals, rice, pasta, noodles, polenta, couscous, oats and barley’.

PHAA has concerns as to how the term ‘wholegrain’ is not interpreted and applied by the foods industry and the population since the change in the Food Standards Code definition. It will be important to make it clear in the AGHE that a wholegrain product such as breakfast cereal that is manufactured using large amounts of added sugars is not the type of wholegrain product being recommended here.

6.7 Need to quantify all Food Groups in Guideline 1

The first guideline states the need for the Australian population to eat ‘plenty’ of vegetables but then does not go on to quantify the direction of the other foods listed. PHAA consider that the addition of ‘plenty’ or ‘some’ to the other food groups/foods in will clarify this guideline for the Australian population and support the AGHE recommendations. This is similar to advice from the UK government regarding The eat well plate (see Appendix D).
Recommendation 8: Reword draft Guideline 1 to read

Enjoy a wide variety of nutritious foods from these five food groups every day to maximise health and environmental sustainability:

- Plenty of vegetables, legumes/beans including different types and colours, and vegetables and legumes.
- Plenty of fruit
- Plenty of grains (cereals) foods, mostly wholegrain such as bread, cereals, rice, pasta, noodles, polenta, couscous, oats and barley
- Some lean meat and poultry, fish, eggs, nuts and seeds and legumes/beans
- Some milk, yoghurt, cheese and/or their alternatives, mostly reduced fat (reduced fat milks are not suitable for children under the age of 2 years)

And drink plenty of water, mainly tap water.

6.8 Risk Factor and Disease Associations with high fat, salt and sugar foods, particularly highly processed foods and drinks.

PHAA believes that there is a real opportunity for the Guidelines to provide unambiguous directions on foods and drinks we should be eating none or little of in daily intakes as a result of the increased rates of overweight and obesity in Australia resulting in currently more than half the adult population in these classifications. This section uses the word ‘limit’ to start the overall guideline statement. PHAA would like to see recognition given to the evidence that the majority of the Australian population will reach their energy requirements with the core food group recommendations with no room for discretionary or extra foods. Therefore the majority of the population needs to be advised to avoid these foods.

The Guidelines uses the term ‘discretionary foods’ however US consumer research found that people interpreted this as term as a concept to strive for the maximum numbers of serves of these foods when the exact opposite is the aim (54). As the modelling of foundations diets was done using the RDI not the EAR then the recommendations for core food groups will provide the majority of the population’s nutrient requirements and ultimately estimated energy requirements.

The reality is that ‘extra’ foods provide low nutrition and high-energy intakes. PHAA believes that it would be simpler to see the Guidelines use the statement HFSS- high fat, sugar and salt foods rather than discretionary which has various meanings. This would better link to the actual Guideline statements.

The use of the word ‘avoid’ to start this section and an indication of the types of foods not just nutrients would provide a better match with the overall directive in Guideline 1. PHAA believe this will be much clearer to the majority of the Australian population that does not have energy requirements to include these foods and drinks. This could include a statement on the types of foods such as pastries, cakes, biscuits, chips, chocolate, lollies and soft drinks.

Recommendation 9: Reword overarching guideline to state ‘Avoid the intake of foods and drinks high in total energy fat, salt and added sugars, particularly from highly processed foods and drinks’.
Other minor suggestions

Recommendation 10: ‘Read labels to choose lower sodium options among similar foods’ appears to be a practical application and not a dietary guideline. Leave this statement out and included in the practical applications section for this guideline and in the AGHE as food labels provide food literacy information on a range of nutrients. This would then be an appropriate place to indicate that sodium is a main ingredient of salt.

6.8 Strengthening Guideline 3 – Healthy Weight

The increasing overweight and obesity levels (particularly in children) and the strengthening of evidence regarding the impact on diet outline 113-114 for the draft for public consultation. PHAA is concerned about the socioeconomic and cultural disparities in rates of overweight and obesity. The focus on obesity is unprecedented in comparison to past Guidelines development and clearly gives the NHMRC mandate to make definitive statement about the need for the Australian population to eat less total energy by matching dietary intake to their energy needs. The concept of energy balance is important to translate as obesity reflects energy imbalance. Therefore the major areas for intervention relate to dietary intake and energy expenditure.

PHAA acknowledges that whilst physical activity is a major modifiable behaviour, the ongoing decline in physical activity and increase in sedentary time highlights dietary modification is a key approach to lowering obesity prevalence (55). This raises a number of complex issues as to how to get populations to eat less total energy as well as less energy from high fat, salt, sugar-containing foods.

Guidelines focus on healthy populations but the reality is that with more than half the population overweight and obese and possibly with additional chronic disease risk factors this segment of the population is a priority target group.

PHAA would like the NHMRC to consider the overall important of energy balance as a first principle in Guidelines and to make clear statements that indicate people need to only eat what they require. Australian’s must then be able to assess what their individual energy requirements are in practical terms. The AGHE must enable the population not only to assess the number of serves from food groups but also to relate this to energy needs. PHAA believe that the use of the word “Choose” is more directive for the population and provides consistent framing with the other guidelines. Choosing foods to meet your energy needs is also consistent with health and minimising environmental impacts of overconsumption. To be consistent with other Guidelines PHAA would like to see this Guideline reworded to

Recommendation 11: Reword the overarching Guideline 3 to state “Choose amounts of nutritious foods and drinks to meet your energy needs to achieve and maintain a healthy body weight”

Recommendation 12: Add physical activity as advice at the end of this guideline (not repeat in overarching Guideline and then again in children and older people), for example “Be physically active everyday”

Recommendation 13: The average energy needs of different lifecycle stages must be included in AGHE to enable the population to know what their energy needs are. Comparisons to the energy
content of high fat, salt, sugar foods with indication of portion size are important practical considerations.

Healthy food is critical to the physical and intellectual growth of children and adolescents. Energy requirements reflect requirements for growth as well as ongoing maintenance of optimal nutritional status. Children need regular growth monitoring to determine adequacy of energy intakes as outlined in Appendix 3 of the draft for public consultation. Whilst physical activity is important for children, PHAA believes that the current rates of overweight and obesity in Australian children and adolescents matched with intakes of high fat, salt, sugar foods means that the emphasis in Guidelines should be on foods for growth and development.

Recommendation 14: Reword guidelines to ‘Children should eat to energy needs for healthy growth and development’. Reference to physical activity should be put in as separate statement.

It is important to acknowledge the role of physical activity, however this can be done as part of the practical advice given in the Commonwealth Department of Health and Ageing’s Physical Activity guidelines. There is no reference to dietary guidelines in the physical activity guidelines (56). It is important these are promoted in tandem with the dietary guidelines.

The Government needs to consider the evidence for physical activity and obesity. The Physical activity guidelines currently do not outline the contribution of physical activity to maintain and achieve a health weight. The statement on benefits of regular physical activity list:

- Help prevent heart disease, stroke and high blood pressure;
- Reduce the risk of developing type II diabetes and some cancers;
- Help build and maintain healthy bones, muscles and joints reducing the risk of injury; and
- Promote psychological well-being (56).

6.9 Order of Guidelines

PHAA would like to recommend that the NHMRC to consider the order of the Guidelines since they are numbered in this draft indicating a level of importance. Given the evidence on overweight and obesity outlined in Chapter 4 of the draft for public consultation, environmental sustainability considerations related to overconsumption and the general principle of teaching energy balance first and then outlining the five food groups required to achieve energy needs and nutrient needs the order of the Guidelines could be changed if population message testing indicated this was useful.

Recommendation 15: Consider Reordering Guidelines based on message testing with the population

| Guideline 1 | Choose amounts of nutritious foods and drinks to meet your energy needs to achieve and maintain a healthy body weight |
| Guideline 2 | Enjoy a wide variety of nutritious foods from these five food groups every day to maximise health and environmental sustainability |
| Guideline 3 | Avoid the intake of foods and drinks high in total energy, fat, salt and added sugars, particularly from highly processed foods and drinks |
| Guideline 4 | Encourage and support breastfeeding |
6.10 Food Costs and Low Socioeconomic Populations

The NHMRC included evidence on the financial costs of healthy eating as an area of special consideration in the 2003 Guidelines and currently has an appendix on the issue in the 2012 draft for public consultation. However, there is minimal commentary on social equity and food costs within the draft for public consultation. This limits the practical application of the Guidelines and recognition of the potential barrier for many Australian’s in achieving the dietary intake recommended by the Guidelines. It would be difficult for professionals to interpret the social equity issues such as foods costs from the practical considerations at the end of each chapter and for population publications to be developed from these practical recommendations.

PHAA is concerned with even with the best intentions in the Guidelines messages some subgroups of the Australian population will be unable to change their current dietary intakes to achieve the 2012 Guidelines. PHAA does not want to see Guidelines contributing to widening inequalities in diet quality (57).

Recommendation 16: Give greater priority to social equity including the cost of healthy food in the implementation of Guidelines by expanding the practical considerations at the end of each chapter and providing practical advice to the Australian population on ways to achieve Guidelines with lower cost nutritious foods.

6.11 Dissemination and Implementation of the Guidelines

PHAA urges the NHMRC to consider wider and ongoing dissemination and implementation of the Guidelines than past revisions. The focus of the dissemination strategies of the Guidelines should be on end users a) Australian population, b) priority stakeholders and c) all levels of government.

Recommendation 17: Ensure that the Guidelines are widely distributed and available in multiple formats for end users. This requires a sufficient level of resourcing for the production of publications, professional development opportunities for stakeholders and long-term dissemination of publications.

6.11.1 Dissemination Target Group 1: Australian Population

There is an opportunity to provide consistent common-sense dietary advice that balances the review of scientific evidence on dietary patterns, food groups and nutrients. Dietary advice must communicate desirable dietary patterns, assist consumer food choice preferences between food groups and foods. A recent review of international studies investigating food-based dietary guidelines found a greater amount of evidence for the awareness and understanding of the messages reported than for the use of dietary guidelines (58).

A major strengthen of Australia’s past presentation of Guidelines has been the separate sets clearly defined for different stages of the lifecycle. Not all guidelines are equally as applicable to the entire population and therefore PHAA is concerned that dissemination strategies that are based on the total population may not be as effective as targeting sub-groups or segmenting the Australian population into stages of the lifecycle. It is unlikely that a ‘one size fits all approach’ will be effective...
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given the level of detail included at the end of each chapter. The practical application for some stages of the lifecycle and other groups listed at the end of chapters is useful but in many instances all of the population fails to meet specific guidelines. For example men are identified as at risk as adults for not consuming a wide variety of nutritious foods on page 30 of the draft for public consultation, however the dietary evidence available also highlights that the majority of women do not achieve this guideline either. The first reference to culturally and linguistically diverse groups does not appear until page 82 in relation to types of fat.

**Recommendation 18: Include practical considerations for each stage of the lifecycle and vulnerable groups at the end of each chapter to enable health professionals and others to access details those specific to their target groups/clients/patients.**

PHAA has concerns about the interpretative ability of low education, low income and ethnic minority groups to comprehend government dietary advice. These groups certainly raise concerns in relation to their functional literacy levels, which for example enable people to read and interpret the levels of nutrient content for health and compare between products in the same product category. The functional literacy (including prose, document literacy and numeracy) of all Australians must be considered in *Guidelines*. The 2006 Australian Bureau of Statistics Adult Literacy and Life Skills Survey demonstrated that for prose, document and numeracy levels ½ of Australian adults (46-53%) had levels that indicate their ability to participant fully in society is compromised (59). Functional literacy can be extended to the concept of health literacy, which is described as the capacity to acquire, understand and use information for health. Consideration must be to given to the nutrition education of children and their literacy and numeracy skill development that enables children to select healthy food and drink choices. Nutrition education in schools provides the ideal opportunity.

The Australian population relevant context needs different practical ways to apply the Guidelines- direct actionable and consistent messages, need to reach them at the time of making food decisions. The population needs to be empowered to make small incremental dietary changes. It is important that the *Guidelines* consider the population perception of the meaning of the recommendations and how the AGHE is interpreted.

**Recommendation 19: Produce a series of stand alone simple communications for the Australian population based on life stage and vulnerable group guidelines considering cognitive behavior change strategies, social and cultural inclusion to enable individuals to achieve current recommendations.**

**Recommendation 20: Make Guidelines ‘doable’ with communications in simple directive statements, utilising appropriate language to motivate change in line with desired behaviours, e.g. avoid added sugar intake and advice on foods contributing amounts of added sugar to the Australian diet.**

PHAA supports the investment in the community delivery of food literacy programs as an important strategy to improve health outcomes. These programs will support and empower consumers to make healthy food choices.
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6.11.2 Dissemination Target Group 2: Priority Stakeholders and Government
Other key groups are nutritionists and dietitians, doctors, teachers, tertiary education sector, professional associations, private organisations, non-government organisations and all levels of government. It would be worthwhile providing ways for a range of health professionals including dietitians and public health nutritionists can help Australian’s improve their diets and motivate people to prepare and cook healthier foods and to advocate to governments for a healthier food supply. It is important that all levels of government in Australia are able to use the key messages in policy development and program delivery to maximise their impact on dietary intakes and health in all sectors. The Guidelines need effective communication using a range of sophisticated strategies.

Recommendation 21: Provide a range of flexible delivery for dissemination- online and interactive as well as paper copies of materials and develop professional development opportunities for health professionals.

It would be highly useful to for health professionals to be able to access a series of professional communications at conferences, journal publications such as US examples from 2010 Dietary Guidelines release (60, 61) and the current revision of Irelands food-based dietary guidelines(62, 63). PHAA would like to see the NHMRC and the expert committee communicate to professionals via a variety of mechanisms, but particularly peer-reviewed literature that would be read by relevant health professionals, such as the Medical Journal of Australia, Australian New Zealand Journal of Public Health, Nutrition & dietetics and other education journals etc.

Recommendation 22: Produce a series of peer-reviewed publications on Guidelines on process, evidence basis, testing with population and technical writing.

6.12 Translational Process from Evidence Base to Draft for Public Consultation

PHAA has commented the NHMRC on the format of the draft for Public Consultation document but recognises that there are a number of editing decisions in the production of the document that need to be rectified in order for professionals and the population to be able to interpret correctly. For example

Recommendation 23: Be consistent with the use of bullets or alphabetical listing of points under the overarching Guidelines (Guideline 2 has alphabetical points, Guidelines 1 and 3 have bullet points).

Recommendation 24: Bracket (low-fat diets are not suitable for infants) as in Guideline 1 where the statement on milk includes (reduced fat milks are not suitable for children under the age of 2 years) for consistency in advice to specific stages of the lifecycle.


Linking our National Food Selection guide to the Guidelines is very important as Guidelines provide the qualitative advice to populations and need companion tools to help professionals and the population apply Guidelines to their food choices.
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The modelling of foundation and total diets and the evidence based review process has provided a convincing basis for the design of the AGHE. The Guidelines indicate the foods for which the Australian population need to eat more and less of such as;

**Australians need to eat more:**
- Vegetables and legumes/beans
- Fruits
- Wholegrain/minimally processed cereals
- Low fat milk, yoghurt, cheese
- Fish, seafood, poultry, eggs, legumes and beans (including soy), and nuts and seeds.
- Red meat (young females only)

**Australians need to eat less:**
- Starchy vegetables (e.g. potatoes)
- Refined cereals
- High and medium fat dairy foods
- Red meats (adult males only)
- Food and drinks high in saturated fat, added sugar, salt, or alcohol (e.g. fried foods, most take-away foods from quick service restaurants, cakes and biscuits, chocolate and confectionery, sweetened drinks and juice).

The challenge for the AGHE to graphically represent this with accompanying text explanation. However the accompanying 6-page document released with the draft for public consultation does not do justice to the required level of detail needed for

- a) Health professionals and other groups to advise people and
- b) Australian population to make practical changes to their dietary intakes.

Guidelines need to be applied by professionals and the population and the AGHE needs further text and table detail to be able to facilitate dietary advice and develop food literacy.

**Recommendation 25: Include more detail from the synthesis of data collated from the dietary modelling of foundation and total diets, evidence literature review and population testing in the AGHE to maximise practical application.**

PHAA will outline a number of specific recommendations to assist the NHMRC to improve the effectiveness of dietary guidance using the AGHE.

**7.1 Graphical Representation**

The plate graphic is mealtime symbol, so there is a need to consider the place and quality of breakfast, lunch and snacks in the practical application of the AGHE. The fruit and vegetable sectors of the plate should be in the top half where the meat and dairy are to be consistent with the 1998 version, to put more emphasis on the need to eat more of these food groups as outlined in the Guidelines.
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The use of real food photos is useful for the population but PHAA is concern at how the graphics will print in black and white and therefore whether the photos vs. drawings are better. These considerations need to be tested with the population

**Recommendation 26: Undertake more work on the graphical representation of foods on the plate, including reorientating the plate to include vegetables and fruit at the top, assess the magnification of different foods based on feedback from population interpretation testing and provide text to indicate what the food groups are (e.g vegetable group)**

PHAA would like to see an explanation as to what brassica or cruciferous vegetables are in the practical materials for AGHE. There is an opportunity to include the graphical representations on the plate next to each of the serve size equivalent. This would be particularly useful for the segment of the population with lower literacy and numeracy.

**Recommendation 27: Include graphical representations of foods, for example brassica vegetables next to the serve size equivalents to improve population comprehension, including an indication as to the amount of daily water intake.**

### 7.2 Cultural Diversity Considerations

Many traditional ways of eating have represented long term dietary patterns to achieve health. Australia’s Aboriginal and Torres Strait Islander peoples recognized the diversity of native flora and fauna as providing a healthy dietary intake and many of these foods are culturally valued today and where possible should be promoted as part of a healthy food supply.

Australia continues to increase in cultural diversity, particularly through schemes such as the Humanitarian Entrant Program that has increased the number of persons from different descents now residing in Australia. The top five countries of birth for refugee visas for 2007-08 were Burma/Myanmar, Iraq, Afghanistan, Sudan and Liberia (Commonwealth Department of Immigration and Citizenship, 2008). It is important that all peoples be able to access nutritious food that is culturally acceptable. The 1998 Background Information for Nutrition Educators contained a blank plate to enable different plate developments.

**Recommendation 28: Consider how varying culturally and linguistically diverse groups are represented on the plate and how the AGHE can be adapted for nutrition education and promotion with different cultural groups to match practical considerations in Guidelines.**

### 7.3 Specification of the types and amounts of foods for specific age groups (life course)

The aim of the Guidelines should be to reflect food patterns consistent with good health rather than just provide numeric goals for the population. PHAA believes that various combinations of diets and food patterns will produce health and wellbeing. PHAA considers that acknowledgement of traditionally different cultural ways of eating and the modeling of different dietary patterns for achieving the nutrient recommendations is a key principle in enabling the AGHE to be a practical guide for consumers. The 1998 version contained an acknowledgement of two ways of achieving...
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Food group intakes labeled Healthy Diet A and B Pattern that gave the population flexibility in food choices. The current draft of the AGHE has restricted the food group recommendations to only one serving recommendation and in some of these is the need to go to ½ serves.

**Recommendation 29: Provide a range within food group recommendations to assist achieving the same nutrient recommendations for different stages of the lifecycle.**

The AGHE requires greater detail on what types of foods and drinks are in the five food groups and the ‘extra’ foods. It must be made clear to professionals and the population as to the exact types of foods in each category.

PHAA would like to see clear and specific recommendations for foods and drinks, particularly those containing juice as a contributor to fruit serves. There are a range of products on the market that claim to contain a ‘serve of fruit’ but the way they have been processed has increased their energy and sugar content significantly so that they no longer equate with a ‘serve of fruit’. For example the drink “LOL” claims to contain a serve of fruit but also contains significantly more energy than a piece of whole fruit equivalent [http://www.goldencircle.com.au/Products/Juice/LOL](http://www.goldencircle.com.au/Products/Juice/LOL).

**Recommendation 30: Provide clear and specific recommendations for drinks that are likely to contain high energy, saturated fat and added sugars to be included in the ‘extra’ food sections.**

**Recommendation 31: Highlight the important of whole fruit or minimally processed fruit such as canned fruit and remove fruit juice as the equivalent to whole pieces of fruit.**

It is generally acknowledged that portion sizes of all foods consumed within and outside the home have increased in the last 10 years and this is having an additional impact on overweight and obesity rates. It is important that the AGHE description portion sizes so that professionals and the population are clearly able to translate these into food choices. There must also be population testing of interpretation of serve sizes. Household measures are better understood than weights of foods but items such as plate size have increased over time. Australian research has demonstrated that a small increase in dishware size can lead to a substantial increase in energy available to be consumed, particularly if food is energy dense [65].

**Recommendation 32: Include clear definitions of portion sizes required in serve sizes, such as photographs that match the actual serve size, particularly for amphorous foods (foods that don’t hold their shape and are difficult to judge) like rice etc.**

**7.4 Defining Energy Needs**

Draft Guideline 3 in the Guidelines indicates Australians are to choose foods to meet their energy needs. However there is no indication in the AGHE as to what the energy needs are for different stages of the lifecycle. The KJ range that was included with food group recommendations in the 1998 version of the AGHE is not included in the 2012 draft. It is therefore not possible for professionals or the population to advise on or know what their energy needs. This makes the practical application of the current draft Guideline 3 impossible as drafted.

It is also unlikely that the population could correctly identified their energy needs with US evidence demonstrating that populations are unable to estimate this accurately [66]. It is therefore necessary to be specific regarding energy needs given the increasing emphasis on obesity and the need to
minimise impact on the environment in Guidelines not only in Australia but internationally."}^{54}

**Recommendation 33:** Include an indication of energy (kilojoule) requirements for different lifecycle and genders in the table with the food group recommendations.

### 7.5 Discretionary Foods vs. Additional Serves vs. Extra Foods

The 1998 revision of the AGHE used the term ‘extra’ foods to indicate those foods that are not core to the daily intake and not recommended for inactive people. It is unclear why the NHMRC has moved away from the term ‘extra’ foods that is clear and concise to the statement ‘additional services for taller or more active men and women’ without providing any description on what taller or more active is?

**Recommendation 34:** Use the term ‘extra’ serves in place of ‘additional serves for taller or more active men and women.’

PHAA believes that the loss of the word ‘extra’ has changed the meaning related to these foods and drinks. There is good evidence that this food group is contributing to poor dietary choices in Australia and that the 1998 AGHE use of this term has potentially contributed to a better understanding of the place of these foods in the Australia diet, particularly for children. It is particularly important when overweight and obesity has increased since 2003 that the Australian population is clearly advised that these foods are ‘extras’.

**Recommendation 35:** Provide clear definitions on the types and amounts of extra foods (‘sometimes’ and ‘other foods’ or ‘occasional’ foods) in order to assist the population and application by stakeholders.

PHAA is concerned how the population will interpret a separate fat group. Margarine for example did not contribute significant health benefits in the comprehensive modelling of foundation and total diets. We do not wish to see the population interpret the separate fat group as indicating that it is now government recommendations to eat more fat. PHAA considers that having a third group on this graphical presentation is potentially confusing given the Guideline messages.

**Recommendation 36:** Move fats back into the ‘extra’ food group representations.

It would be useful to have advice on amounts of ‘extra’ foods related to different physical activity levels such as inactive, moderately active and highly active, making it clear that only those people undertaking regular and intense physical activity have the ability to have ‘extra’ foods contribute to energy needs.

**Recommendation 37:** Included recommendations of numbers of ‘extra’ serves in AGHE for different physical activity levels such as inactive, moderately active and highly active to match the reference to energy needs in the Guidelines.

### 7.6 Environmental and Food Cost Considerations

PHAA believes there is an opportunity to advise the population on environmentally sustainable food choices in AGHE as listed in the draft for public consultation text. For example text could be included to indicate species of fish that are more environmentally sustainable.
Ireland for example, has included the cost of foods and percentage of weekly social welfare payments required to purchase foods in the modelling process of dietary intake patterns to inform their food group guide development\(^{(63)}\). This analysis has highlighted the limitations in amount of social welfare, particularly child benefit payments to provide sufficient money to cost the costs of healthy foods.

PHAA is concerned that there is potential for some groups in the population to find the cost of foods recommended by the Guidelines is prohibitive for their budgets.

**Recommendation 38: Include where appropriate, environmental sustainability advice in food choices and consideration to lower cost food choices in promotion of five food groups.**

### 7.7 Improving Food Literacy

PHAA maintain there is greater opportunity with these Guidelines (incorporating AGHE) to provide the Australian population with clear directive advice about how to eat to energy requirements that will have implications for household budgets and impact on environmental sustainability. NHMRC has acknowledged the need to provide practical advice to reduce the risk of health inequities.

There is an opportunity with the AGHE to improve food literacy of Australians with practical household food preparation information, food label reading information etc. However these suggestions would need further testing with the population to ascertain understanding and use of the information provided,

For example information on low fat cooking methods such as grilling, baking and steaming food instead of deep frying would be important and have been included in other food selection guides\(^{(63)}\).

**Recommendation 39: Provide practical advice to develop food literacy in areas such as food label reading to ascertain total energy, sugar and sodium content and provide details on suitable cooking methods to lower fat and saturated fat contents.**

### 7.8 AGHE Dissemination and Implementation

PHAA would like to see comprehensive resources and dissemination strategies developed with the Guidelines and in addition to Guidelines. The previous AGHE (1998) for example had a publication for professionals called 'Background Information for Nutrition Educators' that was widely distributed including a copy sent to all schools in Australia. This publication enabled a range of professionals to learn how to teach and use the AGHE as a teaching tool with their target groups. PHAA believes this publication was highly regarded by health professionals and other stakeholders such as teachers.

PHAA would like to see consideration given to a variety of dissemination strategies, for example the US is releasing interactive dietary assessment and planning tool at ChooseMyPlate.gov website to support general public\(^{(68)}\), in addition to traditional paper methods that acknowledge not all Australians have access to the Web.

**Recommendation 40: Develop the opportunity to use traditional dissemination approaches such a publication called Background for Nutrition Educators and develop newer approach to dissemination and implementation of the AGHE (Guidelines).**
8. Implications for Dietary Guidelines (incorporating the Australian Guide to Healthy Eating)

PHAA sees the release of the Guidelines as a critical time for the Australian Government to consider how Australian’s can achieve these recommendations and the support required by government policy changes. This is particularly in light of patchwork evidence that nearly all Australian Adults and Children do not consume a diet in line with recommendations.

The effectiveness of Guidelines to date is likely to be limited by

- Political support
- Limited support and/or conflict of interest by various stakeholders
- Economic priorities in food and nutrition system

PHAA maintains that Guidelines released in isolation from a comprehensive government approach will be limited in their effectiveness. For Guidelines to have maximum impact new strategies need to be developed. Guidelines have often existed as the public face of government food and nutrition policy.

PHAA believes there a number of implications that consider broader policy contexts from the revision of the Guidelines. The following outlines what PHAA believes to be these broader policy contexts.

8.1 National Food and Nutrition Policy Urgently Required to Support Guidelines

Guidelines cite many food environment factors that contribute to overweight and obesity that requires system-wide changes. There is a need for a coordinated plan with the involvement of all sectors. The food and nutrition system must be re-examined from the perspective of public health. It must support an increased production in nutritious foods such as fruits and vegetables to provide minimum number of required servings and a reduction in foods that contribute excess kilojoules (extra foods).

Support for the National Food Plan and the goal of “a safe, nutritious, affordable, secure and environmentally sustainable food system accessible to all Australians for health, wellbeing and prosperity now and into the future” is warranted.

PHAA maintains that a policy framework is required. PHAA believes it is critical that the Australia Government develop a food and nutrition policy framework (see Figure 3 Proposed Food Plan Framework).
It is PHAA’s view that the development of the proposed National Food Plan for Australia at this time provides a unique opportunity to strategically address the future challenges of the food and nutrition system, particularly the competing issues that have been developing. Actions to address issues in one policy portfolio can have a detrimental knock-on effect in another area. For example, the response to compensate for the fossil fuel reliance inadvertently brought to a head the simmering world food crisis in 2008 when governments implemented bio-fuel schemes and subsides as food prices dramatically increased.

A National Food Plan urgently needs to address the current Australian Food Supply. A crude comparison of the foods available for consumption against dietary recommendations for adults reveals an over-availability of meats, alcoholic beverages, sweeteners, and milk, and a lack of fruit and vegetables. There is insufficient availability of fruit and most vegetables (other than starchy vegetables) to meet the dietary needs of the Australian population.

Using the most recently available dietary intake data, it is estimated that to meet dietary requirements Australian adults would need to eat:

- 110% more fruit and vegetables (except starchy vegetables);
- 160% more wholegrain/minimally processed cereals
- 30% less refined cereals;
- 40% more legumes/beans, fish and poultry
- 103% more milk, yoghurt and cheese, particularly reduced fat varieties;
- 20% less red meats (men only); and
- 60-100% less energy dense nutrient-poor foods and drinks. See Table 1 below.

This type of analysis gives a rough, but plausible estimate on the food supply situation around the world. The amount of food available for consumption is then expressed per kilogram per person.
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This method is not an indicator of actual consumption, but it does give a reasonable estimate of the food supply in Australia.

Table 1: Comparison of Dietary Requirements, Current Intake and Available Food Supply

<table>
<thead>
<tr>
<th>Food group- food</th>
<th>Draft Foundation Diets for Adults – omnivore pattern (mean grams per day)</th>
<th>Actual Intake for Adults (mean grams per day)</th>
<th>To meet requirements, adults would need to eat:</th>
<th>Available* minus population requirements (1000 Tonne per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total vegetables</td>
<td>362</td>
<td>273</td>
<td>30% more</td>
<td>146</td>
</tr>
<tr>
<td>- starchy veg</td>
<td>62</td>
<td>106</td>
<td>40% less</td>
<td>446</td>
</tr>
<tr>
<td>- green leafy/brassica</td>
<td>75</td>
<td>57</td>
<td>30% more</td>
<td>-240</td>
</tr>
<tr>
<td>- orange veg</td>
<td>75</td>
<td>31</td>
<td>140% more</td>
<td></td>
</tr>
<tr>
<td>- other veg</td>
<td>150</td>
<td>77</td>
<td>90% more</td>
<td></td>
</tr>
<tr>
<td>Legumes</td>
<td>40</td>
<td>7</td>
<td>470% more</td>
<td>44</td>
</tr>
<tr>
<td>Total fruit</td>
<td>300</td>
<td>142</td>
<td>110% more</td>
<td>-249</td>
</tr>
<tr>
<td>Nuts/seeds</td>
<td>18</td>
<td>4</td>
<td>350% more</td>
<td>n/a</td>
</tr>
<tr>
<td>All grains (cereals)</td>
<td>352</td>
<td>271</td>
<td>30% more</td>
<td>1026</td>
</tr>
<tr>
<td>- wholegrain/high fibre</td>
<td>217</td>
<td>83</td>
<td>160% more</td>
<td>n/a</td>
</tr>
<tr>
<td>- refined/low fibre</td>
<td>136</td>
<td>188</td>
<td>30% less</td>
<td>n/a</td>
</tr>
<tr>
<td>Meat, poultry, fish, eggs, legumes and alternatives</td>
<td>157</td>
<td>147</td>
<td>7% more</td>
<td>850</td>
</tr>
<tr>
<td>- poultry, fish, eggs, legumes etc</td>
<td>99</td>
<td>70</td>
<td>40% more</td>
<td>664</td>
</tr>
<tr>
<td>- red meats</td>
<td>58</td>
<td>77</td>
<td>20% less</td>
<td>590</td>
</tr>
<tr>
<td>- fish and seafood</td>
<td>29</td>
<td>21</td>
<td>40% more</td>
<td>n/a</td>
</tr>
<tr>
<td>Total dairy foods (milk, cheese, yoghurt; excluding)</td>
<td>684</td>
<td>336</td>
<td>103% more</td>
<td>207</td>
</tr>
</tbody>
</table>
Dietary advice in the form of Guidelines is important but it must be supported by broader government policy efforts.

### 8.2 National Food and Nutrition Monitoring and Surveillance System Urgently Required to provide evidence for Guidelines

Dietary guidelines provide an evidence-based benchmark for assessing the diet quality for individuals but also populations and therefore the monitoring of the impact of the dissemination and implementation of Guidelines is critical. Monitoring dietary change and factors determining consumption of foods in relation to nutrition recommendations is necessary for effective public health interventions [5]. Measuring the proportion of the population who meet dietary recommendations is essential [6]. Routine data collected for health surveillance is required [7]. It is evident that there are serious limitations in developing Guidelines based on 1995 National Nutrition Survey results. Whilst PHAA agrees that the results from the 2011-12 Australian Health Survey will be informative there is currently no commitment by the Australian Government for a national food and nutrition monitoring and surveillance system that would provide on-going data for NHMRC processes such as Guidelines development. A plan for a national food and nutrition monitoring and surveillance system was well scoped several years ago and funding of this proposal would be a significant step forward [71].

Dietary Guidelines can be used as targets for reporting [72]. AGHE provides a starting point for developing quantitative national targets.

The WHO 2004 Global Strategy on Diet, Physical Activity and Health makes the following recommendation to Member States [27]:

"Governments should invest in surveillance, research and evaluation. [...] Monitoring and surveillance are essential tools in the implementation of national strategies for healthy diet and physical activity."

The Australian government needs to provide national strategic leadership on diet and physical activity through the development and implementation of supportive environments, policies and programmes (see Figure 4). The implementation of these supportive policies can foster the processes of change leading to desired behaviours. The outcomes of this change can be monitored and evaluated through the health status of the population, and also through several social, environmental and economic aspects.
Research, monitoring, evaluation and surveillance need to continue throughout the process so that feedback on the modifications can be provided to the institutions involved in policy development and implementation.

**Recommendation 41: NHMRC to work with the Commonwealth Department of Health to support a National Food and Nutrition Monitoring and Surveillance System for Australia to provide evidence on Guidelines implementation and effectiveness.**

### 8.3 Working with Stakeholders

The NHMRC has indicated that the food industry is an important part of the target groups for Guidelines. The food industry is part of the solution to improving the effectiveness of Guidelines however the foods produced are also a major part of the problem (with respect to nutrient content of foods and portion sizes). It is PHAA’s view that the current food industry response to health concerns is inadequate. The continued focus is on manufacturing so-called healthier processed ‘extra’ foods, when people need to eat more unprocessed foods such as fruit and vegetables, legumes and beans, and fewer processed foods.

PHAA believes that Guidelines have the potential to be used as targets for improving the food required to supply the recommendations from the five food groups in the AGHE and to restructure the current massive production of highly processed ‘extra’ foods in the Australian food supply. Continued efforts by the food industry to reformulate foods and drinks to reduce energy, fat, added sugar and salt are important. However it is unlikely that the current efforts in addressing reformulation of foods via the Food and Health Dialogue alone will enable the Australian population to meet the Guidelines, without an accompanying increase in production, supply and promotion of low-cost unprocessed foods such as fruits and vegetables.
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There is potential to use provide different supports for food industry to use Guidelines as benchmarks for evaluating the food supply \(^{42}\). Clearly there is a need to reduce energy in the form of kilojoules sold by the food industry \(^{60}\).

**Recommendation 42:** NHMRC work with the Department of Health and Department of Agriculture, Fisheries and Forestry to develop actions plans to set industry targets for providing a food supply consistent with the Guidelines.

PHAA has been concerned about the appointment of a representative of the Australian Food and Grocery Council (AFGC) to the expert committee when this industry group represent the majority of highly processed foods and drinks in Australia. Appendix E contains a list of known AFGC members as of June 2011.

**Recommendation 43:** Include representatives of the primary food groups, particularly the fruit, vegetable and legume industries in the next iterations of the Dietary Guidelines and not include representation from the sector of the food industry that produces high total energy, fat, salt and sugar foods.

### 8.4 Addressing Food Cost & Availability Concerns

It has become apparent over time that changes in the costs of production and distribution of food have increased the price of healthy food in Australia but also internationally. Increasing there are concerns and evidence that Guidelines are not achievable, and are indeed prohibitive for some subgroups in the population \(^{74}\). High fat, salt and sugar foods are relatively cheaper when compared to the costs of nutrient dense foods for Australians. There is a need for changes in the food production and distribution system to reduce social inequality in nutrition. There is a need for more sensitivity in considering the economic constraints experienced by vulnerable groups in Australia who disproportionally face the burden of obesity and chronic disease. Partnerships are required to help Australians make healthier choices and overcome inequities in access and availability to healthier foods.

**Recommendation 44:** NHMRC to call for financial incentive to support low-income Australians purchase high quality nutrient dense foods.

PHAA would like to see financial incentives for food insecure and/or low socioeconomic subgroups in the population to access vegetables, legumes, beans, fruits, whole grains etc. There are many examples of programs in the US that have improved diets of households dependent on welfare using financial incentives \(^{75,76}\). The Government has the ability to apply taxation and/or subsidies to make healthy food affordable for all the population.

**Recommendation 45:** NHMRC needs to work with a range of stakeholders to develop action plans that addresses the cost of healthy foods for low-income Australians.

Environmental sustainability concerns are also likely to affect availability and access to some foods. Climate change will continue to impact on total food production as well as the nutrition quality of foods \(^{77}\).
8.5 Public Health Nutrition & Other Workforce Limitations

There are significant nutrition-related workforce number issues in Australia, particularly in the number of public health nutritionist positions. Indeed, many State/Territory health departments have only one public health nutritionist employed. Others are beginning to cut back on public health/health promotion workers, as health budgets tighten and public pressure pushes politicians toward frontline or clinical services in preference to preventative health. Therefore, the NHMRC needs to consider that by their current indication that the health professional workforce would disseminate the Guidelines this would in fact become a major barrier to their dissemination.

What evidence does the NHMRC have that general practitioners have time in consultations to explain Dietary Guidelines and AGHE or that they have the background to do this?

There is a need to ensure that all health professionals have a minimum understanding of the New Nutrition Science issues related to the social, environmental and health aspects of food and the food and nutrition system including globalisation\(^{(52)}\).

Wide dissemination using current web and social networking tools is important however promotion and translation by health professionals is also important. Consideration also needs to be given to those persons who do not use these tools, such as the elderly.

All Australians should have education to ensure that they have knowledge about healthy foods, food budgeting and food preparation, such as cooking skills. There is a need for community-based food literacy programs to assist the population to incorporate Guidelines.

**Recommendation 46:** NHMRC to acknowledge the limited public health nutritionist workforce and provide appropriate training for professionals other than nutritionists, and compulsory food and nutrition education in schools.

8.6 Nutrition Research Funding

The evidence-based process has highlighted the gaps in Australian nutrition research. PHAA calls for more funding for research that can help inform the Guidelines for future iterations.

8.7 Food Regulation

The Australian, State and Territory Governments and FSANZ need to carefully consider the implications of NHMRC Dietary Guidelines and AGHE when developing food regulation policy and standards, to ensure both consistency with, and support of, the Guidelines.

For example, in 2005 the FSANZ Board and ANZFRMC approved an application to broaden the definition of "wholegrains" in the Food Standards Code so that it no longer meant an intact whole cereal grain, but included a range of more processed cereal grains\(^{(78)}\). While on the surface this appeared to be a relatively insignificant change, it has now resulted in a proliferation of products such as chocolate flavoured or coated, highly fortified and highly sweetened breakfast cereals and cereal bars that are promoted as high in wholegrains, implying they are a "healthier" food choice than they really are.
8.8 National Preventative Health Agency

The work of the National Preventative Health Agency needs to be consistent with the efforts to dissemination and implement *Guidelines*.

9. PHAA’s support for Future Dietary Guidelines

PHAA expects the Australian Government to continue to review and promote *Dietary Guidelines* given the ongoing changing nature of dietary intakes, prevalence of diet-related diseases and risk factors, and population demographic characteristics.

PHAA will continue to support the NHMRC in the development of future food-based Guidelines that will go beyond foods as food groups and sources of nutrients to address ways in which food is produced, processed, new developments, and prepared for consumption. PHAA is keen to work with the NHMRC to assist in the evidence-based process as there are ongoing developments to be gained such as

- Evidence-based (EB) process a strength and provides accountability but what other processes could be used, (i.e. process and outcome only as good as the evidence itself)
- EB process highlights the knowledge gaps in nutrition
- Develop other evidence grading methods of evidence other than reliance on study design.

PHAA is keen to look at ways in which it can support the NHMRC in future Guidelines revision processes given the enormity of the task acknowledged in the process. PHAA would be keen to engage with the NHMRC to plan for the continuity of dietary guideline development. Given NHMRC’s mandate to review guidelines every 5 years and the fact that this current process has taken 3 years, it would be pertinent to look at how the revision process could be ongoing adding evidence as it is published.

PHAA is keen to assist with the resourcing of the dissemination and implementation of *Guidelines* and the role for professional organisations such as PHAA. PHAA is keen to discuss the evaluation of the implementation of *Guidelines* and how the NHMRC judges the effectiveness of the different versions over time.

10. Conclusion

The PHAA’s intention is for this submission to highlight major food system issues that have an impact on healthy eating.

The PHAA urges those responsible for the development, implementation, and evaluation of food processing sector responses to consider the health, social, environmental implications, and believe that it is worth the effort to get the overarching strategic framework right first. Considering health as a fundamental food policy driver or pillar, rather than an issue to be considered, would result in food system-wide benefits. As with all good policy, it is essential to get the context right. This food
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processing sector inquiry is an opportunity to have a joined up public policy that benefits Australian society, both now and into the future.

PHAA recognises the importance of the Australian Dietary Guidelines and will continue to advocate for and to work with government to develop an effective, integrated food policy for future health and prosperity.

Michael Moore BA, Dip Ed, MPH  
Chief Executive Officer  
Public Health Association of Australia  
29 February 2012

The PHAA would like to acknowledge the effort and leadership provided the development of this response by Andrea Begley and thank members of the PHAA Food and Nutrition Special Interest Group and other members of the Association for their contribution.
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PHAA response to the draft Australian Dietary Guidelines


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74. Monsivais P, Aggarwal A, Drewnowski A. Following federal guidelines to increase nutrient composition may lead to higher food costs for consumers. Food Policy. 2010;30(8):1471-7.


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Appendix A

Health Council of the Netherlands, 2011, Guidelines for a Healthy Diet: the ecological perspective(6)

1. Win-win guidelines

Two ‘win-win’ guidelines, however, deliver both health benefits and ecological benefits in terms of land use and greenhouse gas emissions:

• a less animal-based and more plant-based diet, containing fewer meat and dairy products and more whole grain products, legumes, vegetables, fruit, and plant-derived meat substitutes. This dietary pattern is associated with a lowered risk of cardiovascular disease and also has a smaller ecological impact. From a health perspective it is not necessary to avoid meat and dairy products; nor does this appear to be necessary from an ecological perspective. There are also contra-indications for a diet containing no animal products; in children, such a diet has been linked with a raised risk of growth retardation. From an ecological viewpoint, it is also important to note that a certain amount of grassland is suited only for grazing, and that waste material from the food production industry is used as food for pigs and chickens. A diet entirely devoid of animal products would mean that this capacity was unused. At the European level, an estimated 40-50 % of existing livestock can be fed using only natural grasslands and food industry waste products.

• the reduction of energy intake for those with an excessive body weight, in particular by eating fewer non-basic foods, such as sugary drinks, sweets, cakes and snacks. A healthy body weight is associated with a reduced risk of diabetes, cardiovascular disease, and certain forms of cancer. Lower energy intakes also reduce the demand for foods, which lowers production and consequently reduces the ecological impact.

2. A health guideline with a detrimental ecological impact

A guideline which may yield health benefits but which may be ecologically detrimental, particularly to marine biodiversity:

• eat two fish portions a week, at least one portion of which is oily fish. Even though the indications are that a single portion of oily fish per week is enough to lower the risk of cardiovascular disease, this recommendation is ecologically detrimental because this level of fish consumption is higher than current levels in the Netherlands. From an ecological perspective it is advisable to emphasise the use of those fish species that are not currently being overfished or those which are being farmed in an environmentally friendly way.

3. A guideline with ecological benefits and neutral health effects

A guideline which yields ecological benefits while having neutral health effects:

• reduce food waste. In the Netherlands, consumers throw away 8-16 % of the edible food they purchase.

4. Subjects still under discussion
A number of factors influencing the ecological impact of human food production and consumption habits remain the subject of debate:

• **cultivation methods, transport, storage and preparation location** are all factors contributing towards a food product’s ecological impact. Many suppositions are held about this impact, but the scientific evidence is somewhat equivocal. For instance, locally-produced food is not necessarily more eco-friendly than food produced at a distance, and products made in an environmentally friendly way do not necessarily score higher in terms of land use and greenhouse gas emissions than do products made by conventional means, because of the lower yields per hectare of land. They do, however, generally score better on other sustainability dimensions such as animal welfare and landscape value. Finally, while the transport of fruit and vegetables by air is associated with large greenhouse gas emissions, only a small proportion of fruit and vegetables is transported in this way, so the contribution that this makes to the overall food-related emission of greenhouse gases is relatively small.

• **shifts in animal protein sources.** Replacing beef with pork or chicken can yield ecological benefits in terms of land use and greenhouse gas emissions, but the consequences for human health are uncertain. This is because different meat products from one and the same animal can have very different nutritional values and therefore health effects. Moreover, the ecological benefits of a shift away from beef and towards pork or chicken do not necessarily run parallel with the effects on animal welfare, for instance.
Appendix B

Sustainable Development Commission UK 2009 Recommendations

1. Changes likely to have the most significant and immediate impact on making our diets more sustainable, in which health, environmental, economic and social impacts are more likely to complement each other:

   • Reducing consumption of meat and dairy products
   • Reducing consumption of food and drink of low nutritional value (i.e. fatty and sugary foods)
   • Reducing food waste.

2. Changes likely to have a significant positive sustainability impact, but where gains in one area might have a more negative impact in other areas:

   • Increasing consumption of fruit and vegetables, particularly seasonal and field grown
   • Consuming only fish from sustainable stocks
   • Increasing consumption of foods produced with respect for wildlife and the environment e.g. organic food.

3. Changes which will make a smaller contribution to making our diets sustainable, with largely complementary effects across key areas:

   • Reducing energy input by shopping on foot or over the internet, and cooking and storing food in energy conserving ways
   • Drinking tap water instead of bottled water.
Appendix C

18 Cultural Rules for Ecological Public Health Eating 2007 (Consumer Council UK
www.consumercouncil.org.uk/.../18_rules_for_ecological_eating.pdf) adapted from(79)

- Eat less but better; go for quality
- Choose food not just for what it is but for how it was grown, reared, delivered and processed
- Eat simply as a norm and eat feasts as celebrations, i.e. exceptionally
- Eat no more than you expend in energy; build exercise into your daily life
- Eat equitably: don’t take food out of another’s mouth
- Eat a plant-based diet with flesh more sparingly, if at all;
- If you do eat flesh (fish or meat), chose that which has run/swum as wild /free-range as possible; the nutrients are different
- Celebrate variety, the goal being to get biodiversity into the field and thence to your plate; for instance, try aiming to eat 20-30 plant species per week
- Think fossil fuels; embedded energy in food is ‘oil’
- Eat seasonally, where possible
- Eat according to the proximity principle, as locally as you can; support local suppliers
- Learn to cook quickly producing simple meals; leave fancy food for really special occasions
- Be prepared to pay the full (sometimes hidden) costs of producing and transporting the food; if you do not, others will
- Drink water not soft drinks
- If you drink alcohol, use it moderately
- Be aware of hidden ingredients in food; look at the label to locate the unnecessary salt and sugars; it they are there, don’t buy
- Educate yourself without becoming neurotic
- Enjoy food in the short-term but think about its impact long-term
Appendix D UK National Health Service - The eatwell plate

http://www.nhs.uk/Livewell/Goodfood/Pages/eatwell-plate.aspx (accessed 16th January 2012)

Based on the eatwell plate you should try to eat

- **Plenty of fruit and vegetables.** Did you know that we should be eating at least five portions of a variety of fruit and veg every day.
- **Plenty of potatoes, bread, rice, pasta and other starchy foods** Choose wholegrain varieties whenever you can.
- **Some milk and dairy foods**
- **Some meat, fish, eggs, beans and other non-dairy sources of protein**
- **Just a small amount of foods and drinks high in fat and/or sugar**
- **Try to choose options that are lower in salt when you can.**
Appendix E  Australian Food and Grocery Council (AFGC) Membership

**AFGC MEMBERS LIST AS AT 03 JUNE 2011**

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**Associate & Affiliate Members**

- Accenture Australia Risk Limited
- AGI Operations Pty Ltd
- Amcor Fibre Packaging
- ASMI
- AT Kearney
- BRI Australia Pty Ltd
- Staking Association Australia
- CAS Systems of Australia
- CHEP Asia-Pacific
- CSIRO Food and Nutritional Sciences
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- CROSSMARK Asia Pacific
- Dairy Australia
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- FoodLegal
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- Food Industry Association WA
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- Golden Circle Limited
- Lion Nathan Limited
- Owens Illinois
- Visy Pak