



Specialist Competencies in Nutrition Science

A summary of the specific competencies for each category of registered nutritionist as deemed essential by the NSA and originally established by the Nutrition Society of UK.

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1. WHAT DOES A NUTRITIONIST DO?

The practice of nutrition science aims to advance, apply and promote understanding of the effects of nutrients on growth, development, reproductive capacity, health and well being in humans; and health, welfare and productivity in animals. The function of a Nutritionist is to elicit, integrate, disseminate and apply scientific knowledge drawn from the relevant sciences, to promote an understanding of the effects of nutrition, and to enhance the impact of food on health and well-being of animals and/or people.

The roles of Nutrition Scientists can include, but are not limited to the following position titles and subsequent responsibilities:

- Research Assistant, Research Fellow, Research Programme Director, Reader, Lecturer or Professor, who conduct, plan, manage and/or commission research.
- Lecturer, Senior Lecturer, Professor, and other academic teachers in higher education institutes or universities who teach basic nutrition at undergraduate and postgraduate levels e.g. to: Bioscientists; Nutrition Scientists; Animal Scientists; Consumer Scientists; Agricultural Scientists; Food Scientists and Technologists; and Health Professionals among others.
- Lecturer, and or trainer, in initial or advanced training for vocational occupations or professions, such as: Dietitians and Doctors; Veterinary Surgeons; Sport Scientists; Fitness Instructors; Caterers and Schoolteachers among others.
- Nutrition Communicator, writer or director of nutrition communication, responsible for providing externally verifiable scientific evidence – based information, education, nutrition health promotion and nutrition education, both directly and by vigorous exposure of assertions not based upon science ('quackery').
- Industry nutritionist in the application of sound nutrition principles to the characterisation, preparation, processing or labelling of foods and diets to meet the needs of man for normal development and good health and/ or for health and sustainable, efficient productivity in animals.
- Public nutritionist in the application of sound nutrition principles to assess nutritional status in order to help healthy individuals to choose and follow healthier diets; or improve performance or productivity of animals.
- Animal nutritionist involved in the formulation of diets to meet the needs of animals in health and diseases.
- Animal nutritionist involved in the application of nutrition knowledge to veterinary practice, to treat or support the recovery of animals, normally as part of a team with or as a regulated health or veterinary professional.
- Public health nutritionist involved in the preparation of expert advice to government and/or to professional bodies and other organisations to help formulate nutrition, food and health policy and plan nutrition programmes.



SPECIALIST COMPETENCES IN NUTRITION

Applicants eligible for registration will be able to demonstrate the following minimum competencies:

- Recognises strengths and weaknesses in research methods, showing understanding of the limitations of the scientific basis of nutritional knowledge.
- Can identify or propose strategies or solutions designed to:
EITHER improve the health and well being of humans.
OR improve the welfare and/or productivity of animals.
- Able to analyse the composition of foods.
- Able to assess the diet and nutritional status of individuals and groups of individuals, and is able to explain his/ her choice of methods.
- Able to plan, conduct, analyse and report on investigations into an aspect of nutrition in the laboratory and/ or in the field in a responsible, safe and ethical manner.
- Knows how to record, collate, analyse, interpret and report nutrition-related data using appropriate statistical methods.
- Able to demonstrate the formulation of ideas and opinions in nutrition; including the communication and exchange of information concerning food, nutrients, and nutrition effectively; in ways appropriate to the needs of specialist and public target audiences.
- Be aware of the evidence-based nutritional guidelines, such as the Australian Guide to Healthy Eating and Nutrient Reference Intakes.
- Knows how to explain the evidence based nutritional guidelines to individuals and groups for the promotion of good health.



UNDERPINNING NUTRITION SUBJECT KNOWLEDGE

Graduates eligible for registration will be able to demonstrate:

- Understanding of the nature of nutrients (including water and alcohol); a nutrient's essentiality, conditional essentiality and dispensability, nutrient limitation and beneficial non-nutrients.
- Familiarity with the food sources of nutrients, and other major dietary components, including toxins and anti-nutrients.
- Understanding of digestion, absorption, metabolism and excretion of nutrients and an appreciation of the biological effects of inert ingesta on the organism.
- Understanding of the nature and extent of the metabolic demand of an organism for nutrients, the effects of altered supply and demand of each nutrient.
- Understanding of the role of diet, foods and nutrients in the maintenance of health and in the prevention or causation of disease or dysfunction throughout the lifecycle.
- Familiarity with nutritional physiology and biochemistry including:
 - Control of food intake and choice;
 - Bio-availability and utilisation;
 - Energy and nutrient balance;
 - Nutrient turnover and storage;
 - Nutrient-gene interactions;
 - Body composition;
 - Fertility, reproduction and lactation;
 - Homeostasis and homeorrhesis;
 - Adaptation and its limits;
 - Immunity & allergy.
- Understanding of the methods for acquiring and interpreting information about diet and nutritional status, and about the interactions between diet, health and disease.
- Understanding of the derivation and purpose of nutrient reference values, and sources and use of standards and other reference data.
- Appreciation of how food production, supply, and preparation can determine chemical composition and content of dietary nutrients and other constituents
- Understanding of the economic, social & behavioural factors that influence food supply, choice, access, and consumption.
- Understanding of the links between evidence and action as a basis for policy concerned with food and nutrition in relation to public health.



2. WHAT IS PUBLIC HEALTH NUTRITION?

Public health nutrition is a specialist nutrition area. It is the promotion and maintenance of nutrition related health and well-being of the population through the organised efforts and informed choices of society (not the health care of individuals).

WHAT DO PUBLIC HEALTH NUTRITIONISTS

Public Health Nutritionists work with groups, communities and/or populations, in nutrition-related health promotion and disease prevention, in the health service, in consumer organisations, in the food industry or trade associations, in local, regional, national and international government departments and agencies, in tertiary education and professional vocational training, and in research in public health nutrition.

REGISTRATION AS A PUBLIC HEALTH NUTRITIONIST

The requirements for Full registration as a Registered Public Nutritionist are:

a. Competence in nutrition

As per registration as a nutritionist.

b. Specialist education and training in public health nutrition

Formal and/or experiential professional training develops specialist core competencies in public health nutrition and articulates with the national standards for Public Health Specialists and / or Public Health Practice, including:

- (i) A BSc degree or postgraduate degree with a major in nutrition, awarded by a university or institute of higher education in the field of public health nutrition as deemed appropriate by the NSA Registration Committee.

And either (ii) or (iii) or (iv):

- (ii) Completion of a PhD in public health nutrition, nutritional epidemiology or an appropriate area, at a university or higher education institution.

Or:

- (iii) Professional Masters in Public Health Nutrition degree (that includes professional competency and practicum units equivalent to a minimum of 25% of course load)



Or:

- (iv) Other formal education or training in public health nutrition, along with evidence of competency in public health nutrition through professional experience in relevant projects or placements undertaken during training or practice as deemed appropriate by the Registration Committee.

c) Appropriate Experience

- (i) Three years of professional experience in the past five years, with achievements and development of skills after graduation relevant to public health nutrition.

Or

- (ii) Evidence to satisfy the Registration Committee that, based on substantial professional experience (seven years of an appropriate nature and level), the requirement for (i) may be waived.



RELEVANT EXPERIENCE IN PUBLIC HEALTH NUTRITION

Relevant experience in public health nutrition facilitates the development of specialist competencies in public health nutrition. Examples include work-based learning in public health nutrition in one or more of the roles:

- a. Food and Health Coordinator or advisor; Early Start Nutritionist, Public Health Trainee or other role, in a Primary Care Trust, Health Authority or Health Board, Health Development or Health Promotion or Community Dietetics department.

OR:

- b. Community or Public Health Nutritionist providing or overseeing technical or humanitarian assistance in food security, and nutrition or nutrition-related health or development.

OR:

- c. Responsibilities for planning, managing, coordinating, assessing, monitoring, supervising or implementing, the practice of public health nutrition in:

- Public health observatories or departments;
- Health or medical or scientific organisations or agencies;
- Consumer or public interest organisations concerned with public health or nutrition;
- Food industry or trade associations;
- Local, national, regional or international government departments or agencies;
- Statutory bodies or non-governmental organisations or charities.

OR:

as a

- Researcher in public health nutrition or nutrition epidemiology or the manager of such research (in academic department of research institute);
- Lecturer or course director responsible for and providing professional training in public health nutrition.



SPECIALIST COMPETENCIES IN PUBLIC HEALTH NUTRITION

Registrants must provide evidence that they are competent in the following core specialist competencies in public health nutrition that complement generic competencies in public health.

Key Area 1: Surveillance and assessment of the population's health and well being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of dietary and food aspects of health and well-being.

This includes being able to:

- Perform, apply and evaluate the theory and methodology of assessment of nutritional status at **group, community, and population** levels in order to research and practice public health nutrition;
- Assess diet, food, and nutrient intake and the consumption of food constituents in **groups, communities** and at **population** level;
- Apply this knowledge to identify markers of nutritional status, in order to plan, modify, implement, and evaluate nutritional surveillance, at **group, community** and/ or **population** levels.

Key Area 2: Promoting and protecting the population's health and well being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of promoting and protecting the population's health and well-being.

This includes being able to:

- Apply knowledge to translate the science of public health and of nutritional requirements into nutrition guidelines, targets and food-based advice, to formulate, modify, and evaluate progress towards achieving food-based and nutritional guidelines or goals at **group, community, and / or population** level, to promote health and prevent disease;
- Apply knowledge and understanding of food safety to support research and practice in public health nutrition (e.g. the metabolic effects of anti-nutrients, toxicants, additives, pharmacologically active agents (drugs) and other constituents of foods and the diet; nutrient-nutrient interactions).
- Apply knowledge and understanding of environmental principles (including ecology) to support policy and practice for sustainable and diverse food and nutrition systems



Key Area 3: Developing quality and risk management within an evaluative culture

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of dietary and nutritional aspects of quality and risk management.

This includes being able to:

- Measure physical activity and assess lifestyle and health status, the extent and effects of interactions among measures of health status with measures of nutritional status, genetic and other risk factors in **groups, communities, and/or populations**.

Key Area 4: Collaborative working for health and well being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of dietary and nutritional aspects of health and well-being.

This includes being able to:

- Work with others to design, implement, manage, and evaluate programmes at **community or population** level.

To meet national standards, training should entail:

- Collaborative work with peers;
- Developing communication skills including the ability to engage in debate in a professional manner with a range of audiences (lay, peer, technical, academic); producing detailed and coherent written and oral reports supported with audio-visual aids in lucid grammatical style, making appropriate use of literature cited appropriately;
- Using Information Technology and computers in a professional capacity;
- Developing organisational skills and the ability to work in teams.

Public Health Nutritionists will be sufficiently competent in public health to be able to collaborate effectively with specialists in other areas or contexts. This means they will:

- Have knowledge of the roles of other Public Health Practitioners/Specialists;
- Have knowledge of the context in which the practitioners of public health function.



Key Area 5: Developing health programmes and services and reducing inequalities

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of dietary and nutritional aspects of health and well-being.

This includes being able to:

- Apply knowledge of psychological, social, and cultural factors that influence food, dietary and lifestyle choices, and how to effect behavioural change through modification of these, in research, surveillance and programme planning, at **group, community** and/or **population** levels;
- Design, implement, manage, and evaluate projects and programmes at **group** and/ or **community** levels;
- Monitor and evaluate the effectiveness and efficiency of projects and programmes, including the management of data and some aspects of resource management.

Key Area 6: Policy and strategy development and implementation to improve health and well-being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of nutritional, dietary and food aspects of health status and well-being.

This includes being able to:

- Apply understanding of the social theory of institutions, organisations, groups, communities; food, public health and social welfare systems; programmes and policies, to promote evidence-based effective planning and formation of policy in public health.

Key Area 7: Working with and for communities to improve health and well-being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of nutritional, dietary and food aspects of health status and well-being.

This includes being able to:

- Apply knowledge and understanding of principles and key components of the practice of nutrition-related health education and nutrition-related health promotion, to help others to design health promotion programmes for **groups, communities** and / or **populations**;
- Apply understanding of the aetiology of major public health problems within social, environmental (including ecological) and historical contexts, to work with **groups** and/or **communities** and/ or at **population** level, to develop, implement and evaluate nutrition health education and nutrition health promotion programmes;



- Develop skills of effective advocacy as well as the technical competence required for community development approaches [e.g. where concerns about diet and nutrition that may not be the client group's or community's or employer's priorities].

Public Health Nutritionists will be sufficiently competent in public health to be able to collaborate effectively with others and with specialists in other areas or contexts. This means they will:

- Have knowledge of the roles of other public health practitioners/specialists who work with communities, in urban or rural areas or in Primary Care;
- Have knowledge of the context in which public health practitioners function in communities, in urban or rural areas or in Primary Care;
- Have knowledge and understanding of nutrition-related community health and development, in rural or urban areas or neighbourhoods, or in Primary Care.

Key Area 8: Strategic leadership for health and well being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of nutritional, dietary and food aspects of health status and well-being.

This includes being able to:

- Develop interactive inter-personal and group skills so that the learner can interact effectively within a group; can recognise or support leadership or be proactive in leadership; can negotiate in a learning / professional context, manage conflict and is able to convene and manage a group and chair meetings.

Key Area 9: Research and development to improve health and well being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of nutritional, dietary and food aspects of health status and well-being.

This includes being able to:

- Design, undertake, interpret and use research methodology in the practice or application of research in public health nutrition;
- Develop research protocols and calibrate methods of investigation at **group, community** and/or **population** levels;
- Use nutritional and other relevant data and databases, applying understanding of statistical issues: sampling, study size and power; appropriate analytical techniques for designing monitoring and evaluating effectiveness and efficiency at **group, community** and/ or **population** levels.



Key Area 10: Ethically managing self, people and resources to improve health and well being

- Public Health Nutritionists will be expected to show leadership in nutrition and nutrition-related issues and the determinants of nutritional, dietary and food aspects of health status and well-being.

This includes being able to:

- Design and manage projects and programmes; monitor and evaluate effectiveness and efficiency. This includes competency in the management of data and some aspects of resource management.

Public Health Nutritionists will develop an understanding of and commitment to abide by guidance on ethical aspects of managing self and others, as set out in the **NSA Code of Ethics and Statement of Professional Conduct**.



3. WHAT DOES AN ANIMAL NUTRITIONIST DO?

Information being developed

SPECIALIST COMPETENCES IN ANIMAL NUTRITION