

CORE COMPETENCIES REFERENCE MANUAL FOR PUBLIC HEALTH PUBLIC HEALTH NUTRITIONISTS TO PRACTISE IN ZAMBIA

CORE COMPETENCIES AND MINIMUM STANDARDS

Table of Contents

QUALIFICATION AND RESPONSIBILITIES	2
1.0 INTRODUCTION	2
2.0 EXIT EXAMINATIONS AND AWARD OF THE BACHELOR OF SCIENCE IN A NUTRITIONAL SO BY TRAINING INSTITUTIONS	
3.0 LICENSURE EXAMINATIONS BY THE HEALTH PROFESSIONS COUNCIL OF ZAMBIA	3
4.0 COMPETENCE OUTCOME GUIDELINES	4
5.0 CORE COMPETENCIES: GRADUATE NUTRITIONIST	5
Outcome 1. Knowledge	5
Outcome 2. Skills	8
Outcome 3. Attitude	9
6.0 BLUE PRINT FOR WEIGHTING	11
8.0 CORE PROCEDURES	12
9.0 Reference Materials	12

QUALIFICATION AND RESPONSIBILITIES

Title of the programme: Bachelor of Science Human Nutrition OR BSc Nutrition and Dietetics or equivalent.

Key accountability for the job: This cadre has contact with patients at primary, secondary and tertiary level of care.

Primary roles and responsibilities:

- Provision of preventive nutrition care services to at risk communities
- Assess patient's nutritional and health needs
- Providing effective nutritional interventions in accordance with religious or cultural preferences
- Provide health and nutrition promotion by talking to families
- Explain important nutrition issues to people in at risk communities
- Delivery of group education sessions on nutrition and health topics
- Implementing and coordinating nutrition programmes
- Keep up to date with scientific research on nutrition

1.0 INTRODUCTION

The Health Professions Council of Zambia (HPCZ) is a statutory body that was established by the Health Professions Act No. 24 of 2009. The Act renames and continues the existence of the Medical Council of Zambia established by the Medical and Allied Professions Act of 1977. The Health Professions Act No. 24 provides for the registration of health practitioners and regulation of their professional conduct; provides for the licensing of health facilities and the accreditation of health care services provided by health facilities; and provides for the recognition and approval of training programmes for health practitioners.

Following the issuance of the guidelines for introduction of licensing examinations for health professionals to be registered with the Health Professions Council of Zambia, this bulletin provides an outline of the core competencies and minimum standards for registrants who have completed the Bachelor of Science in Human Nutrition of its equivalent seeking non-specialist registration as a Public health nutritionist in Zambia.

2.0 EXIT EXAMINATIONS AND AWARD OF THE BACHELOR OF SCIENCE IN A NUTRITIONAL SCIENCE BY TRAINING INSTITUTIONS

Training institutions, private or public, local and foreign approved by the Health Professions Council of Zambia are mandated to examine and graduate their students under their own seal and authority as prescribed by the HPCZ act number 24 of 2009. The Bachelor of Science holder of this qualification will be required take and pass the HPCZ licensing examination to qualify for registration with the Council as a Public Health Nutritionist. The Nutritionists trained for the health sector are able to function in a health facility.

3.0 LICENSURE EXAMINATIONS BY THE HEALTH PROFESSIONS COUNCIL OF ZAMBIA

A person shall not practise as a health practitioner, unless that person is registered as a health practitioner in accordance with the Health Professions Act No. 24 of 2009. In the exercise of its functions under this Act, the 2nd Council and the 3rd Council of the Health Professions Council of Zambia instituted Licensure Examinations to help maintain standards given the emergence of multiple private and public training institution. This "Bulletin of Information on the Core Competencies and Minimum Standards for the Licensing Examinations for Nutritionist to Work in Zambia" binds all parties regulated under this Act. Examination fess for licensure examinations, as prescribed by the Council, are payable to the Health Professions Council of Zambia as part of the eligibility to sit licensing examinations.

The HPCZ Licensing Examination assesses a Public Health Nutritionist's ability to apply knowledge, concepts, and principles, and to demonstrate fundamental patient-centred skills, that are important in nutrition and health and that constitute the basis of safe and effective patient care. The HPCZ Licensing Examination includes, but is not limited to, theoretical and clinical examinations which complement each and the other components. No component is a stand-alone in the assessment of readiness for Nutrition practice in Zambia.

The candidate will be assessed under three domains, namely:-

- 1. Knowledge
- 2. Skills
- 3. Attitude

The above domains will be assessed by means of a theory exam comprising of multiple choice questions followed by a composite objective structured clinical examination (OSCE). The six **subject areas** (assessed under all three learning domains) for Public Health Nutritionists in Zambia are:

- 1. Human Nutrition
- 2. Nutrition Communication
- 3. Food science
- 4. Public Health and Nutrition
- 5. Dietetics/clinical nutrition

6. Food Service systems management

Other subject areas prescribed by the curriculum such the biomedical and social sciences will only be assessed as cognitive domain in the theory paper. The overall expected outcomes of the Nutritionist licensure examination is to ensure that the candidate will meet the minimum standards for the role in providing nutrition care service at all levels of health care.

4.0 COMPETENCE OUTCOME GUIDELINES

The curriculum must have identified attributes in each educational domain (knowledge, skills and attitude) and present them to guide student learning and assessment by examiners. HPCZ directs Nutritionists to be compassionate and empathetic in caring for patients and to be trustworthy and respectful in all their professional dealings. Nutritionists have a responsibility to provide nutritional care that enhances the lives and health that are entrusted to them by patients. The competencies and outcome guidelines are a minimum requirements for entrance into the profession at the point of qualification. Below are the overall outcomes the graduate nutrition technologist is expected to exhibit:

- a. Knowledge: demonstrates knowledge sufficient to ensure safe practice
- b. **Communication**: demonstrates effective and appropriate skills in listening and communicating information, advice, education and professional opinion to individual's groups and communities
- c. **Collection, analysis and assessment of nutrition/health data**: Collects organises and assesses data relating to the health and nutritional status of individuals, groups and populations
- d. **Individual Case Management**: Manages client-centred nutrition care for individuals
- e. **Community and Public Health Nutrition and Advocacy for Food Supply**: Plans, implements and valuates nutrition programs with groups, communities and populations as part of a team
- f. **Food Service Management**: Manages components of a food service to provide safe and nutritious food

- g. **Research and Evaluation**: Integrates research and evaluation principles into practice
- h. **Management and organisation**: Applies management principles in the provision of nutrition services, programs and products
- i. **Professionalism, advocacy, innovation and leadership**: Demonstrates a professional ethical and entrepreneurial approach advocating for excellence in nutrition and dietetics

5.0 CORE COMPETENCIES: GRADUATE NUTRITIONIST

The basic structure of the competency standards presented highlights three important attributes (knowledge, skills, and attitudes) required to perform core nutrition functions. Knowledge is essential in the practice on Public health nutrition in the health sector. The practice involve the integration of knowledge form different subject areas. The integration allows for the public health nutrition practitioner to be able do a comprehensive nutrition assessment and to come up with realistic nutrition interventions with the client. To be able to come up with realistic interventions, public health nutrition professional should have the skill to analyse the information collected and be able to communicate with the patient and other medical team members. Skill is concentrated on the actions or activities that can be performed. Attitude focuses acting in an expected manner.

Competence	Outcome
Integrates	1. Understands the normal anatomy, physiology, biochemistry of
knowledge of	human nutrition and dietetics science
Physical, chemical and biological	2. Explains the pathophysiological processes that affect nutritional and dietetic practice
sciences in the	3. explains the interaction between drugs and diet in a patient
provision of	4. Describes the chemical composition and properties of foods
services	5. Describes the nutritional value of foods
	6. Explains the principles of food processing and preservation
	 Describes how processing and preservation can affect the nutritional value of foods
	8. Explains the principles of food hygiene, quality and safety
	9. Describes the principles that govern food laws and regulations

Outcome 1. Knowledge

Integrates knowledge of behavioural and social sciences in the provision of nutrition and dietetic service	 Interpret the biological factors that determine the health and nutritional status of individuals and populations Applies knowledge of nutritional physiology and biochemistry to public health nutrition analysis and practice Applies knowledge of dietary requirements across age-groups, gender and health states to effective public health practice Identify the effects of social, psychological, and behavioural factors on individual and population health, including prevention, treatment and management of chronic disease, adjustment to illness, adherence to treatment regimens, and promotion of recovery Explains the impact of the environment, economic and political factors in influencing food and food use, food habits, diet and lifestyle Examine evidence regarding factors that influence individual health behaviour, health status and utilization of health services Examine social and cultural factors, including the mass media, which influence the health behaviour of individuals Analyses the social and cultural factors that influence individual dietary behaviour, health status and utilisation of health services Describe the structure and dynamics of the political and bureaucratic systems and identify the roles of various institutions (government and non-government) in shaping health policy Critically analyse how structures, contexts and processes of government and legislation impact on health programs and policies, including international contexts
Integrates knowledge of food, food systems, human nutrition and applied nutrition in the provision of service	 Demonstrates knowledge of foods and food preparation methods used in the practice community Identify barriers to change for the client drawing upon relevant counselling methods and devise strategies to address these in collaboration with the client Describes key nutritional problems of public health importance, their epidemiology, underlying metabolism and consequences for health Describes and compares theories of health promotion, program planning, and management and public health Appraise the contribution of epidemiology, toxicology and ecology to environmental risk assessment and risk management and identify the principles of risk assessment, risk management and risk communication Applies knowledge of food composition to relevant aspects of practice Uses contemporary and evidence based food guidance devices and nutritional education to promote optimal population dietary behaviour Incorporates knowledge of food science to inform public health nutrition practice Develop dietary assessment protocols for population level dietary assessment using various methods appropriate to context,
	resources and purpose

	 Identifies and uses appropriate dietary methodology to collect retrospective, current and prospective food and nutrient intakes for individuals which identify nutrient and food intake patterns as required by the situation Is able to estimate nutrient intake for individuals using food composition tables and/or databases and compare with Nutrient Reference Values (NRVs) or estimated requirements Selects suitable methods for assessment of anthropometry and body composition Is able to interpret anthropometric and body composition and nutritional assessment data using appropriate reference ranges Recognises clinical signs of malnutrition Accurately interprets dietary, health, medical, anthropometric, and body composition data against standards relevant to the nutritional issues
Integrates business and management principles in the provision of service	 Describes and compares food service systems Describes food systems, food use, and food and nutrition policy Demonstrate a thorough knowledge of food and nutrition service management in a variety of settings. Assess food and nutrition services using a variety of evaluation methods, including quality management, best practice, benchmarking, quality improvement and satisfaction tools and processes. Describe and apply the procedures involved in translating policy into organisational structures and plans Describe human resources principles for organizational development, conflict resolution, and motivation of personnel Describes financial management for health programs, including budgeting
Communicates effectively and responsibly using multiple means	 Communicates with individuals, groups, organisations and communities from various cultural socioeconomic, organisational and professional backgrounds to enable them to take actions to improve nutrition and health outcomes applying the principles of learning theory Applies the basic principles of education theory as it applies to public health nutrition practice Develops education material that is evidence-based, culturally sensitive, and pitched at the appropriate literacy level, to meet the needs of the target group Applies the basic principles of education theory as it applies to public health nutrition practice Translates technical nutrition information into practical advice on food and eating Methods of listening to and involving the public and communities in improving health and reducing inequalities
Demonstrates knowledge of quality assurance of nutrition and dietetic practice	 Critically appraise and translate scientific knowledge and principles related to nutrition into practical information for health professionals, clients and the general public. Identifies and communicates the health, fiscal, administrative, legal, social and political implications of policy options

3.	Describes and apply the components and processes of a major policy analysis using epidemiological, economics and social science tools
4.	Identify and understand the role of risk factor surveillance to inform analysis of diet-related problems.
5.	Utilise data from monitoring and surveillance todescribe trends in risk factors for diet-related disease, among key population groups

Outcome 2. Skills

Competence	Outcome
Communicates effectively and responsibly using multiple means	 Communicate effectively with patients, their family, peers, seniors and other medical teams Be able to use verbal, written and electronic modes of communication Design and carry out nutrition education programme based on the principles and approaches of nutrition education Develops and delivers educational sessions for small groups Communicates effectively with individuals, families, groups, communities, colleagues and political decision makers Demonstrate effective written and oral communication
Integrates knowledge of food , food systems, human nutrition and dietetics in the provision of service	 in a range of contexts Perform nutrition assessment including anthropometric and food intake assessment Collect relevant dietary information Analyse and interpret the collected data to determine the health and nutritional status of individuals Assesses and assigns priorities to all data Make a nutritional diagnosis Create realistic solutions to nutrition problems according to recommendations for the prevention and control of diet related or life style related diseases Build capacity of, and collaborate with others to improve nutrition and health outcomes. Assesses opportunities to improve nutrition and food supply in a community or population group Plans and implement nutrition programs with the population group Makes recommendations on food and nutrition policy
Integrates business and management principles in the provision of service	 Assesses opportunities to improve nutrition and food standards within a food service institution Develops plans to provide safe and nutritious foods in a food service institution Implements activities to support delivery of quality nutrition and food standards within a food service Applies organisational, business and management

	skills in the practice of nutrition and dietetics.
Demonstrates knowledge of quality assurance of nutrition and dietetic practice	 Utilise data from monitoring and surveillance to describe trends in risk factors for diet-related disease, among key population groups Analyse a health problem and identify the appropriate level/s at which to target the disease, condition or determinant, and population groups to be targeted Utilises latest evidence in behaviour change theory, education theory and nutrition science to design a nutrition education program (including an educational resource) for a specific group of participants

Outcome 3. Attitude

Competence	Outcome	
1. Professionalism and Ethical Conduct	 Demonstrates awareness of local, regional and international ethical codes Maintain confidentiality Treat patients with respect and maintain their dignity Obtain consent Develops and maintains a credible professional role by commitment to excellence of practice Demonstrates cultural competency Identify the values and principles that underlie public health nutrition policy debates, organisational practices, and program planning and evaluation Applies principles of ethical decision making in the context of clinical and cost effectiveness Applies ethical principles to the collection, maintenance, use and dissemination of data and information Apply culturally-relevant and appropriate approaches with people from diverse cultural, socioeconomic and educational backgrounds, and persons of all ages, genders, health status, sexual orientations and abilities 	
Demonstrates interpersonal skills, professional autonomy and accountability	 Be a team player and understand own role in the team Understand expertise of other team members Demonstrate leadership Demonstrate efficiency and punctuality Prioritize work and implement innovative ideas 	
Demonstrates knowledge of quality assurance of nutrition and dietetic practice	 Participate in appraisals, performance reviews and assessments Identify own limitations and act upon them Engage in CPD activities 	

4.	Be an effective mentor and teacher to dietetic students and colleagues
5.	Demonstrate interest and capacity to share knowledge and
	experiences gained through practice to colleagues and other professionals

6.0 BLUE PRINT FOR WEIGHTING

Competency Domain	Percentage	
Theory Exam (50%)	50	
• Nutrition (Food, food systems, human nutrition and dietetics)	20	
Communication	10	
 Management (business management, food service management, marketing, resource management) 	5	
• Research	5	
Physical, chemical and biological sciences	4	
 Social sciences (sociology, psychology, economics) 	4	
Professionalism issues	2	
Total	50	
Practical Exam (50%)	50	
• Nutrition (Integration of food, food systems, human nutrition and dietetics in practice)	30	
Communication practice	10	
• Management	5	
Professionalism issues or research	5	
Total	50	

8.0 CORE PROCEDURES

For Nutritionist and dietician alike, the process they have to be conversant with is the nutrition care process. Knowledge and skill of performing this process allows for the professional to collect the subjective and objective information efficiently, analyze the data, provide a nutrition diagnosis and come up with realistic interventions. The intervention will allow the nutritionist develop a monitoring and evaluation plan.

9.0 Reference Materials

- 1. Tortora, G.J. and Derrickson, B., 2013. Essentials of anatomy and physiology. Wiley.
- Murray, P.R., Rosenthal, K.S. and Pfaller, M.A., 2015. *Medical microbiology*. Elsevier Health Sciences.
- Ray, B. and Bhunia, A., 2013. Fundamental food microbiology. CRC press. Campbell, M.K. Biochemistry, International Edition. Saunders College Publishing. Philadelphia. ISBN: 0-07-121766-5
- 4. McGuire, M. and Beerman, K.A., 2012. *Nutritional Sciences: from fundamentals to food.* Cengage Learning.
- 5. Fennema, O.R. Food Chemistry. Marcel Dekker Inc. New-York. ISBN: 978-0824793463
- Smolin, L.A. and Grosvenor, M.B. *Nutrition Science and Applications*. John Wiley and Sons Inc. ISBN-13: 978-0-471-42085-9
- Whitney, E.N. and Rolfes, S.R., 2018. Understanding nutrition. Cengage Learning. Joan Webster-Gandy, Angela Madden, and Michelle Holdworth. 2006. Oxford Handbook of Nutrition and Dietetics. OUP. ISBN-10: 0-19-856725-1; ISBN-13: 978-0-19-856725-7
- Latham, M.C..*Human Nutrition in the Developing World*. Food and Nutrition Series No.29, FAO, Rome. ISSN 1014-3181
- 9. Snetselaar, Linda.5 Nutritional Counseling for Lifestyle Change, CRC. ISBN-10: 0849316049
- Cresswell, J. W. Research Design: *Qualitative, Quantitative and Mixed Methods Approaches.* Sage Publications Inc. ISBN: 978-1412965576
- 11. Aschengrau, A. and Seage, G.R., 2013. *Essentials of epidemiology in public health*. Jones & Bartlett Publishers.
- Save the Children. 2004. Emergency Nutrition Assessment: Guidelines for Field Workers. Save the Children. ISBN- 10: 1841870900, ISBN – 13: 978-1841870908
- WHO. *The Management of Nutrition in Major Emergencies*, 2nd Edition. WHO. ISBN- 10: 9241545208, ISBN 13: 978-9241545204.

- 14. Glanz, K. Rimer, B. K. and Lewis, F. M. 2002. *Health Behaviour and Health Education: Theory, Research and Practice*. Oxford University Press
- 15. Contento, I.R., 2010. *Nutrition education: linking research, theory, and practice.* Jones & Bartlett Publishers.