A Training Manual for Health Workers on Healthy Lifestyle: An Approach for the Prevention and Control of Noncommunicable Diseases

2009 Revised Edition
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Noncommunicable diseases (NCDs) are now the leading killers worldwide. Sixty percent of all deaths in the world are caused by NCDs. Cardiovascular disease, diabetes, cancer, and chronic respiratory disease are rising as a result of a global epidemic of smoking, unhealthy diet, harmful use of alcohol, and physical inactivity. These diseases cut productivity so insidiously and drain family resources so thoroughly, that they have become a major threat to the economic and social development of developing countries.

In the Philippines, six of the top ten causes of mortality are due to NCDs. Diseases of the heart and vascular system are the top killers, comprising nearly one-third (31%) of all deaths. Other NCDs in the top list include malignant neoplasms, chronic obstructive pulmonary disease (COPD), diabetes mellitus, and kidney diseases.

The NCD problem is likely to persist in the country as indicated by recent statistics that show a large number of Filipino adults who continue to exhibit NCD risks. Consider the following prevalence as follows: 27% are overweight, 25% have hypertension, 5% have high blood sugar, 10% have high total cholesterol level, and 48% of adult males are smokers. High levels of physical inactivity (more than 70%) is also reported. Alarmingly too, more and more children and adolescents are becoming exposed to overweight and obesity and other NCD risks.

In the last twenty five years or so, much has been learned about the causes of NCDs, and many national and local initiatives have been put in place. Since then, there have been good practices and models established, and some improvements in prevalence of risk factors achieved. The WHO Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases (2008–2013) and the Western Pacific Regional Action Plan for NCDs have guided Philippines and other Member States in the fight against NCDs in recent years. But the challenges have remained, and there is now a need to accelerate efforts and strengthen initiatives to dramatically reduce prevalence of NCDs and their risk factors in the country.

The revised training manual on the integrated approach for the prevention and control of NCDs is envisioned to be an important capacity building tool for health care providers and health partners in their continuing mission on NCD prevention and control. WHO Philippines is happy to have supported the updating of said training manual. We remain committed to continually serve as technical partner of the country in reducing the magnitude of the NCD problem and contributing to overall health and well-being of all Filipinos.

Thank you and mabuhay!.

Dr Soe Nyunt-U
WHO Representative in the Philippines
Foreword

As we all know, chronic lifestyle-related Noncommunicable Diseases (NCDs) such as cardiovascular diseases, cancer, diabetes, chronic respiratory and renal diseases, remain as global and national epidemics. In the Philippines, these diseases are among the top ten leading causes of mortality and morbidity, including trauma from accidents and injuries, which bring serious consequences to individuals in particular and to country’s development in general.

In response to the growing epidemic on NCDs, two demonstration projects in the municipality of Pateros in Metro Manila and the province of Guimaras in Western Visayas implemented in 2003 an integrated and community-based approach for the prevention and control of NCDs. Relative to this, series of trainings for public health workers in both demo sites and later on in other regions of the country were conducted focusing on key areas of primary prevention of risk factors and the major NCDs.

Today, the call for promoting healthy lifestyle by reducing risk factors such as physical inactivity, smoking, poor diet and nutrition remains a challenge in both rural and urban settings, despite some improvements on the prevalence of risk factors in some areas. Moreover, there is a need to understand the underlying social determinants caused by globalization, urbanization and aging population to help reduce the prevalence of mortality and morbidity from NCDs.

Along this context, the Department of Health recognizes and adopts the Plan of Action on NCD of the World Health Organization emphasizing the different interventions such as: (1) policy and regulatory interventions at the environmental level, (2) population-based lifestyle interventions at the level of common and intermediate risk factors; and (3) clinical interventions targeting high risk individuals at the level of disease.

Hence, the DOH is happy to release this revised edition of the Training Manual for Health Workers on Promoting Healthy Lifestyle, now entitled, A Training Manual for Health Workers on Healthy Lifestyle: An Approach for the Prevention and Control of Noncommunicable Diseases. This manual is intended primarily for health workers namely: doctors, nurses, midwives and nutritionists in all public health facilities. It aims to guide them in addressing the rising trend of NCDs throughout the country using holistic approach starting with proper risk assessment and screening procedures.

Finally, it is hoped that this material will aid the health workers in efficiently implementing NCD Prevention and Control Program as one priority program of the Department.

ENRIQUE T. ONA, MD, FPCS, FACS
Secretary of Health
Preface

The prevalence of Noncommunicable Diseases (NCDs) continues to rise and promoting healthy lifestyle is very much needed and relevant as ever. The last series of training on promoting healthy lifestyle have been conducted five years ago (2004-2005). The first edition of the Training Manual for Health Workers on Promoting Healthy Lifestyles was developed in 2003 by the University of the Philippines Manila College of Nursing commissioned by the Department of Health with funding from the World Health Organization Western Pacific Regional Office (WHO-WPRO). The training manuals were used in training doctors, nurses and midwives in the two demonstration projects on NCD prevention and control: in the municipality of Pateros and the province of Guimaras. These manuals were also used in the National Training of Trainers and training of public health workers at the Regional Centers for Health and Development.

Recently, there have been a lot of developments in the prevention and control of NCDs globally and locally. WHO WPRO developed a Regional Action Plan on NCD which utilizes a comprehensive approach to effect change by doing advocacy, research, surveillance and evaluation, leadership, and health systems strengthening. DOH clarified the roles of the public health workers in the prevention and control of NCDs at the national, regional, municipal, and barangay levels. New evidence on what works to prevent and control major NCDs and their risk factors have strengthened programs on diet, physical activity and smoking cessation. With the goal of renewing and updating the series of training for health workers on the prevention and control of NCDs, WHO Philippines and DOH commissioned the University of the Philippines Open University together with the UP Manila College of Nursing to review the training curriculum in promoting healthy lifestyle and revise the training manuals based on current needs assessment and scientific updates.

In the process of revising the Training Manuals, several steps were conducted. A Round Table Discussion was conducted among NCD coordinators at the Regional Centers for Health and Development to solicit their comments on how the existing manuals could be revised based on their practical use in the community. Surveys and focus group discussions were also conducted in three cities in Metro Manila to gather more information on how to improve the content of the manuals, the teaching-learning strategies and the actual conduct of the training. Content writers were then gathered in a workshop to update and reorganize the content in a more useful and practical way. Strategies for changing behaviour and creating supportive environment were incorporated in the modules on promoting specific interventions such as: (1) promoting good nutrition and healthy diet, (2) promoting physical activity, (3) promoting smoke-free individuals and reducing harm from
alcohol use, and (4) promoting mental health and wellness. Alcohol and mental health are the new topics added to the revised edition because of their significant contribution to the prevalence of major NCDs.

The new set of Training Manual is now composed of six modules, namely:

- Module 1. Overview of Major Noncommunicable Diseases
- Module 2. Risk Factors Assessment and Screening Procedures
- Module 3. Promoting Good Nutrition and Healthy Diet
- Module 4. Promoting Physical Activity
- Module 5. Promoting Smoke-free Individuals and Reducing Harm from Alcohol Use
- Module 6. Promoting Mental Health and Wellness

The Trainer’s Guide is basically the same structure and format as the previous edition. This contains a prototype training schedule of four days. Suggested teaching and learning strategies are highly interactive using a participatory and experiential approach which is consistent with principles of empowerment. Training outcomes include development of skills in assessment of clients for risk factors, perform and interpret results of basic screening procedures, perform health education sessions on risk factor modification and promoting healthy lifestyle and mobilizing communities.

Prior to final design and layout of the training manuals, two batches of pre-testing were done involving DOH officials and public health workers at the regional and local levels. Slide presentations were likewise developed and adapted to suit the local contexts.

The Trainer’s Guide, Training Modules, Training Program and Slide Presentations comprise the complete set of training materials for the Training of Health Workers on the Integrated Approach to the Prevention and Control of NCDs. It is hoped that by giving this complete set to the regional and local health officials, the training of public health workers on the prevention and control of major NCDs will be more meaningful, standardized and successful.
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MODULE 0  Trainer’s Guide

I. Introduction

Noncommunicable diseases (NCDs) are considered a major public health concern worldwide. They account for 60 percent of total deaths globally (with 40 million deaths estimated occurring annually), and contribute to 40 percent of universal disease burden annually. It is projected that if no action is done in the present, these rates would increase to as high as 73 percent to total deaths and 60 percent to disease burden respectively by 2020 (WHO, 2005).

The prevalence of NCD continues to rise in the Philippines and promoting healthy lifestyle is very much needed and relevant as ever. More than half (58%) of total deaths in the country in 2003 were caused by NCDs. Diseases of the heart and vascular system made up almost one-third (30.2%) of all deaths (Philippine Health Statistics, 2003). Other NCDs in the top list include malignant neoplasm, chronic obstructive pulmonary diseases (COPD) and diabetes mellitus. NCDs have replaced the positions of infectious diseases particularly pneumonia and tuberculosis as top-most common causes of deaths.

The burden of illness due to NCD is great and the cost of care is something that the country cannot afford. The cost of diagnosis and treatment is generally beyond the resources of the average Filipino and the government’s health budget is inadequate. There is an urgent need therefore to focus all efforts in promoting healthy lifestyle to avoid the major risk factors that cause these diseases.

The common risk factors for the major NCDs, which include: smoking, lack of physical activity, obesity, hypercholesterolemia and unhealthy dietary practice can be prevented or modified early through behavior change and environmental support. Health workers, particularly those at the primary care level need to be reoriented and trained on integrating primary prevention of NCDs and promotion of healthy lifestyle in their regular activities.

In the past years, the Philippine Department of Health (DOH) has experienced that having a separate program for each major disease is expensive, not effective and inefficient. The costs of diagnosis, treatment and rehabilitation of NCDs are expensive. The prevalence of NCD is increasing despite the presence of program-specific interventions. The use of resources is not efficient because of overlapping of efforts and not focused on primary prevention. While the high-risk approach cannot be discounted, studies have shown that intervening early using a population approach could be more effective. The recommended approach, therefore, is to prevent and modify the underlying causes and risk factors of leading NCDs using a population or community-based approach.
In response to the World Health Organization’s challenge to promote an integrated community-based approach to the prevention and control of NCDs, DOH launched the National Healthy Lifestyle Program in 2003 to encourage the establishment of healthy lifestyle programs at the provincial and municipal levels all over the country. Since then, DOH has been streamlining and reorganizing its programs and structure towards a more integrated approach in the delivery of health services.

Health workers at the primary care setting and in communities play a critical role in promoting healthy lifestyle. The first national training on promoting healthy lifestyle was done in 2003 with the help of the University of the Philippines Manila - College of Nursing (UPM-CN). The focus of the training then was on the areas of risk factors assessment and screening, nutrition, physical activity and tobacco control. After almost seven years there have been many technical updates in NCD prevention and control and some new strategies in promoting healthy lifestyle. It is therefore important to conduct a nationwide re-training of community health workers.

This new training organized by the University of the Philippines Open University (UPOU) and UPM-CN will focus on five areas: (1) risk factors assessment and screening for major NCDs, (2) diet and nutrition, (3) physical activity, (4) tobacco and alcohol control and (5) mental health and wellness. This training will also include health promotion strategies such as information dissemination, health education, communication, and social mobilization using different forms of media and technology.

The promotion of healthy lifestyle focuses on five areas:

1. good nutrition and weight control
2. regular physical activity and exercise
3. smoking cessation and smoke-free environment
4. stress management
5. regular health check up

The training will also include health promotion strategies such as information dissemination, health education, communication, and social mobilization. In information dissemination, they can be taught how to develop leaflets, brochures, posters, etc. Health education could focus on individual or population as target audience. In communication, use of mass media (print, radio, TV, internet) is going to be emphasized. Social mobilization is about organizing networks for advocacy and policy development.
II. Target Participants

The target participants of this training program are primarily the public health workers based in the community, health centers and other health facilities. These include doctors, nurses, midwives and nutritionists.

It is important that the number of trained health workers reach a critical mass to create an impact in the community. Thus, this training program can be modified to train other health workers such as dentists, sanitary inspectors, barangay health workers and barangay nutrition scholars. It can also be used to train other people in the community such as policy makers and schoolteachers, and involve other sectors such as business and workplace.
III. Objectives of the Training Program

The over-all objective of the training of health workers is to promote healthy lifestyles for themselves and their clients using the integrated community-based approach for the prevention and control of lifestyle-related noncommunicable diseases.

This training is also intended to develop the skills of NCD coordinators, health promotion officers, training officers at the regional and provincial level as advocates and potential trainers in their own localities and for them to develop their regional and local plans for training community health workers and other persons in different sectors on promoting healthy lifestyle.

General Objectives

By the end of the training, the participants will be able to:

1. Appreciate their roles in the prevention and control of major NCDs;
2. Assess individual clients’ risk for major NCDs;
3. Promote behavior change in the different aspects of healthy lifestyle using health education and health promotion strategies;
4. Create supportive environment for healthy lifestyle through advocacy and policy
5. Work towards sustainability of the healthy lifestyle program

Specific Objectives

1. Recognize the magnitude of the problem in major NCDs;
2. Perform risk assessment and screening procedures related to NCDs;
3. Develop skills in risk modification and promoting healthy lifestyle in the following areas: nutrition, physical activity, smoking and alcohol drinking, and mental health;
4. Enhance skills in communicating with, educating and motivating clients and other health workers in promoting healthy lifestyle
5. Mobilize communities to promote and support healthy lifestyle program


### IV. Training Outcomes

The four-day training program aims to develop the following competencies of the health workers:

| 1. Assess clients for risk factors of noncommunicable diseases and make appropriate referrals | a. Obtain information about risk factors:  
- Dietary intake of fat and salt  
- Level of physical activity and exercise status  
- Smoking and alcohol history  
- Personal and family history of hypertension, diabetes, cancer or asthma  
- Level of stress and coping  

   b. Obtain/calculate measurements for obesity  
   - Ideal body weight  
   - Body mass index  
   - Waist -hip ratio  
   - Waist circumference |
|---|---|
| 2. Perform and interpret results of basic screening procedures | a. Screen for hypertension  
- Blood pressure measurement  

   b. Screen for dyslipidemia  
   - Total blood cholesterol  
   - High- density lipoprotein  
   - Low-density lipoprotein  

   c. Screen for diabetes mellitus  
   - Fasting blood sugar  
   - 2-hour post-prandial blood test  

   d. Screen for cancer  
   - For breast cancer: clinical breast examination; breast self-examination  
   - For cervical cancer: VIA with acetic acid wash; Pap smear  
   - For prostate cancer: digital rectal examination  

   e. Screen for COPD and/or asthma  
   - Measurement of peak flow rate |
| 3. Perform health education to clients on healthy lifestyle and risk factor modification | a. State basic information needed by clients for healthy lifestyle and risk factor modification  
- Nutritional guidelines for Filipinos  
- Benefits of and guidelines for physical activity  
- Harmful effects of smoking and alcohol  
- Strategies to manage stress and enhance effective coping |
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| 4. Mobilize communities in noncommunicable disease prevention and control using the integrated approach | a. Organize support groups/clubs for specific group of patients  
b. Utilize IEC materials  
c. Conduct health education/health promotion programs  
d. Modify health programs according to community needs and resources  
e. Disseminate information about health programs  
f. Solicit participation to health programs  
g. Network or build linkages with other agencies and groups |
| b. Provide information for early detection of NCD  
• Warning signs of cancer  
• Clinical and breast self-examination  
• Cervical cancer screening through Pap’s smear, acetic acid wash and colposcopy  
• Digital Rectal examination  
c. Demonstrate basic skills in:  
• Health education and counseling  
• Basic nutritional counseling  
• Formulating physical activity or exercise plan  
• Minimal intervention for smoking cessation and alcohol avoidance  
• Strategies in effective coping and managing stress |
V. Training Curriculum and Learning Methods

This four-day training program is concerned with the development of health promotion skills of health workers in the prevention and control of major NCDs in the country.

This revised TRAINING CURRICULUM is based on a recent training needs assessment of community health workers in selected areas in Metro Manila, DOH evaluation of previous training programs on healthy lifestyle, and review of old training manual by the NCD coordinators from the different Centers for Health Development. Experiences from the different LGUs and inputs from clinical experts and health promotion practitioners were likewise considered in the revision. Current guidelines and consensus statements from the World Health Organization and reputable professional associations were also gathered and integrated into the manual.

The FOCUS OF THE TRAINING is on primary and primordial prevention of NCDs through prevention and control of the most significant and modifiable risk factors. These risk factors include but are not limited to the following: elevated cholesterol, hypertension, smoking, obesity and sedentary lifestyle. In particular, the training program involves the enhancement of health education and community organizing skills in promoting healthy lifestyles in the areas of nutrition, physical activity, smoking and alcohol and mental health.

The program is both content-focused and process-oriented. Content includes an overview of five leading lifestyle-related NCDs and their major risk factors, guidelines and procedures for risk assessment and screening, and promotion of proper nutrition, physical activity and exercise, smoking cessation and a smoke-free environment, no alcohol and mental health wellness. The process refers to how health workers can be more effective in promoting healthy lifestyles. The process is integrated into the learning activities as well as the practice sessions on counseling and conducting health education sessions.

The LEARNING METHODS used are mostly experiential, “learning by doing” method, and participatory to promote self-awareness and behavior change in the participants themselves as well as to develop their skills in training other health workers. Additional sessions are also given to increase the skills of trainers and health workers in adapting the training curriculum to the needs of their own locality.

The training program is designed to be a total experience for the participants, that is, living a healthy lifestyle for the duration of the program while learning how to promote this among their clients and in the community. This is achieved through a live-in training program, careful selection of venue, provision of smoke-free living quarters and meeting rooms, close coordination with hotel/resort staff regarding food to be served, and ensuring there is adequate space for group exercise. Such an experience is intended to enhance awareness and motivation on the part of the participants for a healthy lifestyle. Unfreezing activities are also selected to enhance achievement of the objectives while making the total experience fun and stimulating for the health workers.
Developing Skills through Exercises, Workshops, Practicum

An important objective of the training is the development of skills of the participants. Although it is recognized that health workers have many experiences and basic skills on prevention and control of NCDs, results of the training needs assessment showed that these skills needed much refining, particularly in taking anthropometric measurements and blood pressure measurements. Assessing for obesity using body mass index and waist circumference is new to some.

Therefore, skills of participants in risk assessment and basic screening procedures for the five major NCDs need to be practiced and checked. To provide practice and an acceptable level of mastery of these skills, tabletop exercises and hands-on practicum are integrated into the training curriculum. Participants will also not only practice how to perform risk assessment and screening procedures, but also how to teach and supervise others to perform procedures like breast self-examination.

For nutritional assessment, each participant will have an opportunity to assess self and a partner using a guide. Accomplishing a 24-hour food diary for three days during the training is also integrated into this activity. Practicum will also be provided for counseling and program planning on nutrition, physical activity, smoking cessation and alcohol control, and mental health wellness.

To improve techniques and skills on health education, communication, and mobilization, participants will be required to develop health education, communication and community mobilization plans and materials. This will be presented to the whole group for feedback and critiquing.

The health workers are also expected to develop a community health plan on promoting healthy lifestyle appropriate for selected target audiences and various settings. It is expected that they will work as teams coming from the same region or local area so that they have common context and can address their issues more effectively.

In order to have greater multiplier effect for this training, a session on how to organize a training program on healthy lifestyle is also included. This part will discuss needed preparations for conducting the training program and how to ensure that the training objectives will be achieved.

Training of Trainers Program

The training program for trainers is intended to develop further the skills of a core group of trainers for each region, province or municipality in organizing their own training programs for other health workers in their own locality. Careful selection of trainers is important for the success of the program. Possible trainers include,
among others, municipal health officers, public health nurses, selected rural health midwives, nutritionists, health education and promotion officers (HEPO), and DOH representatives.

The program also consists of a five-day, live-in workshop. The curriculum is generally the same as the basic training program except that there is greater emphasis and more time given on the following:

- Framework for the integrated community-based prevention and control of NCD in the country
- Action Plan for promoting healthy lifestyle in their community
- Action Plan for planning and implementing the training of health workers

The main practicum of the trainers is the implementation of the subsequent training of other health workers in their locale with some supervision and guidance from resource persons. The program includes a workshop for trainers to plan the training of other health workers, including the organization of core teams per locality.

Responsibilities of core trainers per area include the following:

- Mobilizing participation and attendance of other health workers;
- Conducting each session of the program using lectures and learning activities appropriate to the topic;
- Acting as facilitators for workshops and exercises;
- Planning and implementing “unfreezing” activities that are appropriate with session objectives; and
- Assisting in the running of other aspects of the program like registration, assignment of rooms for the participants, coordinating with training venue regarding food, physical arrangement and the like during the actual training days, and acting as officers-for-the day.
VI. How to Use the Training Manual

The TRAINER’S GUIDE provides a description of the training program and the instructional plans for conducting each module session. Trainers will find the session plans useful in implementing this training program. Each session plan contains the following:

- Module Objectives – specifies the learning outcomes for each session;
- Content Outline/Key Messages – gives the outline of topics as presented in the training manual and provides the key messages that trainers should emphasize during the session;
- Teaching-Learning Activities – suggests the learning activities or exercises for communicating the messages and developing skills of participants; points out the materials needed, worksheets, and handouts (including the specific pages from the manual);
- Evaluating Learning – activities to obtain feedback and evaluate if the participants were able to achieve the session objectives;
- Notes for Trainers – provide some useful tips and reminders for trainers and facilitators in conducting the sessions; and
- Worksheets – instructions and guide questions for individual or group activities/workshops.

This TRAINING MANUAL reflects an integrated, community-based or population approach in the prevention and control of NCDs. Integrated program refers to the integration of health promotion services and modification of the common risk factors associated with the five NCDs, instead of the previous disease-based programs. It was drafted to facilitate learning of health workers during the training. It also serves as a ready reference material that health workers can use in the course of their work or as a guide in providing training or lectures for other groups.

The manual consists of six modules, namely:

- Overview of Major Noncommunicable Diseases
- Risk Factors Assessment and Screening Procedures for NCDs
- Promoting Good Nutrition and Healthy Diet
- Promoting Physical Activity
- Promoting Smoke-free Individuals and Reducing Harm from Alcohol Use
- Promoting Mental Health and Wellness

A set of slide presentations for each manual is also included in the Trainer’s Kit. Additional references are also provided.
VII. Schedule of Training Activities

A prototype of the schedule of training activities is provided as a guide in conducting this training program. The prototype includes the suggested schedule of activities and some points to consider in planning and implementing this program using the training manual as the main learning resource for the participants.

In adopting this prototype schedule, modify the training activities depending on the following characteristics of the participants:

- **Type of participants** – (doctors, nurses, midwives, allied health professions)
- **Roles they are expected to perform** in the Integrated Community-based NCD Prevention and Control Program – whether they will be trainers, direct service providers, health educators, or researchers
- **Participants’ level of responsibility** in their respective agencies – influence in policy or decision-making

Considering the above characteristics of the participants, the following aspects of the training will need to be modified:

- **Depth and breadth of topics** - focus on the key messages that they are supposed to emphasize when attending to clients. You can simplify content and contextualize to local setting.
- **Skills to be learned** - In training health workers, one has to be reminded about the roles the participants will eventually perform when they go back to their respective areas.
- **Practice sessions** – Provide adequate practice for development of skills. Skills included in this training program include cognitive skills (e.g. calculation and interpretation of BMI, assessment of risk, formulating plans), psychomotor skills (e.g. correct performance of breast examination, BP and peak flow measurement, conducting health education sessions) and affective skills (e.g. demonstrating caring attitude during counseling, sensitivity to participants’ needs).
- **Teaching and learning strategies** – Teaching-learning activities are just suggestions. You can create or modify the said activities given longer time and opportunity. For example, field practicum may be conducted to assess the acquired competencies of the participants in conducting health education on topics as smoking and alcohol drinking, nutrition or physical activity to different age or population groups. Participants may also be brought to the health centers and related facilities to develop or hone their clinical skills related to risk factor assessment and screening procedures.
- **Effective communications** - Participants should be able to communicate effectively the key messages of the NCD program. Emphasis on developing communication skills must be highlighted. Planning individual counseling and group health education activities require appropriate language and teaching and learning strategies.
Training Prototype
<table>
<thead>
<tr>
<th>Time</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Registration and Pre-test</td>
<td>Group Physical Activity</td>
<td>Group Physical Activity</td>
<td>Group Physical Activity</td>
</tr>
<tr>
<td>8:45 AM</td>
<td>Opening Ceremonies</td>
<td>Brief Recap</td>
<td>Brief Recap</td>
<td>Brief Recap</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>“Getting to Know You” Activity/ Setting Expectations</td>
<td>Module 3. Promoting Good Nutrition and Healthy Diet</td>
<td>Module 5. Promoting Smoke-Free Individuals and Environment</td>
<td>Program Planning for Promoting Healthy Lifestyle</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Module 1. Overview of Major NCDs</td>
<td>Nutritional Assessment and Counseling and Program Planning</td>
<td>Module 5. Reducing Harm from Alcohol Use</td>
<td>Program Planning for Promoting Healthy Lifestyle (continuation)</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>National Framework for the Integrated Approach to NCD Prevention and Control</td>
<td>Lunch Break</td>
<td>Smoking Status Assessment/ Counseling</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>12:30 AM</td>
<td>Lunch</td>
<td>Lunch Break</td>
<td>Lunch Break</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>Module 2. Risk Factor Assessment and Screening Procedures</td>
<td>Module 4. Promoting Physical Activity</td>
<td>Program Planning for Tobacco and Alcohol Control</td>
<td>Organizing Training of Health Workers on NCD Prevention and Control</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>Screening Procedures</td>
<td></td>
<td></td>
<td>Plenary Session</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>Risk Factors Assessment/ Screening Procedures Practicum</td>
<td>Physical Activity Program Planning (continuation)</td>
<td>Mental Health and Wellness Program Planning</td>
<td>Closing Ceremonies</td>
</tr>
<tr>
<td>5:00 PM</td>
<td>Daily Summary Assignment: Daily Food Diary</td>
<td>Daily Summary Assignment: Physical Activity Guide</td>
<td>Daily Summary Assignment: Mental Health Wellness</td>
<td>Daily Summary Evaluation/ Post-test</td>
</tr>
</tbody>
</table>
Key Messages and Notes for the Trainers
# Trainer’s Guide

## DAY 1

<table>
<thead>
<tr>
<th>Activity</th>
<th>Key Messages</th>
<th>Notes for the Trainers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Activities</td>
<td></td>
<td>Invite key people in the locality whom you think will have influence in pushing the program down to the barangay level. This is the best time to demonstrate solidarity and advocacy work with local executives and with other stakeholders of the program.</td>
</tr>
<tr>
<td>Opening Ceremonies</td>
<td></td>
<td>Explain to the participants the objective of the pre-test. (See Pre-test/Post test in Appendix A). Emphasize that the results will help the organizers determine areas that need to be given focus. Sample pretest/posttest is provided.</td>
</tr>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Getting to Know You” Activity</td>
<td>Noncommunicable diseases (NCDs) are considered a major public health concern worldwide, including in the Philippines. This is both a health and economic burden to the country. This training addresses the need for health workers to be updated on the integrated approach to NCD prevention and control – by focusing on the four common risk factors - tobacco use, unhealthy diet, lack of physical activity and alcohol use.</td>
<td>Take note of the participants’ expectations that may not be congruent to the general objectives of the training program. Discuss the nature and the objectives of the training program, relating them to the participants’ expectations. Identify which of these expectations will be addressed by the training and what will be done with those not addressed by the training. Provide an overview of the content and general activities for the duration of the program. Be explicit with the expected outputs as the training progresses; e.g. mechanics of the course, methodology.</td>
</tr>
</tbody>
</table>
Discuss general rules of conduct during the training giving importance to attendance and punctuality. Organizers of the training can already start involving the participants by giving them responsibilities for the duration of the training, e.g. each group should be assigned to be the coordinator for the day in-charge of the recap exercises, ice breakers, etc.

### Overview of Major NCD: Etiology and Risk Factors
- Epidemiology of NCD/magnitude of the problem
- Causes and risk factors of the major NCDs
- Key areas for primary prevention of major NCDs

The four major NCDs in the Philippines are cardiovascular diseases, cancers, chronic obstructive pulmonary diseases and diabetes mellitus. These diseases are linked by four most common preventable risk factors related to lifestyle, namely: tobacco use, unhealthy diet, lack of physical activity and alcohol use.

Refer to Module 1

Updates on the epidemiology of major NCDs and their risk factors are important for the health workers to have a deep appreciation of the importance of preventing and controlling both NCDs and the major risk factors.

This session is also important to address adequately the many misconceptions of health workers on the causes and risk factors of NCDs.

Refer to Module 1

This session is important for the Training of Trainers because it provides the rationale for using an integrated community-based approach. Use this session to situate the training program within the overall effort to prevent and control NCDs.

For training of other health workers, this need not take up a whole session. This can be integrated into the rationale for the training program usually given as an introduction at the start of the program.
### Trainer's Guide

**Frameworks for NCD Prevention and Control**
- WHO Western Pacific Regional Action Plan for NCD
- Prevention and Control of Chronic-Lifestyle Related NCD (Integrated NCD Prevention and Control Program Framework)
- Roles and functions of health workers in NCD prevention and control

Lunch (for Days 1-4)

<table>
<thead>
<tr>
<th>Roles and functions of health workers in NCD prevention and control</th>
<th>Select a menu for the entire training period that is consistent with the messages on healthy nutrition. Use of food calorie counter will also be useful for teaching participants how to count their daily caloric intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The Western Pacific Regional Action Plan for NCD seeks to effect change at: (1) environmental level, through policy and regulatory interventions; (2) level of common and intermediate risk factors, through population-based lifestyle interventions; and (3) at high-risk individuals (risk factor modification) and persons with established disease (clinical management). The DOH Prevention and Control of Chronic Lifestyle-Related NCD (Integrated NCD Prevention and Control) is guided by a policy and strategic framework, which contains: vision, mission, goal, objectives, guiding principles, policy directions and key strategies.</td>
<td>Refer to Module 1 This session is important for the Training of Trainers because it provides the rationale for using an integrated community-based approach. Use this session to situate the training program within the overall effort to prevent and control NCDs. For training of other health workers, this need not take up a whole session. This can be integrated into the rationale for the training program usually given as an introduction at the start of the program.</td>
</tr>
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</table>

Lunch (for Days 1-4)

Select a menu for the entire training period that is consistent with the messages on healthy nutrition.

Use of food calorie counter will also be useful for teaching participants how to count their daily caloric intake.
<table>
<thead>
<tr>
<th>Risk Assessment and Screening Procedures</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of risk factors assessment and screening</td>
<td>Risk factors assessment must be administered to all clients who come in for consultations in the health facility, whether for specific complaints related to NCDs or other presentations. Risk factors assessment includes assessing for anthropometric measures, diet and nutrition, level of physical activity, smoking status, and alcohol intake.</td>
<td>Refer to Module 2</td>
</tr>
<tr>
<td>Principles of risk factors assessment</td>
<td>Screening refers to the implementation of a simple test that aids in the diagnosis to determine whether an individual has the given condition or not.</td>
<td>Also refer to DOH Manual of Operations on NCD Prevention and Control</td>
</tr>
<tr>
<td>Guidelines for screening major NCDs</td>
<td>Health workers should be guided by the guidelines for screening and diagnosis of coronary artery disease, hypertension, diabetes, cancers, COPD and asthma.</td>
<td>See Risk Factors Assessment Form and Checklist for Screening in Module 2</td>
</tr>
<tr>
<td>Demonstration of specific screening procedures (BP taking, BMI, waist circumference, waist-hip ratio, breast self-examination, peak flow measurement)</td>
<td></td>
<td>Plan for the demonstration and practice sessions on specific risk factor assessment and screening procedures.</td>
</tr>
</tbody>
</table>

**Daily Evaluation (for Days 1-4)**

See Daily Evaluation Form in Appendix B of Trainer’s Guide

Daily evaluation enables the organizers to determine whether session objectives were achieved and that participants’ needs were met.

**Session for Trainers: Processing of Day’s Activities Planning for Next Day’s Activities (for Days 1-4)**

This session is mainly for the Training of Trainers and is usually included at the end of each training day. This is an important session for development of trainers’ skills in conducting training and in firming up their teamwork.
Trainers meet to evaluate the day’s activities and to refine the next day’s plan of activities. Two aspects must be looked into: the content and the technical side of the training program. If there were issues not resolved in terms of content, then these have to be clarified the next day. Technical problems must be confronted to improve flow of training.

<table>
<thead>
<tr>
<th>Assignment: 24-HourFoodRecall</th>
<th>See 24-Hour Food Recall Form in Module 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A personal food diary for the previous day and Day 1 of the training</td>
<td>This is part of the experiential approach. Each participant gets to practice using the 24-hour food diary form at the same time develop some self-awareness into his/her personal nutritional practices.</td>
</tr>
<tr>
<td>Activity</td>
<td>Key Messages</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Group Physical Activity</td>
<td>Arrange for early breakfast before doing the exercise activity. Make sure that there is a place wide enough to conduct the exercise activity. If training venue does not provide adequate space, scout for nearby places such as park, gym or beach that will be conducive for the activity. Participants must also be instructed to wear exercise outfits such as jogging pants or shorts and rubber shoes. The physical activity can range from simple stretching, aerobics or dance.</td>
</tr>
<tr>
<td>Recapitulation of Day 1</td>
<td></td>
</tr>
</tbody>
</table>

**DAY 2**
<table>
<thead>
<tr>
<th>Promoting Good and Healthy Diet</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Magnitude of NCDs related to dietary practices</td>
</tr>
<tr>
<td>- Nutrition-related practices leading to NCDs</td>
</tr>
<tr>
<td>- Key areas and strategies to promote good nutrition and dietary practices</td>
</tr>
<tr>
<td>- Discuss dietary recommendations for specific disease conditions</td>
</tr>
<tr>
<td>- Nutrition education and counseling for population groups</td>
</tr>
<tr>
<td>- Nutrition-friendly environment</td>
</tr>
</tbody>
</table>

There are three main strategies to address the nutrition problems and practices related to NCDs.
- Aim for ideal body weight.
- Build healthy nutrition-related practices.
- Choose foods wisely.

Following the nutrition guidelines of low salt, low fat and increased fiber in the diet help decrease the risks of developing NCDs.

Health workers have the responsibilities to promote healthy nutrition in the community:
- Educate people on balanced and healthy diet
- Assess for weight problems and unhealthy nutrition-related practices
- Screen for other risk factors related to nutrition, such as blood cholesterol level, hypertension)
- For persons found to be at risk of NCD, advise and counsel for risk modification;
- Make referrals where appropriate; and
- Advocate for a supportive environment where healthy food is available and affordable.

Refer to Module 3
See 24-hour Food Recall Form in Module 3.
Plan for the exercise on planning diets for people with specific conditions and different population groups
### Promoting Physical Activity

- Epidemiology of major NCDs related to lack of physical activity
- Benefits of physical activity
- Principles of promoting physical activity
- Recommended guidelines in promoting physical activity
- Strategies to promote physical activity in different settings
- Strategies to promote physical activity among persons with chronic NCDs
- Planning for physical activity programs
- Advocacy on supportive environment for physical activity

Regular physical activity promotes physical and psychosocial well-being. It improves the body’s function and reduces the severity of other factors that may increase the risk for heart disease, such as obesity, hypertension, high blood levels of sugar, cholesterol and uric acid.

The minimum recommended amount of physical activity needed to achieve health benefit is 30 minutes per day of moderate intensity activity for 5 days or most days of the week. When doing vigorous intensity activity, 3 or more days of the week is enough for health benefit.

There are physical activity prescriptions for every age group and different chronic conditions to ensure that the activity is safe and fits the need and interest of the individuals.

Refer to Module 4

Use different examples of physical activities in the morning before session starts; or even as unfreezing activities

Process the experience by having the participants share what they felt during and after the physical activity.

Prepare for the group work on program planning on promoting physical activity for a specific age group or population setting.
### DAY 3

#### Promoting Smoke-free Individuals and Environment

- Epidemiology on tobacco use / smoking
- Mechanisms how tobacco causes harm
- Benefits of smoking cessation
- Key areas for promoting smoke-free individuals and environment
- Smoking cessation strategies/programs
- Advocacy on smoke-free environments

<table>
<thead>
<tr>
<th>Activity</th>
<th>Key Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workers play a significant role in promoting a smoke-free environment and promoting smoking cessation.</td>
<td>Minimal intervention for health workers to promote smoke-free individuals and environment:</td>
</tr>
<tr>
<td>• ASKING about smoking</td>
<td></td>
</tr>
<tr>
<td>• ADVISING smokers to quit</td>
<td></td>
</tr>
<tr>
<td>• ASSISTING by providing information, referring to smoking cessation programs</td>
<td></td>
</tr>
<tr>
<td>• ARRANGING follow-up to prevent relapse</td>
<td></td>
</tr>
</tbody>
</table>

Refer to Module 5  
Also refer to DOH Manual on Smoking Cessation

Prepare for the group work on program planning on promoting smoke-free individuals and environment.

#### Reducing Harm from Alcohol Drinking

- Epidemiology on alcohol-related risks
- Mechanisms how alcohol drinking causes harm

<table>
<thead>
<tr>
<th>Activity</th>
<th>Key Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are health risks and social consequences associated to alcohol drinking because of its toxic, intoxicating and dependence-producing properties. Excessive alcohol drinking is also associated with an increased risk of injuries, including from traffic accidents and has been shown to lead to development of chronic diseases.</td>
<td></td>
</tr>
</tbody>
</table>

Refer to Module 5

Have an open forum and encourage discussion on the challenges of implementing campaign on reducing harm from alcohol drinking. How is this campaign related to total ban on alcohol drinking?
<table>
<thead>
<tr>
<th>Promoting Mental Health and Wellness</th>
<th>Mental disorders such as depression, alcohol, substance abuse, child/adolescent development problems are among the risk factors for some NCDs and can also contribute to unintentional and intentional injury.</th>
</tr>
</thead>
</table>
| • Epidemiology of NCDs related to mental health | Mental health promotion works at three levels:  
  • Strengthening individuals – increasing emotional resilience through interventions to promote self-esteem, life and coping skills  
  • Strengthening communities – increasing social inclusion and participation, improving neighborhood environments, developing health and social services which support mental health, anti-bullying strategies and self-help networks.  
  • Reducing structural barriers to mental health - through initiatives to reduce discrimination and inequalities and to promote access to education, meaningful employment, housing, services and support for those who are vulnerable. |
| • Benefits of mental health and wellness | Refer to Module 6  
Prepare for the group work on program planning on promoting mental health of individuals and population groups. |
| • Factors that contribute mental health problems |  

| Benefits of alcohol avoidance | Key areas for reducing harm from alcohol | WHO Regional Strategy to reduce alcohol-related harm include:  
• Reducing the risk of harmful alcohol use  
• Minimizing the impact of harmful use of alcohol  
• Regulating the accessibility and availability to reduce the harmful use of alcohol and  
• Establishing mechanism to facilitate and sustain implementation of reduction of alcohol-related harm |
### DAY 4

<table>
<thead>
<tr>
<th>Activity</th>
<th>Key Messages</th>
<th>Notes for the Trainers</th>
</tr>
</thead>
</table>
| Program Planning for the Integrated Approach to NCD Prevention and Control | Planning consists of the following steps:  
1. Assessing the NCD situation in the population;  
2. Developing the mission, goals, and objectives;  
3. Identifying key interventions and deciding means of implementing, monitoring, and evaluating them. | Refer to DOH Manual of Operations                                                                                                                                                                                                                                            |
| Planning for Training on Integrated Approach to NCD Prevention and Control | Steps in developing a training program  
• Identifying Training Needs  
• Identifying Goals and Objectives  
• Developing Learning Activities  
• Conducting the Training  
• Evaluating the Training  
Follow the principles of adult learning when conducting training:  
• Adults have many previous experiences that should be brought into the learning process.  
• Adults have a great many preoccupations other than what you are trying to teach them. If you waste their time, they will resent it.  
• Adults are faced with real decisions to make and real problems to solve. If training does not help them with either, it may be wasted.  
• Adults react to authority by habit according to their experiences.  
• Adults are proud and self-directed. Learning is most efficient when it is the learner’s idea, and meets his specific needs. | Start with assessing learners’ needs and context for NCD prevention and control in their area (Refer to Appendix G for specific guide on developing an Instructional Plan for NCD prevention and control.)  
Conduct facilitator meeting to discuss training program and tasks  
Familiarize self with the Trainers Guide and Training Manual  
Prepare slides, forms, worksheets, and other resources needed for the training  
Ensure venue is conducive to learning and promotes healthy living |
Instructional Plan
## Module 1 Overview of Major Noncommunicable Diseases (NCD)

<table>
<thead>
<tr>
<th>Module Objectives</th>
<th>Content</th>
<th>Teaching Learning Activities</th>
<th>Resources</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe the epidemiology of the major NCDs in the Philippines</td>
<td>EPIDEMIOLOGY OF THE MAJOR NCDs</td>
<td>Using metacards, ask participants to list the leading causes of mortality in the Philippines and ask them to post it in front. Show recent table or graph of mortality trends in the Philippines or in the local area if available. Open discussion on the possible reasons for the increasing trend of major NCDs in the Philippines.</td>
<td>Slide presentation Metacards, pentel pens Statistical tables and graphs of current mortality and morbidity trends related to major NCDs</td>
<td>Participants must be able to: - Identify the major NCDs in their own community. - Identify possible factors present in the community that contribute to NCD prevalence. - Analyze local, regional and global data on major NCDs</td>
</tr>
<tr>
<td>2. Explain the causes and risk factors of the major NCDs</td>
<td>CAUSES AND RISK FACTORS OF THE MAJOR NCDs</td>
<td>Provide explanation to the causation pathway of major NCDs. Emphasize</td>
<td>Slide presentation</td>
<td>Participants must be able to:</td>
</tr>
</tbody>
</table>
3. Discuss the key areas for primary prevention of the major NCDs

**KEY AREAS FOR THE PRIMARY PREVENTION OF THE MAJOR NCDs**

Primary prevention is a more cost-effective approach in the prevention and control of major NCDs. The following are the key areas for primary prevention:
- Promote proper nutrition
- Encourage more physical activity and exercise

Discuss the rationale for emphasizing primary prevention of NCDs.

Explain the key areas for primary prevention. Allow for open discussion to provide participants a glimpse of how primary prevention activities can be integrated in their regular clinic activities.

- Explain the causation pathway of major NCDs
- Describe the characteristics of the major NCDs in terms of causes, risk factors and prevention areas.
Discuss the relevant frameworks in NCD prevention and control:

- WHO-WPRO Regional Action Plan
- WHO-WPRO Strategic Approach to NCD Prevention and Control

Promote a smoke-free individuals and environment
Discourage alcohol use
Promote mental health and manage stress effectively
Regular health check-up for early diagnosis and prompt treatment

THE WHO WESTERN PACIFIC REGIONAL ACTION PLAN FOR NCD

Focuses on practical, cost-effective and evidence-based interventions to achieve reduction in NCD risk factor prevalence; built around eight (8) key principles:

- People-centered health care
- Cultural relevance
- Focused on reducing inequities
- Encompassing the

- Explain the key areas for primary prevention of major NCDs.

4. Describe the regional and national framework for the Integrated Community-based Prevention and Control of NCDs

Participants must be able to:

- Discuss principles, strategic approach and objectives of the Regional Plan of Action

Slide presentation
Refer to full document in the DOH Manual of Operations on Prevention and Control of Chronic Lifestyle-related Noncommunicable Diseases
WHO-WPRO Regional Action Plan
<table>
<thead>
<tr>
<th>Entire care continuum</th>
<th>WHO-WPRO Strategic Approach to NCD Prevention and Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Involving the whole society</td>
<td></td>
</tr>
<tr>
<td>• Integral to health systems strengthening</td>
<td></td>
</tr>
<tr>
<td>• Consistent with the global action plan</td>
<td></td>
</tr>
<tr>
<td>• Flexibility through a phased approach</td>
<td></td>
</tr>
</tbody>
</table>

WHO-WPRO Strategic Approach to NCD Prevention and Control - corresponds to the causation pathway

Prevention and Control of Chronic Lifestyle-Related Noncommunicable Diseases in the Philippines (Integrated NCD Prevention and Control Framework)

National policy on NCD Prevention and Control provides the objectives, guiding principles and key local strategies to reduce the burden of disease and death due to NCDs

Explain the national framework of Prevention and Control of Chronic Lifestyle-related NCDs in the Philippines (Integrated NCD Prevention and Control Framework).

Discuss the guiding principles of the Prevention and Control of Chronic Lifestyle-related NCDs in the Philippines (Integrated NCD Prevention and Control Framework).
## Module 2 Risk Factors Assessment and Screening Procedures

<table>
<thead>
<tr>
<th>Module Objectives</th>
<th>Content</th>
<th>Teaching Learning Activities</th>
<th>Resources</th>
<th>Evaluation</th>
</tr>
</thead>
</table>
| 1. Explain the importance of risk factor assessment for major NCDs                 | **RISK FACTOR AND RISK FACTORS ASSESSMENT**                             | To introduce the topic, discuss the importance of identifying the presence of risk factors and to screen for possible NCDs to prevent disease progression and complications. | Slide presentation | Participants must be able to:
|                                                                                   | Risk factor is defined as any attribute, characteristic or exposure of an individual which increases likelihood of developing NCD. | Discuss objectives and content of the session. |             | • Differentiate risk factor from a causative factor                          |
|                                                                                   | Etiologic or causative factor is different from risk factor; etiologic or causative factor provides direct explanation for the disease. | Clarify the following:
|                                                                                   | • Risk Factors Assessment basically involves history taking, and taking of simple measurements which become the basis of classifying whether the individual is at risk or not. | • Risk factor versus causative/etiologic factor
|                                                                                   | Presence of risk factor means disease is more likely to develop; cause means this is definitely going to lead to disease. | • Risk factor assessment
|                                                                                   |                                                                                     |                                                                                           |             | • Describe how risk factors assessment is carried out                         |
|                                                                                   |                                                                                     |                                                                                           |             | • Appreciate importance of risk factors assessment in early detection of NCDs   |
### 2. Discuss risk factors common to major NCDs

**COMMON RISK FACTORS OF MAJOR NCDs**

The major NCDs include:
- Heart disease
- Cancer
- Stroke
- Chronic Respiratory diseases
- Diabetes

Causation Pathway for NCDs
- Intermediate Risk factors
  - Raised blood sugar
  - Raised blood pressure

Briefly describe the epidemiological characteristics of the major non-communicable diseases from local and global perspectives. Utilize local health statistics in order to highlight the need to give attention to NCDs in the locality.

Use the causation pathway for NCDs to explain the intermediate and common risk factors and to discuss the bases of NCD prevention and control.

For example, smoking is not only a risk factor to many diseases; it is also a causative factor for COPD.

Slide presentation

Participants must be able to
- Identify the major NCDs common in their locality
- Describe the intermediate and common risk factors for the major NCDs
### RISK FACTORS THAT NEED TO BE ASSESSED FOR NCD PREVENTION AND CONTROL

Applies the general principles of risk factors assessment utilizing:

- Abnormal blood lipids
- Overweight/obesity
- Common risk factors to major NCDs
  - Non-modifiable
    - Age
    - Heredity
  - Modifiable
    - Unhealthy diet
    - Physical inactivity
    - Tobacco and alcohol use
    - Stress

**Social and economic implications of NCDs in the community**

**Discuss burden of disease brought about by major NCDs in a community**

<table>
<thead>
<tr>
<th>3. Performs risk factors assessment for clients based on guidelines and using appropriate risk assessment tools.</th>
<th><strong>RISK FACTORS THAT NEED TO BE ASSESSED FOR NCD PREVENTION AND CONTROL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Applies the general principles of risk factors assessment utilizing:</td>
</tr>
<tr>
<td></td>
<td>Discuss the general principles of risk assessment.</td>
</tr>
<tr>
<td></td>
<td>Slide presentation</td>
</tr>
<tr>
<td></td>
<td>Participants must be able to:</td>
</tr>
</tbody>
</table>

- Recognize social and economic implications of NCDs in individuals, families, and communities
| • STEPwise approach for surveillance | Briefly describe the STEPwise approach for surveillance. Refer to the NCD Manual of Operation (page 113) describing the first step on assessing the risk factors profile of the population. |
| • Life span approach | Consider all age groups that are most vulnerable to NCDs. |
| • pregnant & lactating women | Have participants practice on the use of risk assessment form as guide in collecting information from client. |
| • parents or care providers of infants & children | Group participants into pairs. Have |
| • adolescents | |
| • Adults | |
| • Older persons | |

Risk Factors Assessment must be integrated into the routine history taking of every health facility whether this be a BHS, RHU, hospital or other settings (school clinics, corporate clinics, clinics of private practitioners, etc.).

Risk Factors Assessment must be administered to all clients who come in for consultations in the health facility, whether for specific complaints related to NCDs or who are well but come in for follow-up services (e.g. pregnant women and pregnant & lactating women, parents or care providers of infants & children, adolescents, adults, older persons).

Consider all age groups that are most vulnerable to NCDs.

Have participants practice on the use of risk assessment form as guide in collecting information from client.

Group participants into pairs. Have
Risk Factors Assessment tool and process must be harmonized across levels of the health care delivery system.

Areas for risk factors assessment should include the following:

1. **Cigarette smoking**
   Every client should be asked about tobacco use. Smoking status should be recorded and updated at regular intervals.

   The following information on smoking status should be collected for both current and former smokers:
   - Age started smoking
   - Average number of cigarettes per day
   - Quit status

   Each partner interview the other using the form.

   Explain the use of risk assessment form to assess smoking status.

   **Key message**
   *Health workers should ask each client about tobacco use/smoking (whether or not this is the reason for consulting)*.

<table>
<thead>
<tr>
<th>Risk assessment form focusing on smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants must be able to:</td>
</tr>
<tr>
<td>- Identify data needed for risk assessment on tobacco use</td>
</tr>
<tr>
<td>- Use the recommended tool for risk factors assessment on tobacco use</td>
</tr>
<tr>
<td>- Perform risk assessment on smoking</td>
</tr>
</tbody>
</table>
2. **Nutrition/Diet**

Diet is a combination of related behaviors that are often culture-specific.

Comprehensive nutritional assessment involves:
- detailed recall methods (like the 24-hour food recall
- extensive food frequency questionnaires
- estimation of nutrients based on food composition tables.

A simpler assessment of nutrition/diet is recommended for easier administration especially if there is a long queue of clients awaiting services.

Nutrition/diet assessment should focus on the following:
- Establish the amount and

| Explain the use of the 24-hour food diary. Give examples of how information obtained from this can be used for giving advice and making health teaching more relevant to the client. |
| Have participants accomplish a food diary for two days to increase self-awareness and appreciation for nutritional assessment. |
| Have participants work in pairs. Ask each participant to estimate their partner’s nutrients of food taken each day using the food pyramid guide. Keep food diaries to be used for the practicum on nutrition counseling and education. |
| Develop hypothetical situations as exercises in nutritional assessment |
| Risk assessment form focusing on nutrition/diet |

Participants must be able to:
- Explain the use of nutritional assessment in determining risk of noncommunicable diseases

Given one’s own data on 24-hour food recall or diary, participants are able to:
- Demonstrate correct use of 24-hour food recall/diary
- Perform nutritional assessment to other people
- Identify nutrition-related practices of clients that lead to NCD
frequency of eating certain foods that contribute to NCD development.

- Ask about the amount and frequency of food eaten particularly
  - For Vegetables: what are the usual types of vegetables eaten
  - For Fat: which part of the food is eaten, how often they eat fried foods and how often they go out to fast food restaurants
  - For Sodium and Salt: how often preserved, canned and instant foods are eaten per week, how much salt is used when cooking
  - For sugars/simple: how often table sugar is used, and frequency of carbohydrates drinking soft drinks, cakes,
chocolates, candies and other sweetened food product

- Compare their actual intake of the above with the prescribed number of servings

3. **Overweight/Obesity**

   Obesity is a major risk factor of NCD. Distribution of fat, particularly around the waist, increases the risk further.

   **Indicators of being overweight or obese**
   
   - Body fat is best assessed using waist circumference (WC), Body Mass Index (BMI) and waist-hip ratio (WHR)
   - Waist circumference is an accurate measure of the amount of visceral fat, thus a sensitive indicator of adiposity
   - BMI correlates closely with total body fat in relation to

   **Discuss the use of the following in identifying obesity in clients:**
   
   - Growth tables for children
   - Measuring waist circumference
   - Guidelines on interpreting BMI
   - WHR interpretation

<table>
<thead>
<tr>
<th>Body Mass Index Table with Asian standards / BMI Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNRI accepted growth tables &amp; weight charts</td>
</tr>
<tr>
<td>Nutritional Guidelines for Filipinos</td>
</tr>
<tr>
<td>Food Exchange List</td>
</tr>
<tr>
<td>Adult weighing scale</td>
</tr>
<tr>
<td>Height measurement scale</td>
</tr>
<tr>
<td>Tape Measure</td>
</tr>
</tbody>
</table>

Participants must be able to:

- Describe the appropriate anthropometric measurements to determine whether an individual is overweight/obese
- Perform measurements to determine presence of overweight/obesity in clients
- Interpret results of anthropometric measurements

<table>
<thead>
<tr>
<th>Correct techniques in taking measurements</th>
<th>Demonstrate correct techniques of taking measurements. Allow return demonstration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines in interpreting measurements</td>
<td>Give exercises on calculating risk based on WC, BMI and WHR values. Have one facilitator per 5-6 participants to make sure to check each one.</td>
</tr>
<tr>
<td></td>
<td>Use the values specified in Table 2.5 Guide in Using the Risk Assessment Form in Module 2 as guide in interpreting results of WC, BMI and WHR. Suggest that the Table be reproduced and displayed in the clinics for easy reference.</td>
</tr>
<tr>
<td></td>
<td>In interpreting risk, point out that elevated BMI even with normal WC means increased risk; a normal BMI but with increased WC also increases risk.</td>
</tr>
</tbody>
</table>
### 4. Physical Inactivity/Sedentary Lifestyle

Assessment of a person's physical activity includes information on:

- type of work whether sedentary or not
- Means of transportation
- Leisure-time activities like sports and exercise
- Minimum amount of physical activity needed to achieve health benefit

Regular physical activity consists of:

- Minimum of 30 minutes a day preferably daily
- Moderate intensity: 5 or more days of the week
- Vigorous intensity: 3 or more days of the week

### 5. Excessive Alcohol Drinking

In assessing habitual alcohol intake and risky behavior:

- Quantify the amount of drinking
- Determine specific type of beverage to estimate ethanol

Discuss the information needed to assess habitual alcohol intake and risky behavior.

Risk Factors Assessment form focusing on excessive alcohol drinking

Participant must be able to:

- Perform risk assessment on excessive alcohol drinking

Discuss the different information needed to assess physical activity of clients.

Differentiate characteristics of physical activity needed to achieve health benefit from regular daily activities.

Risk Assessment form focusing on physical inactivity and sedentary lifestyle

Participant must be able to:

- Perform assessment of a person's physical activity
- Interpret data on physical activity regarding a person's risk of NCD
content and volume ingested
- Identify situations where person tends to drink excessively

Show table that estimates ethanol content of alcoholic beverages.

CONCEPTS AND PRINCIPLES OF SCREENING

The primary goal of screening is to detect a disease in its early stages.

Screening is disease-specific. It is the presumptive identification of unrecognized disease or defect by the application of tests or other procedures that can be applied rapidly.

It is not a diagnostic measure but a preliminary step to diagnosis. Other diagnostic tests and physician evaluation are still needed for definite diagnosis.

Clarify the concept of screening by discussing the following:
- Definition
- Goal of screening
- Types of screening programs

Emphasize that screening is different from making a definite diagnosis of disease. However, screening is a preliminary step to diagnosis.

Emphasize that for NCD prevention, mass screening may not be the best public health approach. Money is best put into primary prevention rather than expensive diagnostic tests.

Participants must be able to:
- Define screening
- State the goal of screening
- Differentiate the two types of screening programs

excessive alcohol drinking
- Identify excessive alcohol use in clients
- Interpret risk of developing NCD

4. Discuss concepts and principles of screening

Clarify the concept of screening by discussing the following:

- Definition
- Goal of screening
- Types of screening programs

Emphasize that screening is different from making a definite diagnosis of disease. However, screening is a preliminary step to diagnosis.

Emphasize that for NCD prevention, mass screening may not be the best public health approach. Money is best put into primary prevention rather than expensive diagnostic tests.
5. Demonstrate correct techniques of common screening procedures based on current guidelines for early detection of major NCDs.

<table>
<thead>
<tr>
<th>GUIDELINES FOR COMMON SCREENING PROCEDURES FOR NCDs</th>
</tr>
</thead>
</table>
| 1. **Screening for Hypertension**  
Hypertension is defined as persistent elevation of systolic BP at a level of 140mm Hg or higher and a diastolic pressure (DBP) at a level of 90 mm Hg or higher.  
Screening guidelines for accurate BP measurement.  
Guidelines in interpreting results of BP measurements and frequency of repeating using 7th Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure |
| Allow adequate practice in performing screening procedures to help build up confidence and self-efficacy of participants.  
A single performance may not be enough to develop skill.  
Discuss screening guidelines for accurate BP measurement. Use the procedure checklist in Module 2.  
Discuss common mistakes in BP taking and how to avoid these. Allow for practice to check mistakes.  
Discuss Table 2-1 Classification and Recommended Confirmation Schedule for Adults Aged 18+. |
| Slide presentation  
DOH Manual of Operations for Prevention and Control of Chronic Lifestyle-Related Non-communicable Diseases, 2009  
Non-mercurial BP apparatus  
Teaching stethoscopes  
BP Procedure checklist |
| Participants must be able to:  
• Define hypertension  
• Demonstrate correct technique in performing blood pressure measurement  
• Interpret risk of NCD based on 7th JNC. |
| 2. **Screening for Cholesterol** | Explain role of cholesterol in maintaining healthy nerve cells and producing certain hormones. However, only a small amount is needed for these. | Participants must be able to:  
- Explain importance of screening for cholesterol.  
- Describe how screening for cholesterol is done.  
- Interpret values and estimate risk of developing NCD. |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The recommended amount of dietary cholesterol is not more than 300 mg/day. (FNRI)</td>
<td>Discuss NCD risk if there is an elevated blood cholesterol.</td>
<td></td>
</tr>
<tr>
<td>Elevated cholesterol in the blood is defined by having cholesterol level higher than normal levels of &lt;200 mg/100 ml. High serum blood cholesterol increases the risk of coronary heart disease (CHD).</td>
<td>Discuss current recommended values for cholesterol and lipoproteins.</td>
<td></td>
</tr>
<tr>
<td>If possible, test for LDL and HDL</td>
<td>Current recommended values for cholesterol and lipoproteins.</td>
<td></td>
</tr>
<tr>
<td><strong>3. Screening for Diabetes Mellitus</strong></td>
<td>Explain the guidelines for testing diabetes.</td>
<td></td>
</tr>
<tr>
<td>Guidelines for testing for diabetes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Should be considered in all persons at age 45.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• If results are normal, test should be repeated at 3 year intervals.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Testing should be considered at a younger age or performed more often for clients with the following risk factors:
  • Obesity (> 120 % of desirable body weight or a BMI above 25kg/m²)
  • Habitual physical inactivity
  • Polycystic ovary syndrome
  • Diabetes in a first degree relative
  • Racial predisposition (African-American, Hispanic, Native American)
  • In women, giving birth to a baby weighing more than 9lb or a history of gestational diabetes
  • Hypertension (BP >140/90 mm Hg)
  • A high density lipoprotein level <35 mg/dl or triglyceride

• Determine presence of hyperglycemia.
  • Interpret blood sugar values and estimate risk of DM
level >250 mg/dl

- On previous testing, impaired glucose tolerance or impaired fasting glucose

Recommended tests to determine presence of hyperglycemia:
- FBS-fasting means no calorie intake for at least 8 hours
- Post-prandial blood sugar—performed 2 hours after using 75g glucose dissolved in water or after a good meal

Guidelines for diagnosis of DM and their interpretation

4. **Screening for COPD/Asthma**
The following persons should be considered to have possible COPD and need to be confirmed by spirometry:
- Over 40 years old
- Yes to history of smoking

Discuss the recommended tests for diabetes. Interpret the results of blood sugar values.

Describe the guidelines/criteria for the diagnosis of DM

Discuss guidelines in screening clients for possible COPD.

Participant must be able to:
- Determine individuals who need to be screened for possible COPD.
• Yes to any of the following item
  • cough as much as 4-6 times a day, 4 or more days out of the week
  • cough on most days for 3 consecutive months or more
  • cough for more than 3 years
  • phlegm as much as 2 times a day, 4 or more days out of the week
  • phlegm on most days for 3 consecutive months or more during the year
  • phlegm for more than 3 years
  • shortness of breath when hurrying on the level or walking up a slight hill
  • walk slower than people of your age on the level because of breathlessness
  • stop for breath when walking at own pace on
Suspect asthma in person with the following:
- One or a combination of cardinal symptoms (dyspnea, cough, wheezing, chest discomfort)
- Temporal waxing or waning and / or nocturnal occurrence of symptoms
- A history of any of the following:
  - symptoms triggered by exogenous factors,
  - a family history of

Discuss guidelines in screening clients for possible asthma.

- Determine individuals who need to be screened for asthma.
<table>
<thead>
<tr>
<th><strong>Steps in using peak-flow meter.</strong></th>
<th><strong>Discuss spirometry values in determining degree of obstruction.</strong></th>
<th><strong>Interpret results of spirometric values.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>5. <em>Screening for Cancer</em></td>
<td>Demonstrate the use of peak-flow meter.</td>
<td>Perform spirometry with the use of peak flow meter to determine degree of airway obstruction.</td>
</tr>
<tr>
<td>Warning signs of cancer</td>
<td>Demonstrate how to instruct another person to use the peak flow meter. Then, ask pairs of participants to do return-demonstration.</td>
<td>Instruct another person to use the peak flow meter.</td>
</tr>
<tr>
<td>Specific guidelines for early detection of common cancers:</td>
<td>Ask participants to share experiences regarding friends or relatives diagnosed with cancer taking note of the common signs/symptoms manifested by each and the possible risk factors that they shared.</td>
<td>Participants must be able to:</td>
</tr>
</tbody>
</table>

- Recognize warning signs of cancer

Participants must be able
Breast Cancer Screening Guidelines (Target 15-60 yrs old and above), Philippine Handbook of Clinical Oncology 2nd edition, 2001

- Monthly Breast Self Examination: cheapest and most affordable screening procedure for breast cancer
- Warning signs of breast cancer (skin changes, nipple abnormalities, abnormal contours)
- Best time to do BSE
- Specific techniques
- Breast Examination by Health Worker (annually) for all child-bearing women: detect masses missed by the client or to confirm presence of mass detected by the client.
- It assesses the following:
  - Location
  - Number of lumps or nodes (solitary or

<table>
<thead>
<tr>
<th>Task</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss importance of BSE</td>
<td>Discuss the breast cancer screening guidelines.</td>
</tr>
<tr>
<td>Detect changes in the breast</td>
<td>Emphasize the importance of BSE.</td>
</tr>
<tr>
<td>Provide advice to the woman on the best time to do the BSE</td>
<td>Discuss what changes in the breast can be detected by BSE.</td>
</tr>
<tr>
<td>Perform the specific techniques in BSE</td>
<td>Demonstrate how BSE is done. Demonstrate how to instruct a woman to do BSE. Allow for practice.</td>
</tr>
<tr>
<td>Instruct another person to do BSE</td>
<td>Explain the rationale why a health worker still needs to do breast examination to a woman who regularly does BSE.</td>
</tr>
<tr>
<td>Discuss importance of breast examination by health worker</td>
<td>Describe what the health worker needs to assess during breast examination.</td>
</tr>
<tr>
<td>Perform breast examination in a breast model.</td>
<td>Explain other procedures that a health worker can recommend for</td>
</tr>
</tbody>
</table>
### Cervical Cancer Screening Guidelines
(Target women: 30-55 years old and above)

- Warning signs of cervical cancer
  - Often asymptomatic
  - Abnormal vaginal bleeding

Explain that abnormal vaginal bleeding often alerts a woman about a problem in the reproductive system but more often, cervical cancer is asymptomatic; hence the need to comply with the screening guidelines.

- Annual mammography for women 50 years old and above
- For certain high risk women, baseline mammography at age 35 with repeat upon recommendation of attending physician
- Genetic screening and counseling for high risk patients or if appropriate

#### Further Management
- Explain that abnormal vaginal bleeding often alerts a woman about a problem in the reproductive system but more often, cervical cancer is asymptomatic; hence the need to comply with the screening guidelines.

Video (if available) on Pap’s smear and acetic acid wash

Participants must be able to:
- Rationalize the importance of cervical cancer screening.
- Determine the women who need to be
### Prostate Cancer Screening Guidelines

**Keywords:**
- Target age: starting at 50 years old
- Warning signs of prostate cancer include symptoms of urethral

<table>
<thead>
<tr>
<th>Persons Who Will Need Prostate Cancer Screening</th>
<th>Explain the Procedure of Digital Video on Digital Rectal Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe persons who will need prostate cancer screening.</td>
<td>Video (if available) on digital rectal examination</td>
</tr>
<tr>
<td>Explain the procedure of digital video on digital rectal examination.</td>
<td></td>
</tr>
</tbody>
</table>

### Cervical Cancer Screening

**Keywords:**
- Papanicolaou or Pap’s smear; done among
  - Sexually active women
  - Virgin women after 35 years of age
  - Low risk women with 2 or more successive negative pap smears, may have subsequent smears every 2-3 years
  - Visual inspection with acetic acid (VIA)

**Preparation needed before the procedures:**
- Should not douche
- No intravaginal medications
- No sexual intercourse 24 hours prior to test

**Procedure:**
- Papanicolaou or Pap’s smear:
  - Sexually active women
  - Virgin women after 35 years of age
  - Low risk women with 2 or more successive negative pap smears, may have subsequent smears every 2-3 years
  - Visual inspection with acetic acid (VIA)

**Preparation needed before the procedure:**
- Should not douche
- No intravaginal medications
- No sexual intercourse 24 hours prior to test

**Procedure:**
- Visual inspection with acetic acid (VIA)

**Participants must be able to:**
- Properly advise male clients who need to be screened for cervical cancer.
- Explain to the women what the procedure will entail and the preparation needed before the examination.
<table>
<thead>
<tr>
<th>Flow obstruction:</th>
<th>Rectal examination</th>
<th>Undergo prostate screening through digital rectal examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Urinary frequency</td>
<td>Explain that the PSA confirms diagnosis from DRE.</td>
<td>• Describe to the client how the DRE is done.</td>
</tr>
<tr>
<td>• Nocturia</td>
<td></td>
<td>• Rationalize why PSA needs to be done.</td>
</tr>
<tr>
<td>• Decrease in stream</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Post-void dribbling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• According to American Cancer Society (2010), the age to begin screening using the digital rectal examination is linked to risk.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Average risk men: age 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• For higher risk men e.g., first degree relative with prostate cancer before age 65 years: age 45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Multiple family members diagnosed with prostate cancer before age 65 years: age 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prostate-specific antigen (PSA) determination to confirm diagnosis in DRE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Colon/Rectal Cancer Screening Guidelines** (for more than 50 years old)

- Warning signs of colorectal cancer: change in stool, rectal bleeding, pressure on the rectum and abdominal pain
- Annual digital rectal exam
- Annual stool blood test (fecal occult blood test)
- Inspection of colon or flexible sigmoidoscopy every five years

**Lung Cancer Screening Guidelines**

- The following persons should undergo lung cancer screening:
  - Persons with long history of smoking and/or smoking two or packs of cigarettes per day

<table>
<thead>
<tr>
<th>Describe the people who need to undergo colorectal cancer screening.</th>
<th>Explain how the examinations are done and the necessary preparation of client prior to the test.</th>
<th>Video (if available) on digital rectal examination or sigmoidoscopy</th>
<th>Participants must be able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Video (if available) on digital rectal examination or sigmoidoscopy</td>
<td>• Properly advise people who need to undergo colorectal screening.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Provide adequate explanation regarding the procedures and preparations to the client prior to the actual tests.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Recognize people who need to undergo lung cancer screening.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Provide accurate explanation to clients regarding the</td>
</tr>
<tr>
<td>• Chronic or nagging cough&lt;br&gt;• Dull, intermittent, localized pain&lt;br&gt;• History of weight loss&lt;br&gt;• Chest x-ray every six months for patients who have history of smoking two packs or more per day&lt;br&gt;• Sputum cytology: series of three early morning specimen</td>
<td>Describe the screening procedures and the necessary preparation of patients prior to the tests.</td>
<td>• Provide information necessary to prepare patient for the screening procedure.</td>
<td></td>
</tr>
</tbody>
</table>
## Module Objectives

1. Recognize the magnitude of NCDs related to poor dietary practices.

## Content

**INTRODUCTION**

**MAGNITUDE OF NCDs RELATED TO POOR DIETARY PRACTICES**

The Philippines is one of the 23 selected countries contributing to around 80% of the total mortality burden attributable to chronic diseases in developing countries, and 50% of the total disease burden caused by noncommunicable diseases worldwide (WHO, 2008).

7th NNHeS (2008) provides data of increasing prevalence of risk factors related to diet and nutrition among Filipinos.

## Teaching Learning Activities

To introduce the topic, ask the participants to answer the following question using metacards:

- What do you perceive to be the most common disease/health conditions in the community that relate to poor dietary and nutrition practices?
- Is there a difference or change in disease patterns 5-10 years ago?
- What are the diet and nutrition-related practices responsible for these disease conditions?

Summarize and synthesize their answers.

Show and compare selected global, regional and local epidemiologic data:

1. Leading NCDs
2. Factors contributing to increasing NCD

## Resources

- Metacards
- Slide presentation

## Evaluation

Participants must be able to:

- State the importance of NCDs as a public health problem in the country.
- Specify the important risk factors that contribute to increasing trend of NCDs in the country.
- Determine nutrition and diet-related risk factors that contribute to the increasing prevalence of major NCDs.
2. Discuss nutrition-related practices/conditions leading to NCD.
   a. Increased weight (obesity)
   b. Increased fat/cholesterol intake
   c. Increased salt intake
   d. Increased intake of processed/preserved/instant foods
   e. Inadequate intake of dietary fiber

<table>
<thead>
<tr>
<th>NUTRITION-RELATED PROBLEMS LEADING TO NCDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors that influence the increasing trend of NCD worldwide include: (FAO, 2006)</td>
</tr>
<tr>
<td>• Increasing life expectancy</td>
</tr>
<tr>
<td>• Increasing urbanization</td>
</tr>
<tr>
<td>• Increasing industrialization with globalization</td>
</tr>
<tr>
<td>These conditions have also influenced the dietary practices of the people.</td>
</tr>
</tbody>
</table>

Food Consumption Survey conducted by the FNRI (FAO, 2006) revealed:
• Increasing trend of overnutrition (overweight or obese) among children, adolescents, and adults consumption from 1998-2003.

Cite 7th NNHeS data to show increasing prevalence of risk factors related to diet and nutrition among Filipinos.

To introduce the topic, ask participants to share their observations regarding nutrition-related NCDs in the community. Ask the following questions:
1. What are the common eating practices or dietary habits in the community that contribute to NCDs?
2. What factors influence these eating practices or dietary habits of the people?

You can ask participants to write their answers using metacards. Summarize answers. Synthesize discussion by analyzing the relationship between nutrition-related practices and socioeconomic determinants of health.

Use data cited by Pedro, Benavides and Barba in their Food Consumption Survey (FAO, 2006)

<table>
<thead>
<tr>
<th>Metacards Slide presentation</th>
</tr>
</thead>
</table>

Participants must be able to:
• Discuss external influences that contribute to changing dietary patterns of Filipinos.
• Explain the relationship of dietary practices with increasing trend of NCD.
• Characterize the typical Filipino diet and link to incidence of major NCDs.
| • Increased consumption of cereal and cereal products including breads, bakery products, noodles and snack foods from flour |
| • Increased intake of sugar and syrups including soft drinks |
| • Increased consumption of fats and oils; meat and meat products in which nearly 30% of meat intake is processed meat product; poultry; milk and milk products as well as alcoholic beverages |
| • Declining consumption of vegetables and fruits |

Obesity associated with heart attack, stroke, diabetes and cancer.

Hypercholesterolemia is linked with atherosclerosis, premature heart disease and diabetes.

to show the changing patterns in food consumption of Filipinos.
3. Describe key areas and general strategies to promote good nutrition and dietary practices

<table>
<thead>
<tr>
<th>KEY AREAS AND GENERAL STRATEGIES FOR PROMOTING GOOD NUTRITION AND DIETARY PRACTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain the Key Areas of Actions for Promoting Healthy Diet as basis or framework for developing strategies to promote good nutrition and dietary practices.</td>
</tr>
<tr>
<td>Explain to the participants that this area of action is actually elaborated in current DOH program on Breastfeeding Infant and Young Child Feeding.</td>
</tr>
<tr>
<td>Cite efforts of DOH and allied agencies like the National Nutrition Council and FNRI-DOST towards this.</td>
</tr>
<tr>
<td>Discuss the food guide pyramids for different age groups and for pregnant and lactating women that have been developed by the FNRI.</td>
</tr>
</tbody>
</table>

Increased salt intake is related to hypertension, cancer, atherosclerosis and diabetes. Inadequate dietary fiber is related to micro-nutrient deficiencies and colon cancer risk.

Participants must be able to:
- Relate the key areas of action in the context of specific strategies for promoting good nutrition and dietary practices.
- State the three strategies to promote healthy nutrition-related practices.

Daily Food Guide Pyramids of different age groups, pregnant and lactating women.
Explain the importance of educating the consumers on reading food labels.

Give examples of current harmful advertising practices that influence parents and children to consume unhealthy foods. Provide examples of foods that are high in saturated fats, trans-fatty acids, free sugars, or salt that are popular among consumers especially children.

The following are the three main strategies to address nutrition-related problems and practices:

<table>
<thead>
<tr>
<th>food by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• reducing salt levels</td>
</tr>
<tr>
<td>• eliminating industrially produced trans-fatty acids</td>
</tr>
<tr>
<td>• decreasing saturated fats</td>
</tr>
<tr>
<td>• limiting free sugars</td>
</tr>
<tr>
<td>• including more of dietary fiber</td>
</tr>
<tr>
<td>• Provide accurate and balanced information for consumers in order to enable them to make well-informed, healthy food choices;</td>
</tr>
<tr>
<td>• Promote the responsible marketing of foods and beverages to children, in order to reduce the impact of foods high in saturated fats, trans-fatty acids, free sugars, or salt.</td>
</tr>
</tbody>
</table>
### Managing weight

**Obesity occurs when a person’s weight is 20% or more of the ideal body weight.**

- **Recognize eating pattern by keeping a food diary.**
  - Food diary is a record of food eaten daily, how many servings, and how the person feels at this time.

- **Be aware of the total energy allowance or caloric/energy nutrient requirement based on age, height, type of activity, physiologic and disease condition of the body.**

- **Do not try to lose weight fast**

#### Explain how to compute for one’s ideal or desired body weight.

**DBW = Desirable BMI x H(m)^2**

Provide the participants the formula and ask each to compute for their ideal or desired body weight. Allow each to determine excess or deficiency from their ideal or desired body weight.

Discuss the use of a food diary in analyzing one’s eating pattern. The food diary is a tool to monitor food intake/consumption.

State that the diary provides a possible explanation of how a person looks at food. Is it a source of nourishment or something to fulfill a particular emotional or psychological need?

#### Use Appendix 3.1a of the Module for example on estimating DBW. Refer to Handbook on Food Exchange Lists for Meal Planning. (FNRI-DOST 1994)

Use the Food Diary Form in Appendix 3.6 of Module 3 as guide to monitor food intake.

#### Use Appendix 3.1b of Module 3 as guide to compute for total caloric energy allowance based on DBW and activity.

- **Compute for ideal body weight**
- **Analyze eating pattern through the use of food diary**
- **Compute for total energy allowance based on DBW and activity**
b. Build healthy nutrition practices

<table>
<thead>
<tr>
<th>Build healthy nutrition-related practices</th>
<th>Uses the daily food guide to plan meals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing food consumption patterns is a result of requirement or energy allowance based on DBW and activity.</td>
<td>Analyze excess or deficiency in caloric intake based on TEA or recommended diet.</td>
</tr>
<tr>
<td>Emphasize to the participants that in managing weight, one should calculate his diet based on his ideal or desired body weight and type of activity he daily engages in.</td>
<td></td>
</tr>
<tr>
<td>Explain the possible harm of fad dieting. Emphasize the need to couple exercise with sensible eating.</td>
<td></td>
</tr>
<tr>
<td>Briefly discuss the influences on people’s dietary patterns. Ask</td>
<td></td>
</tr>
</tbody>
</table>

- Ask each participant to compute for their total energy allowance/caloric requirement based on their computed DBW and activity.
- Instruct them to monitor their food consumption by filling up food diaries from Day 1.
- Use the data to analyze food consumption based on their total energy allowance or food pyramid guide.

Refer to Handbook on Food Exchange Lists for Meal Planning. (FNRI-DOST 1994)
Refer to Appendix 3.2 on more detailed description of the major and micro nutrients and their functions.

- Follow nutritional guidelines for Filipinos recommended by FNRI especially:
  - #1 Eat a variety of food everyday

- “Eating right” means eating food that contain essential nutrients necessary to provide the body with energy necessary to perform one’s daily activities, build and repair body tissues, and regulate bodily processes.

- “Eating right” means eating food that contain essential nutrients necessary to provide the body with energy necessary to perform one’s daily activities, build and repair body tissues, and regulate bodily processes.

Show Table 3.2 Nutrients and Their Functions from Module 3.

Point out that the Nutritional Guidelines for Filipinos (FNRI, 2001) aims to encourage consumption of an adequate and well-balanced diet while promoting desirable food and nutrition practices. Guidelines #1, 3, 4, 5, 6 and 8 relate to NCD prevention and control.

Refer to the Food Guide Pyramid (Figure 3.1 and Appendix 3.3 for the Food Guide Pyramids of different age groups including pregnant and lactating women) as bases of food to be consumed and the required servings.

Refer to Appendix 3.2 on more detailed description of the major and micro nutrients and their functions.

vis-à-vis total energy allowance or food pyramid guide.
<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>#3 Maintain children’s normal growth through proper diet and monitor their growth regularly</td>
<td>Highlight the problem of overeating and poor nutrition habits among children as important concerns related to the NCDs.</td>
<td>Refer to Module 3.3.</td>
</tr>
<tr>
<td>#4 Consume fish, lean meat, poultry, dried beans</td>
<td>Emphasize the need to observe guidelines in fish, meat, poultry and egg consumption in order to limit intake of fats and cholesterol present in these foods. Refer to Appendix 3.3.</td>
<td></td>
</tr>
<tr>
<td>#5 Eat more vegetables, fruits and root crops</td>
<td>Describe the recommended daily servings of vegetables, fruits and root crops in the meals.</td>
<td></td>
</tr>
<tr>
<td>#6 Eat foods cooked in edible/cooking oil daily</td>
<td>Differentiate the types of fats/cholesterol and their functions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discuss the food preparation tips and how to limit intake of saturated fats. State the recommended cholesterol intake of 300 mg daily. Provide examples of cooking and eating habits that demonstrate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refer to Appendix 3.4 of Module 3 for examples on Filipino foods classified according to cholesterol content</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food Pyramid Guides for Ages 1-6 and 7-12 in Appendix 3.3</td>
<td></td>
</tr>
<tr>
<td>#8 Use iodized salt but avoid excessive intake of salty foods</td>
<td>excessive use of salt among Filipinos. Draw from participants’ own experiences practical alternatives to use of salt to enhance flavor and taste of food. Put emphasis on limiting salt intake to 5 grams/day or 2,000 mg sodium.</td>
<td>Refer to Appendix 3.5 of Module 3 for examples of foods high in sodium.</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>#10 For a healthy lifestyle and good nutrition, exercise regularly, do not smoke, and avoid drinking alcoholic beverages</td>
<td>Guideline #10 captures all the areas essential for promoting healthy lifestyle. Refer participants to the rest of the modules in the manual. Discuss with the participants that food is considered healthy if they are: • Low in fat and cholesterol • Low in sodium • Low in simple carbohydrates • High in complex carbohydrates and dietary fiber</td>
<td></td>
</tr>
<tr>
<td>c. Choose foods wisely</td>
<td>Choose foods wisely • Recognize foods to limit/avoid. Select foods low in fats and cholesterol and sodium and high in complex carbohydrates and dietary fiber</td>
<td>Discuss importance of reading food labels. Explain the steps in reading food labels. Bring food labels of popular food products to allow Slide/powerpoint presentation Sample food labels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Interpret food labels.</td>
</tr>
</tbody>
</table>
Explain to the participants the need to be careful in recommending diets to clients with specific disease conditions. Diets should be founded on evidences.

4. Discuss dietary recommendations for specific disease conditions such as hypertension, diabetes mellitus, etc.

**DIETARY RECOMMENDATIONS FOR SPECIFIC DISEASE CONDITIONS**

There are specific dietary recommendations for people with hypertension, heart diseases, diabetes and other NCDs. The two guidelines below are based on evidence-based studies and are safe to recommend to our clients.

- Explain to the participants the need to be careful in recommending diets to clients with specific disease conditions. Diets should be founded on evidences.
- Slide presentation

- Describe special diets for people with specific chronic NCDs.

- Reading food labels is an important practice when selecting foods. Food labels provide information to evaluate foods.
- How food is prepared/cooked is also important; avoid fried foods, gravy, butter; use corn, soybean, canola or sunflower oil.

Draw out from the participants practical ways of keeping the food healthy and nutritious.
However, there are client conditions where it is more prudent to refer them to nutritionist/dietitians.

**Dietary Approaches to Stop Hypertension (DASH)**
- Evidence-based study (NIH, 2006)
- Characteristics
  - low in saturated fat, cholesterol, and total fat
  - emphasizes fruits, vegetables, and
  - fat-free or low-fat milk and milk products

**Nutritional Guidelines for the Prevention of Heart Diseases and DM (FNRI-DOST).**
- Developed in response to the growing number of Filipinos with DM and heart diseases.
- Highlights the following:
  - Eat foods low in fat and cholesterol
  - Increase intake of fiber-rich foods in the daily diet

<table>
<thead>
<tr>
<th>Discuss the characteristic of DASH and how it helps in reducing blood pressures.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain the basis for developing the guidelines. Describe the recommended daily allowance, food selection and preparation guide.</td>
</tr>
<tr>
<td>Booklet on Nutritional Guidelines for the Prevention of Heart Diseases and Diabetes Mellitus (FNRI-DOST, 2002)</td>
</tr>
<tr>
<td>Describe the characteristic of DASH that helps in reducing blood pressures.</td>
</tr>
</tbody>
</table>

- Describe the specific dietary guidelines in the prevention of heart diseases and DM.
5. Perform nutrition education and counseling to specific population groups

<table>
<thead>
<tr>
<th><strong>NUTRITION EDUCATION AND COUNSELING</strong></th>
<th>Discuss the six responsibilities of the health worker in promoting healthy nutrition.</th>
<th>Slide presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities of a health worker in promoting healthy nutrition in the community:</td>
<td>Refer participants to the use of appropriate food pyramid guides when providing nutrition education to different population groups. Refer participants to other sections of the manual for risk factor assessment and screening (Module 2).</td>
<td>• Discuss the responsibilities of a health worker in promoting healthy nutrition in the community.</td>
</tr>
<tr>
<td>• Health education to different population groups</td>
<td>Discuss the principles in planning nutrition education and counseling.</td>
<td>• Perform nutrition education and counseling to different population groups</td>
</tr>
<tr>
<td>• Assessment of risk factors for weight problems and nutrition-related practices</td>
<td>Ask participants to share personal experiences in conducting nutrition education.</td>
<td></td>
</tr>
<tr>
<td>• Screening for nutrition-related conditions such as hypertension, dyslipidemia and DM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Counseling for risk modification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Advocating for a supportive environment where healthy food is available and affordable.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Principles in planning nutrition education and counseling of different population groups:  
| - Assess learning needs and readiness to learn  
| - Select learning activities  
| - Create a positive climate for learning  
| - Evaluate learning outcomes  
| Create hypothetical situations and ask selected participants to perform role plays.  
| Organize participants to conduct nutrition education to specific population groups in the community.  
| Hypothetical situations  
| Food pyramid guide charts  
| Cartolina, colored papers or construction papers for additional visual aids  
| Marking pens  
| Materials for posting teaching aids  

### 6. Advocate for a nutrition-friendly environment
- Campaign for nutrition-friendly establishments in schools, work-places and other settings in the community
- Promote healthy nutrition policies
- Promote availability of healthy food sources in the community

### ADVOCATING FOR A NUTRITION-FRIENDLY ENVIRONMENT

The environment plays a major role in influencing nutrition-related behavior. Efforts to create a nutrition-friendly environment focus on the following:

- Healthy nutrition in the schools, workplace and other settings
- Advocating for healthy nutrition policies
- Food production program

Call to mind the concept of health promotion as consisting of educational strategies and creating a supportive environment for promoting healthy lifestyles. Creating changes in the environment is equally important as behavior changes.

Divide participants into three groups. Assign them into the following settings: school, workplace and community. Ask each group to answer the following:

- Recommend specific strategies in advocating for a nutrition-friendly environment in different settings.

- Metacards
• Give specific recommendations to improve healthy nutrition practices in the three settings
• Recommend specific policies that a health worker can propose to the principal, manager or local government executive to check unhealthy nutrition practices.
• Identify practical and realistic approaches to increasing food availability.

Ask participant to write answers in metacards. Summarize and synthesize discussion.
## Module 4  Promoting Physical Activity

<table>
<thead>
<tr>
<th>Module Objectives</th>
<th>Content</th>
<th>Teaching Learning Activities</th>
<th>Resources</th>
<th>Evaluation</th>
</tr>
</thead>
</table>
| 1. Recognize the magnitude of NCD problems related to sedentary lifestyle | EPIDEMIOLOGY OF MAJOR NCDs RELATED TO LACK OF PHYSICAL ACTIVITY | Discuss the public health significance of NCDs associated with physical inactivity. Allow open discussion on the economic and social implications of NCDs associated with physical inactivity and sedentary lifestyle. | Slide presentation | Participants must be able to:  
• Identify the leading NCDs associated to sedentary lifestyle.  
• Discuss the economic and social impact of NCDs associated to sedentary lifestyle. |

WHO estimates that around 1.9 million people die each year as a result of physical inactivity.

60% of world’s population fail to complete recommended physical activity required to induce health benefits.

Physical inactivity is a major risk factor for coronary artery disease and increases the risk of obesity, low HDL levels or good cholesterol, high blood pressure, stroke and diabetes mellitus.
2. Explain the benefits of physical activity

<table>
<thead>
<tr>
<th>BENEFITS OF REGULAR PHYSICAL ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical activity is associated with</td>
</tr>
<tr>
<td>• decreased risk of cardiovascular disease</td>
</tr>
<tr>
<td>• increased life expectancy</td>
</tr>
<tr>
<td>It produces overall physical, psychological and social benefits.</td>
</tr>
<tr>
<td>Discuss benefits of regular physical activity. Cite selected case studies taken from review of literature and best practices.</td>
</tr>
<tr>
<td>Slide presentation</td>
</tr>
<tr>
<td>Case studies</td>
</tr>
<tr>
<td>Participants must be able to:</td>
</tr>
<tr>
<td>• Discuss benefits of physical activity.</td>
</tr>
</tbody>
</table>

3. Discuss the principles and safety guidelines for promoting physical activity

<table>
<thead>
<tr>
<th>PRINCIPLES AND SAFETY GUIDELINES FOR PROMOTING PHYSICAL ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting physical activity means improving performance of daily activities.</td>
</tr>
<tr>
<td>Principles in promoting physical activity</td>
</tr>
<tr>
<td>• FIT principle for exercise effectiveness</td>
</tr>
<tr>
<td>• Monitoring exercise intensity</td>
</tr>
<tr>
<td>Differentiate physical activity from exercise.</td>
</tr>
<tr>
<td>Explain the principles in promoting physical activity.</td>
</tr>
<tr>
<td>Describe the factors that make up the FIT principle – frequency,</td>
</tr>
<tr>
<td>Slide presentation</td>
</tr>
<tr>
<td>Participants must be able to:</td>
</tr>
<tr>
<td>• Differentiate physical activity from exercise</td>
</tr>
<tr>
<td>• Explain the principles in promoting physical activity.</td>
</tr>
</tbody>
</table>
Safety guidelines when implementing physical activity programs:
- Warm-up and cool down
- Common risks
- Normal symptoms
- Need for medical evaluation
- Philippine National Guidelines on Physical Activity, 2010

Discuss general and specific guidelines in implementing physical activity to achieve health benefits.

Rebecca

4. Describe the recommended guidelines for promoting physical activity among different age groups.

**Recommended Guidelines for Promoting Physical Activity Among Different Age Groups**

<table>
<thead>
<tr>
<th>Paper &amp; pencil Stopwatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Compute for target exercise heart rate.</td>
</tr>
<tr>
<td>• Count pulse rate before and after exercise</td>
</tr>
<tr>
<td>• Discuss guidelines for physical activity to achieve health benefits.</td>
</tr>
</tbody>
</table>
5. Perform strategies to promote physical activity among different age groups

### PROMOTING PHYSICAL ACTIVITY IN DIFFERENT SETTINGS

<table>
<thead>
<tr>
<th>Recommended guidelines for each age group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
</tr>
<tr>
<td>Adults</td>
</tr>
<tr>
<td>Older adults</td>
</tr>
</tbody>
</table>

**Physical activity prescriptions**

- Children
- Adolescents to young adults
- Adults
- Older adults
- Seniors

**Types of physical activity:**

- Active daily tasks
- Programmed physical activity
- High impact play
- Muscle strengthening and flexibility
- Activities in the workplace
- Balance and coordination

**Discussion:**

Discuss with the participants the different guidelines that are available to the health worker who is planning physical activity programs for different age groups. Of particular help will be Table 4.1 of Module 4 which highlights the specific activity appropriate for each age group.

**Slide presentation**

Participants must be able to:

- Design physical activity program for a specific age-group based on guidelines.
groups in different settings:
- school-based population
- workplace population
- community-based population

<table>
<thead>
<tr>
<th>Promoting physical activity in schools should consider:</th>
<th>Provide examples of school-based physical activities</th>
<th>Slide presentation</th>
<th>Participants are able to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• enjoyable participation</td>
<td>• Filipino outdoor games</td>
<td>Video of physical activities/exercise regimens appropriate for different settings and age groups</td>
<td></td>
</tr>
<tr>
<td>• diverse range of non-competitive and competitive activities</td>
<td>• Isometric exercises</td>
<td></td>
<td>• Formulate a physical activity plan for a specific population group or setting.</td>
</tr>
<tr>
<td>• providing skills and confidence needed to be physically active</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• coordinated school health –community programs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Promoting physical activity in the workplace considers:
- occupational risks of limited physical activity
- providing policies/facilities and environment that support regular physical activity programs

Promoting physical activity in the community considers the diversity of total population group.
- Ballroom dancing for the older adults
- Aerobics for women
- Sports for men and adolescents
### SPECIFIC PHYSICAL ACTIVITY PROGRAM FOR DIFFERENT CHRONIC CONDITIONS

**Aims of regular physical activities for clients with different chronic conditions:**
- Increase physical activity
- Reduce tension or anxiety
- Improve tolerance
- Promote comfort and safety

In general, medical consultation is recommended before clients with chronic conditions engage in strenuous physical activity.

Recommended physical activity programs with the following conditions:
- Cardiovascular diseases
- Diabetes mellitus
- Hypertension
- Overweight or Obese
- COPD/Asthma
- Musculoskeletal problems

Discuss the aims of a regular physical activity program for clients with specific chronic conditions.
You can use hypothetical or factual cases.

Emphasize the need for the health worker to be cautious in prescribing strenuous activities to clients with chronic conditions without medical recommendation.

Discuss the recommendations and specific precautions in planning physical activity programs for clients with chronic conditions.

### Participants must be able to:
- Explain the aims of regular physical activity program for clients with chronic conditions.
- Recognize the importance of medical recommendation before prescribing or planning a physical activity program to a client with specific condition.
- Develop a plan for physical activity for clients chronic conditions based on specific recommendations and precautions.
| 7. Plan for physical activity programs. | **PLANNING PHYSICAL ACTIVITY PROGRAMS**  
Principles of planning a physical activity program | Discuss the principles in planning physical activity programs. Divide the participants into work groups. Assign each group to develop a program plan of a physical activity for a particular target group in a specific setting. | Slide presentation  
Flipchart and pens | Participants must be able to:  
• Develop a program plan of physical activity for a specific group/setting. |
| --- | --- | --- | --- | --- |

| 8. Advocate for a supportive environment for physical activity.  
   a) physical  
   b) social | **ADVOCATING A SUPPORTIVE ENVIRONMENT FOR PHYSICAL ACTIVITY**  
Provision of facilities and areas for physical activity in communities, schools, workplaces.  
Provision of policies to encourage increased physical activity | Review the health promotion concept and approach that emphasizes the combination of educational and environmental strategies for healthy lifestyle.  
Facilitate a discussion about existing policies and available facilities and programs related to physical activity in schools, workplaces, communities.  
You can also show videos or photos that illustrate efforts to create a supportive environment for physical activity. | Slide presentation  
Flipchart and pens | List of laws, local ordinances and programs supporting integration of healthy lifestyle programs in LGU development plans.  
Refer to “20 Years of NCD Prevention and Control”  
Photos or videos (if available) | Participants must be able to:  
• Describe ways for advocating a supportive environment for physical activity |
## Module 5A  Promoting Smoke-free Individuals and Environment

<table>
<thead>
<tr>
<th>Module Objectives</th>
<th>Content</th>
<th>Teaching Learning Activities</th>
<th>Resources</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recognize the magnitude of the problem on tobacco use</td>
<td><strong>EPIDEMIOLOGY OF TOBACCO USE/SMOKING</strong></td>
<td>Ask participants to discuss the reasons for concern on tobacco in the country (or their local area)</td>
<td>Metacards</td>
<td>Participants must be able to:</td>
</tr>
<tr>
<td></td>
<td>Smoking prevalence is persistently higher among men but more and more women and young people smoke today than before.</td>
<td></td>
<td></td>
<td>• Discuss the magnitude of the problem on tobacco use.</td>
</tr>
<tr>
<td></td>
<td>Tobacco-use accounts for at least 30% of all cancer deaths and 87% of lung cancer deaths.</td>
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</tr>
<tr>
<td></td>
<td>One third of the population is at risk of dying from debilitating diseases and painful deaths due to tobacco use.</td>
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<td>Slide presentation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Burden of smoking</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Economic burden of caring for patients with smoking-related diseases.</td>
<td></td>
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<tr>
<td></td>
<td>• Cost to household: More smokers live in low and</td>
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</table>
middle-income countries than high income countries

- The average Filipino household earning about Php 5,100 monthly spends approximately 2.6% of the household income on tobacco, which is more than they spend on education (1.6%) and health (1.3%)

### HOW TOBACCO USE CAUSES HARM

**Reasons why people smoke**
- Advertising influences
- Peer pressure
- Misconceptions that promote smoking behavior
- Parental influences

**Harmful effects of tobacco use/smoking**
- Contains 4000 harmful chemicals
- Smoking as major risk factor to major NCDs

**Introduce the topic by asking the common reasons or factors what led smokers to a lifestyle of smoking.**

**Enumerate some of the harmful chemicals that each cigarette stick contains.**

**Slide presentation**
- Videos on smoking and harmful effects of smoking (if available)

**Participants must be able to:**
- Describe common reasons/factors why people smoke
- Identify harmful chemicals present in each cigarette stick and how they cause damage to the body
- Discuss harmful effects of tobacco use/smoking.
- Differentiate active versus passive smoking.
### BENEFITS OF SMOKING CESSATION

If an individual quits:
- There is 15% reduction in the relative risk of all-cause mortality in heavy smokers
- Risk of lung cancer is 30-50% lower than the continuing smokers after 10 years of abstinence

Physiologic effects of quitting starts in 20 minutes.

Smokers have difficulty quitting because of the nicotine in the

Discuss the over-all impact of smoking cessation in terms of reduction in mortality and risk of lung cancer.

Explain that when smokers quit, the physiologic benefits increase over time.

<table>
<thead>
<tr>
<th>Participants must be able to:</th>
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</table>

Other harmful effects of smoking:
- Smoking and reproductive health
- Smoking and the ageing population
- Smoking and children

Active versus passive smoking

Review past discussion on major NCDs related to smoking or tobacco use.

Slide presentation

Videos (if available)
Discuss the mechanism how nicotine works and produce dependence or addiction to the smoker.

Describe the withdrawal symptoms quitters usually experience and how they can be supported.

Nicotine withdrawal: one of the experiences that prevent smokers from quitting or make them return to the habit.

<table>
<thead>
<tr>
<th>KEY AREAS FOR PROMOTING SMOKE-FREE INDIVIDUALS AND ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Prevent smoking habit initiation</td>
</tr>
<tr>
<td>• Assess for nicotine dependence</td>
</tr>
<tr>
<td>• Assess readiness to quit</td>
</tr>
</tbody>
</table>

Discuss the different key areas for promoting smoke-free individuals.

Provide concrete examples how each can be integrated when developing an action plan to promote a smoke-free community.

State that the most widely used tool to assess nicotine dependence is the Fagerstrom test.

Highlight the implication to have available clinical interventions once a smoker decides to quit.

Fagerstrom Test for Nicotine Dependence Tool

Participants must be able to:
• Describe withdrawal symptoms that a quitter may experience.
• Utilize the Fagerstrom Test for Nicotine Dependence
Conduct interventions to help smokers quit
- For tobacco users willing to quit: 5As Model for Treating Tobacco Use and Dependence
- For tobacco users unwilling to quit: Motivational interviewing Strategies; 5Rs
- For the patient who has recently quit
- Addressing the problems of a former smoker

Explain how the different interventions will work.

Develop hypothetical situations and allow participants to act out different scenarios illustrating the interventions.

Demonstrate application of the interventions to help smoker quit

SUPPORTING SMOKE-FREE ENVIRONMENTS

There are two approaches in supporting a smoke-free environment:
- Behavior change approaches
- Policies designed to prevent smoking in public spaces or workplaces

Emphasize that in a health promotion approach, the health worker gives equal importance to behavior changes resulting from educational strategies and environmental changes resulting from efforts to a advocate for healthy policies.

Slide presentation
Metacards
DOH Manual on Smoking Cessation, 2007

Participants must be able to:
- Apply the health promotion concept and approach to develop a plan for a smoke-free environment.
| 6. Discuss the different laws/policies on smoking and tobacco use. | Framework Convention on Tobacco Control (FCTC) RA 9211 Graphic Health Information Smoke-free policy in schools and workplace | List recent policies related to the prevention and control of smoking or tobacco use. | Slide presentation Metacards | Participants must be able to: • List relevant policies |

**Ask participants to write down ideas in metacards regarding specific activities to promote smoke-free environment in their locality. Allow for an open discussion.**
## Module 5B     Reducing Harm from Alcohol Use

<table>
<thead>
<tr>
<th>Module Objectives</th>
<th>Content</th>
<th>Teaching Learning Activities</th>
<th>Resources</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recognize the magnitude of the problem alcohol-related risks</td>
<td><strong>EPIDEMIOLOGY OF ALCOHOL-RELATED RISKS</strong>&lt;br&gt;Harmful use of alcohol was responsible for 2.5 million deaths in the world in 2004.&lt;br&gt;An estimated 69.4 million disability-adjusted life years (DALYS) lost due to alcohol drinking.&lt;br&gt;Drinking patterns of men and women are beginning to converge; but women are often the victims of harmful use of alcohol by men.&lt;br&gt;More young people in developing and developed countries are increasingly drinking in the same harmful patterns.</td>
<td>Ask participants to discuss the reasons for concern on alcohol use in the country (or their local area)&lt;br&gt;Present global, regional and national data to show magnitude and extent of problem. Use local data (if available).</td>
<td>Metacards&lt;br&gt;Slide presentation</td>
<td>Participants must be able to:&lt;br&gt;• Discuss the magnitude of the problem on tobacco use and alcohol-related risks</td>
</tr>
</tbody>
</table>
2. Describe the harmful effects of alcohol use across population groups

**HOW ALCOHOL DRINKING LEAD TO HARM**

Harmful use of alcohol is associated with more than 60 types of diseases and health conditions such as:
- Mental disorders and suicide
- Several types of cancer
- Other NCDs like cirrhosis
- Intentional and unintentional injuries

Alcohol drinking is also associated with high-risk behaviors:
- Unsafe sex
- Use of other psychoactive substances

The topic can be discussed by asking participants to share real life experiences in their communities on harmful use of alcohol.

- Slide presentation
- Trigger films (if available)

Participants must be able to:
- Discuss the different harmful effects of alcohol use.

3. Describe benefits of alcohol avoidance

**BENEFITS OF ALCOHOL AVOIDANCE**

There is a growing appreciation for saying no to alcohol.

The associated health risks far outweigh the so-called benefits.

Allow for open discussion on the controversial issue of health benefits of alcohol intake.

- Slide presentation

Participants must be able to:
- Explain the benefits of alcohol avoidance.
Reduced alcohol intake or avoiding alcohol drinking will lead to:
- Decreased burden of NCDs
- Better mental health
- Decreased violence and injuries
- Potential improvement in adolescent, child and reproductive health

Summarize and synthesize discussion.

Explain the potential benefits with reduced alcohol intake or avoiding alcohol drinking.

4. Discuss key areas for reducing harm from alcohol use

**KEY AREAS FOR REDUCING HARM FROM ALCOHOL USE**

Regional strategy to reduce alcohol-related harm: (WHO, 2007)
- Reducing the risk of harmful alcohol use
- Minimizing the impact of harmful use of alcohol
- Regulating the accessibility and availability to reduce harmful use of alcohol
- Establishing mechanism to facilitate and sustain implementation

Discuss the regional strategy to reduce alcohol-related harm. Provide concrete examples on how the regional strategy can be operationalized at the local level.

Slide presentation

Participants must able to:
- Apply the regional strategy to develop a plan to reduce alcohol-related harm in the community.
## Module 6  Promoting Mental Health and Wellness

<table>
<thead>
<tr>
<th>Module Objectives</th>
<th>Content</th>
<th>Teaching Learning Activities</th>
<th>Resources</th>
<th>Evaluation</th>
</tr>
</thead>
</table>
| 1. Recognize the relationship among common risk factors, mental health and NCDs | **EPIDEMIOLOGY OF NCDs RELATED TO MENTAL HEALTH**  
Mental health problems are dramatically adding to the global burden of disease and disability worldwide (WHO, 2007).  
50% of mental disorders begin before the age 14 with around 20% of world’s children and adolescents have mental disorders or problems (WHO, 2007)  
Mental disorders such as depression, alcohol and substance abuse are among the risk factors for some NCDs.  
Several studies provide evidence linking mental health conditions particularly depression to physical conditions and illnesses including anxiety, heart disease, stroke, diabetes, asthma and cancer. | To introduce the topic, ask the participants what are the behavior changes commonly observed among clients or relatives with NCDs. How do the health workers handle these changes?  
Discuss the increasing prevalence of mental health problems especially among children and adolescents.  
Point out that some mental disorders are among the risk factors of NCDs and that there are evidences that link mental health problems as consequences of chronic conditions and NCDs.  
Discuss the impact of mental health on the development of major NCDs and vice versa. | Slide presentation  
Local data on mental health problems (if available) | Participants must be able to:  
- Identify major NCDs that are associated to psychosocial and mental health.  
- Discuss the relationship of common risk factors in NCDs and mental health.  
- Discuss the impact of mental health on the development of major NCDs and vice versa. |
2. Explain the benefits of promoting mental health and wellness.

<table>
<thead>
<tr>
<th>BENEFITS OF PROMOTING MENTAL HEALTH</th>
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</thead>
<tbody>
<tr>
<td>Promoting mental health involves looking beyond prevention; looks at the relationship between mental well-being and physical health. It emphasizes two key concepts:</td>
</tr>
<tr>
<td><strong>• Power:</strong> person’s, group’s or community’s sense of control over life and the ability to be resilient.</td>
</tr>
<tr>
<td><strong>• Resilience:</strong> ability to manage or cope with significant adversity or stress in ways that are not only effective but may result in an increased ability to respond to future adversity.</td>
</tr>
</tbody>
</table>

Mental health promotion works at three levels:
- Strengthening individuals
- Strengthening communities
- Reducing structural barriers to mental health

Start discussion by asking participants their view of mental health. Point out that mental health is an important aspect in defining the health status of an individual.

Explain the two important concepts related to mental health promotion. Provide concrete situations to illustrate key concepts.

Discuss how mental health promotion works in each of the three levels.

Participants must be able to:
- Appreciate mental health as an important aspect of the health status of an individual.
- Analyze the concepts of power and resilience as essential elements in maintaining mental health.
- Determine possible intervention components of different levels of mental health promotion.

Slide presentation
3. Discuss factors that contribute to psychosocial imbalance or mental health problems

<table>
<thead>
<tr>
<th>FACTORS THAT CONTRIBUTE TO MENTAL HEALTH PROBLEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following factors increase the people's vulnerability to mental health problems: (WHO, 2004)</td>
</tr>
<tr>
<td>• Experience of insecurity and hopelessness</td>
</tr>
<tr>
<td>• Rapid social change</td>
</tr>
<tr>
<td>• Risks of violence</td>
</tr>
<tr>
<td>• Physical ill-health</td>
</tr>
</tbody>
</table>

Risk factors for mental health problems include: (WHO, 2004)

- Drugs/alcohol
- Lack of education
- Poor nutrition
- Poverty
- Racial injustice
- Violence/delinquency
- War
- Work stress
- Unemployment

Summarize and synthesize with a lecture.

In small groups, or using meta cards, discuss the different factors that contribute to mental health problems.

Slide presentation

Metacards, tear sheet, pentel, masking tape, whiteboard

Participants must be able to:

- Analyze issues of vulnerability in the community that predispose people to mental health problems.
- Determine presence of factors that increase the risk of mental health problems among vulnerable groups.
### 4. Discuss principles and guidelines in developing programs for promoting mental health and wellness across the life span.

**PROMOTING MENTAL HEALTH ACROSS THE LIFE SPAN**

Mental health and wellness programs should build on the following principles:

- Considers the developmental tasks of a particular age group to enhance social, emotional as well as other intelligence
- Enhances the life skills to facilitate development and progressive maturation
- Facilitates effective coping mechanisms to facilitate resilience in the face of adversity

Discuss the principles and guidelines in developing programs for promoting mental health and wellness considering age groups and settings.

Match principles and interventions in promoting mental health.

Slide presentation

Participants must be able to:
- Apply principles in developing programs to promote mental health and wellness across age groups and settings.

### 5. Develop strategies to promote mental health and wellness among:

- a. school-based population
- b. workplace population

**STRATEGIES FOR PROMOTING MENTAL HEALTH IN DIFFERENT SETTINGS**

School-based mental health and wellness activities contribute in

Discuss various strategies to promote mental health and wellness in

Slide presentation

Participants must be able to:

<table>
<thead>
<tr>
<th>c. community-based population</th>
<th>developing students to;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Have positive sense of self</td>
</tr>
<tr>
<td></td>
<td>• Help facilitate development of well-rounded personalities</td>
</tr>
<tr>
<td></td>
<td>• Build positive relationship with parents necessary to child’s self-esteem</td>
</tr>
<tr>
<td></td>
<td>• Guide and support the student as he goes through various physical and psychosocial changes.</td>
</tr>
</tbody>
</table>

School-based activities should involve:

- parents/guardians,
- class advisers
- guidance counselors as partners in promoting psychosocial well-being.

Workplace-based mental health activities should:

- Enhance the adult’s good coping mechanisms as they gain more tasks and responsibilities
- Maintain overall health and work efficiency of workers.

<table>
<thead>
<tr>
<th>different settings. Cite examples and allow participants to share experiences on efforts to promote mental health and wellness in different settings.</th>
</tr>
</thead>
</table>

- formulate an activity plan for promoting mental health and wellness for a specific group/sector in the community
• Facilitate good interpersonal relations among workers
• Provide for a stress-free physical environment

Community-based mental health and wellness activities:
• Must be relevant, sustainable, and responsive to the needs of its members
• Should lead to establishment of support groups for each of the population group in the community
• Should provide adequate attention to psychosocial needs of children.
• Include provision of sports and recreation facilities to encourage interpersonal relations and foster camaraderie
• Must include teaching of stress management techniques to community groups.
6. Perform strategies for promotion of psychosocial well-being and mental health among individuals with chronic conditions

<table>
<thead>
<tr>
<th>PROMOTING MENTAL HEALTH AMONG INDIVIDUALS WITH CHRONIC CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic conditions are often the result of longtime pursuit of unhealthy and abusive lifestyle. Treatment and/or corrective interventions must take into consideration extent of harm as well as repairs done on these body organs or systems.</td>
</tr>
<tr>
<td>Strategies to promote mental health and wellness of individuals with chronic conditions should consider strength and capabilities as well as restrictions and limitations of the individuals.</td>
</tr>
<tr>
<td>• Stress management</td>
</tr>
<tr>
<td>• Assertive communication</td>
</tr>
<tr>
<td>• Anger management</td>
</tr>
<tr>
<td>• Work-life balance</td>
</tr>
<tr>
<td>• Positive thinking</td>
</tr>
<tr>
<td>• Spirituality</td>
</tr>
<tr>
<td>• Social support</td>
</tr>
<tr>
<td>• Meditation</td>
</tr>
</tbody>
</table>

| Discuss the different strategies in promoting mental health and wellness. |
| Demonstrate some of the strategies by integrating some of them into the training like allowing personal time to express spirituality, perform meditation and relaxation techniques in between sessions. |
| Do role plays for selected strategies. |

| Slide / powerpoint presentation |
| Participants are able to: |
| • Demonstrate strategies in promoting mental health and wellness among clients with chronic conditions. |
Enhancing coping mechanisms for patients with:
- Obesity
- Cardiovascular diseases
- Diabetes mellitus
- Hypertension
- COPD/Asthma

7. Create a supportive environment for psychosocial well-being and mental health wellness

**CREATING A SUPPORTIVE ENVIRONMENT TO PROMOTE MENTAL HEALTH**

Mental health promotion and wellness must be included in the social and health policy agenda of LGUs. To achieve this, activities should include:
- Raising mental health literacy
- Life skills education
- Advocacy and policy
- Intersectoral alliances

Discuss the activities that the health workers need to carry out in order to create a supportive environment for mental health and wellness.

Cite existing policies and available facilities and programs related to mental health wellness.

**Participants are able to:**
- Describe programs and policies that support programs and policies for mental health and wellness
Appendix A

PRETEST / POSTTEST FOR TRAINING PARTICIPANTS

Name: ________________________________  Sex: _____  Birthdate: __________________
Profession: ________________________________  Job Position: __________________________

Instructions: Please answer the following questions to the best of your ability. You will be given a time limit so do not take too long per item.

I. TRUE or FALSE:
Put your answer on the space before the number. Write T if the statement is correct, and write F if it is incorrect.

**Obesity is a major risk factor for:**
1. Hypertension
2. Diabetes Mellitus
3. Cancer
4. Chronic Lung Disease
5. Asthma

**Smoking is a risk factor of/contributes to:**
6. Hypertension
7. Diabetes Mellitus
8. Cancer
9. Chronic Lung Disease
10. Asthma

**Inadequate intake of dietary fiber is associated with development of:**
11. Hypertension
12. Diabetes Mellitus
13. Cancer
14. Chronic Lung Disease

**Major risk factors of cardiovascular diseases is/are:**
15. Obesity
16. Diabetes Mellitus
17. Smoking
18. Sedentary lifestyle or lack of physical exercise
19. Eating salty foods

**Risk factors for Diabetes Mellitus is/are:**
20. Obesity
21. Smoking
22. Sedentary lifestyle or lack of physical exercise
23. Eating salty foods

**These persons are at risk for developing hypertension:**
24. Elderly persons
25. Pregnant women
26. Adolescents
27. Persons with diabetes

**Which has higher fat content:**
28. Fried chicken has higher fat content than broiled chicken.
29. Chicken wings have higher fat content than the breast.
30. Chicken egg has higher cholesterol content than duck egg.
31. Chicken meat has higher cholesterol content than pork.
32. Butter has higher fat content than margarine.
33. The recommended daily fat intake for a child is higher than an adult.

**The following foods are rich sources of good cholesterol**
34. Beef
35. Olive oil
36. Soya
37. Fish
38. Chicken liver

**The following foods have high sodium content**
39. Corned beef
40. Processed cheese
41. Soy sauce
42. Monosodium glutamate
43. Instant noodles
44. Canned meat
45. Fresh shellfish
These statements about EXERCISE are TRUE:
46. Exercise helps in losing weight.
47. Exercise helps control blood pressure.
48. Exercise can reduce total blood cholesterol level.
49. Exercise reduces risk for lung cancer.
50. Persons with cardiovascular disease should avoid exercise.
51. Hypertensive persons should avoid exercise until blood pressure is normal.

The following activities are aerobic exercises
52. Dancing 
53. Cycling or biking 
54. Walking briskly 
55. Strolling in Luneta for 30 minutes 
56. Basketball 
57. Weight lifting

The following statements about mental health are true
58. Mental health is related to development of NCDs.
59. Life skills and effective coping mechanism across life span are essential to mental health and wellness.
60. Strategies for managing stress are not proven effective measures in promoting mental health and wellness.

II. MULTIPLE CHOICE: Encircle the letter that corresponds to your answer.

Note: The first 9 questions are for doctors, nurses and midwives only. Other participants proceed to question #10.

1. When measuring the blood pressure of an adult, how much of the upper arm circumference should be covered by the cuff?
   a. One-third
   b. Two-third
   c. Three-fourths
   d. Entire upper arm

2. When monitoring an adult’s blood pressure, the cuff should be inflated to:
   a. 250 mm Hg
   b. 300 mm Hg
c. 50 mm Hg above the last recorded
   d. 30 mm Hg above the obliteration of the pulse

3. Based on guidelines, how many times should the BP be measured per visit?
   a. Once
   b. Twice
   c. Three times
   d. Take a second reading only if the first reading is very high

4. In children 13 years or younger, the best indicator of diastolic blood pressure is:
   a. The initial appearance of sounds upon deflation of cuff
   b. The disappearance of sounds upon deflation of cuff
   c. The distinct muffling of sounds upon deflation of cuff
   d. None of the above

5. Prior to BP measurement, it is important to minimize extraneous factors that may affect the accuracy of the reading. In general, a client should not smoke or ingest caffeine within ____ before BP measurement.
   a. 5 minutes
   b. 10 minutes
   c. 15 minutes
   d. 30 minutes

6. In most healthy subjects, there is little difference between BP taken in sitting, standing or lying down position.
   a. True
   b. False

7. Philippine Clinical Guidelines recommend routine use of the diaphragm of the stethoscope for BP auscultation.
   a. True
   b. False

8. Patients with normal readings should have blood pressure evaluations every:
   a. Six months
   b. One Year
   c. Two years
   d. Five years
9. In an adult, which of the following BP readings will be considered possible hypertension?
   a. 146/92
   b. 128/80
   c. 110/76
   d. 134/86

10. A person with hypertension will usually have:
    a. Headache
    b. Dizziness
    c. Weight loss
    d. No symptoms

11. The most common cause of essential hypertension is:
    a. Atherosclerosis
    b. Renal disease
    c. Diabetic vessel change
    d. Heart disease

12. Which of the following is the “bad” cholesterol?
    a. VLDL
    b. LDL
    c. HDL
    d. Triglycerides

13. Which of the following is the “good” cholesterol?
    a. VLDL
    b. LDL
    c. HDL
    d. Triglycerides

14. For Filipinos, the recommended daily allowance for sodium is no more than 2000 mg. of sodium or 5 gms sodium chloride (table salt). This is equivalent to ____ of salt:
    a. one level teaspoon
    b. one heaping teaspoon
    c. one level tablespoon
    d. one heaping tablespoon

15. To improve cardiovascular fitness, what type of exercise is recommended?
a. Aerobic exercise  
b. Anaerobic exercise  
c. Isometric exercise  
d. Any kind of exercise

16. How many minutes should the warm-up phase of exercise be?  
a. 15 minutes  
b. 20 minutes  
c. 30 minutes  
d. 45 minutes

17. For physical activity to be beneficial, it should be done at least:  
a. Once a week  
b. Twice a week  
c. Three times a week  
d. Everyday

18. Maximum heart rate for a person aged 25 years is ___ per minute.  
a. 200  
b. 195  
c. 190  
d. 185

19. The target heart rate for exercise of a healthy adult is usually ___ of the maximum heart rate.  
a. 50-60%  
b. 60-70%  
c. 50-70%  
d. 60-90%

20. For the elderly person, the target heart rate is:  
a. lower than the average adult  
b. same as the average adult  
c. higher than the average adult  
d. lower than someone with heart disease

21. In women, a waist-hip ratio of greater than ____ indicates increased risk of health complications associated with obesity.  
a. 0.70  
b. 0.75
c. 0.85
d. 1.00

22. The best indicator of obesity is:
   a. Weight
   b. Body Mass Index (BMI)
   c. Waist circumference
   d. Waist-hip ratio

23. A person is considered obese if the weight is ___ greater than the desired or ideal body weight.
   a. 15%
   b. 20%
   c. 25%
   d. 30%

24. Data needed to compute body mass index (BMI) are:
   a. Weight
   b. Height and weight
   c. Skinfold measurement
   d. Abdominal girth

25. Which of the following BMI values indicate obesity?
   a. 30.1
   b. 22.5
   c. 21.3
   d. 24.9

26. The recommended laboratory test to screen for diabetes is:
   a. 8 hour fasting blood sugar (FBS)
   b. 6 hour fasting blood sugar
   c. 2 hour post-prandial blood sugar
   d. Random blood sugar

27. For screening purposes, which one of the following laboratory tests would you recommend?
   a. Triglyceride
   b. LDL
   c. HDL
   d. Total cholesterol
28. Breast self-examination (BSE) is best performed:
   a. Any day of the month
   b. 2-3 days before menstruation
   c. 1 week before menstruation
   d. 1 week after menstruation

29. Pap smear should be done yearly for women at high risk, to include all of the following EXCEPT:
   a. Aged 18-21 years old
   b. Those with multiple partners
   c. Those who are sexually active
   d. Those who had hysterectomy with cervix intact

30. Which of these chemicals or gases contained in tobacco is addicting?
   a. Tar
   b. Nicotine
   c. Carbon monoxide
   d. Metamphetamine

31. Who among the following is NOT a passive smoker?
   a. Persons with family members who smoke
   b. Persons who frequent smoke-filled rooms
   c. Pregnant woman who smokes
   d. Fetus of a pregnant woman who smokes

32. Which of the following statements about smoking cessation is true?
   a. “Tapering off” is the best way to stop smoking completely
   b. Switching to “low-tar, low-nicotine” cigarettes makes it easier to stop
   c. Both are true
   d. Neither one is true

33. Which of the following statements about smoking cessation is true?
   a. If you have tried to stop smoking and failed, you probably can't stop
   b. There is nothing your physician can do to help you to stop smoking
   c. Both are true
   d. Neither one is true

34. School-based programs increase the likelihood of children and families to commit to positive life skills and effective coping mechanisms.
35. Physical education classes not only promote physical activity but also:
   a. manage stress
   b. force teamwork
   c. fosters obedience
   d. disciplines

36. Group work encourages:
   a. creativity
   b. independence
   c. social interaction
   d. bullying

37. Use of well-designed reward system can facilitate:
   a. competition
   b. self-esteem
   c. inferiority
   d. independence

38. Sources of stress in the workplace include:
   a. physical environment
   b. interpersonal relations
   c. work policies
   d. all of the above

39. Workplace activities that promote mental health:
   a. no bundy clock
   b. daily meetings
   c. team-building activities
   d. all of the above

40. Community resilience is part of promoting mental health
   a. true
   b. false
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Appendix B

Daily Evaluation Sheet

The course design team would like to solicit your help in improving this training program. While the team exerted all possible efforts to ensure that requirements for a good training are addressed, we believe that there will always be room for improvement. Help us improve this training by giving us your feedback on several areas of course implementation.

A. Course content: (Please give your feedback and recommendation as to appropriateness, relevance, coverage, or depth. You are free to add other areas of evaluation)

____________________________________________________________________________________

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B. Course organization: (Please give your feedback and recommendation as to sequence, coverage, and content of modules. Feel free to add other areas of evaluation).

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C. Teaching – learning strategies: (Please give your feedback and recommendation as to appropriateness and effectiveness. Feel free to add other areas of evaluation).

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D. Time allotment: (Please give your feedback as to appropriateness. Feel free to add other areas of evaluation).

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E. Materials: (Please give your feedback as to appropriateness, coverage, language, and legibility. Feel free to add other areas of evaluation.)

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Thank You!