

# Education Department

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The Education Department makes the facts about alcohol, tobacco and illegal drugs known to everyone and offers contests to further this effort. Thus, all member countries should focus on the following four goals:

1. Start by **promoting and protecting your own health** and the health of those around you, by making well-informed choices.
2. **Raise awareness in your community** about the importance of good health, healthy lifestyles as well as people's right to quality health care services.
3. **Take action through schools, clubs, teams and organizations** to promote better health for all, especially for the most vulnerable such as women and children.
4. **Hold your government, local leaders and other decision makers accountable** to their commitments to improve people's access to health and health care.

*The following kit aims to help you gather information about alcohol, tobacco, and drugs so that you can take action in your local communities with the correct and latest scientific/medical information regarding these subjects.*

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## Approach

### 1. Policy and Legislation

- Strengthen restrictions on alcohol availability
- Advance and enforce drink driving counter measures
- Facilitate access to screening, brief interventions and treatment
- Enforce bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion
- Raise prices on alcohol through excise taxes and pricing policies

### 2. Prevention and Promotion

### 3. Detection and Diagnosis (Alcohol/drug use disorders)

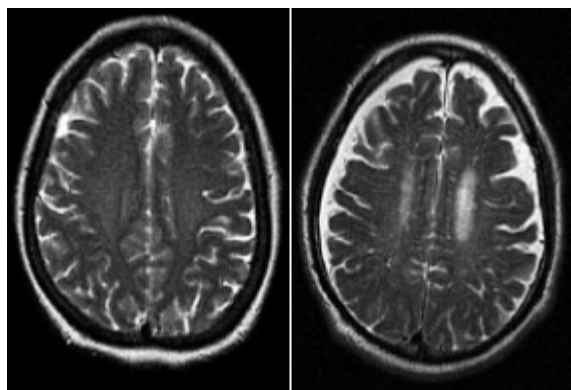
## Alcohol and the Sustainable Development Goals - 12 out of 17 SDGs impacted



- Eradicating poverty
- Ending hunger
- Ensuring healthy lives for all
- Ensuring quality education
- Achieving gender equality
- Ensuring sustainable management of water resources
- Promoting inclusive, sustainable economic growth
- Reducing inequalities
- Making cities and human settlements safe and inclusive
- Ensuring sustainable consumption
- Promotion of peaceful and inclusive societies
- Strengthening means of implementation of the SDGs

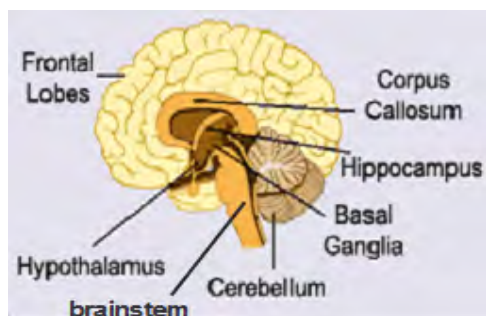
## Harms of Alcohol

### 1. Alcohol and its Effect on the Brain



Tolerance and Addiction Alcohol secretes dopamine in the brain, allowing temporary pleasure, however this builds tolerance and longing, leading to addiction. Brain Damage : A Single Glass of Alcohol Damages Brain Cells and Destroys the Frontal Lobe; the CEO of the Brain The brain is made up of hundreds of millions of nerve cells and delivers thoughts and emotions through electrical signals and chemical reactions. Neurons send messages

through the connection of the neurotransmitter, but alcohol suppresses the receptor. Alcohol reaches the brain in 6 minutes and destroys brain cells, especially those in the frontal lobe. These destroyed brain cells are genetically passed on. The frontal lobe damage is especially more serious for adolescents and gives them easy exposure to violence and addiction.



► An adolescent with alcoholic parents has much lower frontal lobe and cerebellum activity than that of a normal adolescent. This makes it harder for the adolescent to exert self-control and make judgments like the brain of a drunk alcoholic (Journal Alcoholism : Clinical & Experimental Research, April 2012)

### Why does being drunk cause slurred speech, memory loss, and the urge to cause trouble?

This is all because alcohol causes 'Brain Damage'

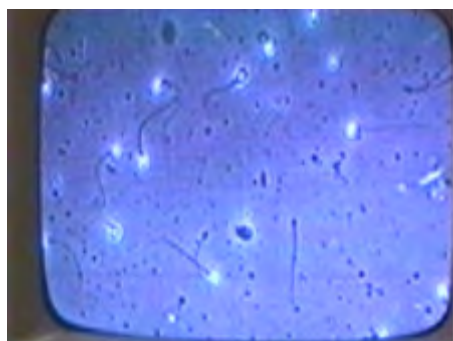
- Frontal lobe: Blurred judgment
- Parietal lobe: Dulled senses
- Wernicke's area: Unable to think of words while speaking
- Cerebellum: Stumble while walking
- Boca's area: Slurred speech

- Limbic system: Serious mood swings
- Hippocampus: Unable to recall memory
- Brainstem: Death from respiratory paralysis

## 2. Various Digestive Disorders

The Metabolism of Alcohol passes through the esophagus to the gastric mucosa where 20% of the alcohol is absorbed, and the rest reaches the small intestine where it is absorbed, and enters the lung. The lung sends ADH (ethanol dehydrogenase) and decomposes the ethanol to leave the poisonous acetaldehyde. The liver sends enzyme ALDH (aldehyde dehydrogenase) and destroys the acetaldehyde. If this poisonous substance is not destroyed and remains in the body, there will be serious side effects. Digestive Cancer Alcohol causes a lot of cancer in the digestive system, especially in the liver. 60~90% of liver cancer patients are drinkers. For females, alcohol increases estrogen secretion, making them more susceptible to breast cancer. Other problems caused by the consumption of alcohol are tuberculosis, pneumonia, pancreatitis, diabetes, malnutrition, decreased libido, sexual dysfunction, heart problems such as high blood pressure, arrhythmia, angina pectoris, myocardial infraction, gastrointestinal disorders such as stomach ulcers, gastrointestinal bleeding.

## 3. Risk of Birth Abnormalities



Damage of the Egg and Sperm : Risk of Birth Abnormalities Women are already born with developing egg cells in their ovaries, exposing the cells to the toxicity of all food, alcohol, and smoking that are consumed. 1ml of sperm contains 60 to 80 million sperms, however exposure to alcohol decreases the sperm's activity and quantity.

## 4. Protecting unborn babies from alcohol-related harm

Alcohol and drug abuse during pregnancy can harm babies. It can also cause miscarriage, preterm birth, and stillbirth. If an unborn baby is exposed to alcohol it can be affected for life. Fetal alcohol spectrum disorders (FASD) is the umbrella term for impairments of the growth and development of the brain and the central nervous system caused by drinking alcohol during pregnancy. Aboriginal women in Australia have shown how communities can take action to protect their women and babies from alcohol-related harm in pregnancy.



### **Signs and symptoms of FASD:**

- Abnormal facial features, such as a smooth ridge between the nose and upper lip (this ridge is called the philtrum)
- Small head size
- Shorter-than-average height
- Low body weight
- Poor coordination
- Hyperactive behavior
- Difficulty with attention
- Poor memory
- Difficulty in school (especially with math)
- Learning disabilities
- Speech and language delays
- Intellectual disability or low IQ
- Poor reasoning and judgment skills
- Sleep and sucking problems as a baby
- Vision or hearing problems
- Problems with the heart, kidneys, or bones

### **Actions to take when you believe your child has FASD**

1. Ask for a referral from your healthcare provider to a specialist (someone who knows about FASDs). In some cities, there are clinics whose staff have special training in diagnosing and treating children with FASDs. For providers and clinics in your area, visit the National and State Resource Directory from the National Organization on Fetal Alcohol Syndrome (NOFAS) [www.nofas.org/resource-directory/](http://www.nofas.org/resource-directory/)
2. Get an Evaluation - For children younger than 3 years old, contact your local early intervention system at [www.cdc.gov/ncbddd/actearly/parents/states.html](http://www.cdc.gov/ncbddd/actearly/parents/states.html). To learn more, visit [www.parentcenterhub.org/repository/eioverview/](http://www.parentcenterhub.org/repository/eioverview/). For children 3 years old or older, contact your local public school system. Even if your child is not old enough for kindergarten or enrolled in a public school, call your local elementary school or board of education and ask to speak with someone who can help you have your child evaluated. To learn more, visit [www.parentcenterhub.org/repository/schoolage/](http://www.parentcenterhub.org/repository/schoolage/).

### **More information about FASDs can be found at the following sources:**

- Centers for Disease Control and Prevention [www.cdc.gov/fasd](http://www.cdc.gov/fasd)
- American Academy of Pediatrics FASD Toolkit [www.aap.org/fasd](http://www.aap.org/fasd)
- Center for Parent Information and Resources [www.parentcenterhub.org/resources](http://www.parentcenterhub.org/resources)
- National Organization on Fetal Alcohol Syndrome (NOFAS) [www.nofas.org](http://www.nofas.org)



## 5. How to identify persons with harmful and hazardous alcohol consumption (AUDIT)

There are many forms of excessive drinking that cause substantial risk or harm to the individual. They include high level drinking each day, repeated episodes of drinking to intoxication, drinking that is actually causing physical or mental harm, and drinking that has resulted in the person becoming dependent on alcohol. Excessive drinking causes illness and distress to the drinker and his or her family and friends. It is a major cause of breakdown in relationships, trauma, hospitalization, prolonged disability and early death. Alcohol-related problems represent an immense economic loss to many communities around the world.

In 1980, a WHO expert committee stressed the need for efficient methods to identify persons with harmful and hazardous alcohol consumption before health and social consequences become pronounced. There was an urgent call for the development of strategies that could be applied in primary health care settings with a minimum of time and resources. Within this context, the WHO Collaborative Project on Identification and Treatment of Persons with Harmful Alcohol Consumption was initiated in 1982 to develop a scientific basis for screening and brief interventions in primary care settings. Phase I of the project linked six collaborating centers representing a broad variety of cultural groups in developing a simple instrument to screen for persons at high risk of alcohol problems in both developing and developed countries. The result of this phase was the introduction of the Alcohol Use Disorders Identification Test (AUDIT). Phase II of the project was a cross-cultural randomized controlled trial to test the usefulness of alcohol screening when it is linked to brief intervention.

The Alcohol Use Disorders Identification Test (AUDIT) is a 10-item screening tool developed by the World Health Organization (WHO) to assess alcohol consumption, drinking behaviors, and alcohol-related problems. Both a clinician-administered version (page 1) and a self-report version of the AUDIT (page 2) are provided. Patients should be encouraged to answer the AUDIT questions in terms of standard drinks. A chart illustrating the approximate number of standard drinks in different alcohol beverages is included for reference. A score of 8 or more is considered to indicate hazardous or harmful alcohol use. The AUDIT has been validated across genders and in a wide range of racial/ethnic groups and is well-suited for use in primary care settings. Detailed guidelines about use of the AUDIT have been published by the WHO and are available online:

[https://www.who.int/substance\\_abuse/activities/sbi/en/](https://www.who.int/substance_abuse/activities/sbi/en/)

**A total score of less than 8 indicates no harmful drinking behavior or alcohol dependence. A total score of 8 or more indicates harmful drinking behavior. A score of 13 or more in women is likely to indicate alcohol dependence. A score of 15 or more in men is likely to indicate alcohol dependence.**



## The Alcohol Use Disorders Identification Test: Interview Version





Read questions as written. Record answers carefully. Begin the AUDIT by saying "Now I am going to ask you some questions about your use of alcoholic beverages during this past year." Explain what is meant by "alcoholic beverages" by using local examples of beer, wine, vodka, etc. Code answers in terms of "standard drinks". Place the correct answer number in the box at the right.

<p>1. How often do you have a drink containing alcohol?</p> <p>(0) Never [Skip to Qs 9-10]            (1) Monthly or less            (2) 2 to 4 times a month            (3) 2 to 3 times a week            (4) 4 or more times a week</p> <p style="text-align: right;"><input type="text"/></p>	<p>6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>
<p>2. How many drinks containing alcohol do you have on a typical day when you are drinking?</p> <p>(0) 1 or 2            (1) 3 or 4            (2) 5 or 6            (3) 7, 8, or 9            (4) 10 or more</p> <p style="text-align: right;"><input type="text"/></p>	<p>7. How often during the last year have you had a feeling of guilt or remorse after drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>
<p>3. How often do you have six or more drinks on one occasion?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p><i>Skip to Questions 9 and 10 if Total Score for Questions 2 and 3 = 0</i></p> <p style="text-align: right;"><input type="text"/></p>	<p>8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>
<p>4. How often during the last year have you found that you were not able to stop drinking once you had started?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>	<p>9. Have you or someone else been injured as a result of your drinking?</p> <p>(0) No            (2) Yes, but not in the last year            (4) Yes, during the last year</p> <p style="text-align: right;"><input type="text"/></p>
<p>5. How often during the last year have you failed to do what was normally expected from you because of drinking?</p> <p>(0) Never            (1) Less than monthly            (2) Monthly            (3) Weekly            (4) Daily or almost daily</p> <p style="text-align: right;"><input type="text"/></p>	<p>10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?</p> <p>(0) No            (2) Yes, but not in the last year            (4) Yes, during the last year</p> <p style="text-align: right;"><input type="text"/></p>
<p style="text-align: right;">Record total of specific items here <input type="text"/></p> <p><i>If total is greater than recommended cut-off, consult User's Manual.</i></p>	

## The Alcohol Use Disorders Identification Test: Self-Report Version

PATIENT: Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential so please be honest. Place an X in one box that best describes your answer to each question.

Questions	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week	
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more	
3. How often do you have six or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year	
					<b>Total</b>	

STANDARD DRINK EQUIVALENTS	APPROXIMATE NUMBER OF STANDARD DRINKS IN:
<b>BEER or COOLER</b>	
<b>12 oz.</b>  ~5% alcohol	12 oz. = 1 16 oz. = 1.3 22 oz. = 2 40 oz. = 3.3
<b>MALT LIQUOR</b>	
<b>8-9 oz.</b>  ~7% alcohol	12 oz. = 1.5 16 oz. = 2 22 oz. = 2.5 40 oz. = 4.5
<b>TABLE WINE</b>	
<b>5 oz.</b>  ~12% alcohol	a 750 mL (25 oz.) bottle = 5
<b>80-proof SPIRITS (hard liquor)</b>	
<b>1.5 oz.</b>  ~40% alcohol	a mixed drink = 1 or more* a pint (16 oz.) = 11 a fifth (25 oz.) = 17 1.75 L (59 oz.) = 39
	*Note: Depending on factors such as the type of spirits and the recipe, one mixed drink can contain from one to three or more standard drinks.

[http://pubs.niaaa.nih.gov/publications/Practitioner/pocketguide/pocket\\_guide2.htm](http://pubs.niaaa.nih.gov/publications/Practitioner/pocketguide/pocket_guide2.htm)



## 6. Policy Measures:

### ✧ **Strengthen restrictions on alcohol availability**

Enacting and enforcing restrictions on commercial or public availability of alcohol through laws, policies, and programmes are important ways to reduce harmful use of alcohol. They are essential measures to prevent easy access to alcohol by young people and other vulnerable and high-risk groups.

Public health strategies that seek to regulate the commercial or public availability of alcohol through laws, policies, and programmes are important ways to reduce the general level of harmful use of alcohol. Such strategies provide essential measures to prevent easy access to alcohol by vulnerable and high-risk groups. Commercial and public availability of alcohol can have a reciprocal influence on the social availability of alcohol and thus contribute to changing social and cultural norms that promote harmful use of alcohol.

The level of regulation on the availability of alcohol will depend on local circumstances, including social, cultural and economic contexts as well as existing binding international obligations. In some developing and low- and middle-income countries, informal markets are the main source of alcohol and formal controls on sale need to be complemented by actions addressing illicit or informally produced alcohol. Furthermore, restrictions on availability that are too strict may promote the development of a parallel illicit market. Secondary supply of alcohol, for example from parents or friends, needs also to be taken into consideration in measures on the availability of alcohol.

### **Policy options and interventions include:**

- establishing, operating and enforcing an appropriate system to regulate production, wholesaling and serving of alcoholic beverages that places reasonable limitations on the distribution of alcohol and the operation of alcohol outlets in accordance with cultural norms, by the following possible measures:
  - regulating the number and location of on premise and off-premise alcohol outlets;
  - introducing, where appropriate, a licensing system on retail sales, or public health oriented government monopolies;
  - regulating days and hours of retail sales;
  - regulating modes of retail sales of alcohol;
  - regulating retail sales in certain places or during special events;
- establishing an appropriate minimum age for purchase or consumption of alcoholic beverages and other policies in order to raise barriers against sales to, and consumption of alcoholic beverages by, adolescents;
- adopting policies to prevent sales to intoxicated persons and those below the legal age and considering the introduction of mechanisms for placing liability on sellers and servers in accordance with national legislations;



- setting policies regarding drinking in public places or at official public agencies' activities and functions;
- adopting policies to reduce and eliminate availability of illicit production, sale and distribution of alcoholic beverages as well as to regulate or control informal alcohol.

#### ✧ **Advance and enforce drink driving counter measures**

Road users who are impaired by alcohol have a significantly higher risk of being involved in a crash. Enacting and enforcing strong drink-driving laws and low blood alcohol concentration limits via sobriety checkpoints and random breath testing will help to turn the tide. Road users who are impaired by alcohol have a significantly higher risk of being involved in a crash. Enacting and enforcing strong drink-driving laws and low blood alcohol concentration limits via sobriety checkpoints and random breath testing will help to turn the tide.

Driving under the influence of alcohol seriously affects a person's judgment, coordination and other motor functions. Alcohol-impaired driving is a significant public health problem that affects both the drinker and in many cases innocent parties. Strong evidence-based interventions exist for reducing drink-driving. Strategies to reduce harm associated with drink-driving should include deterrent measures that aim to reduce the likelihood that a person will drive under the influence of alcohol, and measures that create a safer driving environment in order to reduce both the likelihood and severity of harm associated with alcohol-influenced crashes. In some countries, the number of traffic-related injuries involving intoxicated pedestrians is substantial and should be a high priority for intervention.

#### **Policy options and interventions include:**

- introducing and enforcing an upper limit for blood alcohol concentration, with a reduced limit for professional drivers and young or novice drivers;
- promoting sobriety check points and random breath-testing;
- administrative suspension of driving licenses;
- graduated licensing for novice drivers with zero-tolerance for drunk-driving; –
- using an ignition interlock, in specific contexts where affordable, to reduce drink-driving incidents;
- mandatory driver-education, counselling and, as appropriate, treatment programs;
- encouraging provision of alternative transportation, including public transport until after the closing time for drinking places;
- conducting public awareness and information campaigns in support of policy and in order to increase the general deterrence effect;
- running carefully planned, high-intensity, well-executed mass media campaigns targeted at specific situations, such as holiday seasons, or audiences such as young people.



#### ✧ **Facilitate access to screening, brief interventions and treatment**

Health professionals have an important role in helping people to reduce or stop their drinking to reduce health risks, and health services have to provide effective interventions for those in need of help and their families. Health services are central to tackling harm at the individual level among those with alcohol-use disorders and other health conditions caused by harmful use of alcohol.

Health services should provide prevention and treatment interventions to individuals and families at risk of, or affected by, alcohol use disorders and associated conditions. Another important role of health services and health professionals is to inform societies about the public health and social consequences of harmful use of alcohol, support communities in their efforts to reduce the harmful use of alcohol, and to advocate effective societal responses. Health services should reach out to, mobilize and involve a broad range of players outside the health sector. Health services response should be sufficiently strengthened and funded in a way that is commensurate with the magnitude of the public health problems caused by harmful use of alcohol.

#### **Policy options and interventions include:**

- supporting initiatives for screening and brief interventions for hazardous and harmful drinking at primary health care and other settings; such initiatives should include early identification and management of harmful drinking among pregnant women and women of child-bearing age;
- improving capacity for prevention of, identification of, and interventions for individuals and families living with fetal alcohol syndrome and a spectrum of associated disorders;
- development and effective coordination of integrated and/or linked prevention, treatment and care strategies and services for alcohol-use disorders and co-morbid conditions, including drug-use disorders, depression, suicides, HIV/AIDS and tuberculosis;
- securing universal access to health including through enhancing availability, accessibility and affordability of treatment services for groups of low socioeconomic status;
- establishing and maintaining a system of registration and monitoring of alcohol-attributable morbidity and mortality, with regular reporting mechanisms
- provision of culturally sensitive health and social services as appropriate.

#### ✧ **Enforce bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion**

Bans and comprehensive restrictions on alcohol advertising, sponsorship and promotion are impactful and cost-effective measures to prevent and reduce alcohol harm. Enacting and enforcing such bans or comprehensive restrictions in the digital world will bring public health



benefits and help protect children, adolescents and abstainers from the pressure to start consuming alcohol.

Reducing the impact of marketing, particularly on young people and adolescents, is an important consideration in reducing harmful use of alcohol. Alcohol is marketed through increasingly sophisticated advertising and promotion techniques, including linking alcohol brands to sports and cultural activities, sponsorships and product placements, and new marketing techniques such as e-mails, SMS and podcasting, social media and other communication techniques. The transmission of alcohol marketing messages across national borders and jurisdictions on channels such as satellite television and the Internet, and sponsorship of sports and cultural events is emerging as a serious concern in some countries.

It is very difficult to target young adult consumers without exposing cohorts of adolescents under the legal age to the same marketing. The exposure of children and young people to appealing marketing is of particular concern, as is the targeting of new markets in developing and low- and middle-income countries with a current low prevalence of alcohol consumption or high abstinence rates. Both the content of alcohol marketing and the amount of exposure of young people to that marketing are crucial issues. A precautionary approach to protecting young people against these marketing techniques should be considered.

**Policy options and interventions include:**

- setting up regulatory or co-regulatory frameworks, preferably with a legislative basis, and supported when appropriate by self-regulatory measures, for alcohol marketing by:
  - regulating the content and the volume of marketing (marketing could refer, as appropriate and in accordance with national legislation, to any form of commercial communication or message that is designed to increase, or has the effect of increasing, the recognition, appeal and/or consumption of particular products and services. It could comprise anything that acts to advertise or otherwise promote a product or service.
  - regulating direct or indirect marketing in certain or all media;
  - regulating sponsorship activities that promote alcoholic beverages;
  - restricting or banning promotions in connection with activities targeting young people;
  - regulating new forms of alcohol marketing techniques, for instance social media;
- development by public agencies or independent bodies of effective systems of surveillance of marketing of alcohol products;
- setting up effective administrative and deterrence systems for infringements on marketing restrictions.



### ✧ **Raise prices on alcohol through excise taxes and pricing policies**

Alcohol taxation and pricing policies are among the most effective and cost-effective alcohol control measures. An increase in excise taxes on alcoholic beverages is a proven measure to reduce harmful use of alcohol and it provides governments revenue to offset the economic costs of harmful use of alcohol.

Consumers, including heavy drinkers and young people, are sensitive to changes in the price of drinks. Pricing policies can be used to reduce underage drinking, to halt progression towards drinking large volumes of alcohol and/or episodes of heavy drinking, and to influence consumers' preferences. Increasing the price of alcoholic beverages is one of the most effective interventions to reduce harmful use of alcohol. A key factor for the success of price-related policies in reducing harmful use of alcohol is an effective and efficient system for taxation matched by adequate tax collection and enforcement.

Factors such as consumer preferences and choice, changes in income, alternative sources for alcohol in the country or in neighboring countries, and the presence or absence of other alcohol policy measures may influence the effectiveness of this policy option. Demand for different beverages may be affected differently. Tax increases can have different impacts on sales, depending on how they affect the price to the consumer. The existence of a substantial illicit market for alcohol complicates policy considerations on taxation in many countries. In such circumstances tax changes must be accompanied by efforts to bring the illicit and informal markets under effective government control. Increased taxation can also meet resistance from consumer groups and economic operators, and taxation policy will benefit from the support of information and awareness-building measures to counter such resistance.

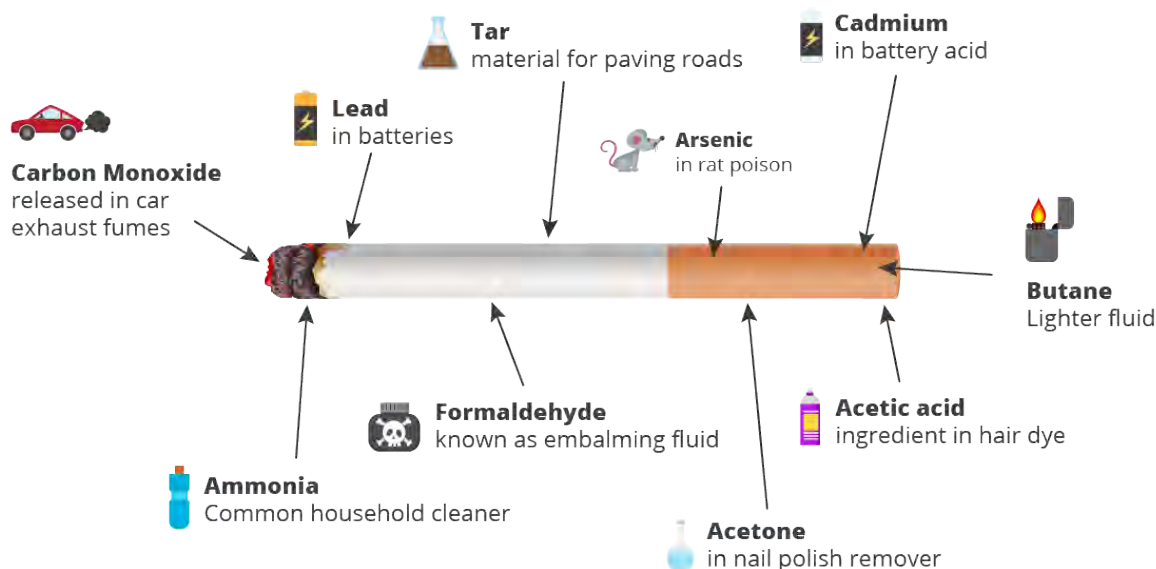
Policy options and interventions include:

- establishing a system for specific domestic taxation, on alcohol accompanied by an effective enforcement system, which may take into account, as appropriate, the alcoholic content of the beverage;
- regularly reviewing prices in relation to level of inflation and income;
- banning or restricting the use of direct and indirect price promotions, discount sales, sales below cost and flat rates for unlimited drinking or other types of volume sales;
- establishing minimum prices for alcohol where applicable;
- providing price incentives for non-alcoholic beverages;
- reducing or stopping subsidies to economic operators in the area of alcohol.

Source: Safer: A World Free from Alcohol Related Harms

## Harms of Smoking

### 1. Components of Cigarettes



69 types of carcinogens (substances that cause cancer), over 4000 types of chemicals, over 10,000 types of substances exist in cigarettes. Mothballs, pesticides, carcinogens, material in lighters, material in asphalt, paint removers, tear gas, ammonia (irritates the respiratory system), carbon monoxide, nicotine, rocket fuel, hydrocyanic acid gas, radiation, gasoline components, material in vinyl, preservatives, material in heavy metal, material in detergent, material in heavy metal batteries, poison, carcinogenic disinfectants- Nicotine : Causes a strong habitual addiction.

- Tar: Contains various hazardous and carcinogenic (cancer-causing) substances. Used in insect repellent and pesticides.
- Carbon Monoxide: Decreases the blood's ability to carry oxygen, causing failure and the aging of metabolism in body cells.
- Hydrocyanic Acid Gas: A single consumption by a 70kg adult as death penalty kills half of its recipients.
- Phenol: The smoke of a single cigarette contains the same amount of phenol as 10 liters of river water.

### 2. Illnesses Caused by Smoking

Lung Cancer and Respiratory Diseases and Cancer Smoking cause respiratory diseases and cancers such as oral cancer, esophageal cancer, and lung cancer. Smoking is the cause of lung



cancer 90% of the time and has a high death rate. 137 people are dying as a result of smoking every day, which is greater than the number of daily fatalities from traffic accidents. It is like the horrific fatalities of the Korean War and nuclear bomb occurring every day. Buerger's Disease and Cardiovascular Diseases Smoking causes the blood vessel walls to thicken and build up an abnormal amount of deposit, which gradually blackens and rots the blood vessel. It is common for patients with Buerger's disease to have to cut their fingers and toes.

## **2. Facts for Smokers:**

- Smokers are more likely to get cancer than non-smokers. This is particularly true of lung cancer, throat cancer and mouth cancer, which hardly ever affect non-smokers.
- The link between smoking and lung cancer is clear.
- Ninety percent of lung cancer cases are due to smoking.
- One in ten moderate smokers and almost one in five heavy smokers (more than 15 cigarettes a day) will die of lung cancer.
- The more cigarettes you smoke in a day, and the longer you've smoked, the higher your risk of lung cancer. Similarly, the risk rises the deeper you inhale and the earlier in life you started smoking.
- For ex-smokers, it takes approximately 15 years before the risk of lung cancer drops to the same as that of a non-smoker.
- If you smoke, the risk of contracting mouth cancer is also four times higher than for a non-smoker. Cancer can start in many areas of the mouth, with the most common being on or underneath the tongue, or on the lips.

## **3. The Benefits of Stopping Smoking**

### **It's good for your health!**

The benefits begin immediately. You reduce your risk of getting serious disease no matter what age you give up. However, the sooner you stop, the greater the reduction in your risk.

If you stop smoking before the age of 35, your life expectancy is only slightly less than that of people who have never smoked.

If you stop smoking before the age of 50, you decrease the risk of dying from smoking-related diseases by 50%.

Everyone knows you feel better when you give up smoking.

But, it is never too late to stop smoking to gain health benefits. Even if you already have COPD or heart disease, your outlook (prognosis) is much improved if you stop smoking.



The following health benefits will be noticed almost immediately after you give up smoking.

**After 20 minutes:** your blood pressure and pulse rate return to normal. Circulation improves in hands and feet.

**After 8 hours:** oxygen levels in the blood return to normal and your chance of heart attack starts to fall.

**After 24 hours:** poisonous carbon monoxide gas is eliminated from the body. The lungs start to clear out mucous and other debris.

**After 48 hours:** nicotine is no longer detectable in the body. Taste and smell improve.

**After 72 hours:** breathing becomes easier as the bronchial tubes relax and energy levels increase.

**After 2 weeks:** circulation improves, making walking and exercise easier.

**After 3 to 9 months:** coughing, shortness of breath and wheezing are reduced dramatically.

**After 5 years:** risk of heart attack falls to that of a non-smoker.

**After 10 years:** risk of lung cancer falls to about half that of a smoker.

Source: Health Service Executive, Tobacco Free Ireland Program