

#### **Cancer Fight Foundation**

www.drsuvadipchakrabarti.com

# TOBACCO RELATED CANCERS

Dr Suvadip Chakrabarti MCh (Surgical Oncology), MS (Mumbai) Consultant Surgical Oncologist Tobacco remains one of the leading cause of a
 DEATH worldwide

Projected to leave over a billion dead in the 21<sup>st</sup>
 Century\*

\* WHO report on Global Tobacco Epidemic 2008: the MPOWER Package Geneva

 14 low and middle income countries (India, Bangladesh, Brazil, China, Egypt, Mexico, Phillipines, Poland, Russia, Thailand, Turkey, Ukraine, Vietnam & Uruguay

• 41% men & 5% women currently smoke.

#### **Global Adult Tobacco Survey**

- Seventeen million new cases are expected worldwide by 2020 with three-fourth of the cancer-related deaths occurring in developing countries of the world.<sup>1</sup>
- Out of all cancers, tobacco-related cancer (TRC) accounts for major share.
- If the current trends in smoking and population growth continue, the number of current smokers is expected to reach 2 billion worldwide by 2030.<sup>2</sup>
  - 1. Cancer Awareness, Prevention and Control: Strategies for South Asia. (UICC-2006)
  - 2. The Tobacco Atlas. 2nd ed. Brighton, UK: American Cancer Society; 2006.

• With the decline of tobacco use in many industrialized countries, the geography of smoking has shifted from the developed to the developing world, especially for men.

• About 50% of men and 9% of women are current smokers in developing countries, compared with 35% of men and 22% of women in high-resource countries.#

#The Tobacco Atlas. 3rd ed. Atlanta, GA: American Cancer Society, Bookhouse Group, Inc.; 2009

- WHO estimates that one out of two young people who start smoking and continue smoking throughout their lives will lead to TRC.<sup>1</sup>
- Risk of developing cancer in India in the age group of 35–70 + years showed that the probability of developing tobacco related cancers was high in males (4.75%) as compared to females (2.16%).
- The study also stated that out of the total cancer cases nearly 45% in males and 20% in females are due to tobacco use.<sup>2</sup>
  - 1. Indian J Med Paediatr Oncol. 2016 Jul-Sep; 37(3): 152–157.
  - 2.Risk of cancer development in India. Asian Pac J Cancer Prev. 2011

- India is the second largest consumer and third largest producer of tobacco in the world.#
- The prevalence of overall tobacco use among males is 48% and among females is 20% \*.
- India more than 35% of adults (274.5 million) use tobacco, of this 163.7 million use only smokeless tobacco
- 68.9 million are only smokers while 42.3 million users of both smoking and smokeless tobacco.

#### **Indian Scenario**

#Tobacco Control in India-Where are we now? Delhi Psychiatry Journal 2011;14:26-32 \* Global Adult Tobacco Survey (GATS) Geneva, World Health Organization, 2010

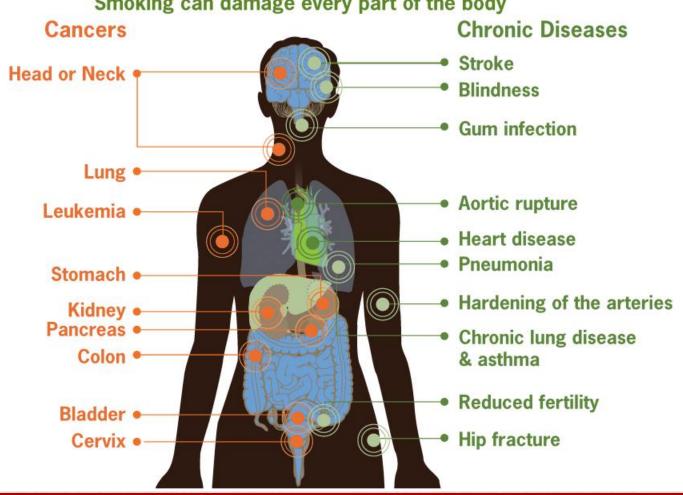
- Over 30 percent of Indian population above the age 15 uses some form of tobacco which includes
- 14.6% of children in the age group of 13-15 years.
- Smoked tobacco use is more in men compared to women who are more likely to use smokeless (chewed) tobacco.
- Beedis are smoked more than cigarettes.\*

#### **Indian Scenario**

\*Prevalence and Pattern of Tobacco Consumption in India. Int Res J Social Sci 2012;1:36-43

#### Risks from Smoking

Smoking can damage every part of the body





- Non-smokers exposed to second-hand smoke have an increased risk of lung cancer
- Non-smokers who live with a smoker are 20-30% more likely to develop lung cancer
- Passive smoking can cause premature death in nonsmokers

#### Passive Smoking/ Second Hand Smoke

- Passive smoking increases the risk of coronary heart disease by 25-40% almost the same level as a smoker
- Second-hand smoke contains more than 7000 chemicals, with 72 cancer-causing chemicals
- There is no known safe level of exposure to second-hand smoke

#### Passive smoking / Second hand Smoke

#### **PASSIVE SMOKING**



41% male & 39% female in India are exposed to second-hand smoking at home

35%
adults in India
consume tobacco
in some form

➤ 32% Indian male and 19% female are exposed to second hand smoke at work

Tobacco kills

1.3 million people in South East Asia region every year, this includes those who never smoked

> 33% men in the WHO South East Asia region are tobacco smokers





- A disease caused by an uncontrolled division of abnormal cells in a part of the body.
- It can spread to different part of the body by lymphatics and bloodstream.

#### What is Cancer?



# **Tobacco Products**

# **Evolution of Tobacco Products**

- Teenagers, men, young women, business persons, media persons and professionals.
- According to National Sample Survey 6 data, 3.7% of rural and 9.6% of urban households consume cigarettes.
- Major Disease
   Consequences: Addiction,
   heart disease and clogged
   arteries, stroke, lung cancer,
   oral, oropharyngeal,
   laryngeal, esophageal cancer
   and cervical cancer, COPD



**CIGARETTES** 

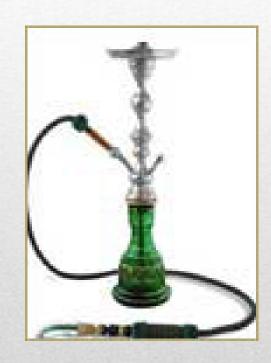
- Men and a few women, mainly from middle and lower socioeconomic classes.
- Very popular all over India and wherever Indians emigrate
- As per NSSO data, 37% of rural and 20% of urban households consume bidis in India





 Men, women, especially in rural areas of Northern and Eastern India and now Young patrons at specialized restaurants and bars in urban areas having water pipes.

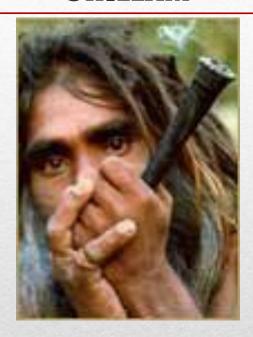
 According to NSSO data, 2.6% of rural and 0.4% of urban households consume hookah tobacco



HOOKAH

#### **CHILLAM**









## Others

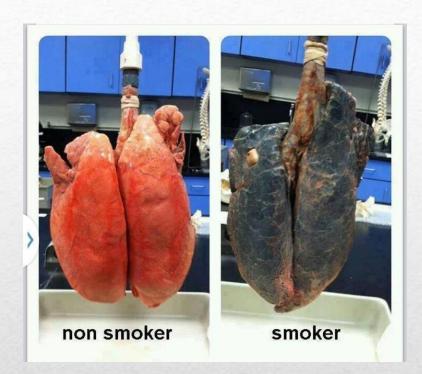
 International Agency for Research on Cancer (IARC) has classified smoke and smokeless tobacco as Group I carcinogen

Cigarette smoke has 72 measurable carcinogens

#### Tobacco

#### **DANGER POISON!** Acetone Cyanhydric acid (solvent) (was used in the gas chambers) \*Naphtylamine Ammoniac Methanol — (détergent) (used as rocket fuel) \*Urethane \*Pyrene Toluene Naphtalène (industrial solvent) (moth-repellent) Arsenic Nicotine \_ (lethal poison) (used as a herbicide and insecticide) \*Dibenzacridine \*Cadmium \*Polonium 210 (a radioactive element) (used in batteries) Carbon monoxide DDT (found in exhaust fumes) (insecticide) Vinyl chloride \*Known carcinogenic substances (used in plastic materials)

STOP SMOKING!





# Effect of tobacco smoke on Lungs

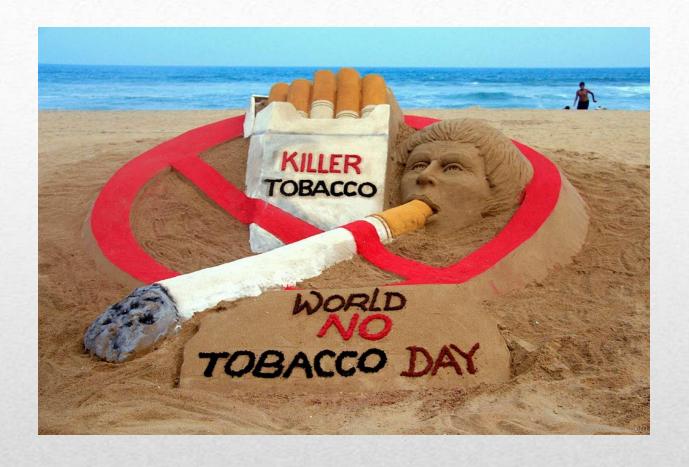
Even if you smoke just a few cigarettes daily you are filling your lungs with smoke for 15 minutes every day, nearly 2 hours every week, 7 hours every month and almost 4 days every year.



In short, you are wasting
4 days of your life every year...
to cut it even shorter!

WishesMessages.com





### SAY NO TO SMOKING





### **QUIT SMOKING**

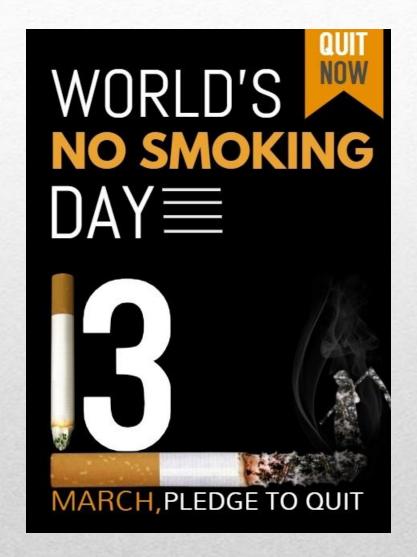


### **Our Dilemma**



"I don't have time to jog or lift weights.

If it weren't for smoking, my lungs
wouldn't get any exercise at all!"



## Smokeless Tobacco Products

- Chewed and held in the mouth. Very popular.
- Men and women in North India
- Causes oral cancer, pancreatic cancer, increased blood pressure and heart rate, reduced male fertility and adverse reproductive outcomes

#### Zarda



#### KHAINI

#### **PLAIN CHEWING TOBACCO**





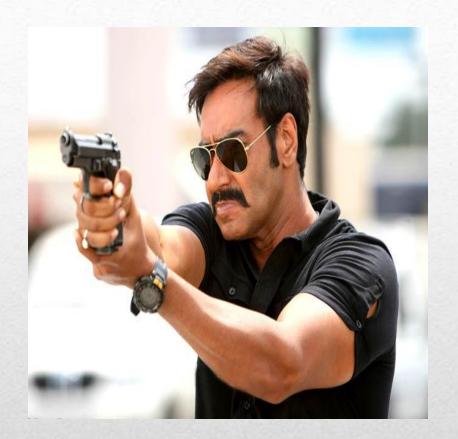
• Addiction, oral submucous fibrosis (gutka is responsible for cases of oral submucous fibrosis in children.), oral cancer, pharyngeal and esophageal cancer, pancreatic cancer increased blood pressure and heart rate, reduced male fertility and adverse reproductive outcomes.

• Gutka is probably the most hazardous smokeless tobacco product sold in India.

#### **GUTHKA**

- Chewed and held in the mouth
- Mostly Children, women
- Generally, nowadays, pan masala is understood as a non-tobacco product, but some brands of pan masala contain tobacco

#### PAN MASALA





## WHAT IS COMMON HERE?

## LISCENCE TO THRILL!!



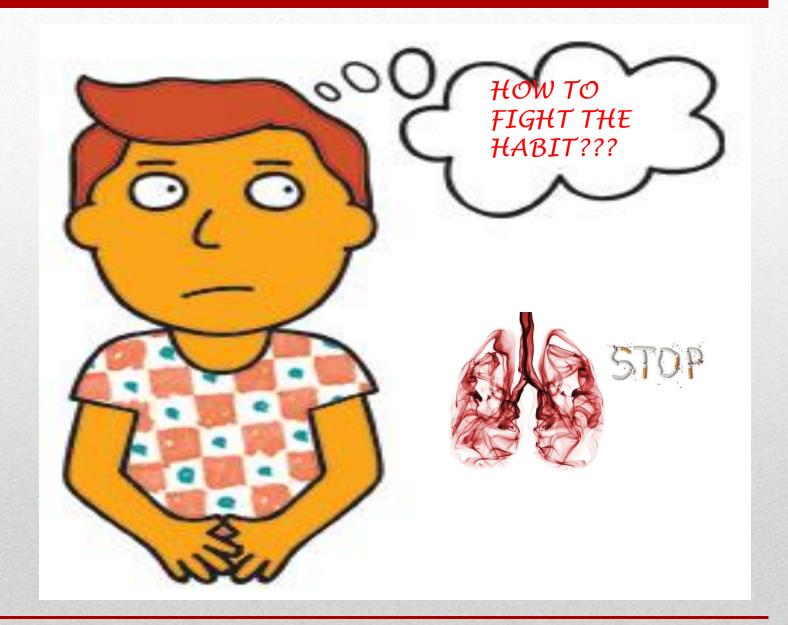


#### LISCENCE TO KILL!

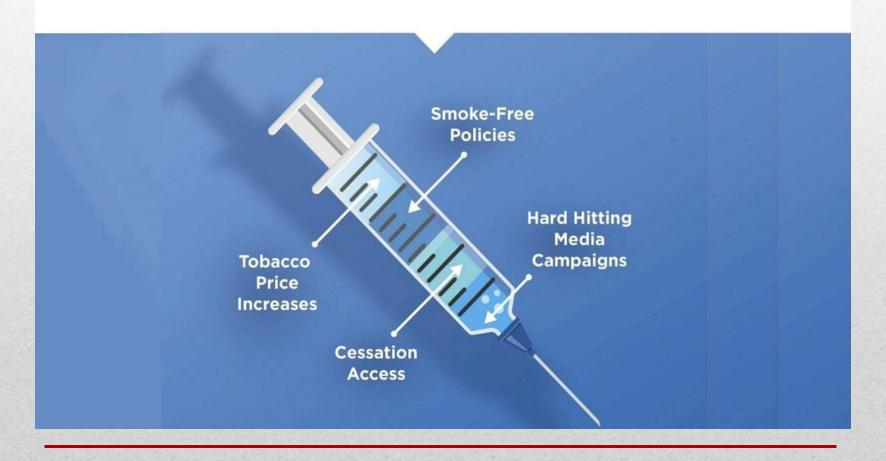
- Betel Quid: areca nut, betel leaf, lime and catechu.
- Other ingredients are for flavour, like spices and condiments.
- Oral submucous fibrosis, oral cancer, esophageal cancer



#### PAAN WITHOUT SUPARI



## THE TOBACCO CONTROL VACCINE



- Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 (COPTA)
- Prohibition of sale of tobacco products in an area within 100 yards of any educational institution was brought into force from 1 December 2004

#### KICK THE BUTT!

- 12 July 1999, Kerala became the first state in India to ban smoking in public places
- In 2007, Chandigarh became the first city in India to become 'smoke-free'

#### Regional Smoking ban

- Smoking in public places was prohibited nationwide from 2 October 2008 under the Prohibition of Smoking in Public Places Rules, 2008 and COTPA.
- The nationwide smoke-free law pertains only to public places.
- Smoking is allowed on roads, and inside one's home or vehicle

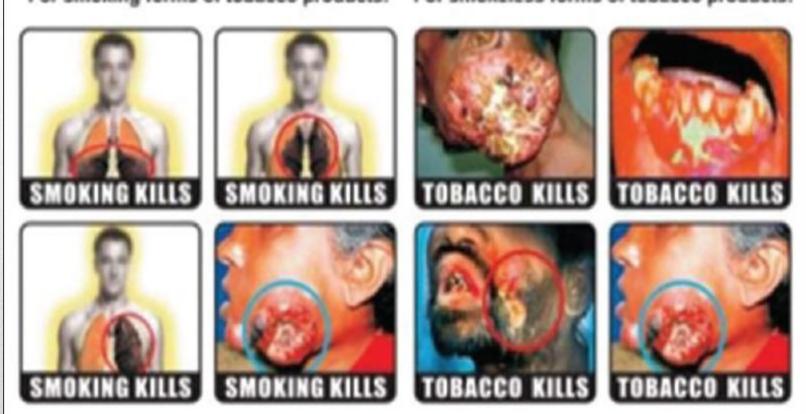


#### National public Smoking Ban

- Rules mandating pictorial warnings on tobacco products came into force from 31 May 2009
- Section 7 of COTPA deals with the "Display of pictorial health warning on all tobacco products packets".
- It prohibits the production, sale and import of cigarettes or any other tobacco product unless every package of cigarettes or any other tobacco product bears pictorial warnings on its label covering at least 40% of the package

#### Pictoral warnings

For smoking forms of tobacco products: For smokeless forms of tobacco products:



## Pictoral Warnings

Pictorial health warnings from Singapore include:



Pictorial health warnings from Thailand include:



#### Pictoral Warnings

#### **CABLE TV**

The Cable Television
 Network (Regulation)
 Amendment Bill, in force
 since 8 September 2000,
 completely prohibits
 cigarette and alcohol
 advertisements

#### **MOVIES**



#### **MEDIA**

#### **MUKESH/SPONGE**

#### **CHILD/ DHUAN**





#### **MEDIA**

- Strong will
- Nicotine Gums / Patch
- Consult Doctor

## HOW TO QUIT?

# Make every day World No Tobacco Day.

CANCER WILL GET RID OF SMOKING.....EVENTUALLY!!!

-Dr. Suvadip Chakrabarti MCh (Surgical Oncology)

#### TAKE HOME MESSAGE



#### Thank you!

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