

# TRAINING MANUAL FOR DOCTORS

*National Tobacco Control Programme*



सत्यमेव जयते

Directorate General of Health Services,  
Ministry of Health & Family Welfare, Government of India

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**Directorate General of Health Services,  
Ministry of Health & Family Welfare, Government of India**

*Supported by*  
**World Health Organization, Country Office for India**

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**ISBN 978-81-920192-1-5**

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Printed in India, 2011

# Foreword

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Tobacco use is the leading preventable cause of death globally. The tobacco epidemic is one of the major public health threats with one million deaths attributable to tobacco each year in India. The Global Adult Tobacco Survey (GATS) India, 2010 revealed that more than one third of adult population (15 years and above) in the country use tobacco in some form. High prevalence of overall tobacco use and rising use among women and youth are causes of concern. Besides health, tobacco use has huge implications on the economy and environment.

The problem of tobacco is unique in India in view of large variety of tobacco products in use, especially locally produced smokeless tobacco products. The Government of India enacted a comprehensive legislation, the Cigarettes and Other Tobacco products (prohibition of advertisement and regulation of trade and commerce, production, supply and distribution Act), COTPA, 2003, to address the growing menace of tobacco use in the country. Tobacco control initiatives involve use of multipronged strategies. India is a party to the WHO Framework Convention on Tobacco Control (FCTC) along with 171 member countries. To help countries in implementation of the FCTC, WHO has recommended MPOWER strategy for tobacco control.

The Health Care providers are proven agents of change and have a key role to play in dealing with major public health challenges facing the country. The Training Manual for Doctors has been developed with the objective to sensitize and update doctors working at the community level about the tobacco problem and established strategies of tobacco control with emphasis on tobacco control laws and initiatives undertaken by the Government, including the National Tobacco Control Programme. The manual also aims at imparting skills in tobacco cessation to doctors, which can very well be implemented at the primary health care level. Research has proven that even a brief advice on the part of a health professional can motivate the tobacco user to quit use of tobacco. The doctors once trained are expected to transfer knowledge and skills gained to other health professionals and staff involved in primary health care so as to have impact of tobacco control initiatives at the grass roots level.

I hope that this manual would prove useful for effective implementation of National Tobacco Control Programme by building capacity of health professionals, who are the pillars of health care delivery system in the country.

Dr. R.K. Srivastava



## Acknowledgements

The public health challenge posed by tobacco requires sensitization and training of health professionals including doctors in tobacco control. The existing undergraduate medical curriculum fails to equip the doctors with knowledge and skills for effective and proven tobacco control strategies to tackle the problem of tobacco in the country. Infact GATS India, 2010 data revealed that only 53% of smokers and 34% users of smokeless tobacco were asked about their respective habits by the health care provider. Also only 46% of smokers and 27% users of smokeless tobacco were advised by the health care provider to quit smoking/tobacco use.

The Training Manual for Doctors has been developed keeping in mind the training needs of doctors to meet the objectives of National Tobacco Control Programme.

I express my gratitude to Dr. R.K. Srivastava, Director General of Health Services for his continuous and valuable guidance throughout the development of this manual.

I gratefully acknowledge the contributions made by Dr. D.C. Jain, Deputy Director General Health Services and Dr. Jagdish Kaur, Chief Medical Officer; who were closely involved in developing the concept as well as contents of this training manual.

The valuable inputs and support provided by Prof. Bir Singh, CCM, AIIMS; Prof. Jugal Kishore, Department of Preventive & Social Medicine, MAMC; Dr. S.K. Satpathy, Public Health Foundation of India; Ms Vineet Gill Munish, NPO, WHO-India and Ms Monika Arora, Director, HRIDAY are sincerely acknowledged.



Dr Dinesh Bhatnagar  
Additional Director General Health Services



# Abbreviations

COTPA -	Cigarette and Other Tobacco Products (Prohibition of advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act
ETS -	Environmental Tobacco Smoke
GATS -	Global Adult Tobacco Survey
GYTS -	Global Youth Tobacco Survey
ICMR -	Indian Council of Medical Research
NRT -	Nicotine Replacement Therapy
NTCP -	National Tobacco Control Programme
SHS -	Second Hand Smoke





# Contents

<b>CHAPTER 1 - THE TOBACCO BURDEN AND ITS HARMFUL EFFECTS</b>	<b>1</b>
1.1 Tobacco Burden	
1.1.1 Global Scenario	
1.1.2 Indian Scenario	
1.1.3 Types of tobacco use in India	2
1.2 Harmful effects of tobacco use-	3
1.2.1 Harmful effects of Smoking forms of tobacco	
1.2.2 Harmful effects of smokeless tobacco use	4
1.2.3. Diseases caused by Exposure to Second Hand Smoke	5
1.2.4. Third hand tobacco smoke	6
1.3 Environmental effects of tobacco	
1.4 Socio economic burden of Tobacco	
1.5 Occupational hazards of tobacco	7
1.6 Tuberculosis and Tobacco	
<b>CHAPTER 2 - PREVENTION AND CONTROL OF TOBACCO USE</b>	<b>9</b>
2.1 Why do people use tobacco?	
2.2 Tobacco addiction	
2.3 Levels of Prevention	10
2.4 Why intervene?	
2.5 What is Cold Turkey?	
2.6 Behavioral Counseling for Tobacco Cessation	
2.7 Nicotine Withdrawal Symptoms	14
2.8 Pharmacotherapy	
2.8.1 Introduction to Pharmacotherapy	
2.8.2 Informed consent for Pharmacotherapy	
2.8.3 When to Prescribe Pharmacotherapy	
2.8.4 How to prescribe Pharmacotherapy	15
2.8.5 Pharmacotherapy for smokeless tobacco users	17
2.8.6 Method of using nicotine gum	
2.9 Relapse	
<b>CHAPTER 3 - NATIONAL TOBACCO CONTROL PROGRAMME (NTCP)</b>	<b>18</b>
3.1 Overview of NTCP	
3.2 Integration of NTCP with other health interventions / programmes:-	19
3.3 Tobacco control law and its implementation	20
3.4 WHO FCTC (Framework convention on tobacco control)	21
3.5 WHO MPOWER Strategy	
<b>CHAPTER 4 - MONITORING AND IMPACT ASSESSMENT</b>	<b>22</b>
<b>CHAPTER 5 - POINTS TO REMEMBER</b>	<b>23</b>
<b>REFERENCES:-</b>	<b>24</b>
Appendix 1 : Screening for nicotine dependence	25



# CHAPTER-1

## The Tobacco Burden and its harmful effects



due to diseases resulting from tobacco consumption. More than 80% of these deaths occur in the developing countries. The two most populous countries in the world, China and India also happen to have the maximum number of smokers (almost 40% of all smokers) in the world (WHO, 2008). Moreover, the developed countries are at present in the fourth stage of tobacco epidemic that means there is decline in the percentage of smokers as well as deaths caused by smoking.

### 1.1.2 Indian Scenario

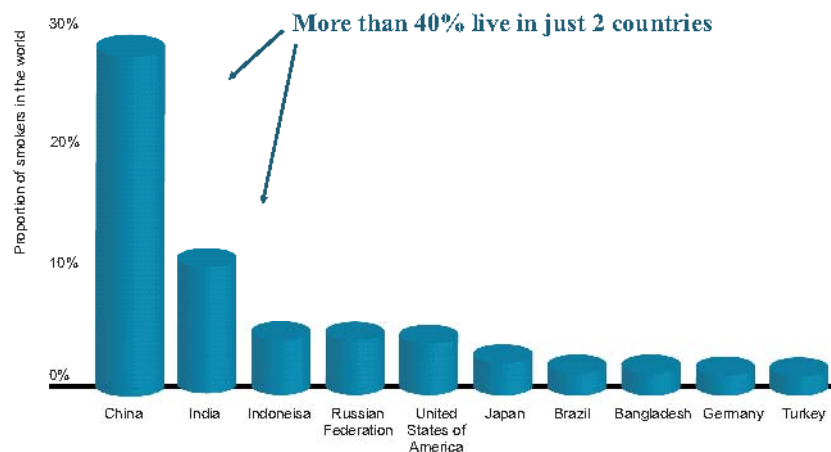
India is the second largest consumer of tobacco (after China) in the world and also the second largest producer of tobacco (after China). India at present is in the second stage of tobacco epidemic, whereby the percentage of smokers as well as deaths due to smoking are on the rise. Every year, almost 1 million people die due to diseases caused by tobacco use in India. All these deaths are preventable. The deaths caused by tobacco are more than those caused by Malaria, TB and HIV/AIDS combined.

## 1.1 Tobacco Burden

### 1.1.1 Global Scenario

Tobacco is the foremost preventable cause of death and disease in the world today. Globally approximately 5.4 million people die each year

### Nearly Two - Thirds of World's Smokers Live In Just 10 Countries



Source: MPOWER package, 2008

As per GATS, more than one third (35%) of adults in India use tobacco in some form. The use of smokeless tobacco is much more prevalent than smoking tobacco. The prevalence of smokeless tobacco use (26%) is almost twice of the prevalence of smoking (14%). Five percent of adults use both, smoking as well as smokeless tobacco. The prevalence of tobacco use (both smoking and smokeless forms) is higher in rural areas as compared to urban areas. Women use mainly the chewing forms of tobacco (smokeless).

In all the states/UTs, prevalence of both, smoking and smokeless tobacco use among men is higher than among women. However there are some exceptions like Mizoram, Tripura, Meghalaya, Tamil Nadu, and Puducherry where prevalence of smokeless tobacco is higher among women than men.

More than 75 percent of tobacco users, both, smokers as well as users of the smokeless tobacco, are daily users of the tobacco.

Khaini (tobacco lime mixture) is the most commonly used tobacco product in India. One in every eight adults chew Khaini (12%) and 8 percent and 6 percent adults use Gutkha and betel quid with tobacco (paan) respectively. Five percent of adults use tobacco products like snuff, mishri, gul, gudakhu for oral application. Bidi is the most commonly used smoking product, followed by cigarette and hukkah. Nine percent of adults in India smoke Bidi, 6% smoke cigarette and about one percent smoke hukkah. Among both men and women, the prevalence of cigarette smoking is higher in urban areas but, the prevalence of all other smoking products is higher in rural areas.

Global Youth Tobacco Survey (GYTS India 2009) indicated that 14.6% school going children in the age group of 13-15 years consumed tobacco in some form. Out of this, number of children using smokeless tobacco products was high. It was found that 9% children in this age group were using smokeless tobacco products (11.1% boys, 6% girls) and 8.1% children were smokers (11.2% boys, 3.7% girls).



### 1.1.3 Types of Tobacco use in India

Tobacco is consumed in a variety of smokeless and smoking forms in India. Smokeless tobacco is used by either chewing, applying to teeth and gums, inhaling, gargling etc. Smokeless tobacco products used in India include chewing tobacco products e.g. khaini, gutkha, betel quid with tobacco and pan masala with tobacco. Other smokeless tobacco products used are mishri, gul, bazaar, gudakhu, etc. which are used for application to teeth and gums, and snuff which is used for inhaling. In some north-eastern states like Mizoram and Manipur, tobacco water (tuibur) is manufactured by passing tobacco smoke through water and consumed orally. The smoked tobacco products include bidis, pipes, cigars, hukkah, and some other smoking tobacco products like Chuttas, Dhumti, Chillum etc.



Types of smokeless tobacco products in India

*\*Photos for representation use only*

## 1.2 Harmful effects of tobacco use

### 1.2.1 Harmful effects of Smoking forms of tobacco

Essentially all body systems (Nervous, Respiratory, Digestive, Circulatory & Haematological, Immune, Endocrine & Metabolism, Excretory, Reproductive, Sensory, Cutaneous, Skeletal) are affected by smoking.

Harmful effects of tobacco are due to its constituents. Tobacco smoke contains more than 7000 chemicals, hundreds of which are toxic and atleast 69 are carcinogenic.

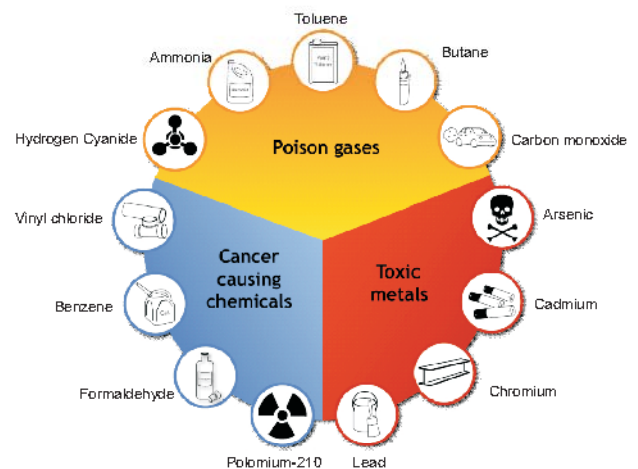
#### Early death

Tobacco is the single most important cause of preventable death worldwide. Half of all smokers die of a tobacco related disease. Of those who die of tobacco related causes, about half die in productive middle age, resulting in major impact on the still dependent families. As per available evidence, tobacco use leads to reduction in life span ranging from 7-10 years.

#### Diseases and disability:

**Cancers:** Almost 50% of cancers among men and 25% among women in India are associated with use

### Constituents of Tobacco Smoke



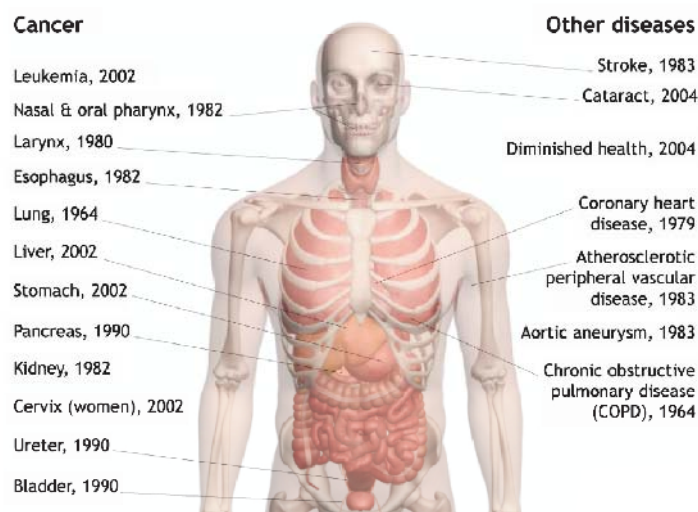
of tobacco. Cancer of the oral cavity and tongue, larynx and pharynx, lung, oesophagus, stomach, pancreas, liver, kidney, ureter, urinary bladder and uterine cervix, are associated with tobacco use.

**Cardiovascular disease:** Heart disease, abdominal aneurism, peripheral vascular disease, cerebral strokes.

**Chronic obstructive lung disease (COPD):** usually a combination of emphysema and chronic bronchitis - disabling life threatening conditions.

**Tuberculosis (TB):** TB is about 3 times more common among ever-smokers than among never smokers and mortality due to TB is 3-4 times greater among smokers than nonsmokers.

### Harmful effects of active smoking on human body\*



\*Year of evidence is given along with name of disease



Oral conditions : Periodontitis and dental caries, halitosis (bad breath) and oral infections, discoloration of teeth etc.



Picture showing Periodontitis

**Other adverse effects of smoking:**  
 Low Birth Weight (LBW) Babies : LBW is a risk factor for infant deaths.  
 Cleft palate is a congenital defect that is also a possible consequence of cigarette smoking by pregnant mother.  
 Reduced Fertility and Sexual impotence in men.  
 Retarded wound healing after surgery.  
 Discoloration of nails, wrinkling of skin etc.

### 1.2.2 Harmful effects of Smokeless Tobacco use

#### EARLY DEATH

Smokeless tobacco users have a risk of dying earlier than people who do not use smokeless tobacco.

#### ORAL CANCER

India has the world's highest incidence rates of oral cancer and nearly two third of the world's cases of oral cancer are reported from India. Oral cancer is the most common cancer among men in India and most of these cancers are primarily due to tobacco use.



Picture showing Oral Cancer



Picture showing Oral Cancer

#### OTHER CANCERS:

Pancreatic cancer.  
 Oesophageal cancer (chewing of paan with tobacco).

#### OTHER DISEASES:

Cardiovascular diseases.  
 Chronic bronchitis is linked to use of snuff.  
 Low birth weight babies and stillbirths.  
 Reduced fertility in men.  
 Retarded wound healing.  
 Periodontal diseases, halitosis (bad breath), and oral infections.

#### Oral Submucous Fibrosis

It is evident from many studies that use of chewing /oral tobacco leads to oral Submucous fibrosis, and precancerous lesions.



School children in India with Submucous Fibrosis or lock jaw caused by Guthka chewing.

Majority of the Submucous Fibrosis progresses to cancer

Dr Pankaj Chaturvedi

### 1.2.3. Diseases caused by Exposure to Second Hand Smoke

Second Hand Smoke (SHS) is the smoke exhaled by a smoker (mainstream smoke) or smoke emanating from the burning end of a cigarette/bidi/cigar etc. (side stream smoke).



In India, smoking is more prevalent among men; therefore women and children are exposed to SHS


both at homes and in the community settings. Moreover, as the awareness regarding harmful effects of SHS on health is low, the exposure remains high in the absence of any attempts to remain away or even ask the smokers not to smoke when others are around them.

As per GATS India, 2010, more than 52% of the adults in India were exposed to second hand smoke at home and 29% in public place. Among the adults who work outside the home but indoors, 30 percent were exposed to second hand smoke. More than one-half of the persons were exposed to second hand smoke at workplace in Mizoram (62%), Nagaland (59%), Jammu & Kashmir (58%) and Meghalaya (51%).

Exposure to SHS results in lung cancer and heart diseases among adults, and SIDS (Sudden Infant Death Syndrome), chronic respiratory infections, exacerbation/ worsening of asthma, reduced lung function growth, middle ear diseases, and acute respiratory illnesses among children. Smoking in the home affects babies and young children as well as the elderly and other adults, especially women.

#### Diseases and Adverse health effects caused by second hand smoke

Adults	Children
Lung cancer	SIDS
Heart disease	Exacerbation of asthma
	Chronic respiratory illness
	Reduced lung function growth
	Middle ear disease
	Acute respiratory illness





### 1.2.4 Third hand tobacco smoke

Third-hand smoke is tobacco smoke contamination that remains after the bidi/cigarette has been extinguished. A new study has shown that the residue from tobacco smoke that clings to virtually all surfaces long after a bidi/cigarette has been extinguished could prove to be a potential health hazard.



Residues follow a smoker back inside and get spread everywhere. The biggest risk is to young children. Dermal uptake of the nicotine through a child's skin is likely to occur when the smoker returns and if nitrous acid is in the air, which it usually is, then TSNAs (Tobacco Specific Nitrosamines) will be formed. TSNAs are known to be some of the most potent carcinogens.

### 1.3 Environmental effects of Tobacco

- Tobacco contributes to deforestation in three ways: forests cleared for cultivation of tobacco, fuel-wood stripped from forests for curing tobacco leaves and forest resources used for packaging of tobacco, tobacco leaves, cigarettes, etc.
- Tobacco growing depletes soil nutrients at a much faster rate than many other crops, thus rapidly decreasing the fertility of the soil.
- Tobacco is a sensitive plant and therefore, requires intensive inputs of pesticides and fertilizers. Such chemicals may run off into water bodies, contaminating local water supplies, causing excessive leeching etc.

- Frequent contact with and spraying of chemicals, and storage of tobacco in the residential premises of farmers have adverse health effects.

- Cellulose contained in cigarette butts is non biodegradable and pollutes the environment. Empty packs of gutkha, khaini etc. add to the non biodegradable waste, choke up drainage system and add to pollution.

### 1.4 Socio economic burden of Tobacco

- A Health Cost Study (1998-99) conducted by ICMR observed that cost of treating tobacco related illnesses far exceeded taxes collected from tobacco. As against more than ₹ 27,000/- crore collected as revenue, approximately ₹ 30,000/- crore was spent on treating only three diseases (cancers, cardiovascular and pulmonary diseases caused by tobacco use) at the rates of year 2002.

- Tobacco users spend a substantial part of their income in purchasing various tobacco products from the market. As the use of tobacco is more prevalent among low socio economic groups, the amount spent on buying tobacco compromises the basic necessities of the family e.g. food, clothes, education of children etc.

- As per GATS, 2010, the average monthly expenditure in India by the current smokers on cigarettes and bidis is ₹ 399/- and ₹ 93/- respectively.

- The average amount of expenditure in purchasing tobacco products namely cigarettes, bidis and smokeless tobacco is highest in north-eastern part of India, where tobacco use prevalence is also high.

- As per estimates, 10 million farmers, farm workers, middlemen, agents, bidi workers (ILO 2002 estimates- 5.5 million bidi hand rollers, 85% of whom are women and children) work for tobacco cultivation and manufacturing.

- The tobacco workers, especially the women bidi rollers undergo lot of exploitation by middlemen and are paid very low wages for their work.

## 1.5 Occupational hazards of tobacco

- Green tobacco sickness- Farmers and farm workers who come in contact with tobacco leaves suffer from Green tobacco sickness due to absorption of nicotine through skin. The symptoms consist of nausea, vomiting and dizziness.
- Chronic lung diseases and TB - Bidi rollers who inhale tobacco dust on constant basis, along with absorption of nicotine through skin, develop many chronic pulmonary diseases and are prone to TB.
- Musculoskeletal problems - Especially among the women bidi workers who sit for long hours for rolling bidis.
- Skin conditions - Long durations of bidi rolling results in thinning out of skin of fingers resulting in difficulty in performance of daily chores.

## 1.6 Tuberculosis and Tobacco

Tobacco smoke contains toxic chemicals which cause disturbances in the bronchial surface of the lung. It also weakens immunity of patient to fight with bacteria of TB.

The following evidence emerges from many studies conducted to look at the association of TB and tobacco in India :

- Almost 38% of TB deaths among men are associated with use of tobacco.
- Prevalence of TB is three times as higher among ever smokers as compared to that of among never smokers.
- Mortality from TB is three to four times as higher among ever smokers as compared to that among never smokers.

- Smoking contributes to half the male deaths in 25-69 age groups from TB in India.

Exposure to tobacco smoke has been found to:-

1. Increase the risk of tuberculous infection and the risk of developing TB.
2. Affect the clinical manifestations and increase the risk of relapse.
3. Affect bacteriological conversion (sputum smear or culture) and outcome of treatment.
4. Increase tuberculosis related mortality and drug resistance to anti-tubercular drugs.



### QUIT TOBACCO STOP TB

The recognition of the association between TB and tobacco smoke makes it imperative to carefully consider exposure to tobacco smoke in efforts to reduce risks for TB.

Preventing initiation of smoking and promoting quitting are important and effective strategies to reduce incidence and mortality due to TB.

### **Points to remember while providing TB treatment:**

- It is very important to ask about tobacco use and counsel the patients to quit smoking.
- The doctors must ensure that patients know about the association of their problem with tobacco use.
- The fact that their treatment will be more effective if they quit smoking needs to be emphasized by all physicians.
- The doctor must also point out that there is a risk of TB relapse if the TB patient continues to smoke.
- Therefore, along with the treatment, it is of paramount importance that the patient does not smoke tobacco in any form whether bidi, cigarette, or hookah.
- Repeated cautioning against continued smoking/tobacco use during tuberculosis treatment is an important part of the management of tuberculosis.

### **Role of medical officers in controlling infection/disease/ deaths due to association of TB and tobacco smoking:**

- At the time of seeking treatment, a symptomatic patient is receptive to medical advice and it is found that the tobacco cessation is more successful during this period. Based on information gathered by the treatment provider, brief advice on tobacco cessation is given. It takes less than 3 minutes but goes a long way towards achieving better treatment results and preventing deaths for TB patients.
- Every patient with TB needs to be asked about tobacco use. Five "A"s approach is followed, and for a patient who is unsure about quitting, 5 "R"s approach is used. (Refer to Chapter 2)
- In order to protect patients of TB from SHS, the advice should be given to maintain smoke free environments at home and workplaces also.

# CHAPTER-2

## Prevention and Control of Tobacco use.

### 2.1 Why do people use tobacco?

#### Reasons for initiating Tobacco use :-

This may depend on social class and local factors, some of which are as under :

- Peer influence and pressure.
- Advertisements/promotion of tobacco products through films, free distribution, sponsorships etc.
- Curiosity and experimentation.
- Fun and enjoyment.
- A challenge, a sign of rebellion.
- Relief of negative feelings like stress, anxiety, boredom.

- An act to cover up insecurity.
- To appear grown up, stylish, independent, sophisticated.
- Dental problems - toothache.

#### Reasons for continued use of tobacco:-

- Addiction/Dependence.
- Conducive environment.
- Propensity due to factors such as low level of education, social class etc.
- Relief of negative feelings like stress, emotional problems, anxiety, boredom.
- Lack of cessation support & services.

### 2.2 Tobacco addiction

#### What is addiction?

Addiction is a physical and/or psychological dependence on a substance or behaviour. The words addiction, dependence and dependency have become interchangeable. The World Health Organization defines substance abuse disorder / dependence in the International Classification of Diseases (ICD)-10.

#### Tobacco use is addictive

Nicotine, contained in tobacco, causes an abnormally large flow of certain brain chemicals (e.g., dopamine) that induce a sense of heightened well-being, followed by an abnormally light feeling. This causes cravings, which can be relieved by a repeated use of tobacco. The addicted person typically repeats the use of tobacco over and over again. Cravings are strong enough to cause users to minimize, deny or temporarily forget that tobacco is harmful to them. Many users say that they are unable to quit. Some feel helpless. Another way nicotine induces dependence is the adrenaline rush it produces each time it is used.

Once addiction is reached, the tobacco user experiences withdrawal symptoms. At some point the new user regrets having become dependent on tobacco and wants to quit using it.

## 2.3 Levels of Prevention

Disease prevention in tobacco users always involves informing users about the health risks they face and promoting cessation (quitting) of tobacco use.

**Failure to intervene and treat tobacco use constitutes an inappropriate standard of health care.**

- **PRIMORDIAL PREVENTION** to prevent initiation of tobacco use.
  - To be provided in the community & the clinic.
  - Health education to prevent initiation of tobacco use especially at school level.
  - Check-ups & monitoring.
  - Enforcing policies.
- **PRIMARY PREVENTION** to help tobacco users quit
  - To be provided in clinics.
  - Tobacco cessation services for tobacco users who haven't yet exhibited any tobacco related diseases.
- **SECONDARY PREVENTION** for early diagnosis and treatment of diseases in tobacco users. (e.g. Screening for oral cancer and pre cancerous lesions).
- **TERTIARY PREVENTION** to help heavy users quit, many of whom have tobacco related symptoms and diseases.
  - Has to be done in special clinics or hospitals.
  - Treatment for heavy users and victims of tobacco related diseases (oral cancer, cardiovascular and lung diseases, etc.): disease treatment plus cessation services.

## 2.4 Why intervene?

The intervention by a health care professional, can help motivate patients to change their behavior. This is important even for patients who have adequate knowledge about why they should quit using tobacco, because of the nature of addiction, and is even more important for those who do not have such knowledge. Intervention helps them to think about the importance of quitting tobacco use because of the authority and standing the health care professional enjoys in society. Physicians are viewed not only as clinicians, but also as educators and role models.

## 2.5 What is Cold turkey ?

A tobacco user is able to quit the use of tobacco with the help of his/her will power without any assistance.

## 2.6 Behavioral Counseling for Tobacco Cessation

Brief advice for quitting tobacco use consists of 5 'A's

1. **Ask**  
Ask the patient if he/she is a tobacco user, at every visit.
2. **Advise**  
Briefly Advise against continuing tobacco use and link the current condition/ailment to continued tobacco use, where possible e.g. "Quitting smoking/tobacco use would improve your health and will aid in early recovery".
3. **Assess**  
Assess readiness to quit by asking the patient whether he or she is ready to quit at this time. e.g. "How recently have you thought about quitting tobacco?"

If the patient appears ready to change (quit), next steps are :

1. **Assist**  
Assist the tobacco user in making a quit plan.
2. **Arrange**  
Arrange for follow-up by setting the next contact.

**Approach for a current tobacco user who has not considered quitting tobacco use (5 'R's)**

If the tobacco user is not yet thinking about quitting tobacco use, the doctor will promote greater awareness of the relevance to the patient of the advice to quit, the risks of use and rewards (benefits) of quitting. Many tobacco users are largely unaware of the potential harm that tobacco use can do to them. If the patient is not ready to quit, the doctor must not push the patient. People usually need time to change (incremental nature of change).

If the patient is at least thinking about quitting, the doctor can find out the patients' roadblocks to quitting and help the patient see ways to

overcome these. This process may be enough to help the patient get ready to quit (without pushing).

At the next visit, this process should be repeated so that the information about relevance, risks of continuing and rewards of quitting can sink in a little more and some roadblocks can be removed.

As you can see, the doctor must try to make the tobacco user think about quitting. This is important because there are so many other forces acting that are difficult to control, physiological compulsions to use tobacco, learned habits, social pressures, accessibility etc. Engaging the mind of the tobacco user, bolstering it with new knowledge and a sense of caring by the person counseling can help motivate him/her to change. Follow-up is important to help keep the tobacco user on track until he or she is confident about remaining tobacco free.

**The 5 'R's of behavioral counselling are ::**

**1. Relevance**

Explain the relevance of quitting to the client and harmful effects of tobacco use.

**2. Risks**

Highlight the health hazards that are more relevant to the individual tobacco user.

**3. Rewards**

Benefits of quitting all forms of tobacco use should be explained to the tobacco user (Health, financial, approval of family etc.)

**4. Roadblocks**

Barriers that the client may face in his/her quit attempt should be identified. Withdrawal

symptoms, fear and concern associated with quitting, depression, lack of social support, enjoyment of tobacco are some of the barriers that the client may face in an attempt.

**5. Repetition**

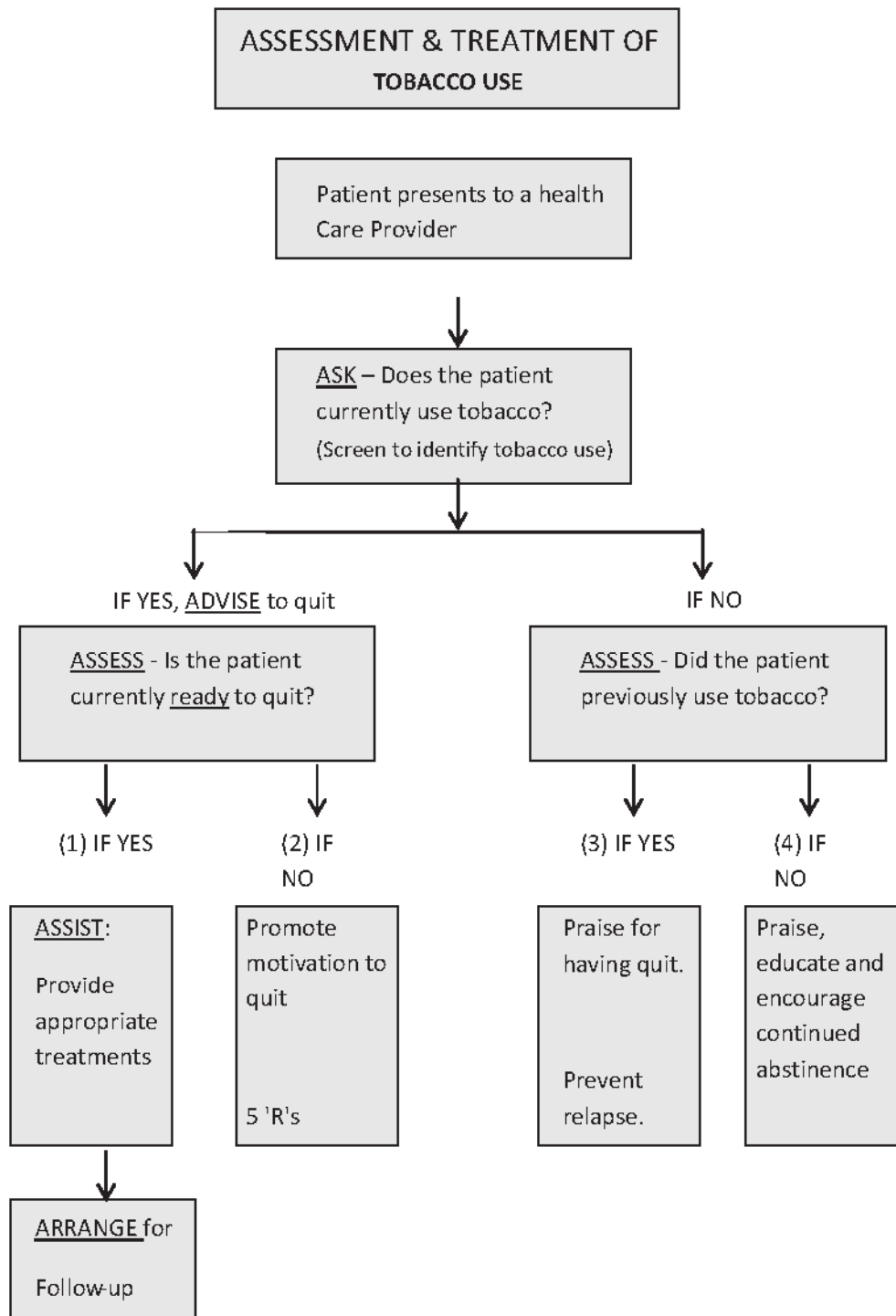
The physician should assure the client that because of chronic nature of tobacco dependence, relapses are common in the initial phases and multiple attempts may have to be made before he/she is able to quit tobacco.

**Further examples of rewards of quitting tobacco use**

The doctor should ask the patient to identify potential benefits of stopping tobacco use. The doctor may suggest and highlight those that seem most relevant to the patient. Examples:

- Improved oral health: healthier gums and teeth, better smelling breath.
- Feel better / perform better.
- Have more energy.
- Food will taste better.
- Save money.
- Set a good example to children.
- Can stop worrying about quitting.
- Reduce risk; live longer and healthier.
- Prevent exposure to SHS for smoker's family.

## Intervention Method Algorithm for Quitting Tobacco Use





**Advice every patient who is tobacco user, the Benefits of Quitting :-**

**AFTER**

**20 Minutes**

Blood pressure and pulse drop to a normal rate  
Temperature of hands and feet increases to normal

**8 Hours**

Carbon monoxide level in blood drops in normal  
Oxygen level in blood goes up to normal

**24 Hours**

Chance of heart attack starts going down

**48 Hours**

Nerve endings start growing again  
Ability to smell and taste begins to improve

**2 Weeks to 3 Months**

Circulation improves  
Walking gets easier  
Lung function improves up to 30%  
"I can talk again when I walk up stairs!"  
"It's great to not have to clear my throat all the time."

**1 Months to 9 Months**

Coughing, sinus congestion, tiredness and shortness of breath decrease  
Cilia (small hairs) grow back in lungs to better handle mucous, clean the lungs and reduce infection  
"I've missed so much less work because I get fewer colds and sore throats."  
"It's such a relief to not be bogged down with those headaches."  
"I can concentrate so much better."

**1 Year**

Risk of coronary artery disease is half that of a smoker  
"I'm not scared by heaviness in my chest in the morning anymore."

**5 Year**

Lung cancer death rate goes down by one half  
Risk of stroke becomes same as non-smoker  
Risk of cancer of the mouth, throat, oesophagus, bladder, kidney and pancreas goes down

In addition: If you have a chronic illness like diabetes, asthma or kidney failure, quitting can dramatically improve your health.

Source : <http://www.quit tobacco.whyquit/physicalbenefits.html>

**Specific advice to the tobacco user to quit**

It is ideal if you can provide the following advice yourself. Otherwise you may take the help of your nursing colleague or a counselor.

Ask the patient to **START** a tobacco-free life and assist, encourage and advise the patient where applicable. Advise the patient following tips:-

- Set a quit date.
- Tell family, friends and co-workers your plan to quit so that they are able to provide support.
- Anticipate and plan for challenges - These can be short term, like triggers and withdrawal symptoms, and long term challenges, like stressful situations and feeling down. Discuss challenges/triggers and how the patient will successfully overcome them (e.g., avoid triggers, alter routines).
- Remove all tobacco products & related items e.g. ashtrays, lighters from your home, surrounding and workplace.
- Stay away from smokers/tobacco users.
- Talk to your doctor about getting help to quit, including practical counseling and pharmacotherapy.

**Ask patients about their use of tobacco at every visit and offer brief advice.**

**Record tobacco use and brief advice offered to the patient in the treatment card during each visit for treatment and follow up.**



## 2.7 Nicotine Withdrawal

### Symptoms

- Cravings for tobacco
- Anxiety, nervousness, restlessness
- Headaches
- Irritability
- Difficulty in concentrating or thinking clearly
- Depressed mood
- Tiredness
- Insomnia
- Increased appetite (hunger) and weight gain

Note: Everyone does not have the same list of symptoms

### Helpful tips for facing withdrawal:

The patient needs the most support during the first three days and the first three weeks after stopping tobacco use, as cravings are strongest and most frequent. You or your staff will need to be available to advise and encourage the patient during this time.

Craving attacks are not expected to last more than three minutes each, although due to addiction the sense of time gets distorted and the attacks seem much longer. The patient can time them.

Alternatives like chewing anise seeds (saunf) are effective for many patients. Deep breathing, taking walks, and drinking water are also helpful.

## 2.8 Pharmacotherapy

### 2.8.1 Introduction to Pharmacotherapy

Some drugs have been studied for their potential to help smokers and tobacco users quit smoking/tobacco use. Research is ongoing to develop a wider range of such medications and broaden the effects. Pharmacotherapy, is the use of medications to minimize the effects of craving and other withdrawal symptoms and make quitting easier. The rationale goes that if a patient is told

that he can be given a medication to reduce withdrawal symptoms, which he fears, he may be more motivated to try quitting (decisional balance). Such drugs include pure nicotine, as a gum, lozenge, nasal spray or inhaler or patch, antidepressants or other medications as oral pills.

The first type of pharmacotherapy developed for smoking cessation was nicotine replacement therapy (NRT), forms of purified nicotine, which are still being prescribed (Stead et al., 2007). Next, antidepressants were found effective for smoking cessation: bupropion (first choice), and nortriptyline (second choice) (Hughes et al, 2006). Varenicline (Nicotinic acetylcholine receptor partial agonist) is the latest addition and have shown higher quit rates in the clinical trials. This was approved by FDA in 2006 and was introduced in India in 2008.

### 2.8.2 Informed consent for pharmacotherapy

Be sure to explain to your patient just what the expected effect of the prescribed medicine is and what are the possible side-effects.

### 2.8.3 When to Prescribe Pharmacotherapy

- All persons with severe dependence. A score of more than 6 on the Fagerstrom questionnaire (Refer appendix 1).
- Tobacco users with multiple failed self-attempts.
- Tobacco users unable to abstain with brief intervention alone.

The following clinical indicators may be used to assess dependence.

1. Using tobacco within the first 30 minutes of waking up.
2. Using more than 20 cigarettes or bidis every day or using very high quantity of smokeless tobacco.

## 2.8.4 How to prescribe Pharmacotherapy

	Dosage and duration	Side effects	Contraindications <sup>2</sup>
<b>1. Nicotine Replacement Therapy (NRT)<sup>1</sup></b>			
a. Nicotine gum	For 1-24 cigarettes/ bidis - 2mg gum (up to 24 pieces/ day) for 12 weeks  For ≥25 cigarettes/ bidis - 4mg gum (up to 24 pieces/ day) for 12 weeks  Chewers need about half or a quarter of the dose as prescribed for smokers.	Mouth soreness, burning in the mouth, throat irritation, dyspepsia, nausea, vomiting, hiccups and excess salivation	Gastric Ulcers, myocardial infarction or stroke in the past two weeks or poorly controlled cardiovascular disease. <sup>3</sup>  If a patient has any serious medical condition, refer to an appropriate specialist.
b. Nicotine patch	21mg/24 hours for 4 weeks then 15mg/24 hours for 2 weeks followed by  7mg/24 hours for 2 weeks.	Local skin reaction, insomnia	Myocardial infarction or stroke in the past two weeks or poorly controlled cardiovascular disease <sup>3</sup>  If a patient has any serious medical condition, refer to an appropriate specialist.
c. Nicotine inhaler	6-16 cartridges/day for 6 months	Local irritation of mouth and throat	- DO -
d. Nicotine nasal spray	1-2 doses/hour for 3 to 6 months	Nasal irritation, irritation of throat, coughing and watering of eyes.	- DO -
<b>2. Non-NRT</b>			
a. Bupropion	150mg OD for 3days followed by 150mg BD for 7 to 12 weeks.  Bupropion is started while the person is still using tobacco. The person can completely quit two weeks after initiating bupropion.	Agitation, restlessness, insomnia, gastrointestinal upset, anorexia, weight loss, headache and lowering of seizure threshold ( at doses above 600 mg/day). Rarely allergic reactions can occur, including skin rashes, fever, muscle and joint pain.	History of allergy, tumours of central nervous system, severe liver diseases, undergoing unsupervised withdrawal of alcohol or benzodiazepenes, uncontrolled seizures, pregnant and lactating women, those below 18 years, and persons on monoamine oxidase inhibitors.

<sup>1</sup> Only Nicotine gum is available in India (in 2mg & 4 mg strength)

<sup>2</sup> For pregnant and lactating mothers, shorter-acting NRTs such as gums are recommended.

<sup>3</sup> NRT can be prescribed to persons with underlying stable cardiovascular disease, including angina and previous myocardial infarction.

	<b>Dosage and duration</b>	<b>Side effects</b>	<b>Contraindications<sup>2</sup></b>
b. Varenicline	Initially 0.5 mg once daily for the first three days, increased to 0.5 mg twice daily for the next four days, and then increased to 1mg twice daily for 12 weeks. The person can quit one week after initiating Varenicline	Agitation, depression, restlessness, insomnia, bad dreams, suicidal ideations, gastrointestinal upset and headaches. Allergic reactions may occur rarely.	Pregnant women, children or people with mental illness. Stop treatment if changes in mood & behavior, agitation and suicidal ideations occur.

### **2.8.5 Pharmacotherapy for smokeless tobacco users**

The nicotine gum has been used for smokeless tobacco users. High-dose nicotine gum and patch therapy is safe and well tolerated by heavy smokeless tobacco users and reduces withdrawal symptoms.

Many studies have found bupropion (an anti depressant) effective for cessation of smokeless tobacco use.

The most important interventions for smokeless tobacco users are an oral examination and counseling (behavioral intervention).

### **2.8.6 Method of using nicotine gum**

Nicotine gum is available in India without a prescription (2 mg.), however medical supervision is important as there are precautions and to help

patients achieve success in quitting. Medical prescription is required for Nicotine gum 4 mg.

The gum is to be chewed slowly (to avoid side effects like vomiting and hiccups) for about 5 minutes until a peppery taste is noticed and then parked between the gums and inner cheek for about 10 minutes. After this, the gum is to be chewed for 5 minutes more and parked on the other side of the mouth. This process can be repeated once more after which it is to be discarded in a safe place away from children or pets.

## **2.9 Relapse**

Relapse can occur in tobacco users who have quit. This basically means that following a successful quit attempt, the person has gone back to using tobacco. Tell the person not to be discouraged, and to try methods that worked before, or a different method. Never be judgemental and provide all possible support to tobacco user.

# CHAPTER-3

## National Tobacco Control Programme (NTCP)

### 3.1 Overview of NTCP

The Government of India launched National Tobacco Control Program (NTCP) in the 11th Five Year Plan (2007-12) to implement Tobacco Control Laws and bring about greater awareness about the ill effects of tobacco, institute a regulatory mechanism including laboratory facility for effective monitoring and implementation of anti tobacco initiatives at State/ District level.

The pilot phase of the NTCP was launched in 18 districts of 9 States (Assam, West Bengal, Madhya Pradesh, Tamil Nadu, Karnataka, Gujarat,

Rajasthan, Delhi, Uttar Pradesh). The program was subsequently rolled out in 12 additional states covering 24 districts (Bihar, Jharkhand, Orissa, Sikkim, Arunachal Pradesh, Mizoram, Nagaland, Tripura, Maharastra, Goa, Uttarakhand, Andhra Pradesh.)

The main components of NTCP are as under :

#### National level

- Public awareness/mass media campaigns for awareness building and for behavioral change.
- Establishment of tobacco products testing laboratories, to build regulatory capacity, as required under COTPA, 2003.
- Mainstreaming the programme components as part of the health delivery mechanism under the overall NRHM framework.
- Mainstreaming research and training on alternate crops and livelihoods with other nodal ministries.
- Monitoring and evaluation including surveillance e.g. Global Adult Tobacco Survey (GATS India).

#### State level

- Dedicated tobacco control cell for effective implementation and monitoring of Tobacco Control Initiatives at state level.

#### District level

- Dedicated tobacco control cell for effective implementation of Tobacco Control Initiatives at district level.

**Training:** Training of School teachers, health workers, health professionals, law enforcers, NGO's, women SHG's on tobacco control in the districts

**Information Education, Communication (IEC):** Using local media, Nukkad/Street Corner Shows, Exhibitions, Melas, etc in regional languages at the grass roots level.

**School Programme:** As part of School Health Programme of the state govt. or with the help of

NGOs to train school teachers and sensitize children on harmful effects of tobacco, SHS and provisions under the law; 50 Schools are covered in each district.

**Monitoring Enforcement of Tobacco Control Laws:** The implementation of tobacco laws in the district is monitored by establishing mechanism for the same at various levels.

**Tobacco Cessation Centers (TCC):** Setting up of Tobacco Cessation facilities at the District hospital level. A trained counselor provides these services.

### 3.2 Integration of NTCP with other health interventions/ programmes

We all know that tobacco is a risk factor for cancer of various organs, cardiovascular and pulmonary diseases, and is strongly associated with pulmonary TB. Nicotine contained in tobacco is highly addictive and leads to chronic dependence of tobacco users. Moreover use of tobacco products by pregnant women results in many adverse health effects and consequences of the unborn child.

There are a number of diseases control programmes, including National Rural Health Mission, under implementation by the Govt. All efforts must be made to integrate NTCP activities into other ongoing national health programmes like RNTCP (Revised National Tuberculosis Control Programme), National Mental Health Programme (NMHP), National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke (NPDCS), Reproductive and Child Health Programme (RCH), School Health Programme etc.

Following are some of the ways to integrate tobacco control and tobacco cessation with various ongoing programmes/initiatives :

- As mentioned earlier there is established causal association between Tobacco and Tuberculosis. All registered TB patients may be provided brief advice

on tobacco cessation during their treatment and monitored for quitting tobacco use.

- More than 50% of cancers in men and 25% in women are associated with tobacco use. India also has the highest burden of oral cancer in the world, and most of these cases are related to tobacco use. Tobacco control and counseling shall be integrated with components of National Cancer Control Programme at all levels. Tobacco cessation must form an integral part of preventive oncology and treatment of cancer patients. The awareness generation campaigns (IEC activities) under NCCP may also include information on health hazards of tobacco.

- Patients with mental illness (like depression, Schizophrenia etc.) are generally found associated with tobacco use. Mental illness gets aggravated due to the use of tobacco. People with mental illness are more likely to neglect their physical health and suffer more serious consequences. So it is important to provide tobacco cessation services to patients with mental illness.

- A large number of de addiction centres are functioning under Deaddiction Programme. Tobacco is generally considered to be a gateway drug for substance and alcohol abuse. The counseling for tobacco cessation may form a part of activities of these drug de addiction centres.

- Tobacco use is a risk factor for cardiovascular diseases and stroke. Prevention of risk factors is a very important component of National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke (NPDCS). The counseling for quitting tobacco use may be integrated with NPDCS.

- Harmful effects of tobacco use on pregnant mothers and children are well established. As per NFHS III, 8.4% of pregnant women use tobacco. All antenatal mothers may be asked about use of tobacco and it shall be recorded in ANC card. The tobacco users shall be offered brief advice by the doctor or health worker.

- There is evidence to suggest the association between smoking and HIV/AIDS. Under National AIDS Control Programme (NACP), more than 4000 ICTCs (Integrated Counselling and Testing Centres) have been established. These centres may provide counseling for tobacco cessation.

- School Health Programme is under implementation in 27 states /UTs in the country. As part of this programme, training of school teachers and sensitization of school children may be undertaken using the available infrastructure.

- Tobacco control must figure out prominently in all training manuals in respect of above stated health programmes listed above.

- An action plan may also be prepared to incorporate tobacco control in all health programmes.

- Moreover every IEC campaign at state and sub state level may include tobacco control as its integral part.

### 3.3 Tobacco control law and its implementation

#### Cigarette and Other Tobacco Product Act (COTPA) 2003

To protect the health of people from harmful effects of tobacco and SHS, with special emphasis on women and children, Government of India enacted "Cigarette and other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act in 2003. The specific provisions under the Act are as follows:

**Ban on smoking in public places** - To protect the people from harmful effects of Second Hand



Smoke (SHS), the smoking is banned in all public places

**Display of prominent signboard is mandatory at all public places.** As per the revised Smoke Free Rules, which came into effect from 2nd October, 2008, the Owner/Proprietor/ Manager or person in-charge of the public place will be responsible for keeping the area under his jurisdiction smoke free; failing to which he/she will be fined as per provisions under the Act.

Violation of this provision is punishable with a fine up to ₹ 200/-

**Ban on direct/indirect advertisement and sponsorship of tobacco products** - All forms of direct, indirect advertisements of tobacco products, sponsorship and promotion are banned under the law.

**Ban on sale of tobacco products to minors (below 18 year of age)** - Sale of tobacco products to persons under the age of 18 is banned and is a punishable offence.

**Ban on sale by minors** - Minors are prohibited from selling any tobacco products.

**Ban on sale of tobacco products within 100 yards of the educational institutions** - Sale of cigarette and other tobacco products in an area within a radius of 100 yards of all educational institutions is banned. The violation of this provision is punishable with a fine of up to ₹ 200/-.

#### Specified health warnings on tobacco products

Text and pictorial warnings depicting harmful effects of tobacco shall be displayed on all tobacco products as per prescribed specifications.

**Testing of tobacco products for their harmful contents and emissions (tar and nicotine)** .

The Violations may be reported on a National toll free helpline (24x7) no. **1800 110 456.**

### 3.4 WHO FCTC (Framework Convention on Tobacco Control)

- The WHO FCTC, is the first global health treaty negotiated under the auspices of the World Health Organization.
- It envisages measures to reduce the demand as well as supply of tobacco.

Measures to reduce the demand of tobacco are as follows :

#### Price and tax measures

- Raising taxes on all tobacco products to reduce the consumption.

#### Non-price measures:

- Protection from exposure to tobacco smoke.
- Regulation and disclosure of contents of tobacco products and smoke.
- Packaging and labeling of tobacco products.
- Prohibition on tobacco advertising, promotion and sponsorship (including cross-border advertising).
- Treatment of tobacco dependence (by promoting cessation of tobacco use).

Measures to reduce the supply of tobacco are as follows :

- Eliminate illicit trade in tobacco products.
- Prohibition on sale of tobacco products to and by minors.
- Provision of support for economically viable alternative activities for tobacco growers/ workers etc.

### 3.5 WHO MPOWER STRATEGY

- To help countries fulfill the obligations under FCTC, WHO has established MPOWER, the policies of which are proven to reduce tobacco use
- Following 6 policies are advocated to reverse the epidemic of tobacco :
- **MONITOR** tobacco use and prevention policies.
- **PROTECT** people from tobacco smoke.
- **OFFER** help to quit tobacco use.
- **WARN** about the dangers of tobacco.
- **ENFORCE** bans on tobacco advertising, promotion & sponsorship.
- **RAISE** taxes on tobacco products.



## CHAPTER-4

### Monitoring and Impact Assessment

- Number and percent of patients who received tobacco cessation services at the District hospital (monthly and annual).
- Number and percent of tobacco users (smokers and smokeless) who received brief routine counseling as tobacco cessation treatment.
- Number and percent of tobacco users (smokers and smokeless) who received pharmacotherapy as cessation treatment (monthly and annual).
- Number and percent of pulmonary TB cases (registered) who received brief routine counseling by the health worker / doctor and were non-smokers/tobacco users at the end of TB treatment/ after one year.
- Number and percentage of health units which are completely smoke-free in a district.
- Number of public and private health care facilities that are providing tobacco cessation services in a district.

The following process/outcome indicators are suggested for monitoring and evaluation :

- Number and percent of tobacco users (smokers and smokeless) who were able to successfully quit tobacco use at the end of 6 months and one year of receiving tobacco cessation services.
- Number and percent of health workers at primary health care settings (PHCs/CHCs) who have been formally trained in tobacco control and cessation treatment.
- Number and percent of doctors at primary health care settings (PHCs/CHCs) who have been formally trained in tobacco control and cessation treatment.

## CHAPTER-5

### Points to remember

7. If you are part of a professional organization, promote tobacco control initiative from its platform. E.g. encouraging and supporting other members to be role models by not using tobacco and undertaking awareness generating activities for the community/ population at large, including tobacco control in the agenda of conferences etc.
8. Actively support government in the implementation of law and other tobacco control strategies.



Video-clips and educational posters on display (targeting the patients coming to the clinical OPDs)

1. Be a non tobacco user as you are a role model for your patients.
2. Ask about smoking/ tobacco use history from all patients visiting you for health advice and record it.
3. Offer brief advice to all tobacco users and follow it up on each visit.
4. Make your facility smoke free i.e. ensure that "no smoking" boards are prominently displayed and do not allow smoking by any one at your health facility.
5. Refrain from accepting any kind of support from tobacco industry (financial or otherwise) and do not have any relationship with partners who interact with or have interest in the tobacco industry.
6. Educate all patients about harmful effects of tobacco and second hand smoke on their health and health of their family.

# References

## References

1. WHO report on the global tobacco epidemic. Geneva, World Health Organization, 2008.
2. Jha P, Jacob B, Gajalakshmi V, Gupta PC, Dhingra N, Kumar R, et al. A nationally representative case-control study of smoking and death in India. *N Engl J Med* 2008, 358:1137-47.
3. F. Ram et al. Global Adult Tobacco Survey 2009-10 Document. New Delhi, India, National Tobacco Control Programme, Ministry of health and family welfare, Govt. of India, 2010
4. WHO Framework Convention on Tobacco Control. 2004 (<http://www.who.int/fctc/en/> Accessed 4 January, 2011).
5. National tobacco control programme, Ministry of health and family welfare, Govt. of India. 2007 (<http://mohfw.nic.in/National%20Programme%20for%20Tobacco%20Control.htm> Accessed 4 January, 2011).
6. Ezzati M, Henley SJ, Lopez AD, Thun MJ. Role of smoking in global and regional cancer epidemiology: current patterns and data needs. *Int J Cancer*. 2005; 116:963-71.
7. Ezzati M, Henley SJ, Thun MJ, Lopez AD. Role of smoking in global and regional cardiovascular mortality. *Circulation*. 2005;112:489-97.
8. Gajalakshmi V., Peto R. (2009). Smoking, Drinking and Incident Tuberculosis in Rural India: population based case control study, *International Journal of Epidemiology*, 2009, vol. 38 (4), pp. 1018-25.
9. Gupta PC, Asma S (eds.) *Bidi Smoking and Public Health*, New Delhi: Ministry of Health and Family Welfare, Government of India, 2008.
10. Cigarette and other Tobacco Products (Prohibition of advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act in 2003. COTPA, National tobacco control programme, Ministry of health and family welfare, Govt. of India. 2007 (<http://mohfw.nic.in/National%20Programme%20for%20Tobacco%20Control.htm> Accessed 4 January, 2011).
11. Global Youth Tobacco Survey (GYTS), 2009 <http://www.who.int/tobacco/surveillance/gyts/en/>
12. ILO Report, 2002
13. Dr Rath, Dr Chaudhary; Report of an ICMR Task Force Study; Estimation of cost of tobacco related cancers; 1990- 1996.
14. Sunley Emil (2007), India the tax treatment of bidis. Report on tobacco taxation funded under the Bloomberg Global Initiative to reduce tobacco use.
15. Reddy KS, Gupta PC, editors. Prevalence of tobacco use. Report on Tobacco Control in India. New Delhi: Ministry of Health and Family Welfare, Govt. of India 2004.
16. Tobacco Atlas, III Edition, 2009.
17. WHO. Helping people quit tobacco: A manual for doctors and dentists, 2010.
18. National Cancer Registry Programme. ICMR.
19. U.S. Department of Health and Human Services. How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010.

## Screening for nicotine dependence

The Fagerstrom test for nicotine dependence is widely used as a screening test for the physical aspects of nicotine dependence. There are scales for both smoking and smokeless tobacco. Based on the score, the level of addiction can be low (score less than 4), medium (score 4-6) or high (score more than 6).

Fagerstrom test for smoking	Modified Fagerstorm test for smokeless tobacco users
<p>1. How soon after you wake up do you smoke your first cigarette/bidi?</p> <p>Within 5 minutes                      3  6 to 30 minutes                      2  31 to 60 minutes                      1  More than 60 minutes                      0</p>	<p>1. How soon after you wake up do you use your first dip/chew?</p> <p>Within 5 minutes                      3  6 to 30 minutes                      2  31 to 60 minutes                      1  After 60 minutes                      0</p>
<p>2. Do you find it difficult to refrain from smoking in places where it is forbidden?</p> <p>Yes                      1  No                      0</p>	<p>2. How often do you intentionally swallow tobacco juice?</p> <p>Always                      2  Sometimes                      1  Never                      0</p>
<p>3. Which cigarette/bidi would you hate to give up most?</p> <p>The first one in the morning                      1  All others                      0</p>	<p>3. Which chew would you hate to give up most?</p> <p>The first one in the morning                      1  All others                      0</p>
<p>4. How many cigarettes/bidi do you smoke per day?</p> <p>10 or less                      0  11-20                      1  21-30                      2  31 or more                      3</p>	<p>4. How many cans/pouches of smokeless tobacco do you use per day?</p> <p>&gt;3                      2  1-3                      1  &lt;1                      0</p>
<p>5. Do you smoke more frequently in the first hours after waking up than during the rest of the day?</p> <p>Yes                      1  No                      0</p>	<p>5. Do you chew tobacco more frequently in the first hours after waking up than during the rest of the day?</p> <p>Yes                      1  No                      0</p>
<p>6. Do you smoke when you are so ill that you are in bed most of the day?</p> <p>Yes                      1  No                      0</p>	<p>6. Do you chew when you are so ill that you are in bed most of the day?</p> <p>Yes                      1  No                      0</p>



Almost one million people die due to tobacco use in India every year. This is more than the deaths combined from HIV/AIDS, malaria and tuberculosis, making it a major public health challenge.

The existing medical curriculum does not adequately address the problem of tobacco consumption, exposure to second hand smoke and tobacco cessation. Medical Professionals are not appropriately sensitized towards the provisions under the Tobacco Control Act, 2003 and the WHO Framework Convention on Tobacco Control (FCTC). This manual has been developed with a view to address these issues and to train doctors in integrating tobacco cessation into their routine practice, thereby playing a key role in controlling tobacco epidemic in the country.

# TRAINING MANUAL FOR DOCTORS

*National Tobacco Control Programme*



Directorate General of Health Services,  
Ministry of Health & Family Welfare, Government of India.