

Promoting Smoke-free Individuals

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MODULE **Promoting Smoke-free** 5A **Individuals**

Introduction

Smoking is the single largest preventable cause of disease and premature death. It is a prime factor in heart disease, stroke and chronic lung disease. It can cause cancer of the lungs, larynx, esophagus, mouth, and bladder, and contributes to cancer of the cervix, pancreas, and kidneys. This is not only affecting the active smokers, but also the persons exposed to the passive smoke. Among the most common smoke-related diseases are COPD, heart disease, cancer and stroke. Smoking is also a common trigger for asthma exacerbations and can influence asthma development.

Promoting a smoke-free and alcohol-free environment is therefore an important component of promoting healthy lifestyle among individuals and in communities.

Objectives

- 1. Recognize the magnitude of the problem on tobacco use;
- 2. Describe the harmful effects of tobacco use/ smoking across population groups
- 3. Describe the benefits of smoking cessation
- 4. Discuss key areas for promoting smoke-free individuals
- 5. Advocate for helping clients stop smoking and keeping smoke-free environments
- 6. Discuss the different laws/ policies on smoking and tobacco use



1. Epidemiology on smoking or tobacco use

1.1 Smoking Prevalence

In the Philippines, more than half of Filipino households are not smoke-free. Among ASEAN members, the Philippines had the second highest smoking prevalence rate (SEATCA, 2007). Every year, there are about 20,000 smoking-related deaths in the country. Approximately 10 Filipinos die every hour due to tobacco-related diseases. According to the Tobacco Atlas (2009), 38.9% of Filipino males smoke while 8.5% are females. Among the health professionals, 22% smoke cigarettes. In the Philippines' Global Adult Tobacco Survey (2009), 28.3% of total adults or 17.3M smoke. There are around 14.6M adult males (48%) who smoke and 2.8M adult females (9%).



Table 5.1 Percentage of adults 15 years and older, by smoking status and gender
(GATS, 2009)

Smoking Status	Overall	Men	Women
		Percentage (95% Cl)	
Current Smoker	28.3	47.7	9.0
	(27.0-29.5)	(45.7-49.6)	(9.9-10.0)
Daily Smoker	22.5	38.2	6.9
	(21.4-23.6)	(36.3-40.1)	(5.9-7.0)
Occasional Smoker	5.8	9.4	2.1
	(5.1-6.4)	(8.3-10.6)	(1.6-2.7)



Smoking prevalence is persistently higher among men but more and more women and young people smoke today than before.



The adult male smoking prevalence ranked 9th while adult female smoking prevalence ranked 16th in the world. Filipino women who are smokers have increased in number as well, with three (3) out of ten (10) female Filipino smokers are in their teens.

According to a study conducted by the Southeast Asia Tobacco Control Alliance (2007):

- 18.7 percent of young Filipino females between the ages of 13 and 25 smoked cigarettes.
- 60% of Filipino women smokers started smoking at age 18, while 40% started much younger

In a study conducted by American Cancer Society and World Lung Foundation, Philippines jumped from 26th (2006) to 16th place (2008) in top 20 female smoking populations (2006 to 2008) while there was a slight lowering in rank among male smokers from 6th place to 9th place.



Figure 1. Top 20 Female Smoking Populations (World Lung Foundation, 2008)





Figure 2. Top 20 Male Smoking Populations (World Lung Foundation, 2008)

1.2 Smoking and the Youth

Data from year 2000-2007 show that among students aged 13-15 years old, 11.8% are females and 23.4% are males who smoke cigarettes, and 56.4% of the youth population live in homes with smokers. As early as 9 years old, children start to smoke. In a survey conducted by the Philippine Global Youth Tobacco Survey (GYTS) among 11,630 students in 2003:

- 42.8% students have smoked cigarettes (Male = 57.0%, Female = 32.0%)
- 21.6% currently smoke cigarettes (Male = 32.6%, Female =12.9%)
- 26.5% of never smokers are likely to initiate smoking next year

In the Philippines' Global Youth Tobacco Survey (2007), statistics showed that:

- 27% of Filipinos currently use any tobacco product (Male= 35%; Female = 20%)
- More than 1 in 5 students (22%) currently smoke cigarettes
- Almost 1 in 10 (10%) current use some other form of tobacco

In the Philippines' Global Youth Tobacco Survey (2009), figures showed that:

• Over half (57.7%) of students live in homes where others smoke

Every 8 seconds, someone dies from tobacco use, ¼ of all deaths from heart diseases and ¾ of world's chronic bronchitis are related to smoking.



- Nearly 7 in 10 (68.1%) students are exposed to smoke around others outside the home
- More than half (56.3%) have a parent who smokes and 15% of students have friends who smoke
- Around 8.6% of students were offered free cigarettes by a tobacco company representative

Perceptions of young Filipinos towards smokers influence their initiation to this unhealthy habit. The GYTS reveals that boys (25.8%) and girls (13.9%) think that those who smoke have more friends and that those who smoke look more attractive (boys - 13.8%, girls - 8.9%). Youth male smoking prevalence ranked 4th in the world while youth female smoking ranked 2nd (GYTS, 2003).

1.3 Tobacco-related Deaths

According to the World Health Organization (WHO) Smoking Statistics Fact Sheet in 2002, smoking relateddiseases kill one in 10 adults globally, or cause 4 million deaths. It is estimated that by 2030, if current trends continue, smoking will kill one in six people. Current statistics show that every eight seconds, someone dies from tobacco use and at least one fourth (1/4) of all deaths from heart diseases and about three fourths (3/4) of world's chronic bronchitis are related to smoking.

As the number of deaths increase yearly to an estimated 9 million deaths attributed to tobacco yearly by 2020. Among all these smokers, the ill effects of smoking span across the social classes with 80% of the world's 1.1 billion smokers live in low income countries. By 2030, it is estimated that seven out of every 10 deaths from smoking will occur in low income countries. Specifically, smoking and tobacco use accounts for significant number for cancer deaths. Tobacco use accounts for at least 30% of all cancer deaths and 87% of lung cancer deaths. (Source: Cancer Facts & Figures 2009). Besides lung cancer, tobacco use also causes increased risk for cancers of the mouth, lips, nasal cavity (nose) and sinuses, larynx (voice box), pharynx (throat), esophagus (swallowing tube), stomach, pancreas, kidney, bladder, uterine cervix, and acute myeloid leukemia.

Looking at these facts, it is apparent that a reduction in the prevalence of tobacco smoking would be the single most effective preventive health measure to reduce mortality and morbity related to cancer.

1.4 Burden of Smoking

As the number of deaths increase yearly to an estimated 9 million deaths attributed to tobacco yearly by 2020 and the number of smoking-related diseases rise, the economic burden of caring for the sick patients and the



cost to the household income also increase. More and more smokers belong to the developing countries than the more developed ones.

According to the Tobacco Country Profiles (2003), data taken in 1995 more smokers (933 million) live in low and middle- income countries than (209 million) high income countries.

Among all these smokers, the ill effects of smoking span across the social classes with 80% of the world's 1.1 billion smokers live in low income countries. By 2030, it is estimated that seven out of every 10 deaths from smoking will occur in low income countries. In the US alone, according to Cancer Fact and Figures (2009), between 2000 and 2004, smoking caused more than \$196 billion in annual health-related cost, including smoking-attributable medical costs, and productivity losses.

More and more smokers live in low and middle-income countries than high income countries.

Tobacco consumption burden exerts most of its weight on health costs as more Filipinos get sick from tobacco-related diseases and a decrease in productivity cost. According to the Tobacco Atlas (2009) the Economic Costs Attributable to Tobacco (Total costs attributable to tobacco use, excluding intangible costs such as pain, suffering, and the value of human life, 2007 or latest available data.) is USD 6045.85 million.

It has been estimated that the Philippines loses 148 billion pesos yearly to smoking-related diseases and deaths. Aside from this cost, the poorest households with a family member who smokes, spends more than 10% of their income on tobacco. On the average, Filipino households with smokers spend approximately Php1,865.40 yearly on cigarettes. This amount could have been enough to provide food, education or healthcare. Smokers are less productive workers, due to increased sickness. Moreover, deaths from tobacco often occur during the productive years of life, depleting a nation's workforce. On the average, tobacco use will drain nearly 20% of the household income of smoker's families.

Overall, smoking prevalence and smoking-related deaths in the country has been on an upward trend. In two years (2001-2003), there has been at least 5% increase among Filipino adult male smokers and an 8% increase among the youth.

2. How smoking or tobacco use causes harm

2.1 Why Do People Smoke

People are aware that smoking cigarettes & consuming tobacco is harmful to health. However, the global and



local statistics show an increasing trend in smoking. This trend is due to several factors including advertising, peer pressure and misconceptions that promote the smoking behavior. A recent survey of Filipino adult smokers found that 99.8% cited tobacco advertisements as one factor for initiating smoking. These advertisements come in forms of print media and television involving the enticing lifestyle of cigarette smoking.



- Misconceptions that promote smoking behavior
- Parental influences

According to Global Youth Tobacco Survey, Filipino youth

begin to smoke cigarettes at 18 years old, with the youngest as early as 9 years old and as many as 40% of adolescents boys smoke; most began in their early teens. Another 6% were former smokers. The majority of these young smokers said peer pressure was one reason why they took up smoking. Boys (29.6%) and girls (15.4%) think that those who smoke have more friends, and 17.9% of boys and 15.4% of girls think that those who smoke have more friends. Attractiveness of the habit also influences the youth to initiate and maintain smoking – 17.9% think boys and 11.8% think girls who smoke look more attractive.

With more than half of Filipino households not smoke-free, household exposure and parental influence also play a role in the smoking habit of the youth. According to the Global Youth Tobacco Survey, 55.7% of the youth have one or more parents who smoke. Most now wish they did not smoke and about two-thirds have tried to give up. Evidence shows that around 50% of those who start smoking in adolescent years go on to smoke for 15 to 20 years.

2.2 Harmful Effects of Smoking or Tobacco Use

Smoking harms nearly every organ of the body, causing many diseases and reducing the health of smokers in general. Every eight seconds, a human life is lost to tobacco use somewhere in the world. That translates to approximately 5 million deaths annually. Every cigarette consumed/smoked cuts at least five (5) minutes of one's life on the average – around the same amount of time it takes to smoke a single cigarette stick.

There are over 4,000 chemicals in cigarette smoke, 60 of which are carcinogens.

All those exposed from tobacco smoke are subject to the many ill-effects of the chemicals in it. Each cigarette stick contains more than

4,000 chemicals. These are the same chemicals that were used for killing people in gas chambers during World War II (hydrogen cyanide), insecticides (DDT), and fuel (Methanol and Butane). At least 50 are known carcinogens and many are poisonous. Among these are Benzene (which can cause leukemia), Cadmium,



Formaldehyde (which is commonly used as embalming fluid), and Polonium-210. Among the most harmful to health are tar, nicotine and carbon monoxide.

- *Tar* Tar is the particulate matter left when water and nicotine are removed from cigarette smoke. This contains hydrocarbons and other carcinogenic substances. Tar deposits in lung passages, paralyzes clearing mechanisms (cilia) and damages the air sacs (alveoli).
- *Nicotine* This causes release of epinephrine and norepinephrine, resulting in arrhythmia, increased heart rate, blood pressure, cardiac output, stroke volume, contractility, oxygen consumption, and coronary blood flow. This also excerts a toxic effect on the heart muscles (endothelium). There is enough nicotine in four or five cigarettes to kill an average adult if ingested whole. Most smokers take in only one or two milligrams of nicotine per cigarette however, with the remainder being burned off. Since the effect of Nicotine is initially stimulating, this has an addictive effect.
- *Carbon monoxide* This may produce hypoxia. Carbon monoxide reduces the oxygen-carrying capacity of the blood because it competes with oxygen and has greater affinity for haemoglobin.

KINDS OF TOBACCO SMOKE:

Mainstream smoke – combination of inhaled and exhaled smoke after taking a puff on a lit cigarette

Secondhand smoke – combination of smoke from the burning end of cigarette and the smoke breathed out by smokers; also known as sidestream smoke or environmental tobacco smoke

Third-hand smoke – combination of cigarette byproducts that cling to smokers' hair and clothing as well as to floors, surfaces, carpets, furniture, appliances, fabrics, and children's toys – even after tobacco smoke has cleared.

Given all the chemicals taken-in by the smokers, various harmful effects are possible. Tobacco smoke has been documented as a major risk factor in the development of non-communicable diseases. It is attributed to 70–90% of lung cancer, 56–80% of chronic respiratory diseases, and 22% of cardiovascular diseases. In general, every cigarette smoked cuts at least five minutes of life on average - about the same time it takes to smoke a cigarette.



2.2.1 Smoking as a Major Risk Factor

Smoking is not only associated with cancer but affects every major organ in a smoker's body.

The Smoker's Body

Every 10 seconds, someone dies from tobacco use, says the World Health Organization. Medical research suggests that those who start smoking in their teens (as 90 percent of smokers do) and continue for two decades or more will die 20 to 25 years earlier than those who never light up. And there is a growing evidence that it's not always lung cancer or heart disease that kills them. Below, some of smoking's less publicized side effects from head to toe.

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1. Hair loss Smoking weakens the immune system, leaving the — body more vulnerable to diseases such as lupus erythematosus, which can cause hair loss, ulceration in the mouth and rashes on the face, scalp and hands.

3. Wrinkling Smoking prematurely ages skin by wearing away proteins that give it elasticity, depleting it of Vitamin A and restrictin blood flow. Smoker's skin is dry, leathery and etched with tiny lines, especially around the lips and eyes; in one study, smokers in their 40's had facial wrinkles similar to those of nonsmokers 20 years older.

5. Skin Cancer Smoking does not cause melanoma (a sometimes deadly form of skin cancer), but it does increase your chances of dying from it (this may be because smoking impairs the immune system). And smokers have a 50 percent greater risk of contracting squamous cell carcinoma - a cancer that leaves scally, reddish eruptions on the skin.

7. Lung ailments

In the former Soviet bloc, 88,000 smokers die each year from debilitating lung conditions other than lung cancer. Emphysema swelling and rupturing of the lung's air sacs, reduces the lungs' seeming and replaning of the long air sacs, reduces the longs capacity to take in oxygen (and expel carbon dioxide). In extreme cases, a tracheotomy hels patients breather: An opening is cut in the windpipe, allowing a ventilator to force air into the lungs (see image). Chronic bronchilts (not shown) creates a build-up of pus-filled mucus, resulting in a painful cough and breathing difficulties.

9. Heart disease

Socking related cardiovascular disease kills more than 600,000 people each year (or about the population of Toronto) in the work's developed countries. Smoking makes the heart beat fisster, raises blood pressures and increases the risk of hypertension and clogged arteries.

11. Discolored fingers -

The tar in cigarette smoke collects of staining them a yellowish-brown. he fingers and fingernails,

13. Deformed sperm Smoking can deform sperm and damage its DNA, causing miscarriage or birth defects. In fact, men who smoke more than 20 cigarettes a day have an extra 42 percent risk of fathering a child who contracts cancer. Smoking also diminishes sperm count and reduces the blood flow to the penis,sometimes causing impotence.

15. Buerger's disease

Smoking can damage blood vessel walls, making it difficult for the heart to pump blood to the extremities. In serious cases, Buerger's disease can lead to gangrene (the death of body tissue) and even the amputation of a limb.

2. Cataracts Smoking is believed to cause or worsen several eye conditions. Those who smoke more than 20 cigareties a day are twice as likely to develop cataracts, a clouding of the eye's lens that blocks light and may lead to blindness. Smoke causes cataracts in two ways: By irritating the eyes and by releasing chemicals into the lungs that then travel up the bloodstream to the eyes.

4. Hearing loss Because smoking creates plaque on blood vessel walls, decreasing blood flow to the inner ear, smokers can lose their hearing earlier than nonsmokers (up to 15 years sooner, according to one study) and are more susceptible to hearing loss caused by ear infections or loud noise.

6. Tooth decay Smoking interferes with the mouth's chemistry, creating excess plaque, yellowish teeth and contributing to tooth decay. Smokers are one and a half times more life to lose their

8. Osteoporosis Carbon monoxide, the ma policinous gas in car exhaust turnes and clarette smoke, binds to blood much more readily than oxygen, cutting the oxygen-carrying power of heavy smokers' blood by as much as 15 percent. As a result, smokers' bones lose density, fracture more easily and take up to 80 percent longer to heal. Those who smoke more than one pack per day are also more susceptible to back problems: One study shows that industrial workers who smoke five times as likely to experience back pain after an injury.

10. Stomach ulcers Smoking reduces resistance to the bacteria that cause stomach ulcers. It also impairs the stomach's ability to neutralize acid after a meal, leaving the acid to eat away at the stomach lining. Ulcers in smokers are harder to treat and more likely to reoccur.

12. Cervical cancer Besides Increasing the risk of cervical cancer and uterine cancer, smoking can create fertility problems for women and complications during pregnancy and childbirth. And smoking lowers estrogen levels, speeding up men

14. PSOFIASIS Smokers are two to three times as likely to develop portisation, a noncontagious inflammatory skin condition that leaves litchy, oozing red patches all over the body. While researchers are not sure how smoking aggravates psoriasis, they hypothesize that smoking may alter while blood cells or release high levels of toxic chemicals.

16. Cancer At least 60 elements in tobacco smoke have been shown to cause cancer, according to Action on Smoking and Health, an anti-smoking group in the UK. Male smokers are 22 times more likely to develop lung cancer 16a than nonsmokers. And accord to a number of studies, the longer one smokes, the greater risk of developing a number of other cancers, including cancer of the nose (two times greater) 16b; tongue 16c, mouth, salivary gland and pharynx (6 times for women; 27 times for men); throat (12 times); esophagus (8 to 10 times); kidneys (5 times) 16d; penis (2 to 3 times); pa (a to formes), sources to innes) roat, pense (a to innes), pancreas (2 to 5 times) for, and anus (8 to 9 times). The link between smaking and breast cancer 161 is perhaps the most controversial: While some evidence suggests smaking increases a woman's risk of developing the cancer, other evidence indicates that, by lowering estrogen levels, smoking actually reduces the risk.



Among the most common diseases caused by smoking are heart disease, cancers, stroke and chronic obstructive pulmonary disease.

- Heart Disease Cigarette smokers have higher risk of developing athero-sclerosis and coronary artery disease which leads to heart attack. This causes three times more coronary artery disease deaths than from lung cancer. Smoking doubles the risk of CAD in persons with hypertension, meaning, a person with hypertension is two times more likely to have CAD than those who do not smoke.
- Cancer Smoking is a major risk factor for at least 20 types of cancers such as lung cancer (14.0% risk in women, 13.0% risk in men), laryngeal (74.8% risk), oropharyngeal (45.5% risk) and esophageal (40.1% risk) cancers. According to the Center for Disease Control, smoking tobacco is the major risk factor for lung cancer. In the United States, about 90% of lung cancer deaths in men and almost 80% of lung cancer deaths in women are due to smoking. People who smoke are 10 to 20 times more likely to get lung cancer or die from lung cancer than people who do not smoke. Other types of cancers are attributable to smoking. Among those are cancers of the mouth, lips, nasal cavity (nose) and sinuses, stomach, pancreas, kidney, bladder, uterine cervix, and acute myeloid leukemia (Cancer Facts & Figures, 2009).



MOUTH CANCER

- Stroke Smoking doubles the risk factor for stroke (National Stroke Association). Inhaling cigarette smoke produces several effects that damage the cerebrovascular system. Women who take oral contraceptives and smoke increase their risk of stroke many times. Smoking also creates a higher risk for peripheral arterial disease and aortic aneurysm.
- Chronic Obstructive Pulmonary Disease Smoking is known to be the single established major factor for COPD. According to the American Cancer Society's second Cancer Prevention Study, female smokers were nearly 13 times as likely to die from COPD as women who had never smoked. Male smokers were nearly 12 times as likely to die from COPD





as men who had never smoked. Smokers are also more likely to have upper and lower respiratory tract infections, perhaps because smoking suppresses immune function. In asthma, exposure to cigarettes smoke is directly and causally related to both the development of new onset asthma and acute asthma exacerbations. tobacco exposure in adults is also associated with more frequent asthma exacerbations, increased severity of asthma exacerbations and increased lung infections like bronchitis and pneumonia.

2.2.2 Smoking and Reproductive Health

Smoking affects both males and females in terms of reproductive health. Among men, erectile dysfunction and damage in his sperm cell may make him less able to make a woman pregnant. Erectile dysfunction is greater among smokers than non-smokers. This is due to the effect of smoking wherein blood flow to various organs in the body is impaired.

Women who smoke are at an increased risk for infertility making it more difficult for women to become pregnant. However, health problems do not only affect the mother, but also the unborn child. Smoking is toxic for the unborn child. Health problems for both mothers and babies include pregnancy complications, premature birth, low-birth-weight infants, stillbirth, and infant death. Once pregnant, women who smoke are about twice as likely to experience complications such as placenta previa, a condition where the placenta grows too close to the opening of the uterus. This condition frequently leads to delivery by a Caesarean section. Furthermore, after birth, smoking can still cause problems for the infant because Nicotine, one of the most potent substances in cigarette, has been found in every part of the body, including breast milk. Babies born of smoking mothers have fewer white blood cells, poorer immune systems and suffer from higher incidences of infectious diseases.

2.2.3 Smoking and the Ageing Population

Seniors face increased risks associated with smoking, which include hip fractures, cataracts, and COPD. Smoking reduces bone density among menopausal women increasing the risk for hip fracture. Smokers have two to three times the risk of developing cataracts as non-smokers. Smoking is related to nuclear cataracts of the lens of the eye, the most common type of cataract in the United States, the leading cause of blindness worldwide.

2.2.4 Smoking and Children

Second hand smoke is a mixture of both the smoke given off from a burning cigarette and exhaled from the lungs of a smoker. There is evidence that suggests that exposure to second-hand smoke is a cause of asthma. Children are potentially more at risk compared to adults because of their small size and the fact they breathe



faster than adults - meaning they are exposed to a greater amount of ETS. These exposures in children are associated with decreased lung function, recurrent wheezing, and development of asthma among babies whose mothers smoked during pregnancy, more hospitalizations, more episodes of bronchitis and pneumonia during the first 2 years of lie, among others.

Studies have linked children's exposure to second hand smoke to increased risk of lung cancer in adulthood. Researchers claim that passive smoking increases the risk by 50%. Of 123,000 subjects exposed to passive smoking while they were young, 97 developed lung cancer, 20 developed upper respiratory cancer and 14 died from chronic obstructive pulmonary disease (Reported in MSNBC, 2005).

2.3 How Smoking Causes Harm

Exposure to tobacco smoke occurs through active smoking. Active smokers are the individuals smoking the tobacco while passive smokers are those who breathe in the smoke exhaled by the active smoker. On the other hand mainstream smoke refers to smoke inhaled by an active smoker through smoking a cigarette or other tobacco products while side stream smoke or the second-hand smoke comes from the lighted end of a cigarette and the exhaled smoke from active smokers. All these means greatly affect those exposed to cigarette smoke. The typical high-risk person has smoked several packs per day for many years, began smoking at a young age, and inhales smoke. In almost all studies, death rates increase with the number of cigarettes smoked.

Development of smoking-related diseases and mortality are dose-related. This means that the more chemicals and toxins inhaled, the greater the risk. Specifically, this is associated with:

- Number of cigarettes smoked The more cigarette smoked, the greater the risk
- Duration of smoking the longer you smoke, the greater your risk.
- Age started smoking The younger you started smoking, the greater your risk
- Pattern of inhaling The deeper you inhale, the greater your risk.

Male cigarette smokers, regardless of the number of cigarettes smoked, have a 70% higher mortality rate than male smokers. In young women (under the age of 50) who smoke 35 cigarettes or more per day, the rate of myocardial infarction (MI) or heart attack is 20 times more than those who never smoked.

According to the Tobacco Atlas (2009) tobacco causes hundreds of thousands of deaths annually among nonsmokers. Occupational exposure to second hand smoke kills 200,000 workers every year, while exposure to tobacco smoke in homes and public areas kills thousands more infants, children, fetuses, and adults. As previously defined, exposure to tobacco smoke does not only occur through direct inhalation as active smoker, but also through passive smoking. The persons who inhale the smoke of active smokers such as



Second-hand smoke or passive smoking puts a person at equal risk as active smokers for developing diseases such as lung cancer and ischemic heart disease. In 15 studies of passive smoking, 10 found an increased risk of lung cancer in non-smokers married to smokers. Non-smoking women who are married to smokers have 40% greater risk of lung cancer than women married to non-smokers. So if you are married to or living with a smoker, you are also at risk for developing cardiovascular disease or lung cancer just like a smoker.

Each year, about 3,400 non-smoking adults die of lung cancer as a result of breathing second hand smoke. Each year second hand smoke also causes about 46,000 deaths from heart disease in people who are not current smokers. (Cancer Facts & Figures, 2009). In addition, a report from the California Environmental Protection Agency in 2005 concluded that the evidence regarding second hand

Each year, about 3,400 non-smoking adults die of lung cancer as a result of breathing second hand smoke. Each year second hand smoke also causes about 46,000 deaths from heart disease in people who are not current smokers. (Cancer Facts & Figures, 2009).

smoke and breast cancer is "consistent with a causal association" in younger women. This means that the second hand smoke acts as if it could be a cause of breast cancer in these women.



How tobacco harms you



As previously defined, exposure to tobacco smoke does not only occur through direct inhalation as active smoker, but also through passive smoking. The persons who inhale the smoke of active smokers such as family members, co-workers, and those who frequent smoke-filled rooms are exposed to high concentrations of carbon monoxide and many toxic carcinogenic substances. Even brief second hand smoke exposure can damage cells in ways that set the cancer process in motion. As with active smoking, the longer the duration and the higher the level of exposure to second hand smoke in non smokers, the greater the risk of developing lung cancer.

3. Benefits of Smoking Cessation

According to the Department of Health, if an individual quits smoking, there is a reduction of 15% seen in the relative risk of all-cause mortality in heavy smokers subjected to intensive clinical cessation interventions. In addition, the risk of lung cancer is 30% to 50% lower than that of continuing smokers after 10 years of abstinence.

For smoking-related deaths from coronary artery disease (CAD), lower death rates are reported in persons who quit smoking than in persons who continue to smoke. Men under age of 65 years who stopped smoking reduced their risk by 50%. And, after 10 years of not smoking, the risk of death from CAD approaches that of a non-smoker.

In fact, the physiologic effects of quitting the smoking habit starts in 20 minutes. Within hours of quitting, some of the damage done by smoking begins to reverse. By one year, the risk of coronary heart disease is



When smokers quit -- What are the benefits over time?

- **20 minutes after quitting:** Heart rate and blood pressure drops.
- 12 hours after quitting: Carbon monoxide level in blood drops to normal.
- **2 weeks to 3 months after quitting:** Circulation improves and lung function increases.
- 1 to 9 months after quitting: Coughing and shortness of breath decrease; cilia (tiny hairlike structures that move mucus out of the lungs) regain normal function in the lungs, increasing the ability to handle mucus, clean the lungs, and reduce the risk of infection.
- 1 year after quitting: The excess risk of coronary heart disease is half that of a smoker's.
- **5 years after quitting:** Stroke risk is reduced to that of a non-smoker 5 to 15 years after quitting.
- **10 years after quitting:** The lung cancer death rate is about half that of a person who continues smoking. The risk of cancer of the mouth, throat, esophagus, bladder, cervix, and pancreas decrease, too.
- 15 years after quitting: The risk of coronary heart disease is the same as a non-smoker's.



decreased to half that of a smoker. After five to fifteen years, the risk of a stroke is reduced virtually to that of people who have never smoked. And cancer risk also reduces significantly over the decade after quitting.

3.1 Why it is Difficult to Quit

People continue to smoke and have difficulty quitting the habit because of the substance nicotine in tobacco. Nicotine is a drug/chemical that develops naturally in tobacco leaf. Scientifically, it is an alkaloid or a chemical substance containing nitrogen as its organic base. In a regular cigarette, the average amount of nicotine a smoker gets from a single stick is about 1-2 milligrams. However, cigarette contains more nicotine than this. The amount of nicotine taken in depends on how one smoke – number of puffs taken, depth of inhalation, and duration of smoking.

Nicotine reaches the brain within 10 seconds after smoke is inhaled. In low doses, nicotine can stimulate certain nerve cells, giving the smoker a feeling of alertness or relaxation, depending on the level of the drug. In high doses, nicotine is used as a poison in insecticides. It kills insects by disturbing the neurotransmitters (chemicals that link the brain cells together) in their brain. Humans have the same neurotransmitters in their brains.

Nicotine causes pleasant feelings that make the smoker want to smoke. Smokers increase the number of cigarettes they smoke as the body's nervous system adapts to nicotine. In turn, this increases the amount of

nicotine in the blood, causing the cycle of the need to smoke some more. After a while, the smoker develops a tolerance to the drug. This means that it takes more nicotine to get the same effect that the smoker used to get from smaller amounts. This leads to an increase in smoking over time. The smoker reaches a certain nicotine level and then keeps smoking to maintain this level of nicotine. This is why nicotine is addicting.

Addiction means that one is physically and psychologically dependent or cannot function without a particular substance. Addiction is marked by the repeated, compulsive seeking or use of a substance despite its harmful effects and unwanted consequences. Therefore, like any illegal drug such as marijuana and cocaine, nicotine in tobacco/cigarette is addicting. This makes quitting the habit difficult for some smokers.



Aside from the substance nicotine, smokers find it difficult to quit because of the social factors they attach to the smoking behavior. As previously described, young boys and girls have positive perceptions towards their peers who smoke, and among the adult, smoking has a strong emotional aspect where they often link smoking to social activities. These make quitting difficult – but not impossible.



3.2 Effects of quitting smoking

Quitting smoking has immediate as well as long-term benefits, reducing risks for diseases caused by smoking and improving health in general. In a recent study, 70% of smokers interviewed verbalized the intention to quit and 40% tries to quit but only 4-&% succeed without help. Hence, it is important for health care providers to educate everyone on not initiating the habit and to assist smokers in quitting the habit.

As body becomes dependent on the "feel-good" effects of nicotine, dependence happens. However, when smokers want to quit, one of the experiences that prevent them from quitting or returns then to the habit is nicotine withdrawal. In most cases, regular smokers will still have nicotine, or its by-products, such as cotinine, in their bodies for about 3 to 4 days after quitting. As the smokers cut back on the nicotine intake from cigarette

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

smoking, the body reacts to the absence of nicotine both physically and mentally. The withdrawal symptoms do not happen to everyone but are more pronounced among chronic regular smokers who suddenly cut back and greatly reduce the amount of nicotine in the body.

Withdrawal symptoms may last for a few days up to several weeks and usually starts within a few hours of the last cigarette smoked and peak at about 2 to 3 days after when most of the nicotine and its by products have been eliminated.

Among the withdrawal symptoms are:

- dizziness (which may only last 1 to 2 days after quitting)
- depression
- feelings of frustration, impatience, and anger
- anxiety
- irritability
- sleep disturbances, including having trouble falling asleep and staying asleep, and having bad dreams or even nightmares
- trouble concentrating
- restlessness or boredom
- headaches
- tiredness
- increased appetite
- weight gain
- constipation and gas
- cough, dry mouth, sore throat, and nasal drip
- chest tightness



These symptoms can lead the smoker to return to the smoking habit again to boost the blood levels of nicotine back to a level without symptoms. Because of this, support from family members and health care providers are important in providing assistance. Hence, it is therefore important to remind the ex-smoker that he/she will feel better everyday the more days he/she stays smoke-free.

4. Key areas for promoting smoke-free individuals

4.1 Prevent initiation of the smoking habit

In the Philippines, smoking is initiated as early as school-age and peaks at around 15-19 years old. Among the factors identified for initiation are the presence of friends who smoke cigarettes and easy access to cigarettes from stores and street vendors where even minors are allowed to purchase.

A country-based study (2001) also showed that parental influences have an effect in the smoking initiation and drinking habit of Filipino youths. It was found that children are less likely to begin, to continue, and to drink/smoke if they think the parents do not approve dinking/ smoking. High level of father's education and experience of living away from parents increase the probability of initiation of smoking among adolescent women. For adolescent women, both of these factors may be related to the lower level of supervision of parents on their behavior and increased risk-taking behavior. These findings suggest that adolescents' risk-taking behavior may be changed by modifying their parents' attitudes. This is supported by a Philippine study in 2004 that found that the lack of parental visits to adolescents staying in dormitories increased the likelihood of initiation of smoking behavior.

Given these factors, the efforts to preventing the initiation of smoking should be geared towards decreasing the popularity and access to cigarettes, and school and family involvement in increasing awareness to halt the initiation of smoking habit. These can be achieved through two ways: education and legislation implementation. Educating the youth involves educating the peers in schools and ensuring involvement of parents who bring the influence in the home. Moreover, the strict implementation of current legislations against the easy access and sale to youth, taxation and advertisement will decrease the chances smoking initiation.

Key Areas for Promoting Smoke-free Individuals

- Prevent smoking habit initiation
- Assess for nicotine dependence
- Assess readiness to quit
- 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



It must be emphasized that smoking is an addiction that once started, takes time and conscious effort and practice to quit from. Therefore there is a great need to take action to eliminate the influences to taking this habit.

4.2 Assess for nicotine dependence

The first step in treating tobacco use and dependence is to identify tobacco users. When smokers are identified, the chance for an intervention by the health worker increases. The effectiveness of identifying smokers and their degree of dependence allows for intervention but also for appropriate intervention based on the smoker's tobacco use status and willingness to quit.

The most widely used tool in assessing for nicotine dependence is the Fagerström Test for Nicotine Dependence (FTND) tool. This tool is composed of six questions about a person's smoking habit. Given the scores, the health worker will be able to assess the smoker's degree of dependence and apply needed therapy. (Appendix 5.1 Fagerström Test for Nicotine Dependence).

4.3 Assess the readiness to quit

Screening for current or past tobacco use will result in four possible responses: (1) the patient uses tobacco and is willing to make a quit attempt at this time; (2) the patient uses tobacco but is not willing to make a quit attempt at this time; (3) the patient once used tobacco but has since quit; and (4) the patient never regularly used tobacco. However, the important part of this screening is the ability of the health worker to assess the smoking status of each and every patient he/she meets and assess for their readiness to quit.

According to the 2008 Clinical Practice Guideline for Treating Tobacco Use and Dependence, there is significant evidence to support that implementing clinic systems designed to increase the assessment and documentation of tobacco use and status markedly increases the rate at which clinicians intervene with their patients who smoke. Therefore, the health workers should maximize every opportunity during patient encounters to perform universal assessment and intervention. This involves asking every patient who presents to a health care facility if he/she uses tobacco, advising all tobacco users to quit and assessing for the smoker's willingness to make a quit attempt at that time.

Once the assessment is made and the smoker classified, the health worker must perform clinical interventions appropriate for the smoker's status.



4.4 Conduct interventions to help smokers quit

Performing strategies to help treat tobacco addiction is a priority. Evidence shows that even minimal intervention makes a difference in smokers. There is a relationship between intensity of intervention and tobacco cessation outcome even when patients are not willing to make a quit attempt at this time, cliniciandelivered brief interventions enhance motivation and increase the likelihood of future quit attempts. There is also a growing evidence that smokers who receive clinician advice and assistance with quitting report greater satisfaction with their health care than those who do not.

As health care workers, it is essential that we provide at least a brief intervention to every tobacco user at each health care visit. A brief (less than 10 minutes) intervention is easy to implement given time constraints and even willingness of the smokers. Even if the smoker is reluctant to seeking intensive treatments, a brief intervention received every clinic visit is beneficial.

Brief clinical interventions are tailor-made for different types of patients: for those willing to quit, those unwilling to quit, and those who have recently quit. This includes the use of the 5 A's of a brief intervention in the primary care setting.

4.4.1 The 5 A's Model for Treating Tobacco Use and Dependence

The 5As Model can guide the actions of the health professional on how to addreess tobacco use and dependence and help those who are willing to quit smoking. A Quick Reference Guide developed by USDHHS (2000) summarizes the guideline strategies for providing appropriate treatments for every patient. Effective treatments for tobacco dependence now exist, and every patient should receive at least minimal treatment everytime he or she visits a clinician. The first step in this process—identification and assessment of tobacco use status separates patients into three treatment categories: Patients willing to quit, patients unwilling to quit, and patients who have recently quit.

Ask about tobacco use	Identify and document tobacco use status for every patient at every visit.
Advise to quit	In a clear, strong, personalized manner, urge every tobacco user to quit (Strategy A2)
Assess willingness to make a quit attempt	Is the tobacco user willing to make a quit attempt at this time? (Strategy A3)
Assist in quit attempt	For the patient willing to make a quit attempt, offer medication and provide or refer for counseling or additional treatment to help the patient quit (Strategy A4).



	For the patients unwilling to quit at the time, provide interventions designed to increase future quit attempts (Strategies B1 and B2).
Arrange follow-up	For the patient willing to make a quit attempt, arrange for follow-up contacts beginning within the first week after the quit date. (Strategy A5) For patients unwilling to make a quit attempt at the time, address tobacco dependence and willingness to quit the next visit.

Source: Clinical Practice Guideline: Treating Tobacco Use and Dependence 2008

Regardless of smoker's willingness to quit, it is important that as primary health care providers, that Strategies A1 to A3 is delivered to each tobacco user. It is important that we Ask the patient if he or she uses tobacco, Advise him or her to quit, and Assess willingness to make a quit attempt. Successful smoking cessation is greatest with both behavioural and pharmacological management.

For tobacco users willing to quit

For a smoker who is willing to quit, Assist him or her in making a quit attempt by offering medication and by providing or referring for counseling and additional treatment strategy and *Arrange* for follow-up to prevent relapse.

Strategy A1. Ask – Systematically identify all tobacco users at every visit.

Action	Strategies for Implementation
Implement an office-side system that ensures that for every patient at every clinic visit,	Expand the vital signs to include tobacco use: Vital Signs
tobacco use status is queried and documented.	blood pressure: pulse: temperature: respiratory rate: weight: tobacco use:currentformernever

Strategy A2. Advice - Strongly urge all tobacco users to quit.

Action	Strategies for Implementation
In a clear, strong, and personalized manner,	Advice should be:
urge every tobacco user to quit.	Clear — "I think it is important for you to quit



smoking now and I can help you." "Cutting down while you are ill is not enough."

Strong — "As your clinician, I need you to know that quitting smoking is the most important thing you can do to protect your health now and in the future. The clinic staff and I will help you."

Personalized — Link tobacco use to current health/ illness, and/or its social and economic costs, motivation level/ readiness to quit, and/or the impact of tobacco use on children and others in the household.

Strategy A3. Assess – Determine the willingness to make a quit attempt.

Action	Strategies for Implementation
Ask every tobacco user if he or she is willing to	Assess patient's willingness to quit:
make a quit attempt at this time (e.g., within the next 30 days).	If the patient is willing to make a quit attempt at this time, provide assistance.
	If the patient will participate in an intensive treatment, deliver such a treatment or refer to an intensive intervention.
	If the patient clearly states he or she is unwilling to make a quit attempt at this time, provide a motivational intervention.
	If the patient is a member of a special population (e.g., adolescent, pregnant smoker, racial/ethnic minority), consider providing additional information.

Strategy A4. Assist – Aid the patient in quitting (provide counselling and medication).

Action	Strategies for Implementation
Help the patient with a quit plan.	A patient's preparations for quitting: <i>Set a quit date</i> —ideally, the quit date should be within
	2 weeks.
	<i>Tell</i> family, friends, and coworkers about quitting and request understanding and support.
	Anticipate challenges to planned quit attempt, particularly during the critical first few weeks. These include nicotine withdrawal symptoms.





	<i>Remove</i> tobacco products from your environment. Prior to quitting, avoid smoking in places where you spend a lot of time (e.g., work, home, car).
Provide practical counseling (problem solving/training).	 Abstinence — Total abstinence is essential. "Not even a single puff after the quit date." Past quit experience — Review past quit attempts including identification of what helped during the quit attempt and what factors contributed to relapse. Anticipate triggers or challenges in upcoming attempt— Discuss challenges/triggers and how patient will successfully overcome them. Alcohol—Because alcohol can cause relapse, the patient should consider limiting/ abstaining from alcohol while quitting. Other smokers in the household—Quitting is more difficult when there is another smoker in the household. Patients should encourage housemates to quit with them or not smoke in their presence.
Provide intra-treatment social support.	Provide a supportive clinical environment while encouraging the patient in his or her quit attempt. "My office staff and I are available to assist you."
Help patient obtain extra-treatment social support.	Help patient develop social support for his or her quit attempt in his or her environments outside of treatment. "Ask your spouse/partner, friends, and coworkers to support you in your quit attempt."
Recommend the use of approved pharmacotherapy, except in special circumstances.	Recommend the use of pharmacotherapies found to be effective. Explain how these medications increase smoking cessation success and reduce withdrawal symptoms. The first-line pharmacotherapy medications include: bupropion SR, nicotine gum, nicotine inhaler, nicotine nasal spray, and nicotine patch.
Provide supplementary materials.	 Sources—National government, nonprofit agencies, or local health units. Type—Culturally/racially/educationally/age appropriate for the patient. Location—Readily available at every clinician's workstation.



Recommended pharmacologic interventions available in the Philippines are the nicotine gum and Verenicline. Explain how these medications increase quitting success and reduce withdrawal symptoms.

Strategy A5. Arrange – Ensure follow-up contact.

Action	Strategies for Implementation
Schedule follow-up contact, either in person or via telephone	 <i>Timing</i> – Follow-up contact should occur soon after the quit date, preferably during the first week. A second follow-up contact is recommended within the first month. Schedule further follow-up contacts as indicated. <i>Actions during follow-up contact</i> — Congratulate success. If tobacco use has occurred, review circumstances and elicit recommitment to total abstinence. Remind patient that a lapse can be used as a learning experience. Identify problems already encountered and anticipate challenges in the immediate future. Assess pharmacotherapy use and problems. Consider use or referral to more intensive treatment.

For Tobacco Users Unwilling to Quit

Smokers who are unwilling to quit may have inadequate information about the harmful effects of smoking and the benefits of quitting. They may also have misconceptions about the quitting process or have been demoralized because of previous unsuccessful attempts to quitting. Therefore, health workers must provide strategies to motivate the smoker to quit.

Promoting motivation to quit uses Motivational Interviewing techniques that focus on the tobacco users feeling, ideas, beliefs and attitudes about using tobacco. This is geared towards identifying ambivalence to using tobacco and once this is uncovered, health workers elicits, supports and strengthens the user's reasons for eliminating tobacco and intentions to take action to change smoking behavior. This utilizes the smoker's own words to commit to change rather than the exhortations of the health worker.

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Strategy B1	. Motivational	interviewing	strategies
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Action	Strategies for Implementation
Express empathy	Use open-ended questions to explore: the importance of addressing smoking or other tobacco use; concerns
	and benefits of quitting



	Use reflective listening to seek shared understanding: Normalize feelings and concerns Support the patient's autonomy and right to choose or reject change.
Develop discrepancy	Highlight the discrepancy between the patient's present behavior and expressed priorities, values and goals. Reinforce and support change talk and commitment language Build and deepen commitment to change.
Roll with resistance	Back off and use reflection when the patient expresses resistance. Express empathy Ask permission to provide information
Support self-efficacy	Help the patient to identify and build on past successes. Offer options for achievable small steps towards change.

Strategy B2. Enhancing motivation to quit tobacco - the 5 R's.

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Relevance	Encourage the patient to indicate why quitting is personally relevant, being as specific as possible. Motivational information has the greatest impact if it is relevant to a patient's disease status or risk, family or social situation (e.g., having children in the home), health concerns, age, gender, and other important patient characteristics (e.g., prior quitting experience, personal barriers to cessation)
Risks	The clinician should ask the patient to identify potential negative consequences of tobacco use. The clinician may suggest and highlight those that seem most relevant to the patient. The clinician should emphasize that smoking low-tar/low-nicotine cigarettes or use of other forms of tobacco (e.g., smokeless tobacco, cigars, and pipes) will not eliminate these risks.
	 Examples of risks are: Acute risks: Shortness of breath, exacerbation of asthma, harm to pregnancy, impotence, infertility, and increased serum carbon monoxide Long-term risks: Heart attacks and strokes, lung and other cancers (larynx, oral cavity, pharynx, esophagus, pancreas, bladder, cervix), chronic obstructive pulmonary diseases (chronic bronchitis and emphysema), long term disability, and need for extended care. Environmental risks: Increased risk of lung cancer and heart disease in spouses; higher rates of smoking in children of tobacco users; increased risk



	middle ear disease, and respiratory infections in children of smokers.
Rewards	The clinician should ask the patient to identify potential benefits of stopping tobacco use. The clinician may suggest and highlight those that seem most relevant to the patient.
	Examples of rewards follow: Improved health. Food will taste better. Improved sense of smell.
	Save money. Feel better about yourself. Home, car, clothing, breath will smell better. Can stop worrying about quitting. Set a good example for children.
	Have healthier babies and children. Not worry about exposing others to smoke. Feel better physically. Perform better in physical activities. Reduced wrinkling/aging of skin.
Roadblocks	The clinician should ask the patient to identify barriers or impediments to quitting and note elements of treatment (problem-solving, pharmacotherapy) that could address barriers.
	Typical barriers might include: Withdrawal symptoms. Fear of failure. Weight gain. Lack of support. Depression. Enjoyment of tobacco.
Repetition	The motivational intervention should be repeated every time an unmotivated patient visits the clinic setting. Tobacco users who have failed in previous quit attempts should be told that most people make repeated quit attempts before they are successful.

for low birth weight, Sudden Infant Death Syndrome, asthma,



For the Patient Who Has Recently Quit

Smokers who have recently quit have high risk for relapse. The role of health workers here is to reinforce the success at quitting, review the benefits of quitting and assist the patient in resolving any other problems because of quitting. And it is always important to acknowledge the patient's success in quitting.

Strategy C1. Intervening with the patient who has recently quit.

The former tobacco user should receive congratulations on any success and strong encouragement to remain abstinent.

When encountering a recent quitter, use open-ended questions relevant to the topics below to discover if the patient wishes to discuss issues related to quitting: The benefits, including potential health benefits, that the patient may derive from cessation.

Any success the patient has had in quitting (duration of abstinence, reduction in withdrawal, etc.).

The problems encountered or anticipated threats to maintaining abstinence (e.g., depression, weight gain, alcohol, other tobacco users in the household, significant stressors).

A medication check-in, including effectiveness and side effects if the patient is still taking medication

Strategy C2. Addressing the problems encountered by former smoker.

A patient who previously smoked might identify a problem that negatively affects health or quality of life. Specific problems likely to be reported by former smokers and potential responses follow:

Lack of support for cessation	Schedule follow-up visits or telephone calls with the patient. Help the patient identify sources of support within his or her environment. Refer the patient to an appropriate organization that offers cessation counseling or support.
Negative mood or depression	If significant, provide counseling, prescribe appropriate medication, or refer the patient to a specialist



Strong or prolonged withdrawal symptoms	If the patient reports prolonged craving or other withdrawal symptoms, consider extending the use of an approved pharmacotherapy or adding/combining pharmacologic medication to reduce strong withdrawal symptoms.
Weight gain	Recommend starting or increasing physical activity; discourage strict dieting. Reassure the patient that some weight gain after quitting is common and appears to be self-limiting. Emphasize the importance of a healthy diet. Maintain the patient on pharmacotherapy known to delay weight gain (e.g., bupropion SR, nicotine-replacement pharmacotheripies, particularly nicotine gum). Refer the patient to a specialist or program.
Smoking lapses	Suggest continued use of medications, which can reduce the likelihood that a lapse will lead to a full relapse Encourage another quit attempt or a recommitment to total abstinence. Reassure that quitting may take multiple attempts, and use the lapse as a learning experience. Provide or refer for intensive counseling.

5. Supporting Smoke-Free Environments

Individual behavioural and pharmacologic interventions to promote smoking cessation are beneficial. However, to have greater effect in eliminating the increasing number of first time smokers and help the current smokers to quit, it is imperative that smoke-free environments be supported.

There have been great steps taken in promoting smoke-free environments, such as the implementation of the Clean Air Act of 1999, the WHO Tobacco-Free Initiative, the Comprehensive Anti-Smoking Ordinance, and Republic Act 9211 - an Act regulating the packaging, use, sale, distribution and advertisement of tobacco products and for other purposes. These facilitate



limiting the access of children and youth to cigarette, limit the advertisement of cigarettes, observance of smoke-free institutions and establishment, and the establishment of Smoking Withdrawal Clinics to provide counseling regarding the hazardous health effects of tobacco.

Still a lot more can be done to create physical and social environments that support smoke-free individuals and environments. Studies have shown that increasing the price of tobacco through increasing tobacco taxation



can result to net reduction in tobacco use and related harm. Strict implementation and enforcing of legislation banning all smoking in workplaces and indoor public places (such as transport, schools, hospitals, public buildings) also result to reduction in deaths and illness from exposure to second-hand smoke.

WHO has also recommended a framework that includes three main strategies to create and support smoke-free environments:

- 1. A public health approach that seeks to change the social climate and promote a supportive environment.
- 2. A health systems approach that focuses on promoting and integrating clinical best practices (behavioural and pharmacological) which help tobacco-dependent consumers increase their chance of quitting successfully;
- 3. A surveillance, research and information approach that promotes the exchange of information and knowledge so as to increase awareness of the need to change social norms.

Examples of Policies

Framework Convention on Tobacco Control (FCTC)

The Philippines is one of the 169 countries that ratified the Framework Convention on Tobacco Control (FCTC). It is the first and only Public Health Treaty under the World Health Organization. Tobacco control measures focusing on supply and demand, and harm reduction strategies that aim to improve the health of a population by eliminating or reducing their consumption of tobacco products (smoking) and exposure to tobacco smoke (secondhand smoke)

Republic Act 9211

In 2003, the Philippines enacted Republic Act 9211 aimed to:

- Promote smoke-free areas
- Inform public of the health risks of tobacco use
- Ban all tobacco advertisement and sponsorship and restrict promotions
- Regulate labeling of tobacco products
- Protect youth from being initiated to smoking







Promoting Smoke-free Individuals

The law also imposes a SMOKING BAN in centers of youth activity such as:

- Playschools
- Preparatory School
- Elementary and High Schools
- Colleges and Universities
- Youth Hostels
- Recreational facilities for persons under 18 years old like but not limited to playgrounds.

Civil Service Commission Memorandum Circular 17

This is a 100% smoke-free environment policy that prohibits smoking in all government agencies

DOH and CSC Joint Memorandum Circular

To protect the bureaucracy against tobacco industry interference, government personnel are prohibited from interacting with the tobacco industry unless strictly necessary for its regulation, supervision or control. Necessary interactions must be carried out in a transparent manner. The government agency is required to report any interaction or offer of donation from the tobacco industry

Department of Education Order No. 73 Series of 2010

Smoking Ban in all public schools

LTFRB Circular 2009-036

This is 100% smoke-free in public utility vehicles and land transportation terminals









MODULE 5B Reducing Harm from Alcohol Use



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- Benefits of Reducing/Avoiding Alcohol Drinking 35
- Key Areas for Promoting Reducing Harm from Alcohol Use 36
- Supportive Environment in Promoting Alcohol-free Individuals/Environment 38



MODULE **Reducing from Alcohol Use**

Introduction

Drinking alcoholic beverages is a common feature of social gatherings. Nevertheless, there are health risks and social consequences associated to alcohol drinking because of its toxic, intoxicating and dependenceproducing 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.

Promoting an alcohol-free environment is therefore an important component of promoting healthy lifestyle among individuals and in communities.

Objectives

At the end of this module, you should be able to:

- 1. Recognize the magnitude of the problem on alcohol-related risks
- 2. Describe the harmful effects of alcohol drinking across population groups
- 3. Discuss key areas for promoting reducing harm from alcohol use
- 4. Advocate for helping clients reduce harm from alcohol use



1. Epidemiology on alcohol-related risks

Alcohol is a general term, which refers to a family of organic compound with common properties and composition of carbon, oxygen and hydrogen. It has a chemical formula of C2H5OH or molecular formula of:



Harmful use of alcohol was responsible for 2.5 million deaths (3.8% of total) in the world in 2004. An estimated 69.4 million (4.5% total) disability-adjusted life years (DALYS) lost is also attributed to alcohol drinking. This is after adjustments made from the modest protective effects of low consumption of alcohol on coronary heart disease for some people aged 40 years or older (WHO, 2004).

Men traditionally drink more frequently and more heavily than women. However, the patterns of drinking for men and women are beginning to converge. While men may still experience more direct drinking-related harm than women, women are often the victims of the harmful use of alcohol by men. (WHO, 2007).

Young people in developing countries are increasingly drinking in the same harmful patterns as young people in developed countries. Young people are more likely to suffer from alcohol-related traffic accidents, violence and family disruptions related to harmful use of alcohol than other age groups. (WHO, 2007).

2. Harmful effects of alcohol drinking

The acute or immediate effect of alcohol at low levels is increased electrical activity in the brain resulting to feeling of relaxation, euphoria and general cheerfulness. Further consumption can result to increased sociability, short attention span, inhibited judgment, impaired fine muscle coordination, sedation, impaired memory and comprehension, delayed reaction, difficulty in balancing, blurred vision or other impairment of the senses. Toxic levels can end in decreased heart rate, coma, respiratory depression, alcohol dependence, alcohol abuse, alcohol intoxication, alcohol withdrawal, and death.

Harmful use of alcohol is associated with more than 60 types of diseases and other health conditions, including mental disorders and suicide, several types of cancer, and other NCDs such as cirrhosis, as well as intentional



and unintentional injuries. Alcohol drinking is also associated with other high-risk behaviors, including unsafe sex and the use of other psychoactive substances. (WHO, 2007).

Alcohol-related problems not only affect the individual drinker, they have a significant effect on others, including family members, victims of violence and accidents associated with alcohol use, and the community as a whole. Drinking to intoxication, including binge drinking, is a significant cause of alcohol-related harm. Drinking to intoxication also typically affects non-drinkers. It is strongly associated with unintentional injuries, including injuries and fatalities as the result of driving while intoxicated, and negative social consequences such as aggressive behavior, family disturbances and reduced industrial productivity. (WHO, 2007).

In the Philippines, no study has been done yet on alcoholrelated harm. But studies have shown a rising trend in alcohol drinking. In 2001, 24% of Filipinos 15-19 are current drinkers. This rose to 42% among 15-27 years old in 2002. There is a sense that the age of initiation into drinking is



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

occurring at younger and younger ages and binge drinking, which is a particularly dangerous pattern of alcohol consumption, is also on the rise. Given the lack of community-based programs for prevention, treatment and care for alcohol problems, this issue poses some threat and challenge.

3. Benefits of reducing/avoiding alcohol drinking

While it seems difficult to totally ban alcohol drinking, there is a growing appreciation for saying no to alcohol. The associated health risks and social consequences associated to alcohol drinking seem to outweigh the socalled benefits. The protective effect of low consumption of alcohol to some persons aged 40 years and above is not enough when faced with the amount of risks related to alcohol intoxication and dependence-producing properties as well as the development of chronic diseases. These chronic diseases include oral cancer, esophageal cancer, nasopharyngeal cancer, gastric and colon cancer, liver cirrhosis, nerve cell degeneration, and increased serum triglycerides in diabetics.



Reducing alcohol-related harm is projected to have positive influence on a number of health domains, such as decreased burden of NCDs, better mental health, decreased violence and injuries and potential improvement in adolescent, child and reproductive health (WHO, 2007).



4. Key areas for reducing harm from alcohol use

In a regional strategy to reduce alcohol-related harm, WHO (2007) outlines strategic core areas of effective public health-oriented alcohol policy that address the challenges in alcohol consumption.

4.1 Reducing the risk of harmful alcohol use

4.1.1 Ensure adequate public awareness of the health and social consequences of the harmful use of alcohol:

- Develop and disseminate information on the health and social consequences of the harmful use of alcohol to the public;
- Involve other relevant sectors, in particular law enforcement and the criminal justice system to increase public awareness about the harmful use of alcohol;
- Provide special prevention programs for high-risk groups (such as young people, women who are pregnant or who are contemplating pregnancy, and certain disadvantaged groups); and
- Provide special prevention programs for high-risk situations and in certain settings (such as schools, workplaces, roads and highways).



Regional strategy to reduce alcohol-related harm: (WHO, 2007)

- 1. Reducing the risk of harmful alcohol use
- 2. Minimizing the impact of harmful use of alcohol
- Regulating the accessibility and availability to reduce harmful use of alcohol
- 4. Establishing mechanism to facilitate and sustain implementation

4.1.2 Promote factors that protect against the harmful use of alcohol:

- Develop and implement health promotion programs dealing with harmful use of alcohol which empower people to make healthy choices and are appropriately adapted for individual national contexts; and
- Provide supportive environments in schools, communities and other social settings that protect people from the harmful use of alcohol, ranging from family support programs, community and school system support programs, and increased access to non- alcoholic beverages.

4.1.3 Reduce factors that may facilitate the harmful use of alcohol:

- Diminish pressures to drink from peer groups and other influences, especially for young people, other high-risk groups and for those who do not wish to drink; and
- Provide training in the hospitality sector and retail sector for the responsible service of alcohol, including enforcing compliance with the legal minimum age for the sale of alcoholic beverages.



4.1.4 Regulate and respond to the marketing of alcoholic beverages, including advertising, promotion, and the sponsoring of cultural and sports events, in particular those aimed at young people:

Designate a government agency responsible for enforcement of marketing regulations; Regulate or ban, as appropriate, the marketing of alcoholic beverages;

Encourage greater responsibility among commercial interests, for example through codes of conduct for sale and marketing practices.

4.1.5 Promote advocacy for reducing the risk of the harmful use of alcohol:

Provide support to agencies that advocate a reduction in the harmful use of alcohol; and Engage all relevant government departments in developing and implementing responses to prevent and respond to the harmful use of alcohol.

4.2 Minimizing the impact of harmful use of alcohol

4.2.1 Enable community organizations to prevent and respond effectively to alcohol-related problems in the community:

• Provide support to civic organizations, including relevant nongovernmental organizations, to prevent, identify and respond effectively to the negative health and social consequences of the harmful use of alcohol.

4.2.2 Provide a health and social welfare workforce capable of preventing and responding effectively to alcohol-related problems:

- Build capacity of health care providers to better detect, prevent and treat harmful use of alcohol;
- Build capacity and support the primary health care system to act proactively in the community to prevent, identify and respond effectively to the negative health and social consequences of the harmful use of alcohol;
- Develop and support the introduction and implementation of brief intervention treatment programs;
- Develop and support the introduction and implementation of appropriate specializations in addressing alcohol-related harm in the health care system; and
- Enable easy access to early intervention, treatment and rehabilitation programs for people with alcohol-related problems and support for their families.

4.2.3 Reduce drink driving through special programs, in particular through establishing and enforcing a maximum legal blood alcohol content level:

• Set a legal low maximum blood alcohol level for drink driving violations, in line with the best international practices;



- Develop and enforce, where appropriate, a system of frequent random blood alcohol testing; and
- Develop and enforce a system of administrative driving license suspensions or revocations to ensure quick and effective consequences for those who violate drink driving regulations.

4.2.4 Provide further active involvement of the law enforcement sector in preventing and responding to alcohol-related problems, in particular to alcohol-related crime and other antisocial behaviour and the negative effect on public order of harmful use of alcohol:

- Promote close collaboration between health and law enforcement sectors to enable a public health and public safety approach to the harmful use of alcohol;
- Provide training to the law enforcement sector on how to prevent and respond to alcohol related problems; and
- Encourage the law enforcement sector to develop and implement strategies responding to the harmful use of alcohol.

5. Supportive environment for alcohol-free individuals and environment

5.1 Regulating the accessibility and availability to reduce the harmful use of alcohol

5.1.1 Establish and enforce regulatory mechanisms for alcoholic beverages:

- Establish and enforce a minimum legal age for the purchase and sale of alcoholic beverages and a ban on the sale of alcohol to intoxicated persons;
- Regulate the sale of alcohol to limit the places and times that alcoholic beverages can be sold;
- Develop and enforce a commercial licensing system to regulate the production, importation and wholesale and retail sale of alcoholic beverages; and
- Establish minimum standards for the production of alcoholic beverages to ensure that alcoholic beverages being produced and imported meet beverage safety requirements and that home-brewed and home-distilled alcoholic beverages are either prohibited from commercial sale or strictly controlled.

5.1.2 Establish an alcohol taxation system as a means of reducing the harmful use of alcohol:

- Without prejudice to the sovereign rights of states to establish their taxation policies, serious consideration should be given to the implementation of an alcohol taxation system as an effective mechanism to decrease the harmful use of alcohol; and
- Consider taxation of alcoholic beverages based on their alcohol content and administer special taxes for alcoholic beverages targeted at vulnerable groups such as young people.

5.1.3 Consider alcohol-related harm reduction when participating in international trade and economic



agreements:

- Ensure regulation of alcoholic beverages to avoid illegal importation;
- Apply or establish, where necessary, coordination mechanisms involving ministries of finance, health and trade, as well as other relevant institutions, to address issues related to the harmful use of alcohol and international trade;
- Continue to develop or enhance capacity at the national level to track and analyze the potential impact of trade and trade agreements on harmful use of alcohol; and
- Collaborate with other Member States and with competent international organizations in order to support policy coherence between trade and health sectors at regional and global levels, including generating and sharing evidence on the relationship between trade and health.

5.1.4 Enforce and apply legislation, regulation and policy:

- Ensure that enforcement agencies appropriately enforce the regulation of alcoholic beverages; and
- Enforce minimum-age requirements for the purchase, consumption and sale of alcoholic beverages.

5.2 Establishing mechanism to facilitate and sustain implementation

5.2.1 Provide systems to collect and analyze pertinent data

- Assign a lead agency to develop an alcohol information system and to analyze information for policy development. This may be a principal task for a new, specialized institution; it may also be a new task for an existing agency with a broader scope of activities, such as a national institute for public health;
- Utilize existing data, including data on production and sale, as well as data from the health care and law enforcement systems, to enhance knowledge about trends in consumption, drinking patterns and harm;
- Establish a surveillance system involving population-based surveys, hospital admissions and other available surveillance data, to provide information on alcohol use, drinking patterns and alcohol-related harm, and consider involving academic institutions in the implementation of such a system; and
- Support country and regional research assessing the relationship between the harmful use of alcohol in general, and binge drinking in particular, and the related adverse health and social consequences.

5.2.2 Develop a national public health-oriented, evidence-based alcohol policy, appropriate to individual national contexts:

- Establish or identify a national body that has the responsibility of developing and updating a national public health-oriented alcohol policy;
- Provide adequate support to this national body through funding and public health- oriented expertise;



- Establish sustainable national mechanisms for appropriate intersectoral government cooperation with the involvement of relevant community groups and institutions to ensure effective coordination and implementation of the policy;
- Establish funding mechanisms, such as dedicating a portion of alcohol taxation revenue to support prevention and reduction of alcohol-related harm; and
- Ensure that all actions under the national policy are duly followed up, evaluated and assessed.

5.2.3 Establish regional mechanisms to support the efforts of individual countries to reduce alcoholrelated harm:

- Provide effective communication at the sub-regional level, and as appropriate at the regional level, between relevant national institutions involved in public health-oriented alcohol policymaking;
- Establish a network of national counterparts, nominated by governments of Member States, for the exchange of information and support for implementation of the Strategy;
- Develop a regional alcohol information system for the collection and analysis of data on alcohol consumption and its health and social consequences;
- Establish a regional pool of expertise on public health-oriented alcohol policy and program development.



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Appendix 5.1 Screening Tests for Nicotine Dependence: Fagerstrom Test

- 1. How soon after you wake up do you smoke your first cigarette?
 - \square "After 60 minutes (0)
 - □ " 31-60 minutes (1)
 - \square "6-30 minutes (2)
 - \square "Within 5 minutes (3)
- 2. Do you find it difficult to refrain from smoking in places where it is forbidden?
 - □ "No (0)
 - □ "Yes (1)
- 3. Which cigarette would you hate most to give up?
 - \square "The first in the morning (1)
 - \square "Any other (0)
- 4. How many cigarettes per day do you smoke?
 - □ " 10 or less (0)
 - □ "11-20(1)
 - □ "21-30 (2)
 - □ "31 or more (3)
- 5. Do you smoke more frequently during the first hours after awakening than during the rest of the day?
 - □ " No (0)
 - \square "Yes (1)
- 6. Do you smoke even if you are so ill that you are in bed most of the day?
 - □ ["] No (0)
 - \square "Yes (1)

Click for score:

Your score was:

- 0-2 Very low dependence
- 3-4 Low dependence
- 5 Medium dependence

Your level of dependence on nicotine is: 6-7 High dependence 8-10 Very high dependence



Scores under 5: "Your level of nicotine dependence is still low. You should act now before your level of dependence increases."

Score of 5: "Your level of nicotine dependence is moderate. If you don't quit soon, your level of dependence on nicotine will increase until you may be seriously addicted. Act now to end your dependence on nicotine."

Score over 7: "Your level of dependence is high. You aren't in control of your smoking – it is in control of you! When you make the decision to quit, you may want to talk with your doctor about nicotine replacement therapy or other medications to help you break your addiction."

Source: Heatherton TF, Kozlowski LT, Frecker RC, Fagerstrom KO. The Fagerstrom Test for Nictoine Dependence: A revision of the Fagerstrom Tolerance Questionnaire. British Journal of Addictions 1991; 86:1119-27