**NUTRITION PRACTICE GUIDELINES (NPGs)**

**New nutrition guide to boost primary care of diet-related diseases**

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**INTRODUCTION**

Prevalence of non-communicable disease (NCD) risk factors has increased rapidly in the Philippines. NCDs are chronic conditions that result from behavioral risk factors such as smoking, alcohol consumption and physical inactivity, as well as dietary risk factors. These behavioral risk factors, unhealthy diet and the predisposing environment may lead to metabolic risk factors like elevated blood pressure, abnormalities in blood lipid levels, elevated blood glucose, and obesity.

While the Department of Health (DOH) has included the diagnostic and therapeutic management of NCDs in the Philippine Essential Package for NCD Interventions (PhilPEN), guidance on the nutritional management in the primary care setting is most needed. Majority of existing guidelines are limited in providing recommendations in terms of nutrition. Thus, there is a need to develop a separate guideline on the nutritional management of selected NCDs to supplement PhilPEN following the process for developing Clinical Practice Guidelines (CPGs).

The Nutrition Practice Guidelines (NPGs) is a set of evidence-based recommendations for the nutritional management of selected NCDs. The guidelines aim to equip practitioners and guide patient or client’s decisions about appropriate care for the different NCDs, such as hypertension, diabetes, dyslipidemia, overweight and obesity.

Nutrition Practice Guidelines (NPGs) are intended for the use of practitioners at the frontlines in the primary care setting. Tools for the nutritional management of NCDs in the primary care setting are most needed, as this is where the early disease stages are cared for, but where specialists and nutrition expertise are limited.

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**MATERIALS AND METHODS**

**How NPGs were developed?**

1. **Formation of Technical Working Groups (TWG)**
2. **Identification of PICO (Population, Intervention, Comparison, Outcome)**
3. **Review of literatures and existing guidelines by the Technical Research Committee (TRC) and TWG**
4. **Critical Appraisal of Literature and Grading of Evidence (GRADEpro)**
5. **Presentation of draft and revised recommendations to expert panel (rounds of consensus building)**
6. **Evaluation of Draft Recommendations (TWG)**
7. **Formulation of Draft Recommendations**
8. **Finalization of recommendations**
9. **Development of communication plan and IEC materials (ongoing)**
10. **Development of educational and monitoring materials to support guideline use and implementation (ongoing)**
The NPGs were developed specifically for Filipino adults, 20-59 years old. NPGs consist of 19 statements (4 for hypertension and 5 each for diabetes, dyslipidemia, and overweight/obesity) and 30 sub-statements which focused on recommended dietary and lifestyle changes specific for each of the disease conditions.

These include dietary strategies and evidences on specific issues which have to be communicated to both patients and practitioners. Physical activity is recommended upon doctor's clearance, as well as gradual weight loss for overweight and obese adults. Lifestyle modification is recommended, which include avoiding smoking and drinking alcoholic beverages, sleeping adequately and managing stress.

**GENERAL RECOMMENDATIONS**

- Follow the Nutritional Guidelines for Filipinos and Pinngang Pinoy.
- Eat a variety of foods in the right proportions.
- Drink at least 8 glasses of water per day, apart from other beverages.
- Assess body mass index (BMI) and waist circumference to know your nutritional status.
- Engage in any moderate- to vigorous-intensity physical activity for at least 150 minutes throughout the week or at least 20 to 30 minutes every day.
- Avoid smoking and drinking alcoholic beverages.
- Get 7 to 8 hours of sleep.
- Manage stress.

**DIABETES**

- Dietary intervention (e.g. use of Plate Method tailored for diabetes, evenly spaced meals, avoid skipping of meals, consumption of vegetables, fresh fruits, whole grains, legumes and healthier sources of protein-rich foods within prescribed amounts) is recommended to control blood sugar.
- There is no sufficient evidence to recommend the use of health supplements to control blood sugar.
- Moderate to vigorous intensity physical activity of at least 150 minutes per week is recommended to control blood sugar.
- Weight loss of 5-10% from baseline weight at an average rate of 0.5-1.0 kg (1 to 2 lbs.) per week is recommended for overweight and obese adults with type 2 diabetes mellitus to control blood sugar.
- Lifestyle modification is recommended to control blood sugar. This includes not smoking, avoidance of alcohol drinking, sleeping for at least 7 to 8 hours a day, and stress management.

**HYPERTENSION**

- Restriction of sodium intake to <2 grams a day is recommended.
- Reduced consumption of processed foods is recommended to decrease sodium intake.
- A diet like DASH (Dietary Approaches to Stop Hypertension) is recommended to control blood pressure.
- Aerobic physical activity for 30 to 45 minutes, 3 times per week in addition to a diet specific for hypertension is recommended for overweight and obese hypertensive adults.
- Weight loss of 5-10% from baseline weight at an average rate of 0.5-1.0 kg (1 to 2 lbs.) per week is recommended for overweight and obese hypertensive adults.
RESULTS (continued)

**DYSLIPIDEMIA**

- Dietary intervention (e.g. consumption of foods low in fat and cholesterol and foods rich in omega-3 fatty acids, and increased daily consumption of vegetables and dietary fiber) is recommended to improve lipid profile.
- While eggs are generally safe to consume among individuals with dyslipidemia, it is recommended that eggs be consumed up to a maximum of four times per week and not more than one per day.
- Moderate to vigorous intensity physical activity of at least 150 minutes per week is recommended.
- Weight loss of 5-10% from baseline body weight at an average rate of 0.5-1.0 kg (1 to 2 lbs.) per week is recommended for overweight and obese adults with dyslipidemia.
- There is no sufficient evidence to recommend the use of probiotics, omega-3 supplements, sterol supplements or sterol-enriched foods, vitamin B supplements, virgin coconut oil and red yeast rice as part of the dietary management of dyslipidemia.

**OVERWEIGHT and OBESITY**

- Assessment of body mass index and waist circumference is recommended in classifying nutritional status and evaluating health risks among adults who are overweight and obese.
- Weight loss of 5-10% from baseline body weight at an average rate of 0.5 to 1.0 kg (1 to 2 lbs.) per week is recommended as an initial goal until target weight is achieved.
- Dietary intervention (e.g. calorie deficit of 500 to 1000 kcal per day, portion control, distribution of calorie intake throughout the day, avoid skipping of meals) is recommended for weight loss.
- Physical activity, in addition to appropriate calorie restriction, is recommended for weight loss.
- Lifestyle modification is recommended for weight loss. This includes not smoking, avoidance of alcohol drinking, sleeping for at least 7 to 8 hours, and behavioral counselling.
- The evidence for alternative strategies for weight loss (e.g. fad diets, herbal medicines, health supplements) is inconclusive, and therefore is not recommended for public health and nutrition use at this time.

**CONCLUSION AND RECOMMENDATION**

The Nutrition Practice Guidelines (NPGs) are developed for the general population and according to specific priority diseases or conditions such as hypertension, diabetes, dyslipidemia, and overweight and obesity. These are formulated to complement the PhilPEN by providing a standardized guidance to the nutrition practice of frontline health care providers at the primary care setting. The formulated statements and recommendations are based on the available evidences critically appraised at the current period. However, the guidelines are not intended to replace sound clinical judgment by the doctors nor prevent individualized approaches to care where warranted.

Finally, the NPGs can serve as groundwork for evidence-based nutrition practice which may be updated with the appraisal of new evidences. These can also serve as basis for the Department of Health (DOH) in the development of educational and monitoring materials to support guideline use and implementation.

**ACKNOWLEDGMENT**

The DOST-FNRI gratefully acknowledges the Department of Health (DOH), Disease Prevention and Control Bureau for the funding support in the conduct of this project and the members of the Technical Working Group (TWG) for their active participation during the formulation, revision, and finalization of the Nutrition Practice Guidelines.