



Daffodil
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Project On

**Tobacco and the Developing World: Current status and Future outlook – An update
Literature review**

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Submitted By

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APPROVAL

This Project, **Tobacco and the Developing World: Current status and Future outlook – An update Literature review**, submitted to the Department of Pharmacy, Daffodil International University, has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of Bachelor of Pharmacy and approved as to its style and contents.

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I hereby declare that, this project report is done by me under the supervision of **Tahmina Afroz**, Assistant Professor, Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, impartial fulfilment of the requirement for the degree of Bachelor of Pharmacy. I am declaring that this project is my original work. I am also declaring that neither this project nor any part thereof has been submitted elsewhere for the award of Bachelor or any degree.

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DEDICATION

DEDICATED TO ALL OF MY RESPECTED TEACHERS AND MY FAMILY MEMBERS WHO HAVE ALWAYS SUPPORTED AND ENCOURGED ME.

Abstract

The usage of tobacco was historically rather low in the majority of developing nations. In recent years, it has been rising because developed countries have been shipping more cigarettes to developing countries, and because developing countries have been cultivating more tobacco in order to produce cheaper tobacco on their own, at the expense of their ability to produce food. This has led to a rise in the price of tobacco. The sale of tobacco is an essential cash generator for governments around the globe, including those in developing nations as well as those in affluent nations. The proliferation of smoking in developing nations and the accompanying rise in tobacco consumption have led to a number of unfavorable outcomes, including: an increase in the incidence of lung cancer and other diseases that are linked to smoking; an increase in the economic burdens caused by the importation of cigarettes from developed nations; an increase in the medical costs associated with smoking-related illnesses; and a reduction in the production of and importation of food. The fight against smoking in developing countries faces a great number of challenges and restrictions, but it is an effort that must be made because it is essential for the prevention of lung cancer and other smoking-related diseases, the reduction of economic burdens, and the expansion of agricultural output and food imports.

Key words: Tobacco, cigarettes, lung cancer.

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Chapter 1

Introduction

1. Introduction

There is no universally accepted meaning of the term "developing nation," and the criteria used to classify countries into this category might differ from organization to organization. For example, the World Trade Organization requires its members to self-identify as either "developed" or "developing." Although the United Nations system does not have an established convention for designating developed and developing countries, in common practice, North America, Europe, Australia, New Zealand, and Japan are generally considered to be "developed"[1]. The World Bank ceased discriminating between "developed" and "developing" nations in 2016, although it continues to categorize countries according to income levels: low, lower-middle, upper middle, and high income[2]. The latter categorization is extensively used in public health literature and the low- and middle-income countries (LMICs) are typically referred to as 'developing'. As compared to high-income countries, these nations often have weaker economies, greater rates of poverty and death, and generally lower standards of life overall. Smoking is the largest cause of avoidable mortality globally[3]. According to estimates provided by the World Health Organization (WHO), there were more than 1.1 billion persons globally aged 15 and older who smoked tobacco in the year 2016, with around 80 percent of these people residing in LMICs. The tobacco pandemic is the worst worldwide public health crisis the world has ever faced, killing nearly 7 million people per year, with more than 6 million of them dying as a direct consequence of tobacco use. 6 Although demand for tobacco has dropped in rich nations over time, tobacco cultivation and use are becoming more concentrated in the developing world[4]. The tobacco pandemic presents environmental, health, and economic consequences in the developing world to a degree larger than ever before — and due to expanding populations, growing incomes, and relatively inadequate tobacco policies, the smoking burden is certain to rise. This is a price emerging country can ill afford to pay[5].



Figure 1.1: most useable smoking substances (Cigarette)

Chapter 2

Literature Review

2.1. Tobacco consumption by region

Between the years 1980 and 2016, there was a 33% and 44% reduction, respectively, in the levels of cigarette use in the WHO areas of Europe and the Americas. At the same period of time, there was a rise in consumption of 65% and 52%, respectively, in the Eastern Mediterranean and African WHO areas. These are the regions in which the majority of countries classified as having a low income. ¹² Users of smokeless tobacco also disproportionately dwell in LMICs, with an astounding 90 percent of the world's smokeless tobacco users residing in the South-East Asia area alone [6]. There is a good chance that the percentage of people who smoke will rise in many developing nations in the years to come as a result of population expansion, wealth development, improved accessibility of tobacco products, and intensive marketing and political lobbying in such countries. For instance, according to one assessment, the incidence of smoking in the African area is expected to rise by around 39% by the year 2030 if coordinated effort is not taken to adopt and enforce tobacco controls [7, 8].

Use of tobacco in sexual activity there is little difference between the smoking rates of men in developing nations and those in industrialized ones, with average percentages hovering around the low 30s. One examination of the WHO's statistics reveals, on the other hand, that for males, declines are expected for the majority of nations in practically all areas other than Africa. According to one research, the percentage of females who smoke in developing nations is approximately 3%, but the percentage of female smokers in affluent countries is 17%. This low frequency has been ascribed to gendered social and cultural norms¹⁶, which the tobacco industry has exploited by explicitly targeting women with advertising. In addition, this low prevalence has been related to gendered social and cultural norms¹⁶ (see Tobacco Industry and Marketing section below). As a consequence of this, the expanding tobacco pandemic is being more recognized as a specific concern to the health of girls and women in LMICs, and there have been reports of increases in the number of female smokers in various developing nations. ¹⁸ It is anticipated that women, in addition to males, would see fast rises in their rates of smoking in the WHO Eastern Mediterranean Area in particular [9].

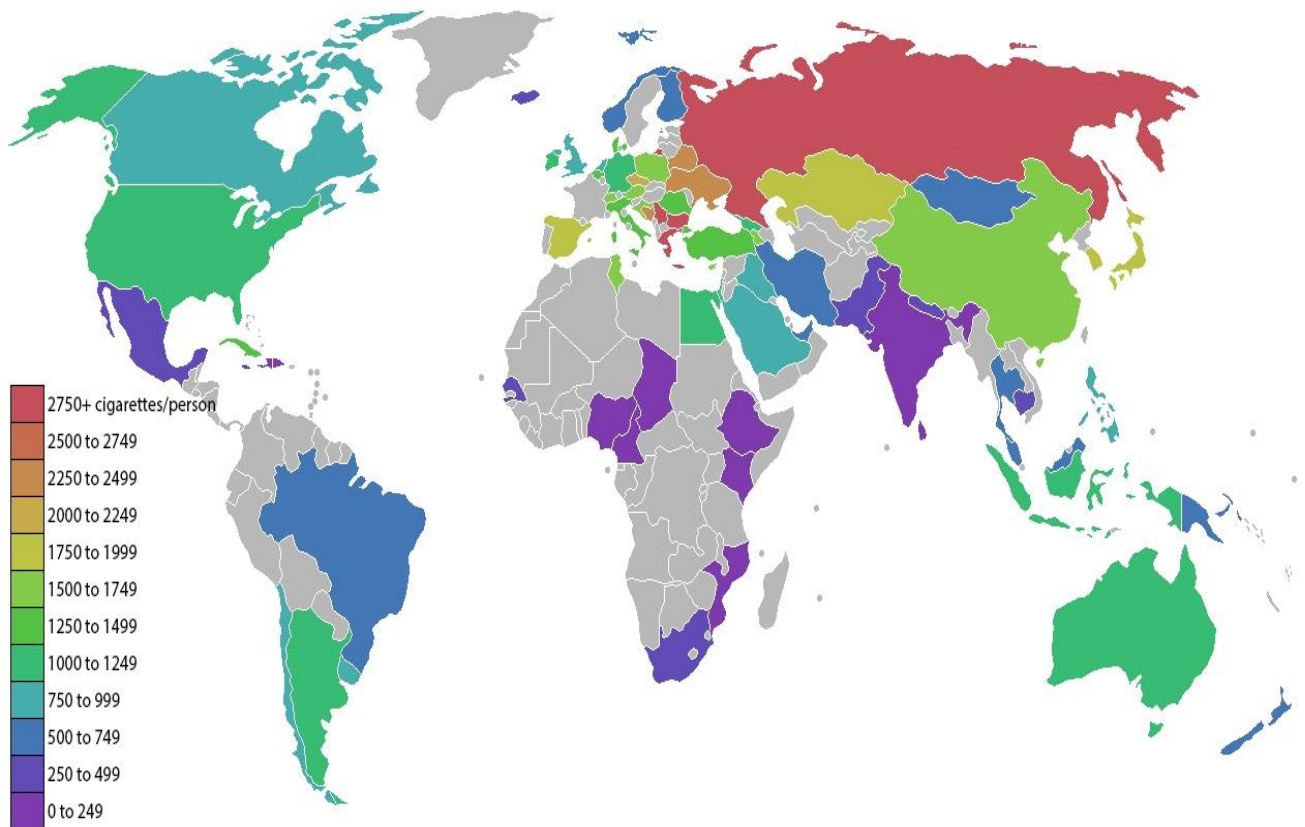


Figure 2.1: A surprising map of smoking rates by country

2.2. Health effects

Tobacco smoking is the largest avoidable cause of mortality and causes damage to practically every organ in the body. Almost 7.1 million people passed away as a direct result of smoking in the globe in 2016, accounting for 12.5% of all fatalities. The World Health Organization (WHO) estimates that each year, tobacco will be responsible for the deaths of 8 million people by the year 2030[6]. Tobacco use is predicted to be responsible for the deaths of around 40 million persons in industrialized countries between the years 2005 and 2030. This figure is more than three times greater in the developing world, and it is estimated to be approximately 135 million. 23 Although the prevalence of smoking is declining in some low- and middle-income countries (LMICs), relatively high levels of population growth in developing countries mean that the number of smokers, and consequently the number of deaths and illnesses that can be attributed to smoking, will continue to rise. As smokers begin to suffer from ailments induced by tobacco use, this public health crisis will lay a severe strain on the health systems

and economy of the developing countries. Since there is a delay between when individuals begin smoking and when they begin to suffer the health impacts of smoking, the entire burden on health and the economy will not be recognized for some time, and it is possible that part of it may still be prevented. Smoking is harmful, not just to those who smoke but also to people who do not smoke [7]. Since 2005, the number of Disability-Adjusted Life Years (years lost due to poor health or early death) that may be linked to smoking for males has declined by around 12% in countries with a high sociodemographic index (SDI), whereas it has grown in countries with a low and low-middle SDI. Exposure to secondhand smoke (also known as SHS) is very dangerous for those who do not smoke, especially for women and children. Women account for 47% of all SHS-related fatalities, while children make for 28% of such deaths. Men account for just 26% of such deaths. On their own, Africa and South-East Asia are responsible for over 60% of these infant mortality [8, 9]. Up to 75% of pregnant women in China are exposed to SHS, which has the potential to have negative effects on reproductive health, reduce the birth weight of infants, and raise the chance of premature delivery. Smoking may cause cancer in those who have never smoked before, making it one of the major causes of cancer in the general population. The majority of fatalities from lung cancer caused by secondhand smoke and indoor air pollution occur in low- and middle-income countries (LMICs), mainly China [10]. If proper tobacco control initiatives are not established and enforced in Sub-Saharan Africa, there is a high likelihood that the death rate from lung cancer will significantly rise. To support their habit, smokers in some of the world's poorest nations divert money that might be used to meet basic dietary requirements. This is another way that smoking leads to bad health. In many instances, the amount of money spent on cigarettes is what determines whether an individual has an appropriate food or is forced to endure a life of starvation. It was discovered in Bangladesh, for instance, that the typical impoverished smoker could contribute more than 500 calories to the diet of one of their children with the daily tobacco expenditure that he or she endured, and that this would save the lives of 350 children each and every day. In Indonesia, children living in rural regions were more likely to have a father who smoked, which was connected with a higher chance of the children being extremely underweight and severely stunted [11].



Figure 2.2: Health effects of tobacco

2.3. Effects on poverty

It has been shown that smoking contributes to increased wealth disparity and poverty. According to the findings of one study, people living in the poorest households in Bangladesh are twice as likely to smoke as people living in the wealthiest households. Furthermore, the average amount spent on cigarettes by male smokers is twice as much as the amount spent per capita on clothing, housing, healthcare, and education combined. It is estimated that tobacco usage is responsible for the downward spiral into poverty that affects 15 million individuals in India [6]. In addition, households in whom daily cigarette users are the primary income producers spend less money on their children's education, which contributes to intergenerational poverty and lowers the potential earnings of individuals as well as the economic production at the national level. One study found that smoking contributed to the perpetuation of a cycle of poverty in Cambodia. More money spent on tobacco means less money spent on education, and a lower education level is associated with higher rates of smoking, which in turn leads to an increase in the amount of money spent on tobacco [7, 8]. In spite of the tobacco industry's assertions that the cultivation of tobacco crops has a good impact on the economies of developing nations, the vast majority of the profit is taken by giant

multinational corporations, while the majority of tobacco farmers remain impoverished and in debt (see Tobacco farming section below). In addition, the substantial negative effects on the environment and on public health that are created by the tobacco business cancel out the positive economic effects of the sector. It is in the best interest of the economy to cut down on cigarette usage. The majority of countries would end up with net economic benefits because economic losses would be balanced out by gains at the home and national level. In addition, the World Health Organization (WHO) estimates that a decrease in tobacco usage would not result in a net loss of employment in any of the nations whose economies are based on tobacco growing [8, 9]. Tobacco production accounts for approximately one percent of all agricultural jobs across the globe. Even in China, which is the largest tobacco producer in the world, only about one percent of agricultural output is tobacco. In Brazil, another major producer, tobacco production accounts for less than two percent of the total agricultural labor force [10].

Chapter 3

Aim and objective

3. Objective

- + How does tobacco impact on mental and physical health?
- + How does tobacco use affect the economy?
- + To know the tobacco effects on poverty.
- + To know the Tobacco consumption by age

Chapter 4

Method and material

4. Methodology

I have collected literature review/ research and Newspaper which was published in different time for the tobacco. In this case, around 10-20 articles for this study have been include.

For this collecting the paper, I have used google scholar/ PubMed database and various website. All collected information are between 2005-2022. After collecting information, I want to try, discuss about and correlated with my investigation.



Figure 4.1: Website and search engine

Chapter 5

Result and discussion

5. Result and discussion

5.1. Tobacco consumption by age

Before the age of eighteen, the vast majority of people who smoke their first cigarette, and the majority of underdeveloped nations have significantly higher rates of teenage smoking than wealthy ones. For instance, although the percentage of adults who smoke in the WHO Africa region is noticeably lower than in the WHO Europe region, the opposite is true for children: the percentage of children who smoke between the ages of 12 and 15 is approximately double the percentage in Africa than it is in Europe. According to the graph that can be seen below, the age group of 41–50 years old had the largest number of patients. This was followed by the age groups of 31–40 years old, 51–60 years old, 61–70 years old, 71–80 years old, 81–90 years old, and 91–100 years old. This is equivalent to 61, 52, 32, 24, 10, 5, and 2 people diagnosed with COPD, correspondingly [6-8].

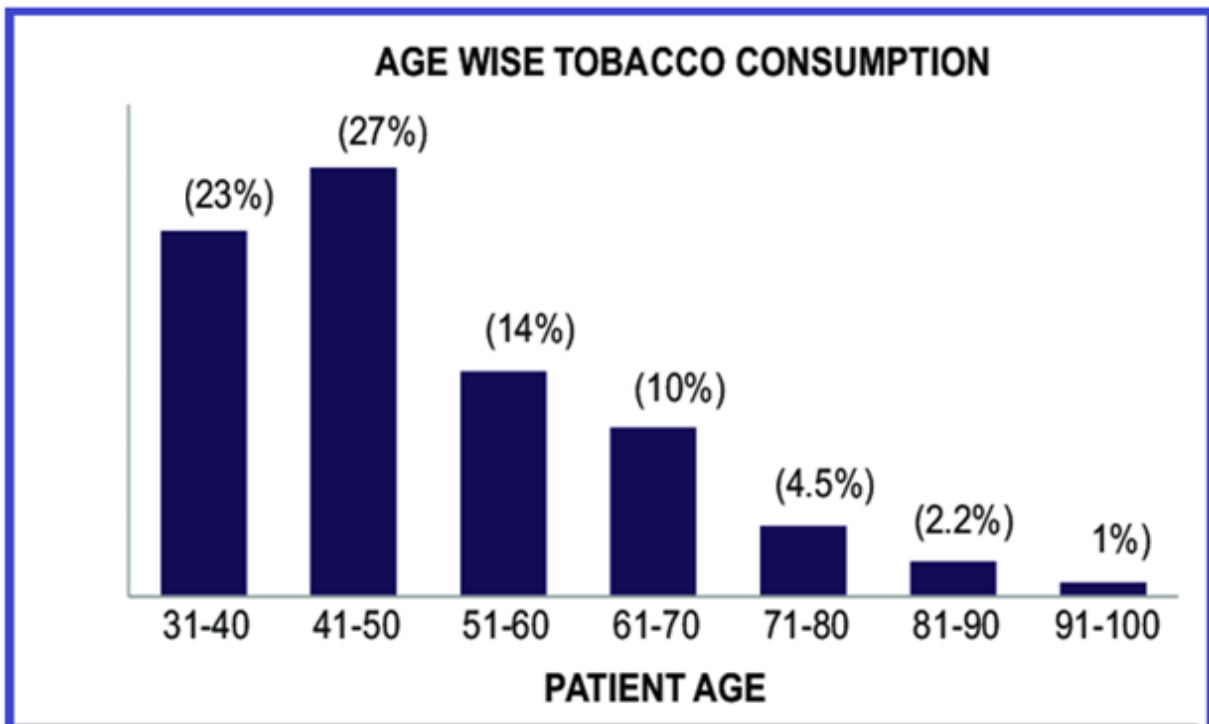


Figure 5.1: Tobacco consumption by age

5.2. Social status of tobacco consume people

According to the data shown in **Figure 5.2**, 65% patients only consume alcohol, 65% patients only consume smoking, 20% patients consume both alcohol and smoking, and 10% patients do not consume either alcohol or smoking[6].

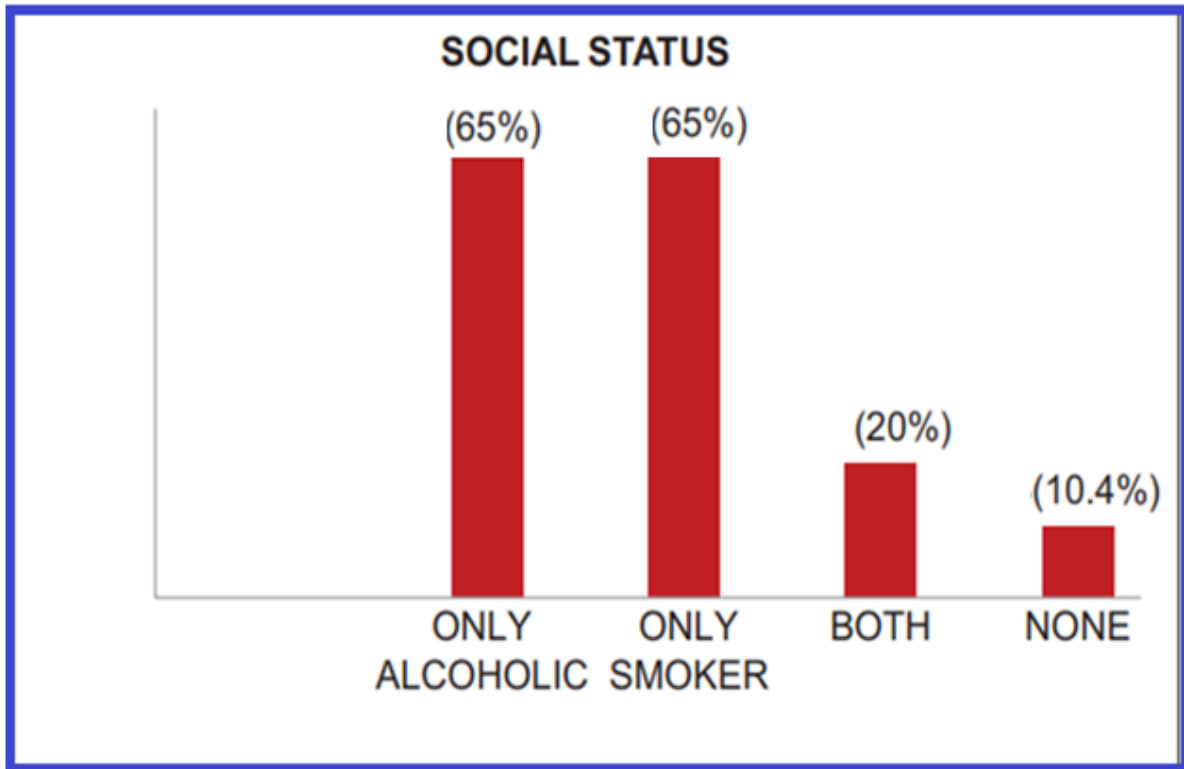


Figure 5.2: Tobacco and social status ratio

5.3. Smoking status and consume tobacco by people

According to **Figure 5.3**, 66% current smokers, 29% patients do not smoke, and 5% patients are former smokers, including both.

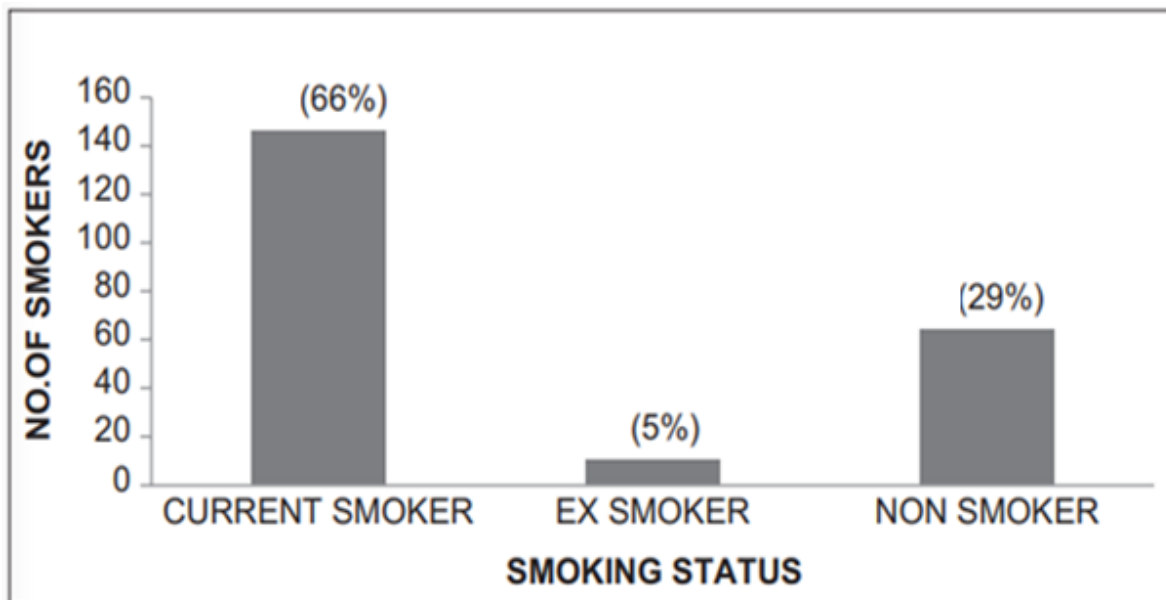


Figure 5.3: Smoking status of people

5.4. Sign and symptoms due to taking tobacco

Figure 5.4, as per the above fig, 86% patients are with symptom of cough followed by 21% with edema, pallor in 37%, and dyspnea in 75%, and wheeze in 75% patients, respectively

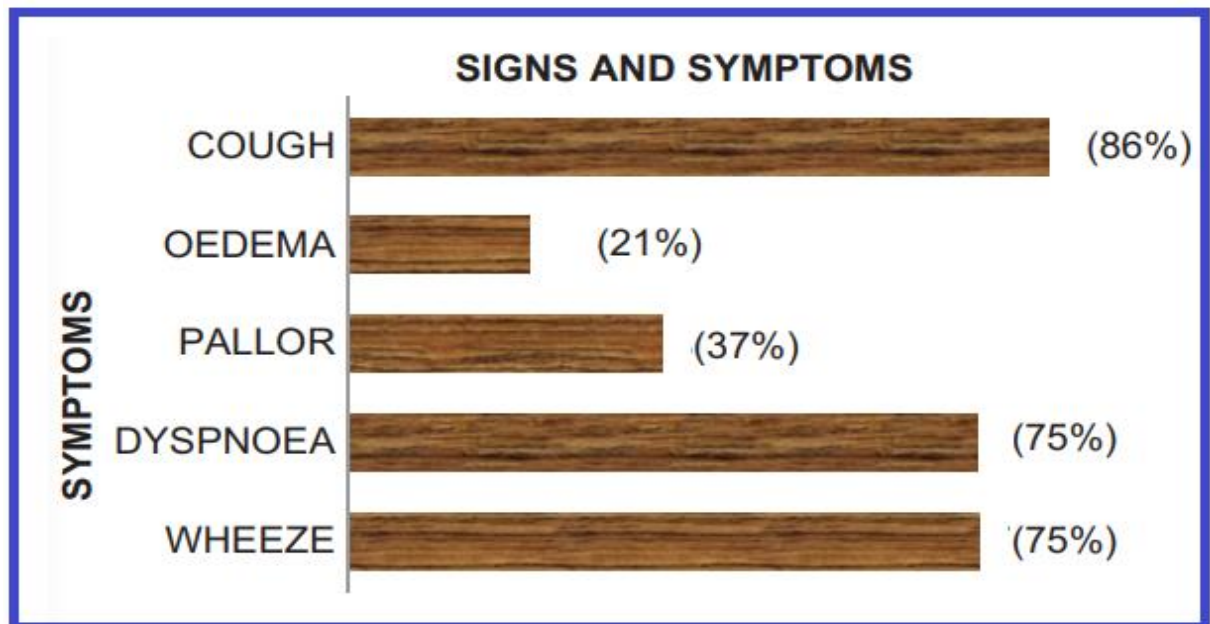


Figure 5.4: Sign and symptoms due to taking tobacco

Chapter 6

Conclusion

6. Conclusion

Our study has found that Tobacco responsible for many chronic diseases such as cancer, heart disease and many more. Every year, a huge number of people died due to tobacco consumption. So, people around the globe should be avoided taking excessive tobacco. Besides, it is reported that most of people are taking tobacco by influences other. So, government, and global policymaker should take suitable steps to reduce the tobacco consumption and different types of campaign should be organized to spread the unfavorable effects of tobacco in human health.

Chapter 7

Reference

7. Reference

- [1] W. H. Organization, "Tobacco free initiative," 1999.
- [2] R. Montes, R. Rodil, A. Rico, R. Cela, I. González-Mariño, F. Hernández, et al., "First nationwide estimation of tobacco consumption in Spain using wastewater-based epidemiology," *Science of The Total Environment*, vol. 741, p. 140384, 2020.
- [3] R. Kumar, A. K. Rai, D. Das, R. Das, R. S. Kumar, A. Sarma, et al., "Alcohol and tobacco increases risk of high risk HPV infection in head and neck cancer patients: Study from North-East Region of India," *PloS one*, vol. 10, p. e0140700, 2015.
- [4] K. E. Warner, G. A. Fulton, P. Nicolas, and D. R. Grimes, "Employment implications of declining tobacco product sales for the regional economies of the United States," *Jama*, vol. 275, pp. 1241-1246, 1996.
- [5] W. H. Organization, *The WHO framework convention on tobacco control: 10 years of implementation in the African region*: World Health Organization, 2015.
- [6] K. Katanoda, Y. Jiang, S. Park, M. K. Lim, Y.-L. Qiao, and M. Inoue, "Tobacco control challenges in East Asia: proposals for change in the world's largest epidemic region," *Tobacco Control*, vol. 23, pp. 359-368, 2014.
- [7] J. Olsen, S. Sabreo, and U. Fasting, "Interaction of alcohol and tobacco as risk factors in cancer of the laryngeal region," *Journal of Epidemiology & Community Health*, vol. 39, pp. 165-168, 1985.
- [8] W. H. Organization, *Policy response to alcohol consumption and tobacco use during the COVID-19 pandemic in the WHO South-East Asia Region: preparedness for future pandemic events. Snapshot series on alcohol control policies and practice. Brief 7, July 2022*: World Health Organization, 2022.
- [9] M. A. Corrao, G. E. Guindon, V. Cokkinides, and N. Sharma, "Building the evidence base for global tobacco control," *Bulletin of the World Health Organization*, vol. 78, pp. 884-890, 2000.
- [10] J. A. Critchley and B. Unal, "Health effects associated with smokeless tobacco: a systematic review," *Thorax*, vol. 58, pp. 435-443, 2003.
- [11] C. Pisinger and N. S. Godtfredsen, "Is there a health benefit of reduced tobacco consumption? A systematic review," *Nicotine & tobacco research*, vol. 9, pp. 631-646, 2007.
- [12] M. Bartal, "Health effects of tobacco use and exposure," *Monaldi archives for chest disease*, vol. 56, pp. 545-554, 2001.
- [13] C. Zheng-Ming, Z. Xu, R. Collins, W.-X. Li, and R. Peto, "Early health effects of the emerging tobacco epidemic in China: a 16-year prospective study," *Jama*, vol. 278, pp. 1500-1504, 1997.
- [14] N. R. Council, "Environmental tobacco smoke: measuring exposures and assessing health effects," 1986.
- [15] H. He, Z. Pan, J. Wu, C. Hu, L. Bai, and J. Lyu, "Health effects of tobacco at the global, regional, and national levels: results from the 2019 global burden of disease study," *Nicotine and Tobacco Research*, vol. 24, pp. 864-870, 2022.
- [16] D. Efrogmson, S. Ahmed, J. Townsend, S. M. Alam, A. R. Dey, R. Saha, et al., "Hungry for tobacco: an analysis of the economic impact of tobacco consumption on the poor in Bangladesh," *Tobacco control*, vol. 10, pp. 212-217, 2001.
- [17] W. H. Organization, "Tobacco and poverty: a vicious circle," 2004.
- [18] A. Ciapponi and W. H. Organization, "Systematic review of the link between tobacco and poverty," 2014.
- [19] L. Huesca, A. Araar, L. Llamas, and G. Lacroix, "The impact of tobacco tax reforms on poverty in Mexico," *SN Business & Economics*, vol. 1, p. 142, 2021.
- [20] J. De Beyer, C. Lovelace, and A. Yürekli, "Poverty and tobacco," *Tobacco Control*, vol. 10, pp. 210-211, 2001.
- [21] J. C. Anthony and F. Echeagaray-Wagner, "Epidemiologic analysis of alcohol and tobacco use: Patterns of co-occurring consumption and dependence in the United States," *Alcohol Research & Health*, vol. 24, p. 201, 2000.

- [22] A. Arno, J. Waerhaug, A. Lovdal, and O. Schei, "Incidence of gingivitis as related to sex, occupation, tobacco consumption, toothbrushing, and age," *Oral Surgery, Oral Medicine, Oral Pathology*, vol. 11, pp. 587-595, 1958.
- [23] D. G. Harwood, A. Kalechstein, W. W. Barker, S. Strauman, P. St. George-Hyslop, C. Iglesias, et al., "The effect of alcohol and tobacco consumption, and apolipoprotein E genotype, on the age of onset in Alzheimer's disease," *International Journal of Geriatric Psychiatry: A journal of the psychiatry of late life and allied sciences*, vol. 25, pp. 511-518, 2010.
- [24] A. Sarkar, D. Roy, and A. Nongpiur, "A population-based study on tobacco consumption in urban slums: Its prevalence, pattern, and determinants," *Journal of family medicine and primary care*, vol. 8, p. 892, 2019.