

**Link between Tobacco, HIV/AIDS, Maternal  
Health and NCDs  
presented at**

**a**

**Meeting to Sensitize Radio and Print Media  
on Non-Communicable Diseases and Tobacco in  
Uganda**

**Gilbert Muyambi  
Executive Secretary  
UNTCA**

**Imperial Royale Hotel  
26th Nov. 2013**

## Introduction

Smoking of tobacco is a world wide phenomenon. According to About.com between 80,000 and 100,000 children start to smoke each day. The World Health Organisation compiled statistics on smoking in 2002 and found that:

- About one third of the total male population smokes.
- Smoking related diseases kill one in every 10 adults globally. If the current trend continues, smoking will kill one in every six people by 2030.
- Every eight seconds, someone dies from tobacco use.
- Smoking is on the rise in the developing world but falling in developed nations. Among Americans, smoking rates shrunk by nearly half in three decades (from the mid-1960s to mid-1990s), falling to 23% of adults by 1997. In the developing world, tobacco consumption is rising by 3.4% per year.
- About 15 billion cigarettes are sold daily - or 10 million every minute.
- Among young teens (aged 13 to 15), about one in five smokes worldwide.
- Evidence shows that around 50% of those who start smoking in adolescent years go on to smoke for 15 to 20 years.

The truth is that smoking poses a real threat to our health:

- Half of long-term smokers will die from tobacco. Every cigarette smoked cuts at least five minutes of life on average - about the time taken to smoke it.
- 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, oesophagus, mouth, and bladder, and contributes to cancer of the cervix, pancreas, and kidneys.
- More than 4,000 toxic or carcinogenic chemicals have been found in tobacco smoke.
- At least a quarter of all deaths from heart diseases and about three-quarters of world's chronic bronchitis are related to smoking.

## Smoking, HIV and AIDS

In the United States, the prevalence of cigarette smoking is estimated to be 50-70% among HIV-infected persons and 75% among substance abusers, compared to 25% in the general population<sup>1</sup> Although smoking has no direct association with these illnesses, it is associated with reduced health-related quality of life in HIV-infected persons, increased incidence of bacterial pneumonia and other AIDS defining illnesses, increase incidence of malignancies, and increased mortality risk compared to HIV-positive non-smokers<sup>2</sup>

Indeed, emerging evidence now suggests that tobacco smoking may actually be an independent risk factor for HIV infection<sup>3</sup> Some studies also suggest that nicotine smoking may be associated with faster progression to AIDS and/or neurological complications of AIDS. Furthermore, smokers taking Highly Active Antiretroviral Therapy (HAART) are at increased risk for cardiac disease compared to non-smokers.

Some studies also suggest that nicotine smoking may be associated with faster progression to AIDS and/or neurological complications of AIDS. The study, which appears in the journal *Sexually Transmitted Infections*, says it is not clear why smokers would be more likely to become infected with the HI virus, than non-smokers. But the authors pointed to growing evidence that smoking increases the risk of all types of infections, perhaps by changing the structure of the lung or weakening the immune system. They also noted that tobacco use tended to be higher among people most likely to get AIDS, like prostitutes<sup>4</sup>

The study reported that AIDS and tobacco use are the only two major causes of death that are on the rise, with tobacco projected to play a role in perhaps eight million deaths in a little over a decade.

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1. <sup>1</sup> NIDA - What's New - Past Meetings - "Current Issues in Cigarette Smoking and HIV/AIDS" Workshop
  2. <sup>2</sup> Ibid
  3. ScienceDirect - Alcohol : Chronic cigarette smoking and heavy drinking in human immunodeficiency virus: consequences for neurocognition and brain morphology
  4. Is smoking tobacco an independent risk factor for HIV infection and progression to AIDS? A systemic review -- Furber et al. 83 (1):

## **Tobacco Use and Pregnancy**

Most people know that smoking causes cancer, heart disease, and other major health problems. Smoking during pregnancy causes additional health problems, including premature death (being born too early), certain birth defects and infant death.

- Smoking makes it harder for a woman to get pregnant.
- Women who smoke during pregnancy are more likely than other women to have a miscarriage.
- Smoking can cause problems with the placenta - the source of the baby's food and oxygen during pregnancy. For example, the placenta can separate from the womb too early, causing bleeding, which is dangerous to the mother and baby.
- Smoking during pregnancy can cause a baby to be born too early or to have low birth weight—making it more likely the baby will be sick and have to stay in the hospital longer. A few babies may even die.
- Smoking during and after pregnancy is a risk factor of sudden infant death syndrome. SIDS is an infant death for which a cause of the death cannot be found.
- Babies born to women who smoke are more likely to have certain birth defects, like a cleft lip or cleft palate.

## **Tobacco and NCDs**

- Non communicable diseases (NCDs) kill more than 36 million people each year.
- Nearly 80% of NCD deaths - 29 million - occur in low- and middle-income countries.
- More than nine million of all deaths attributed to NCDs occur before the age of 60; 90% of these "premature" deaths occurred in low- and middle-income countries.
- Cardiovascular diseases account for most NCD deaths, or 17.3 million people annually, followed by cancers (7.6 million), respiratory diseases (4.2 million), and diabetes (1.3 million<sup>1</sup>).
- These four groups of diseases account for around 80% of all NCD deaths.
- **They share four risk factors: tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets.**

Non communicable diseases (NCDs), also known as chronic diseases, are not passed from person to person. They are of long duration and generally slow progression. The four main types of non communicable diseases are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes.

NCDs already disproportionately affect low- and middle-income countries where nearly 80% of NCD deaths – 29 million – occur. They are the leading causes of death in all regions except Africa, but current projections indicate that by 2020 the largest increases in NCD deaths will occur in Africa. In African nations deaths from, NCDs are projected to exceed the combined deaths of communicable and nutritional diseases and maternal and peri-natal deaths as the most common causes of death by 2030.

### **Who is at risk of such diseases?**

All age groups and all regions are affected by NCDs. NCDs are often associated with older age groups, but evidence shows that more than 9 million of all deaths attributed to non communicable diseases (NCDs) occur before the age of 60. Of these "premature" deaths, 90% occurred in low- and middle-income countries. Children, adults and the elderly are all vulnerable to the risk factors that contribute to noncommunicable diseases, whether from unhealthy diets, physical inactivity, exposure to tobacco smoke or the effects of the harmful use of alcohol.

These diseases are driven by forces that include ageing, rapid unplanned urbanization, and the globalization of unhealthy lifestyles. For example, globalization of unhealthy lifestyles like unhealthy diets may show up in individuals as raised blood pressure, increased blood glucose, elevated blood lipids, overweight and obesity. These are called 'intermediate risk factors' which can lead to cardiovascular disease, a NCD.

### **Risk factors**

#### **Modifiable behavioural risk factors**

- Tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol increase the risk of or cause most NCDs.
- Tobacco accounts for almost 6 million deaths every year (including over 600 000 deaths from exposure to second-hand smoke), and is projected to increase to 8 million by 2030.

- About 3.2 million deaths annually can be attributed to insufficient physical activity.
- Approximately 1.7 million deaths are attributable to low fruit and vegetable consumption.
- Half of the 2.3<sup>2</sup> million annual deaths from harmful drinking are from NCDs.

### **What are the socioeconomic impacts of NCDs?**

NCDs threaten progress towards the UN Millennium Development Goals. Poverty is closely linked with NCDs. The rapid rise in NCDs is predicted to impede poverty reduction initiatives in low-income countries, particularly by forcing up household costs associated with health care. Vulnerable and socially disadvantaged people get sicker and die sooner than people of higher social positions, especially because they are at greater risk of being exposed to harmful products, such as tobacco or unhealthy food, and have limited access to health services.

In low-resource settings, health-care costs for cardiovascular diseases, cancers, diabetes or chronic lung diseases can quickly drain household resources, driving families into poverty. The exorbitant costs of NCDs, including often lengthy and expensive treatment and loss of breadwinners, are forcing millions of people into poverty annually, stifling development.

In many countries, harmful drinking and unhealthy diet and lifestyles occur both in higher and lower income groups. However, high-income groups can access services and products that protect them from the greatest risks while lower-income groups can often not afford such products and services.